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LANGUAGE TEACHING.

THE method of language teaching that has the sanction of custom and tradition consists of two independent and uncorrelated parts—(1) the teaching of grammar and (2) the word-for-word exposition of a work regarded as classical. The grammar starts in orthodox fashion with orthography and then goes the whole round of the subject, etymology, syntax and prosody. This study is pursued independently of the study of the classical work, apparently under the idea that grammar teaches the structure of a language, the plan of the building and the accompanying "text-book," laboriously interpreted into the vernacular, generally in defiance of the idiom of the latter, furnishes the learner with bricks of the intended edifice, i.e., the vocabulary of the language. As generally the plan of a building is drawn and studied as a whole and by itself, so is the study of grammar pursued by itself and for its own sake. When the plan is grasped thoroughly and the bricks are gathered, the putting together of the latter in accordance with the plan is a mere mechanical matter, not requiring any special skill or special exercise of intelligence. Who invented this method of teaching languages, it is impossible to discover; but we know that such a

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method was used for the teaching of Sanskrit in India and the teaching of Greek in Egypt and Italy at least two thousand years ago. The same method was followed in the monkish schools of the dark ages and in the schools which the Renaissance movement gave birth to. Such was also the method of teaching English to Indian children adopted in this country, when the English language acquired a value in the eyes of the people of this land. Whether the introduction of this method was due to the fact that the first and later teachers of English in this country were people who had learned the only foreign language they knew—Latin—according to this method, or whether the method pursued by the traditional teachers of Sanskrit in India were copied by them, or again whether both causes operated together, the result has been that this is the only method of teaching that obtains in Indian schools to-day, not only for the teaching of the classical languages of the people of India, Sanskrit, Arabic, etc., but also for teaching English, a living foreign language, useful as a language of business, as the possessor of a vast and artistic literature and as the medium through which the Indian can learn modern science and art most easily. Strange to say, this same method of language-teaching is used also in teaching the vernaculars of the country to pupils who can and do speak them

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GEOGRAPHY TEACHING IN
SECONDARY SCHOOLS.

i. What is Geography?

THE purpose of the present series of articles on the subject of geography teaching is to examine some of the leading principles that ought to guide us in the teaching of the subject. But to us as practical teachers it is of utmost importance to get a clear and definite understanding of what is meant by the word "Geography" and to fix its aim and scope. The discussion on the definition of the term is not one of pure academic interest; for the whole of our system, order and method of teaching will be affected by the view we take of our subject; the drawing up of the syllabuses, our preparation at home and our treatment of the subject inside the classroom will be swayed to a large extent by the significance we attach to our special subject. So let us at the outset try and understand what is meant by "Geography."

Geography is the description of the earth. This is a very unsatisfactory definition, though probably it is the most correct. In years gone by, this *description* of the earth was confounded both by text-book writers and teachers of geography with the *names* of the different features of the earth's surface and it is this confusion that has in a large measure resulted in the list-learning-length-and-breadth cramming torture which the children in former years were subjected to in our schools. Little wonder that geography degenerated into a dry study. Any one and every one was considered capable of teaching the subject; for it was "Learn the next three pages" principle. A good deal of the disdain with which the teaching of the subject had been treated in the past was due to this very narrow view

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of the subject, since it afforded little or no scope for the development of the child's mind. But after all does the "description" of the earth mean lists of topographical details?

Even in the early stages of geographical development there were not wanting men who took a better view of the subject. In their works they attempted description in addition to list of names. But their experience soon showed them that mere description of *unrelated* topographical details was no geography and that the subject had a higher duty to perform than cultivating the memory. Thus we come to the next stage when it was felt that the function of geography was not merely to *describe* but also to *account* for the various objects and phenomena on the earth's surface. Geography thus viewed becomes the science of distribution and this is the view of Mr. Herbertson. Mr. Scot Keltie, the author of *Applied Geography*, defines the subject as "the science of topographical distribution of the great features of the earth's surface and of all that it sustains—mineral, vegetable and animal including man himself. It is distribution and not constitution, groups, not individuals, a geographer has to deal with." Now what does this mean? Geography is a synthetic science. As Dr. Herbertson would put it, the geographer takes for his *raw* material the *finished* product of the geologist, the biologist, the botanist and other scientists and reduces his object of study. The fact of the distribution of those objects and the causes of such distribution are thus the function of geography. This definition is true so far as it goes but it does not go far enough. It ignores the descriptive element altogether. It makes geography a curious medley of scientific ideas lacking cohesion and of little value as an educational

instrument. The other scientists will call the geographer a trespasser as it is the business, for example, of the geologist to explain the distribution of rocks, and the business of the botanist to explain the distribution of plants. Hence it was felt there was need to supplement this definition. The geographer must take up what appears at the first instance a curious jumble of parts of various sciences, apply his special methods, consider them from his own standpoint of view and thus see them as a whole.

Now the application of these special methods leads us to the next stage, when geography was viewed as the science which treats of the relation between earth and man—"the description of the earth considered as the home of man." This definition is most popular and has inspired much good teaching. The teacher who accepts this view has to investigate into the question of the influence of physical features on man and of man on his environment. There are many features of this definition which ought to commend themselves to us. In the first place it gives geography a definite standpoint and from this standpoint the geographer is in a position to examine the various phenomena on the earth's surface, accept such of them as have a bearing on human affairs, show the connection between those phenomena and man, where on earth's surface that connection is exemplified, how those phenomena minister to human comforts or how man has been able to control those phenomena. This can be very well exemplified by the phenomena connected with climate and rainfall. The geographer takes these facts, describes them, points their bearing to and influence on, for instance, agriculture and what is agriculture but a form of human activity?

with all the wealth of idiom and poetical imagery that characterize them.

This method of language-teaching may be called the analytical method for it analyses language into two constituent elements, to wit, structure and vocabulary and seeks to reconstruct a language from these elements. Analytical methods specially appeal to the formalists of whom the ranks of pedagogues are full, because the progress made by pupils at each stage can be easily gauged when analytical methods are pursued. Hence it was that "Euclid," the prince of formalists was for so long the great object of pedagogic idolatry.

The reason why this method delightfully easy to follow, is yet irrational, is the fact that man does not put words together into sentences as a watch-maker makes up a watch with wheels and springs. The unit of speech is not the word but the sentence. Words are the result of the destructive analysis of sentences, as coal-tar and smoke are the product of the destructive disruption of coal. We think sentences, not words; we speak sentences not words. The process of thought clothing itself in words is done in the utter privacy of the subliminal! no Actæon has yet peeped into this region and even seen for himself a naked thought. Whole sentences rise full-blown into the field of consciousness when we think and when we speak. Hence it is not right to speak of building sentences with words, seeing that words are the final result of the analysis of the expressed thought. Sentences are concrete entities, and words are really abstractions having no real existence, except to the dictionary-maker.

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(To be continued.)

Thus it is that all teaching based on this definition will help us to introduce a guiding and unifying principle. The second point in its favour is that geography thus viewed is a valuable mental discipline. The geography-teacher is called upon at every stage to suggest some real connection between man and the things he sees around him. What pertains to man must best appeal to man and so the teaching of geography will become luminous and interesting. It must at the same time be conceded that this definition lacks scientific precision and that it does not delimit geography from other sciences though it clearly denotes what is inside the field. It is again true to say that this definition while taking into account the influence, for example, of land surface and climate on man does not take into account the influence of land surface on climate itself. Nor can we ignore the fact that this definition makes us concentrate all our attention on man and that he is made to stand as it were, apart from the rest of nature though the influences which affect man affect also the other members of the animal kingdom. In spite of these and other obvious defects which hypercritics may urge against it, it is the definition which has "caught." Eminent geography-teachers like Professors Lyde and Herbertson base their teaching on this definition only. Lyde's "Man on the Earth," "Man and his Market," Herbertson's "Man and his Work" and Prothero's "Domion of Man" specially direct our attention to this most interesting aspect of geography. Geography teachers in Germany and in America base their teaching on this definition alone. The Report of the Committee of Fifteen (America, U. S. A.) says: "After Arithmetic, which treats of the abstract or general conditions of material

existence, comes Geography with a practical study of man's material habitat and its relation to him. It is not a simple science by itself like botany or geology or astronomy but a collection of sciences levied upon to describe the earth as the dwelling place of man and to explain something of its more prominent features."

ii. *Geography, the open-door to all sciences.*

We must now be in a position to see how geography is the open door to all sciences. It must be patent to us that all branches of knowledge which have anything to tell us about the earth more or less hinge into or are connected with geography. Geography takes into account the solid crust of the earth; geology does the same. Where then should we draw the line of demarcation between these two branches of study? Both the sciences deal with the study of the earth; but geology concerns itself with the past of the earth and geography with the present. The surface of the globe is their common limit, their common property, all that comes above the surface lies with the province of 'geography and all that lies below is inside the realm of geology. In the words of Sir Clements Markham, the President of the Royal Geographical Society: "the true distinction seems to be that the geographer contemplates the present in the light of changes that have taken place in the past, while the geologist studies the past in the light of the changes that are taking place in the present." The geographer simply takes the conclusions of the geologist and does not bother himself with his theories or speculations and having taken these conclusions he works them into his own science. The teacher of geography ought to know something of geology as well,

Then we have the other groups of sciences known as meteorology, oceanology, botany, zoology, etc. It is not difficult to note their relation to geography. Take for instance zoology. Man as huntsman, shepherd, farmer and fisherman comes into contact with the dumb animals. What he does to them and what they do to him to supply him with food and clothing or to aid him in transport is the function of the geographer to consider. So also with reference to plants. The geographer accepts the conclusions of the botanist and works them into his own science. The same might be said with reference to Physics and Chemistry. Even the astronomer who carries us out of the limits of our terrestrial globe to the visible universe beyond and explains to us how the phenomena from beyond affect our globe, the abode of man, has a great deal to fill the geographer. Thus it is the geographer gathers up the results of the detailed analysis of the various sciences. His science is based upon natural sciences which supply to it knowledge of the earth's movement and crust, of the physical laws upon which climate depends and of these forms of life as controlled largely by surface features and climate. Hence it is the teacher of geography finds in his subject a great unifying force showing the relation which each of these branches of science bears to the other and the way in which all taken together, they have their influence upon the life and development of man.

Geography is not only the open door to other sciences, it is also, in the language of the celebrated German geographer Rein, "midway between the purely scientific studies and humanist studies such as Literature, History and Economics." What after all is history

for example. It is "the study of man in his work and progress, his struggles and representative deeds." Dr. Arnold of Rugby has repeatedly asserted that a real knowledge of geography embraces at once the knowledge of the earth and of the dwellings of man upon it; it stretches out one hand to history and the other to geology and physiology; it is just that part in the dominion of knowledge where the student of the physical and moral sciences meet together." What objection can then there be if it is claimed for geography that by no other subject could the great fact be brought home that all knowledge is really one and that everything worth knowing has some bearing on man and his surroundings.

In this connection it is desirable that we caution ourselves a little. We must clearly draw the line of demarcation between geography and the other sciences of which geography is the compendium. It is absolutely necessary that we should appreciate the values of all of them. At the most we cannot follow up more than one of those studies, each according to our inclination. We may become a physicist, a geologist, a botanist or a historian. But we must remember that we are geographers in any case. Dr. H. R. Mill, the greatest of the living geographers says: "Geography does not claim to include all sciences whose results form its raw materials any more than a house can be said to include the quarries, the forest and the mines which have yielded it stone, timber and metal work."

(To be continued.)

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SECONDARY SCHOOL LEAVING CERTIFICATE DETAILED SYLLABUS.

(Continued from page 542.)

GEOMETRY.

Schedule A.

A. *Straight Lines, Angles, Perpendiculars, Parallels, and Proportionals.*

1. To bisect a given straight line.
2. To bisect a given angle.
3. To trisect a right angle.
4. To divide a right angle into five equal parts.
5. To draw the bisector of the angle between two given straight lines whose point of intersection is inaccessible.
6. Through a given point between two straight lines, to draw a straight line terminated by the two lines and bisected at that point.
7. To draw a straight line perpendicular to a given straight line from a given point in it.
8. To draw a straight line perpendicular to a given straight line from a given point outside it.
9. To draw a line parallel to a given line at a given distance.
10. To draw a line parallel to a given line through a given point.
11. To make an angle equal to a given angle.
12. To draw a line from a given point which shall meet a given line at an angle equal to a given angle.
13. From two points on the same side of a given straight line, to draw two straight lines to meet in the given line and make equal angles with it.
14. To divide a straight line into any number of equal parts.
15. To divide a line in any given ratio internally.

16. To divide a line in any given ratio externally.

17. To produce a given line to a point, so that the given line may be to the produced part in a given ratio.

18. To divide a line similarly to a given divided line.

19. To cut off a given fractional part from a given straight line.

20. To find a third proportional to two given straight lines.

21. To find a fourth proportional to three given straight lines.

22. To find a mean proportional between two given straight lines.

B. *Triangles, Quadrilaterals, and Regular Figures.*

1. To construct a right-angled triangle, given the two sides containing the right angle.

2. To construct a right-angled triangle, given the hypotenuse and one other side.

3. To construct a right-angled triangle, given a side, and the angle adjacent to it.

4. To construct a triangle, given the three sides.

5. To construct an equilateral triangle, given a side.

6. To construct an isosceles triangle, given the base and one of the equal sides.

7. To construct a triangle, given two sides and the included angle.

8. To construct a triangle, given two sides and the angle opposite to one of them.

9. To construct an isosceles triangle, given one of the equal sides and the base angle.

10. To construct a triangle, given a side and two angles.

11. To construct an isosceles triangle, given the base and the vertical angle.

12. To construct a right-angled triangle, given the hypotenuse and the sum of the other two sides.

13. To construct a triangle, given the base, one of the base angles, and the sum of the other two sides.

14. To construct a triangle, given the base, one of the base angles, and the difference of the other two sides.

15. To construct a triangle, given the perimeter, and the base angles.

16. To construct a triangle, given the base, the vertical angle, and the sum of the other two sides.

17. To construct a triangle, given the base, the vertical angle, and the difference of the other two sides.

18. To construct a triangle, given the base, the perpendicular from the vertex to the base, and one other side.

19. To construct a triangle, given the two sides containing the vertical angle, and the perpendicular from the vertex to the base.

20. To construct an isosceles triangle, given the base and the perpendicular from the vertex to the base.

21. To construct an isosceles triangle, given the vertical angle, and the perpendicular from the vertex to the base.

22. To construct an equilateral triangle, given the altitude.

23. To construct a triangle, given the base angles and the perpendicular from the vertex to the base.

24. To construct a triangle, given the base, the vertical angle, and the perpendicular from the vertex to the base.

25. To construct a triangle, given the perimeter, one of the base angles, and the perpendicular from the vertex to the base.

26. To construct a triangle, given the perimeter, the vertical angle and the perpendicular from the vertex to the base.

27. To construct a triangle, given the perimeter, the base, and the perpendicular from the vertex to the base.

28. To construct a triangle, given the base, the vertical angle and the median to the base.

29. To construct a triangle, given the base, the vertical angle, and the point of intersection of the bisector of the vertical angle with the base.

30. To construct a triangle, given the base, the difference of the base angles, and the difference of the other two sides.

31. To construct a triangle, given the mid-points of the three sides.

32. To construct a triangle, given two sides and the median to the third.

33. To construct a triangle, given the base and the medians bisecting the other two sides.

34. To construct a triangle, given the three medians.

35. To construct a right-angled triangle, given the hypotenuse and the difference of the other two sides.

36. To construct an isosceles triangle having each of the angles at the base double the vertical angle.

37. To construct an isosceles triangle, given the base and the sum of one of the equal sides and the perpendicular from the vertex to the base.

38. To construct a triangle, given the base, the vertical angle, and the rectangle contained by the other two sides.

39. To construct a triangle, given the base, the vertical angle, and the bisector of the vertical angle.

40. To construct a triangle, given the base, the difference of the base angles, and the rectangle contained by the other two sides.
41. To construct a triangle, given the base, the vertical angle, and the ratio of the sum of the other two sides to the perpendicular from the vertex to the base.
42. To construct a square, given a side.
43. To construct a rectangle, given two adjacent sides.
44. To construct a rhombus, given a side and an angle.
45. To construct a square, given a diagonal.
46. To construct a rectangle, given a diagonal and a side.
47. To construct a rhombus, given a diagonal and a side.
48. To construct a parallelogram, given two adjacent sides and an angle.
49. To construct a parallelogram, given a diagonal and two adjacent sides.
50. To construct a rhombus, given its diagonals.
51. To construct a quadrilateral, given a diagonal and two pairs of equal sides.
52. To construct a quadrilateral, given the four sides and an angle.
53. To construct a quadrilateral, given a side, the two diagonals and two angles.
54. To construct any regular figure on a given straight line.
55. To inscribe any regular figure in a given circle. (i) An equilateral triangle. (ii) A square. (iii) A regular pentagon. (iv) A regular hexagon. (v) A regular octagon. (vi) A regular decagon.
56. To circumscribe any regular figure about a given circle. (The same six cases).
57. To inscribe a triangle in a circle equiangular to a given triangle.

58. To circumscribe a triangle about a circle equiangular to a given triangle.
 59. To inscribe a square in a given triangle.
 60. To construct an escribed square to a given triangle.
- C. Area Constructions.*
1. To construct a rectangle equal in area to any given parallelogram.
 2. To construct a rectangle equal in area to any given triangle.
 3. To construct a rectangle equal in area to a given rectangle, given a side of the rectangle.
 4. To construct a rectangle equal in area to a square, given a side of the rectangle.
 5. To construct a parallelogram equal in area to a given triangle and having an angle equal to a given angle.
 6. To construct a triangle equal in area to any rectilineal figure.
 7. To construct a triangle equal in area to the sum of two given triangles.
 8. To construct a triangle equal in area to the difference of two given triangles.
 9. To construct a triangle on a given base equal in area to a given triangle.
 10. To construct a triangle on a given base equal in area to a given triangle and having an angle equal to a given angle.
 11. To construct a triangle of given altitude equal in area to a given triangle.
 12. To construct an isosceles triangle whose area shall be half that of a given rectangle.
 13. To bisect a triangle by a straight line through the vertex or a given point in a side.
 14. To trisect a triangle by straight lines from a given point in a side.
 15. To bisect a quadrilateral by a straight line drawn through an angular point.
 16. To construct a square equal in area to a rectangle.
 17. To construct a square equal in area to the sum of two given squares.

18. To construct a square equal in area to the difference of two given squares.
 19. To construct a square equal to the combined area of several given squares.
 20. To construct a square equal in area to any rectilineal figure.
 21. To divide a given straight line into two parts such that the difference of the squares on the parts may be equal to a given square.
 22. To divide a given straight line into two parts such that the square on one part may be double of the square on the other.
 23. To divide a given straight line in internal or external medial section.
 24. To divide a given straight line internally or externally so that the rectangle contained by the segments may equal a given square.
- D. Circles.*
1. To describe a circle through three given points.
 2. To find the centre of a circle.
 3. To place a chord of given length in a circle.
 4. To bisect an arc of a circle.
 5. To draw the incircle of a triangle.
 6. To draw the escribed circles of a triangle.
 7. To draw the circumcircle of a triangle.
 8. To inscribe a circle in a rhombus.
 9. To inscribe a circle in a regular polygon.
 10. To circumscribe a circle about a regular polygon.
 11. Through a given point within a circle to draw the least possible chord.
 12. To cut off from a given circle a segment containing an angle equal to a given angle.
 13. To draw a segment of a circle on a given straight line containing an angle equal to a given angle.
 14. To draw the tangent to a circle at a given point on the circle.
 15. To draw tangents to a circle from an external point.
 16. To draw the direct common tangents to two circles.
 17. To draw the transverse common tangents to two circles.
- N.B.—Common tangents—five cases:*
- (i) When the two circles are external to each other, there are four common tangents.
 - (ii) When the two circles have external contact, there are three common tangents.
 - (iii) When the two circles intersect, there are two common tangents.
 - (iv) When the two circles have internal contact, there is one common tangent.
 - (v) When one circle lies wholly within the other, there is no common tangent.
18. To draw a secant from a given point to a given circle so that the chord intercepted may be of given length.
 19. To describe a circle to pass through a fixed point and touch a given straight line in a fixed point.
 20. To describe a circle to pass through a given point and touch a given circle in a fixed point.
 21. To describe a circle of given radius to touch a given line and a given circle.
 22. To describe a circle to pass through two given points on the same side of a straight line and touch that straight line.
 23. To describe a circle to touch three given straight lines not more than two of which are parallel.
 24. To describe a circle to touch a given circle and a given straight line at a given point.
 25. To describe a circle to pass through two given points and touch a given circle.
 26. To describe a circle to pass through a given point and touch a given straight line and a given circle.
 27. To describe a circle to touch two given straight lines and a circle.
 28. To describe a circle to touch a given straight line and two given circles.

29. To describe a circle to pass through a given point and touch two given circles.

30. To describe a circle to touch three given circles.

31. To describe a circle having its centre at a given point and cutting a given circle orthogonally.

32. To draw the fourth common tangent to the two escribed circles of a triangle, which touch the base produced, without describing those circles.

Schedule B.

I. Angles at a point.

1. If a straight line stands on another straight line, the sum of the two angles so formed is equal to two right angles.

2. If any number of straight lines meet at a point, the sum of the angles so formed is four right angles.

3. If a straight line stands on another straight line, the bisectors of the angles formed are at right angles.

4. If the sum of two adjacent angles is equal to two right angles, the exterior arms of the angles are in the same straight line.

5. If two straight lines intersect the vertically opposite angles are equal.

6. The bisectors of a pair of vertically opposite angles are in one and the same straight line.

7. If, at a point in a straight line, two straight lines on either side and in opposite directions make equal angles with the given straight line, these two lines are in one and the same straight line.

8. Angles that are complementary or supplementary to the same or equal angles are equal to one another.

II. Parallel Straight Lines.

1. When a straight line cuts two other straight lines—

(i) if a pair of alternate angles are equal,

or (ii) if a pair of corresponding angles are equal,

or (iii) if a pair of interior angles on the same side of the cutting line are together equal to two right angles, then the two straight lines are parallel.

2. If each of two straight lines is perpendicular to a third straight line, the two straight lines are parallel to one another.

3. Through a given point one straight line and one only can be drawn parallel to a given straight line.

4. If a straight line cuts two parallel straight lines—

(i) alternate angles are equal;

(ii) corresponding angles are equal;

(iii) the interior angles on the same side of the cutting line are together equal to two right angles.

5. If a straight line is perpendicular to one of two parallel straight lines, it is also perpendicular to the other.

6. Two angles whose arms are parallel are either equal or supplementary.

7. If straight lines are drawn from a point perpendicular to the arms of an angle, the angle between these straight lines is equal or supplementary to the given angle.

III. Angles of triangles and polygons.

1. The sum of the three angles of a triangle is equal to two right angles.

2. If one side of a triangle is produced the exterior angle so formed is greater than either of the two interior opposite angles but is equal to their sum.

3. Any two angles of a triangle are together less than two right angles.

4. Every triangle has at least two of its angles acute.

5. If two triangles have two angles of the one equal to two angles of the other, each to each, then the two triangles are equiangular.

6. The sum of the angles of a quadrilateral is equal to four right angles.

7. If the sides of a convex polygon are produced in order, the sum of the angles so formed is equal to four right angles.

8. The sum of all the interior angles of a convex rectilineal figure of n sides is equal to $2n - 4$ right angles.

IV. Congruent triangles.

1. Two triangles are congruent if two sides and the included angle of one triangle are equal to two sides and the included angle of the other.

2. Two triangles are congruent if two angles and one side of one triangle are equal to two angles and the corresponding side of the other.

3. The angles at the base of an isosceles triangle are equal, and, if the equal sides be produced, the angles at the other side of the base are also equal.

4. If two angles of a triangle are equal, the sides opposite to these angles are equal.

5. The bisector of the vertical angle of an isosceles triangle bisects the base and is perpendicular to the base.

6. If a triangle is equilateral it is equiangular and if it is equiangular, it is equilateral.

7. Two triangles are congruent if the three sides of the one are equal to the three sides of the other, each to each.

8. Two right-angled triangles are congruent, if their hypotenuses are equal and one side of the one is equal to one side of the other.

9. If two triangles have two sides of the one equal to two sides of the other, each to each, and have likewise the angles opposite to one pair of equal sides equal, then the angles opposite to the other pair of equal sides are either equal, or supplementary, and, in the former case, the triangles are congruent.

10. In a right-angled triangle the mid-point of the hypotenuse is equidistant from the three corners.

V. Inequalities.

1. If two sides of a triangle are unequal, the greater side has the greater angle opposite to it.

2. If two angles of a triangle are unequal, the greater angle has the greater side opposite to it.

3. The sum of any two sides of a triangle is greater than the third side.

4. The difference between any two sides of a scalene triangle is less than the third side.

5. If from the ends of one of the sides of a triangle, two straight lines are drawn to a point within the triangle, the sum of these two straight lines is less than the sum of the other two sides of the triangle but they contain a greater angle.

6. If two triangles have two sides of the one equal to two sides of the other, each to each, and the included angles unequal, the triangle which has the greater included angle has the greater third side.

7. If two triangles have two sides of the one equal to two sides of the other, each to each, and the third sides unequal, the triangle which has the greater third side has the greater included angle.

8. In a triangle, if a perpendicular is drawn from one extremity of the base to the bisector of the vertical angle—

(i) it will make with either of the sides containing the vertical angle an angle equal to half the sum of the angles at the base;

(ii) it will make with the base an angle equal to half the difference of the angles at the base;

(iii) the line joining the mid-point of the base to the foot of the perpendicular is equal to half the difference of the sides containing the vertical angle.

9. In any triangle the angle contained by the bisector of the vertical angle and the perpendicular from the vertex to the base is

equal to half the difference of the angles at the base.

10. Of all straight lines that can be drawn to a given straight line from a given external point—

(i) the perpendicular is least;

(ii) straight lines which make equal angles with the perpendicular are equal;

(iii) one making a greater angle with the perpendicular is greater than one making a less angle;

(iv) two and only two straight lines can be drawn from the given point to the given straight line which are equal to one another.

11. If the vertical angle of a triangle is contained by unequal sides, and if, from the vertex, the median and the bisector of the angle are drawn, the median lies within the angle contained by the bisector and the longer side.

12. If the vertical angle of a triangle is contained by unequal sides, and if, from the vertex, the bisector of the vertical angle, the median, and the perpendicular to the base are drawn, the first of these lines is intermediate in position and magnitude to the other two.

VI. *Parallels and Parallelograms.*

1. The straight lines which join the corresponding ends of two equal and parallel lines are themselves equal and parallel.

2. In a parallelogram—

(i) the opposite sides are equal;

(ii) the opposite angles are equal;

(iii) each diagonal bisects the parallelogram;

(iv) the diagonals bisect one another.

3. The diagonals of a rhombus bisect one another at right angles.

4. A quadrilateral is a parallelogram, if

(i) both pairs of opposite angles are equal;

(ii) one pair of opposite sides are equal and parallel;

(iii) both pairs of opposite sides are equal;

(iv) its diagonals bisect one another.

5. If equal perpendiculars are erected on the same side of a straight line, the straight line joining their extremities is parallel to the given line.

6. If the intercepts made by three or more parallel straight lines on any straight line that cuts them are equal, then the corresponding intercepts upon any other straight line that cuts them are also equal.

7. The straight line joining the mid-points of two sides of a triangle is parallel to the third side and is equal to half the third side.

8. If a line be drawn through the mid-point of one side parallel to a second side, it bisects the third side.

VII. *Concurrence of Straight Lines.*

1. The right-bisectors of the sides of a triangle are concurrent.

2. The bisectors of the angles of a triangle are concurrent.

3. The bisectors of two exterior angles of a triangle and the bisector of the third angle are concurrent.

4. The medians of a triangle are concurrent.

5. The medians cut at a point of trisection, the greater segment in each being towards the angular point.

6. In any triangle the shorter median bisects the greater side.

7. The perpendiculars drawn from the vertices of a triangle to the opposite sides are concurrent.

8. The distance of the centroid from the orthocentre is double that of the circumcentre from the centroid.

9. The distance of the circumcentre from any side is half the distance of the orthocentre from the corresponding vertex.

10. The orthocentre, the centroid, and the circumcentre are collinear.

VIII. *Areas.*

1. Parallelograms on the same base and between the same parallels are equal in area.

2. Parallelograms on equal bases and between the same parallels are equal in area.

3. The area of a parallelogram is equal to that of a rectangle whose adjacent sides are equal to the base and altitude of the parallelogram respectively.

4. Triangles on the same base and between the same parallels are equal in area.

5. Triangles on equal bases and between the same parallels are equal in area.

6. Equal triangles on the same base and on the same side of it are between the same parallels.

7. Equal triangles on equal bases, in the same straight line and on the same side of it are between the same parallels.

8. If a parallelogram and a triangle be on the same or equal bases and between the same parallels the parallelogram is double of the triangle.

9. The area of a triangle is equal to half that of a rectangle whose adjacent sides are respectively equal to the base and altitude of the triangle.

10. A quadrilateral is a parallelogram if its diagonals divide it into four equal triangles.

11. The lines joining the mid-points of the sides of a triangle divide it into four equal triangles.

12. If from the extremities of the line joining the mid-points of two sides of a triangle, any two parallel straight lines are drawn to meet the base they form a parallelogram equal to half the triangle.

13. The middle points E, F, G, H of the sides AC, BC, AD, BD of two triangles ABC, ABD on the same base AB are the angular points of a parallelogram whose area is equal to half sum or half difference of the areas of the triangles according as they are on opposite sides or on the same side of the common base.

14. If two triangles of equal area have the same base and lie on opposite sides of it, the line joining their vertices is bisected by the common base.

15. If the line joining the vertices of two triangles on the same base, but on opposite sides, be bisected by the base, the triangles are equal.

16. If the opposite sides AB, CD of a quadrilateral meet in P and if G, H be the mid-points of the diagonals AC, BD, the triangle PGH is one-fourth of the quadrilateral ABCD.

17. If two triangles be on the same or equal bases and between the same parallels, the intercepts made by the sides of the triangles on a parallel to the line joining the vertices are equal.

18. The complements of a parallelogram about the diagonal of any parallelogram are equal in area.

19. If a line be drawn parallel to a side of a triangle the part of it cut off by the other sides is bisected by the corresponding median.

20. In a right-angled triangle the square on the hypotenuse is equal to the sum of the squares on the other two sides.

21. If the square on one side of a triangle is equal to the sum of the squares on the other two then the angle contained by these sides is a right angle.

P. RANGANATHA Aiyar.

(To be continued).

These notes are intended to indicate the course of instruction that may generally be followed in High Schools, in the teaching of *Optional* (Group C.) Physics prescribed for the School Final Examination. This scheme is and can, at best, be but a general one and portions of it will have to be cut off or otherwise modified, according to the amount of time allotted to the teaching of the subject in the school time-table, the mental calibre of the pupils, the condition of equipment of the laboratory in the institution, the facilities for practical work by the students and a number of other things.

A scheme of instruction in Elementary Physics also is roughly indicated herein with the aid of asterisks which indicate portions to be omitted from the Elementary course; *here too*, the remarks made on the modification of the syllabus in *Optional* Physics to suit the varying conditions of institutions apply equally well, if not with greater truth. The tri-columnar method of indicating the syllabus is adopted, because, besides being very useful, it has been strongly recommended by the present Inspector of Schools, Madras Circle.

Main Heading.	Matter.	Appliances, diagrams, reference to books, correlation, etc.
I. *Nature of Light.	According to the old 'Corpuscular' or 'Emission' theory, light was supposed to consist of small particles (<i>light-corpuscles</i>) emitted by luminous bodies. These particles are acted upon in different ways by the surfaces of bodies coming in contact with them. The modern 'Wave' or 'Undulatory' theory says that it is a form of <i>radiant energy</i> ; the disturbance from a source of light travels out in all directions in the form of concentric waves through the all-pervading, weightless medium, <i>Ether</i> , and these waves striking the retina of the eye, give rise to the sensation of <i>Light</i> . (1) The sun; (2) the stars; (3) chemical action; (4) electricity and (5) phosphorescence. Light emitted by the glow-worm or fire-fly is an instance of phosphorescence. <i>Luminous body</i> : a body from which light proceeds. <i>Self-luminous body</i> : a body which of itself emits light, e.g., the sun, the flame of candle or a lamp, electric light, a red-hot poker. The moon is <i>not self-luminous</i> : it shines by the light of the sun falling on and reflected from it. <i>Non-luminous body</i> gives out no light. It becomes visible only by means of light which it receives from other bodies such as the sun, and returns to our eyes, e.g., furniture in the room: house.	i. Resemblance between 'Heat' radiation and 'Light' radiation. An iron ball heated in a dark room to a low temperature, is not visible, i.e., emits only 'heat' radiation; if raised in temperature to red heat or white heat, it becomes visible also, i.e., emits both <i>heat</i> and <i>light</i> radiations. ii. Compare the travelling of 'Light' waves with the spread of disturbance caused by throwing a stone on the surface of still water in a pond. <i>Vide</i> 'Heat and Light' by L. M. Jones. iii. Refer to the widespread superstition about the influence of the 'evil eye', based on the ancient theory that <i>Light</i> was a material shot from the eye of the beholder on the object seen.
II. Sources of Light.		
III. Important terms used in connection with Light.		

III. Important terms used in connection with Light. — *Conid.*

Medium (or *optical medium*): a substance through which light can be transmitted, e.g., air, glass, water.

* *Homogeneous medium* (opposite: *Heterogeneous*): Having the same properties at all points and in all directions: or having the same density and composition in all parts, e.g., water, well-annealed glass, crystal of quartz, and the atmosphere (a small portion of it taken at a time).

Transparent substance allows light to pass through, so that objects can be distinctly seen through it, e.g., clear water, clean glass.

Translucent substance transmits light, but clear vision cannot be obtained through it, e.g., oiled paper, ground glass, porcelain, tissue paper, fog.

Opaque substance does not allow light to pass through, e.g., iron, stone, wood.

Note i. *Transparent* substances when very thick, become *translucent* and even *opaque*, e.g., a deep column of water.

ii. *Opaque* substances, when very thin, are *translucent*, e.g., thin films of gold, silver, platinum, etc., have been made, which transmit a very appreciable quantity of light.

A ray of light: line or direction along which light travels.

A *pencil*, (*beam* or *cone*): a number of rays, generally passing through a point.

Divergent pencil: a bundle of rays (included in a cone of very small angle) that start from a point (apex of the cone) and spread in different directions.

Convergent pencil: rays converging to a point (or travelling to the vertex of the cone).

Parallel beam: assemblage of parallel rays. When the luminous point is at an infinite or very great distance, the rays from it are *practically* parallel.

In a *homogeneous medium*, light travels in straight lines; inferred from several everyday experiences. We cannot see round a corner.

An obstacle placed in the path of light from a luminous body shuts out our view of it.

The path of a beam of light through a hole in the shutter or roof of a dark room, made visible by smoke or dust, is straight.

IV. Propagation of light.

The examples for the terms should, as far as possible, be elicited from the pupils.

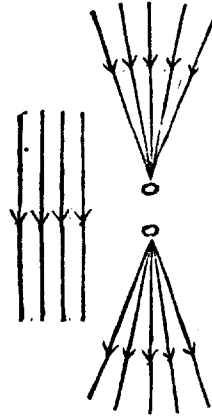


FIG. 1.

*Support three cards with a pin-hole at the centre of each, so that the holes lie in a straight line. A lighted candle in front of the first hole is seen through the third: move aside one of the cards and the flame is not seen.



FIG. 2.

V. Consequences of the rectilinear propagation of light:—

(1) Inverted images produced by small apertures: (2) Formation of shadows, eclipses, etc.

i. Inverted images produced by a small aperture.

A luminous object AB held in front of O, (a small hole in a cardboard) produces an inverted image *ab* on a screen held behind.

Of the pencils of light spreading in all directions from A, B or any other point, only a small pencil —→ such as AOa or BOb passes through O, and produces on the screen a small patch of light which is the image of the corresponding point. The crossing of the rays at O causes the inversion.

NOTE i. For class demonstration, the following method may be used. (Vide 'Heat, Light and Sound' by D. E. Jones). Punch a clean hole (about a mm. diameter) in a large sheet of tin plate or cardboard and clamp it vertically. Place on one side of it three lighted candles arranged thus. The images will be arranged thus: on the screen on the other side. Notice also the increase in their size and their distance from one another as the screen is moved *further* from the hole.

*ii. The relation between the sizes of the object and the image is:—

Length of object = distance of object from the hole.

Length of image = distance of image from the hole.

iii. The production of an image by a small aperture is made use of in the 'pin-hole camera', whereby a coloured, inverted image of the sky and landscape, such as houses, and trees, illuminated by sunlight or other sources is produced.

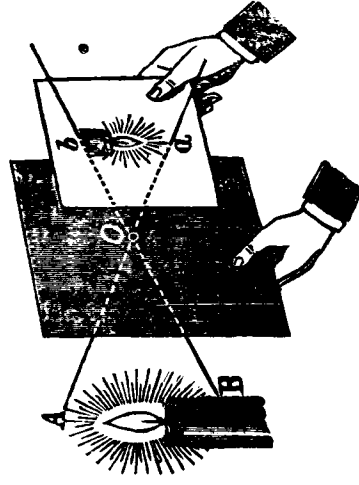


FIG. 3.

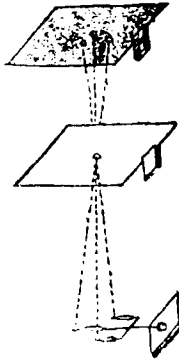


FIG. 4.

*Easy sums bearing on this may be given, to be solved by Calculation and by drawing to scale.

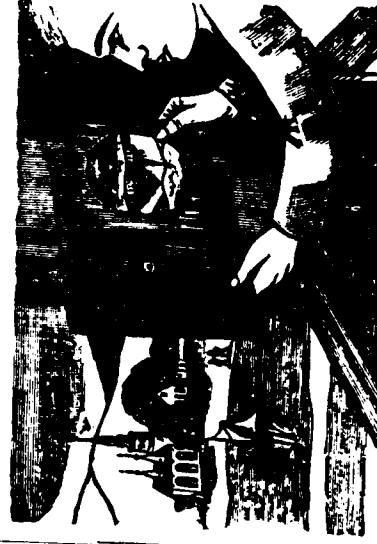


FIG. 5.

A pin-hole camera may be made in two ways:—

(1) Take a hollow tin-cube or a chalk-box, and blacken the inside with paint or ink. Cover the open end with tissue paper or a disc of ground glass. In the centre of the opposite face bore a small hole with a red hot needle.

(2) Make two tubes by wrapping pasted paper round a wooden cylinder (one tube to slide within the other). Blacken the inside; cover the end of the bigger tube with a disc of cardboard or tin-foil having a pin-hole at the centre. Cover the end of the other tube with tissue paper. The pin-hole is then pointed towards a flame or a bright object; and an image is formed on the tissue paper. The image becomes *fainter* and *larger* as the smaller tube is drawn out.

Refer to '3rd year's course in Practical Physics,' by J. Sinclair.

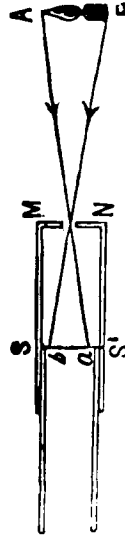


FIG. 6.

*iv. The shape of the image does not depend upon the shape of the aperture if it be small, e.g., in sunshine, bright patches of a round or oval shape are seen on the ground under a tree with a dense foliage; these are formed by the sun's rays passing through the small spaces of various shapes between the leaves.

If the aperture is big, no distinct image is formed, but a patch of light resembling the aperture in shape is seen on the screen. Each of the several small holes making up a big one gives an image and the overlapping of these makes the image blurred and indistinct.

This can be illustrated with a cardboard with a number of small holes pricked in it, near one another. Arrange so that any number of holes (1, 2, 3 or 10) can be uncovered at a time. Hold a lighted candle in front and notice that, when a small number of holes is opened, the images overlap a little on the screen; when a large number is uncovered, the image is too indistinct and blurred to be seen clearly and a bright patch is produced.

A. VARADACHARIAR.

(To be continued.)

THE PRIMARY SCHOOL.

THE object of the present introduction to a short series of papers on the junior school is to emphasise the fact that that stage of a boy's life entrusted to the junior teacher is not a preparatory stage; that it is in itself a complete thing. To look with this in mind on the little school boy is to throw away a great quantity of useless labour, and to find the work of educating freed from drudgery and full of joy. Help the boy to be a perfect boy and there may be utter and happy disregard of the mythical future.

Lying to the teacher's hand in school are certain means of teaching his pupils; a certain list of subjects which he and the pupils are to master, and certain tested methods which help him to deal with them. Naturally therefore the school is a place where in spite of ideals, a degree of dull mechanism finds place. And what is worse is that none of these subjects is regarded as essentially an end in itself. They are all definitely treated as steps to higher things, and because they are so treated, they can never get the full amount of devotion nor give the full amount of delight reserved for those mythical higher things. So that the atmosphere of the school room becomes in spite of the best efforts charged with an element of unreality, of falsehood, and of restless looking forward; and if the pupils of the lower standards do enjoy a measure of irresponsible happiness, those of the highest class of the Primary School are already filled with a quite unchildish eagerness to fit themselves for the future. The older people have already decided what a proper future is. It is to be wealthy, distinguished, and honoured. To the kindergartener this is no future for his boys.

Manhood is to a man no more valuable than boyhood to a boy; neither is a true man superior to a true boy. The child is not father to the man; he is merely a child with the whole meaning of childhood, and nothing else, to discover. The kindergartener, accepting this, throws his whole intensity into helping his boys to be themselves and to express in any natural way they choose, their own selves. All natural self-expression is glad. Hence dominating the whole Primary School and everything connected with it must be gladness. The pseudo-kindergartener will make gladness an aim, a subject so to speak, and will therefore fail. The real kindergartener will be in natural communion with his boys only because he is first true to himself. His pupils are not little men, but children whose whole purpose is to be children here and now, while his whole purpose is to be here and now among his children a man. If it is gladness for him actually to play with the little boys in their natural joyful play, then he will do so. But if he does not feel a personal joy in that play he is being a true kindergartener by gravely remaining apart. No rules can ever be satisfactorily laid down for the conduct of a kindergartener except this hardest of all: Be true and be yourself.

The present practicable ideal in the Primary School then is that, taking no thought for the morrow, the teacher should help his children to be perfect children at any cost. If having put forth his best effort, he still believes that teaching a little child to read is not helping him to be a child, let him leave reading out of his curriculum for the present. If on the other hand he is convinced that a boy is helped to perfect boyhood by learning arithmetical tables, let him include these as part of the work. A pupil may, of course

refuse to read because the teacher has never touched that part of him which is satisfied by reading. But having honestly failed, he must not weakly compromise by resorting to gentle force. He must dare to let the child grow according to his own inner life, avoiding equally the apples of Hippomenes, and the bed of Procrustes in his methods, avoiding the tempting compromise seen in, 'The boy must learn arithmetical tables in order to be like his fellows; and, seeing these dry-as-dust things must be learned, it is my duty to introduce as much gladness as possible into the learning.' Its own gladness, not an artificial gladness must recommend a lesson. From this compromise arises the parody of what for want of a more suitable English name we call kindergartening. We have games purporting to sugar-coat arithmetic; games to induce physical development; games to encourage general mental culture. Because this is half truth it more easily gains acceptance. The whole truth is not that play is gladness, but that perfect childhood expresses itself in gladness; and the gladness of the child in school is relative to the degree of naturalness permitted to him in all his learning, whether that learning be directed by himself or by his teacher. Every teacher knows that few of his pupils conform to any one model; and while this undoubtedly adds to the difficulty of his work, it also shows him how unnatural it is to go through a prescribed régime independent of his own and his pupils' personal needs. For example among half a dozen infant pupils there will perhaps be one for whom any lesson relating to number has no charm. The only way to treat such a pupil is to let him miss this lesson. His life has no need for it, and it will hurt him to have to endure it. By

and by the need will arise, and then only, were it three years later, is the time to begin. It would be wholesomely appalling if teachers could see the amount of wholesale intellectual slaughter multitudes of little ones endure as they go through the mill of prescribed lessons in prescribed manner. The law for the child lies in the child, and for the teacher in the teacher. The kindergarten is the place for natural self-expression.

The determination to make the life of the school a complete thing in itself, and to recognise childhood as its own ideal means that the teacher must emphatically disregard the supremacy of reading, writing, arithmetic. To do this will be extremely difficult, and will demand from him real heroism. For instance, his pupils' parents will likely be disappointed if at the end of a year in school the pupils can neither read nor count, while the fact that these pupils may be exceedingly happy, loving, active, will matter nothing. It is because we have long ago decided that the things that matter for our boys are not gladness, kindness, activity, but their futures. The kindergartener must face this position, and be prepared for its difficulty. During the first year it will not matter to him if his little pupils cannot read a word, or count two and two, but it will matter to him intensely if he does not hear their laughter and see their movements of delight. On two separate occasions an infant class was left for about twenty minutes without a teacher. The first time, when the teacher entered the room later, all the children were playing at somersaults, and repeated the demonstration for his benefit. The second time they had used the rough blocks, built a quite wonderful "upstairs" house and were leaping over it to

imitate going upstairs. One little boy had been about eighteen months in school and would not be persuaded to have anything to do with arithmetic. That same afternoon he joyfully counted the steps of the school stairs, and made an attempt to count the flag-stones in the floor.

Is there any subject we can be quite sure is fitting for all infants? We can find out by trial only; and if we do discover a subject of genuine interest to even a minority of the pupils, the others will possibly become actively interested imitatively if it is a child's subject, and child imitation has nothing undesirable in it. Reading, writing, and arithmetic are certainly of doubtful interest, but standing in the tank trying to catch the little fish in a pail is excitingly interesting. So is digging a deep hole in the ground and watching the slow uncovering of its wonders. So is playing at hide-and-seek among nice holes. So is making a big heap of soft sand, then standing on it and feeling the delicious sensation of going down, down. So is painting a real picture of a man with a round head and two stick-like legs and arms. So too is disappearing behind a big black-board where the teacher cannot see, or sleeping on the floor after hard work, or keeping bravely awake while the others are sleeping. None of these things can be easily named however. They are not nature study, or organized play, or drawing, but they are delight in natural things, in movement, in colour, in creating. Stories are quite good occasionally, but to the infants are not to be compared with these things. After the infant class, ordinarily there is a real need for the more orthodox things. It is especially nice to cut out a straight paper house, to pretend to be a bazaar-man with real paper money

and a correct amount of change to return. Perhaps it is even glorious to know that ten times ten are a hundred. It may also be a real delight to be able to print in great letters the name of anything the little boy loves. But it is not a pleasure to discover that the bleak-looking page says, 'This is a dog. It runs fast.' Neither is it any particular pleasure to the bigger boy of our Primary School to begin to know the history of his own district, but it is a pleasure to follow with bated breath the hairbreadth escapes of a real man who at last died gloriously, whether in the Sahara, or at the North Pole, or in the Indian jungle. And so the needs of the pupil's life increase naturally. Since he is interested in his own hero who died in the Sahara, he will shortly require to know all about the Sahara, and not for years will he want to know of the past peoples of his own locality.

So the continual problem in the presentation of every lesson becomes: What need of the child is to be satisfied by this lesson, and what is for me, the teacher, the natural way of presenting it to him? The lesson will have been taught correctly if it has been received gladly and taught gladly. The teacher must not interfere with childhood; he must only make it glad by waiting upon it. To several questions that arise at this point a quotation from 'The Education of Man' may suggest an answer: "If however there is unmistakable proof from his"—the child's—"entire inner and outer bearing that the original wholeness of the human being to be educated has been marred, then directly categorical, mandatory education in its full severity is demanded."

R. McLEOD.

LIFE IN THE UNIVERSITY OF EDINBURGH.

I. EXTERNAL ASPECTS.

THIS is mainly a record of the personal experiences of three years, it is therefore best to begin at the beginning. It was on a cold morning in late September that I stepped for the first time on the platform of the Waverley Railway Station, and was welcomed into Edinburgh by two of my friends who had been waiting to receive me. I had been travelling all night from London and with the ill-made clothes from India was feeling extremely cold but with a curious and incomprehensible bravado I pretended that I was feeling fairly warm and comfortable. The luggage was easily disposed of and we rattled up the stone-paved streets of the old town in a four-wheeler—a conveyance very similar to the four-wheeled hackney carriages of Madras. It was a fine morning and the just rising sun lit the town up in patches of glory but my first impression was that Edinburgh was sombre and gray. The cabby soon took us to the rooms which it had been arranged I was to share with one of my friends. Our land-lady was a rather florid-looking person but the rooms were comfortable and cosy enough. The things I am now going to say of Edinburgh and the University were picked up from time to time and the general assimilation of impressions was a matter of months and years but their net result is as how they strike me now.

In details, Edinburgh is most bafflingly unpleasing—there is hardly one single thing about which you can be enthusiastic from an artist's point of view—but the whole town from the Braid Hills to the confines of Portobello on the sea is changed with sug-

gestion and beauty and a fine mysticism. The High Street connecting the famous Edinburgh Castle and the Holyrood Palace was once the most fashionable thoroughfare in the whole town and in imaginative moods you can see in it the dead glory of Scotland's old political supremacy and stirring history. The Palace represented the arcana of fashion and the Castle the strength and bravery of Scotland's proudest chieftains and between the two was wrought much of the history and the unique significance of Scotland. But now the same street is one of the dirtiest and least sanitary and most drunken in all Edinburgh. Take again the Princes Street described as one of the most beautiful streets in the world. It is beautiful no doubt, but to enter enthusiastically into an admiration of it you will have to get a vantage ground from which you would be able to take the whole thing in at a single glance. Then you will at once perceive the magnificent glory of the lights and shades, the contrast between the quiet green gardens and the busy fashionable street, and the pervading suggestiveness of the innermost secrets of Scotland's right essential impulsions and psychological characteristics. Throw over it all the liquid deliciousness of the moonlight of a fine frosty winter night and the sense of irresistible charm is conclusively complete. Edinburgh is all rugged and uneven—there is not a city like it in the world for steep ascents and descents—but its very austerity seems fraught with the restrained poetry of ancient Puritan grandeur. It is a city set between the hills and the sea—the wide embracing Pentlands on the West gathering together with jealous caressing, arms the history, the romance and the mystic lights of Scotland's Capital.

Edinburgh is a fairly small town and is

not even in Scotland the largest or most important. There is of course the historical and sentimental interest attaching to the metropolis of Scotland—and the Scottish people have the curious gift of living from day to day with a keen sense of the overwhelming responsibility that their history has laid on their shoulders. It is true in a sense that every brick in Edinburgh is surcharged with historical associations, but at the present day Glasgow with its business and shipping and general smokiness has made good her title to be considered the most important town in Scotland. Edinburgh is more modest not necessarily in her ambitions but certainly in her achievements. There was a joke in our time that Edinburgh had really only two things to live upon and two things to be proud of. She lives on Printing and Whisky-brewing and is ridiculously proud of her University and Infirmary. There is a good deal of truth in the joke—you will be surprised if you take the trouble to find it out, at the quantity of printed matter that comes from Edinburgh year after year. As for the whisky, who does not know about that article of consumption wherever British civilization has gone forth conquering and to conquer? I am not a very safe judge about the University but I can well afford to be enthusiastic about the Infirmary. It is really the most splendid hospital maintained by private contributions and the Faculty of Medicine in the University and the Infirmary are very closely bound up in our imagination.

The town is a compact and logical little affair—there is no straggling irresponsible development about it of the kind that irritates and confuses you, say in London or Madras. You can almost draw a series of concentric circles with the Princes Street Gardens as the centre and there is a reasoned spontaneity with which the scheme of the town becomes intelligible. There are first the business centres

and the University Buildings and Infirmary, then the students' lodging houses, and finally you have the contentment and restful charm of happy villadom. If you take a wider sweep still you find yourself in the wilds of the surrounding hills and country-walks which still seem to have on them the odd whimsical individuality of old Edinburgh.

The University buildings are situated at nearly the centre of the town and just round about, there is a net-work of streets which constitutes the 'Apartments' District. That is where the students have rooms the majority of whom sit in solitary splendour in their 'digs'. The houses are built on the flat system—each house composed of a series of flats containing from two to five or six rooms with kitchens and other conveniences. There will be a common passage leading to the stairs which secure you entrance to your flat—it may be four floors up. The houses are black grim-looking things from the street but the rooms are cosy enough once you get in. This district is always full and busy but the tram cars take you out to other parts of the town which are also favoured by the students. The tram cars are funny, almost pre-historic things,—they are convenient enough but they are driven not by electricity but by a contrivance of underground cables. There is hardly any important thoroughfare to which the cars would not take you, but the students unless they are in a hurry do not usually make use of them. These outlying parts of the town are hedged in all round by the suburbs of respectability where the well-to-do and comfortable ones of the world live. These houses are mostly occupied by professional men and retired people of various conditions and degrees. With the dawn of respectability, the flat houses which we saw round the University buildings vanish and the smug and contented villadom characteristic of British existence

puts in its appearance. The villas are comfortably devised but there is a sad sense of unrelieved monotony—as if the builders had conceived one architectural idea and exhausted themselves in the effort. The lanes, they are hardly streets, leading in and about these villas are quiet and complacent without a suggestion of hurry or business.

But the peculiar glory of Edinburgh lies in the magnificent walks with which she is practically begirt. For miles and miles round about in the country on the border of the town, there are long stretches of roads where you can go and tramp as long as you please. You have every variety of these roads—those leading to the sea at Granton with its gray and blue, and others leading into the heart of the Pentland Hills with the restrained romance of the wide heaths of purple and white heather. The hills give you climbing too of a moderate kind. Get out after an early breakfast on a fine morning, with a little change in your pocket and a sandwich or two for lunch, and you must be a dull fellow if you do not get back home in the afternoon with the fresh adventure of God's air and open spaces thrilling every fibre of your being. But if it is golf that you would prefer—and a twelve-month of Scottish life makes an enthusiastic golfer of almost anybody—you can go to the Braid Hills Golf Course any time and enjoy the caviare delights of that ancient mystery. And the air is bracing too with a whole world's purpose full in every breeze. Postulate youth, health, a clean imagination and overflowing animal spirits, and there is no better place in the world for a young man than Edinburgh.

There is just one final observation to make about the Edinburgh of to-day. I do not know whether this feature is of recent

development—at any rate, as far as I am aware, it has not attracted the attention of anybody else. Edinburgh is the most democratic city in the world. It is rather a strange thing to say about the essentially conservative spirit of old Scotland but what I mean may be made clear by a contrast. In London, for instance, there is a tacit and well observed understanding in virtue of which certain parts of the city are reserved for certain classes of people. There is no legal prohibition or prescription about the matter but on a fine afternoon in May a badly dressed or visibly poor person is quite a rare sight in Regent Street or Bond Street. There are on the other hand certain parts of London which have acquired notoriety as the slums where you hardly expect a wealthy or fashionable individual. To mark the transition between the two extremes there are the whole regions of Bayswater and the like, the inhabitants of which have on their shoulders the ever-pressing burden of shabby gentility. There are thus a tacit series of understandings which keep social order and avoid the clashes of differing traditions and interests in life. But in Edinburgh you miss this curious feature of social adaptations and there is a remarkable jumble of human beings. I have noticed this specially in Princes Street which is perhaps the most wealthy and fashionable quarter in Edinburgh. Day in, day out you find the same miscellaneous assortment of people—rich and poor being of course the most remarkable contrasts. Dirtiness and cleanliness are also peculiarly arresting by their juxtaposition. I have made this remark in view of certain observations I may have to make in a later connection.

It is in a city such as this that the University of Edinburgh is set. Though she is

younger than the other Scottish Universities of Aberdeen, Glasgow and St. Andrews, her history goes back to 1583 when the 'Town's College' or 'College of Edinburgh' was founded by the Edinburgh Town Council. The College was founded under a charter of King James VI (who afterwards became James I of England) dated the previous year. The peculiarity of the 'College' in view of subsequent developments was that it did not derive its existence from any Papal Bull. For instance the University of Aberdeen the youngest of the four, owed its origin in 1494 to Pope Alexander VI. Even from the beginning the College was granted the privilege of conferring degrees. Soon afterwards the College was definitely associated with the name of its Royal Patron and Founder, James VI and was for a long time known as the 'College of James VI.' Early in the next century the Act of Confirmation was passed which granted the College all the 'rights, immunities and privileges' which were enjoyed by the previously established Universities of Glasgow, Aberdeen and St. Andrews. It is not clear when the name of the University came to be what it is at present, but by gradual degrees the more imposing and strictly correct title of 'University' came to be mentioned in Acts of General Assembly, of the Town Council and of Parliament. Till 1858 the fundamental character of the University remained unchanged and it was managed by the Town Council of Edinburgh. In 1858 the Universities Act was passed under which all the four Universities of Scotland came to have new and more or less autonomous constitutions. The Act controls the general policy of all the four Universities and from time to time Commissioners are appointed to inquire into the working of

the Universities and the effect of the legislation on them. There is hardly anything of general importance in the policy of these seats of learning which can be affected save by Act of Parliament.

The University Buildings are of peculiar interest. The Buildings are mainly in three different groups—the Old Building in Nicolson Street, the New Buildings in Teviot Row and the Physical and Engineering Laboratories. None of the buildings is of very great age. Till the end of the eighteenth century there was very imperfect teaching accommodation. There was a good deal of grumbling and public dissatisfaction in 1788 because "the most celebrated University at present in Europe is the worst accommodated." A scheme for rebuilding was taken up earnestly by the Town Council—even now, by the way, one of the most dilatory and expensive Municipal Corporations in Scotland—and Robert Adam, the famous architect prepared a plan for the rebuilding. The Foundation Stone was laid in 1789 with great solemnity and it looked as if Scotland's reproach was soon to be wiped away. Unfortunately, however, Adam died in 1792 and funds failed once more. In about thirty years from that date the City Fathers were roused into a final spurt of activity and the building was practically completed in 1828. The scheme of the building is determined by the central quadrangle round which are the corridors leading to the lecture rooms, examination halls and the magnificent library. The class-rooms of the Faculties of Arts, Divinity and Law are in the building and there is comfortable accommodation for the students and professors. Each class in the Arts Faculty has two rooms—a lecture hall and a smaller room for Honours work with of course the Professor's room and the library usually attached. The quadrangle

itself is a considerable affair—242 feet by 134 feet and every detail of the great building is proportionately majestic and dignified. But what is perhaps the most remarkable feature of the whole building is still to be mentioned—and that is the imposing and austere dome over the eastern entrance. It rises straight above the tumult and hurry of the street below and sweeps its way up in an unruffled curve. The treatment of the dome is a little less classical than that of the building but there is a stern and restful impressiveness in it. Surmounting it all, you have an admirable and suggestive study of the figure of Youth carrying the torch of Knowledge in highly uplifted hand.

In 1869, the Old Building was found to be insufficient for the growing needs of the University and it was felt that the Faculty of Medicine was suffering most owing to lack of room. An appeal to the public was made for funds and the result of the appeal combined with a Government grant of £30,000 brought the available funds to a total of £244,500. The present 'New Buildings' was the result. The work of building was begun in 1878 and was finally completed in ten years. The building, worked out in the Italian style between the Gothic and the stiff Palladian, is now used by the Faculty of Medicine. There is accommodation for students and professors in practically all the classes in the Faculty. The Royal Infirmary is nearly opposite and its easy nearness is matter of great convenience to the medical students and professors. The Anatomical Museum upstairs is one of the most complete in the world,—especially in the department of Comparative Osteology.

The M'Ewan Hall, the Hall of the University is built alongside of the Medical Building. It owes its existence to the munificence of

Mr. William M'Ewan, M.P. It is a most remarkable building both by its architectural beauty and its suitability for the purposes intended. It is in theatre form and can seat nearly three thousand people. The mural treatment inside is most pleasing and the general conception of knowledge as the source of fruitful and beneficent influences is delicately worked out. The acoustic properties of the hall may not be above criticism, but it is not of very great consequence. The hall is used for graduation ceremonies and other important University gatherings. It serves the same purpose as the Senate House in Madras.

The Physical Laboratories are situated apart. The Faculty of Science has its rooms and arrangements in this building. Mr. Carnegie was practically the donor of the Laboratory to the University and the buildings were completed only towards the end of 1907. The Science classes, both pure science and the applied sciences—engineering, etc., are held in this building and the Laboratory arrangements are highly satisfactory. Provision is made to suit the convenience of original scientific work of every kind and there is a very fine library attached. In the Museum you have some scientific instruments of great historical interest—the traditions of the Natural Philosophy Chair being particularly brilliant. Through Tait you can go back to Forbes, Leslie and a number of other names familiar in the history of Physical Science. In the next article I shall speak about the Educational Ideals of the Edinburgh University.

GEORGE JOSEPH.

(To be continued.)

A HISTORY OF INDIA.*

We cannot tell how students of the present day feel on the subject, but for several generations of them in the seventies, eighties, and nineties, we can vouch and say, that in the Upper Secondary course, where they had had to read Indian History side by side with the History of England, they always felt some instinctive liking for the latter and some sort of apathy, if not positive dislike, for the former. Whether this was due to any intrinsic difference seen between the two, we cannot tell, but it was clear that it must have been due to one or other of three main causes—the men who handled it, the method of presentation, and the text-books used. As a matter of fact all these factors had combined to make the study of Indian History a mighty up-hill work.

We need not stop to inquire how the other factors continued to operate so long, but, with regard to the text-books used, we seem to have observed a rare marvel—the long life and wide popularity that one of them has been enjoying so long and so well. To us it has always seemed that it has had neither style nor matter, nor sense of proportion, nor get-up, nor illustration, to recommend it, yet it has been the text-book for over thirty years!

If Indian History was thus badly off as a whole, it was much worse with that part of it which went by the name of "Hindu Period"—a period of sixteen centuries more or less, even if we exclude "The Vaidik Period" of some thousands of years.

*PART I.—The pre-Mussulman Period by K. V. Rangaswamy Ayengar, M.A., Asst. Professor of History and Economics, H. H. the Maharajah's College, Trivandrum. Longmans and Co., Bombay. Price Re. 1-4-0.

It was usually given about one-sixteenth of the space available and, in the handling of it, the teachers concerned were content to slur it through in one month out of twelve more or less!

In these circumstances it was something of a revolution that the late Dr. Hunter was able to compile a school book in the eighties, where nearly half the volume was devoted to this hitherto despised portion, and justify it on this most solid and edifying ground expressed in the course of his preface:—"No nation can have bright hopes about its future that has had nothing to be proud of in the past." (We quote from memory, but the substance is correct). From this time forwards there has been, we are glad to note, steady progress and a lot of talented and able workers, both Indian and European, have been contributing more or less substantially to the useful study of Indian History in schools.

At the same time materials for it have also been fast coming out—translations of old historical works, 'Travellers' Tales,' and the like, but, most important of all, archaeological discoveries and epigraphist records. For nearly thirty years matter has thus been accumulating and various persons have used it for various educative purposes.

Book-makers have not been slow either, though in Madras their number has been so far rather meagre. Of late the chief text-books in use are Mr. Marsden's compilation, Dr. Hoernle's, old Sinclair's and three or four others of less importance.

All these however suffer from two main defects. Recent writers of text-books in Indian History, if they are Englishmen, seldom discover the varied equipment of Dr. Hunter or others of that kind, nor is

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A HISTORY OF INDIA.

South India considered worthy of more than two or three pages in most books. It required therefore a South Indian graduate to remedy both these, and give the South Indian student the kind of book he has so long been longing for.

Heralded by those already mentioned, it is at length our great pleasure to welcome in our midst *Part I of Mr. Rangaswami Ayengar's History of India*. Here at length is the 'man' we had been sighing for. A glance at his book reveals the gulf that separates it from the rest. Mr. Rangaswami Ayengar's career as a Professor of History is now well-known in the Educational world, and the Madras University have recognized his worth in clear and unmistakable ways. He is without doubt the one 'specialist' in the subject that we are proud to have, and he has equipped himself so well in it before he has hardly attained his thirtieth year! To his rare equipment, his up-to-dateness, his wide sympathy with the subject taken up and his strong sense of proportion, every page of his book bears ample testimony.

The plan is quite clear. The period anterior to 600 B.C., is dealt with in Chapters I to IV, and from that epoch the narrative gets more detailed as a matter of course. Almost every chapter consists of two parts—what may be liberally called *political history*, being as a rule followed by an interesting and highly useful statement of 'social condition.' The careful reader will not fail to notice that *there is thus for the first time a continuity given to the rise and progress of the Indian peoples, and opportunities created for fruitful comparisons and contrasts.**

* Of. Note p. 74-5 on Asoka's religious toleration and Akbar's and of the British Indian government, which is only one out of many.

South India and one or two 'outlying parts' have for the first time found their right place in the book and whatever results research work has so far achieved, have been freely and fully used and the Dravidian student to that extent made to stand on solid and interesting ground.

The presentation throughout is simple and there is neither bias nor posing—rather rare in works of this sort. The maps have been most judiciously selected, while the illustrations have a special value of their own. References for detailed study are the most valuable in the field, and the teacher or the institution which should be content to work in the dark hereafter, richly deserves the luck.

We trust that the book will be welcomed as it should be in all quarters where it is needed and soon enjoy an Indian and even an extra-Indian reputation, as we are sure it will. We trust, likewise, the gifted author will quickly follow it up with the other parts of the subject. We venture to assure him that the hour for such a book has long arrived. We had only been waiting for the man, and behold, he is come also!

Messrs. Longmans have done *their* work as one expects of them. The letter-press, as well as illustrative matter, has been got-up very well and the price is ridiculously low for the value given.

The right text-book having at length come out, and teachers enabled to equip themselves well, it is hoped that the three-fold blemish with which we started will disappear in due course, and Indian History read and appreciated in our schools as it should be by our future hopefuls, much better, that is, than it was our own luck once, and precisely in the manner in which Dr. Hunter wants us

to do. We wish Mr. Rangaswami Ayengar long life and health and, given both, we know he is not the person to hide the talent with which he has been favoured.

C. N. KRISHNASWAMI AIYAR.

Reviews and Notices.

A TEXT-BOOK OF INTEGRAL CALCULUS, BY GANESH PRASAD, B.A., D.Sc. LONGMANS, GREEN & CO., LONDON, BOMBAY AND CALCUTTA.

The object of the author in preparing this book is to place before students a simple but rigorous exposition of the Integral Calculus and its chief applications. It is the result of considerable experience in teaching the elements of the integral calculus to a large number of pupils. It is throughout of an elementary character. Parts which may be found too difficult by beginners are marked with an asterisk. A special chapter is devoted to the elementary applications of the integral calculus to mechanics and physics. We recommend this book to students of physics and mathematics preparing for the M.A. examination of the Madras University.

THE OXFORD WALL MAPS, EDITED BY A. J. HERBERTSON, M.A., PROFESSOR OF GEOGRAPHY IN THE UNIVERSITY OF OXFORD, AND DRAWN BY B. V. DARBISHIRE, M.A., TRINITY COLLEGE, OXFORD.

- i. THE BRITISH ISLES—PHYSICAL FEATURES.
- ii. NORTH AMERICA—MEAN ANNUAL RAINFALL.
- iii. SOUTH AMERICA—VEGETATION.

We have nothing but unqualified praise for these excellent series of maps. Good maps are essential for the successful teaching of Geography and what advance there has been in the teaching of the subject in recent years is in no small measure due to the introduction of physical maps tinted according to elevation. In addition to using physical maps, teachers are beginning to use largely map-building sheets to illustrate climate, rainfall and vegetation of a particular continent or region which is the subject of special study and develop on these sheets the maps found in text-books and atlases. The Oxford Wall Maps are the first series to give the teacher a set of maps which will allow him

to show to a class physical features, rainfall and vegetation for the world and for each continent on a reasonably large scale. We understand Mr. Herbertson is preparing special maps of the world showing structure, thermal regions, pressure regions and major natural regions. It is claimed for the series that the maps are all original and are published for the first time.

What makes these maps specially attractive is their having been drawn on an equal area projection. We are glad to note that on each map in addition to linear scale in miles that of kilometers is noted; the superficial scale is added; the value of a square inch of the map is given in square miles and the value of a square centimeter in square kilometers. Another redeeming feature of the maps is the lines of latitude and longitude drawn on the maps are only a few, the Equator, the Tropics, 45°N. and S., the Arctic and Antarctic circles being the only parallels of latitude drawn. The longitudes are similarly drawn so far as 30° apart. With a view to enable pupils to naturally associate certain parts of each map with their latitude and longitude, the number of degrees of latitudes and meridians 10° apart are shown in bold figures in the margin.

The maps are thoroughly accurate. The contour intervals and colour scheme are the same in most of the maps. We notice that the contour intervals are drawn more closely than usual. This is of special value to those engaged in the teaching of the subject in the higher classes, as also to those who are anxious to construct relief models. It adds a graphic value acting as a shading in the region of steep slopes and so producing a clearer picture of the relief. Each of the maps before us has special features. The Vegetation Map of South America for example, indicate the quality of land and illustrate the joint effects of climate and soil.

A NEW SCHOOL ATLAS OF MODERN HISTORY, BY RAMSAY MUIR, PROFESSOR OF MODERN HISTORY IN THE UNIVERSITY OF LIVERPOOL. GEORGE PHILIP AND SON. 3s net.

Historical Atlases form a real and valuable aid to the study and teaching of History and the Atlas before us is a very welcome addition to the series. Like so many of Messrs. Philip's publications it excellently serves the purpose it is intended for. In Germany more than in any other country great emphasis is throughout laid

upon "the physical basis of Historical Geography" and the excellent work of Pützer is always set before the History teacher as a model to imitate. It is the aim of Ramsay Muir that this book should be to England what Pützer's work is to Germany. This new Atlas has a number of physical maps and these maps are so placed as to be capable of being used in conjunction with groups of other maps of the same area so as to make it manifest the influence of the build of a country upon its history. The Atlas has 48 plates in all with 120 coloured maps and diagrams. It has a clear and concisely written introduction which are comments upon each of the maps in turn, supplemented by sketch maps and battle plans in black and white. The maps in the body of the text are divided into four sections; the first section illustrates the general maps of Europe and the Mediterranean Basin; the second, the growth of the principal States of Europe; the third, the British Isles, and the fourth, the Europeanization of the world. The United Kingdom has naturally received specially full treatment. There are a number of plates showing the progress in exploration and settlement of the extra European world and these maps will doubtless prove inspiring and stimulating to the imagination. India is dismissed with three maps—India (physical) in the time of Clive and Warren Hastings; India in 1805 and India in 1858. All these illustrate the growth of British power in India. The colouring in the tiny physical map of India is intended to bring out the historical effects of the conformation of the country. The teacher of Indian History, if he is so minded, can well illustrate with the help of the physical map why, for example, the Peninsular India is distinct and has a different history from the Gangetic valley and thus lead the children to realize how the growth of the British power in the Karnatic is largely a separate story from that of British power in Bengal. Pupils might also be helped to understand why the remarkable geographical position of the Mahrattas stretching across India between these two regions gives a unity to Indian History after their rise and how every power was necessarily brought into relation with them. The physical map will again help the teacher to demonstrate how the unity of the scattered British territories in the early period was only secured by the control of the sea and that as a result of this, early British expansion was mainly aimed at securing the control of the coast line. We commend this handy little book for use by every teacher of Modern History.

ENGLISH COMPOSITION AND ESSAY-WRITING, BY J. W. MILLER, M.A. LONGMANS, GREEN & CO. 2s.

A very useful publication for students of our High Schools, and even students of the Intermediate classes, is this book on Composition by Mr. Miller. One remarkable feature of the book is that the author has adopted the wholesome principle of trying to teach more by practice and example than by precept. The model essays and hints to teachers given at the end of the book are of special interest. Another noteworthy aspect of the work is the author's success in dealing with the essay as a whole, enabling the student to have a grasp of some of the artistic principles underlying its composition.

"THE INDIAN STAGE"—We have very great pleasure in welcoming this new journal started by the *Suguna Vilasa Sabha* to the ranks of the Indian Press. Its aim is to serve the cause of Drama and the Stage in this country, and we have no hesitation in saying that a magazine of that type must find room midst the numerous Indian journals existing at the present day. The contents of the first number are interesting and varied and we may be allowed to single out for special appreciation an article on *Theatrical Reminiscences* by Mr. Glyn Barlow, M.A., and a translation of a Sanskrit work on the Dramatic Art, entitled *Bhavaprakash*, by Mr. T. S. Narayana Sastri, B.A., B.L. There is an excellent tri-coloured portrait of Sir S. Subramania Iyer, the patron of the Sabha, and the subscription is so low as Rs. 3. The magazine is edited by Messrs. V. V. Srinivasan, B.A., B.L., and P. Seshadri, M.A., and we wish it a long career of prosperity.

THE DIRECT METHOD OF TEACHING ENGLISH, BY J. V. OAK, M.A., AND R. D. DESAI, B.A. NATIONAL EDUCATION SERIES, No. 2. TALGAON DABHADE. 1910. Price As. 8.

In all countries the Direct Method is acknowledged as the right method of teaching a living language. This is the method by which one learns one's mother-tongue. One hears and understands his mother-tongue; then begins to express oneself and then learns to read; and last of all one learns composition. In the time-honoured Translation Method this order is inverted and therefore causes more harm than good. If the main object of an Indian in learning English is to understand rapidly

ordinary English, to talk on ordinary topics and to write letters, this will be gained in a shorter period and less effort by the Direct Method than by the Translation Method. In the book before us the authors have attempted to provide for the teachers in the Mahratta country a book wherefrom they can learn the method.

CHEMISTRY FOR MATRICULATION CANDIDATES, BY G. B. KOLHATKAR, M.A., AND V. B. PATVARDHAN, B.A. RAMACHANDRA GOVIND & SON, BOMBAY. 1910. Price Rs. 14.

The authors tell us in their preface that this manual is based upon the notes dictated to their students to make up for the faults of existing handbooks on Chemistry. The book has been prepared to meet all the demands and requirements of the Matriculation candidates of the University of Bombay. The treatment is thoroughly experimental. A chapter is given to directions for the fitting up of apparatus and a list is given of the articles required for the performance of the experiments in the book. There are about 120 diagrams, some of which, we regret to say, are deplorably bad (Fig. 95—on page 168). The authors sometimes describe experiments which they avow they have not actually tried. Can such experiments have any value? If they are intended to be shown, the authors must try them and note the actual results and not what they think would be the result. The book is well printed and bound.

STORIES FROM EUROPEAN HISTORY, BY LUCY DALE. LONGMANS, GREEN & CO. LONDON, BOMBAY AND CALCUTTA. 1910.

We have much pleasure in bringing this book to the notice of Indian teachers. Within the compass of thirty-two stories we are given a rapid survey of European History from the time of the Greeks to that of Wellington. The book is written in simple English and well-adapted to the lower forms of our higher secondary schools. It contains four plates in colour and thirty-nine other illustrations and the get-up is all that could be desired.

LANDMARKS OF BRITISH HISTORY, BY LUCY DALE. LONGMANS, GREEN & CO. LONDON, BOMBAY AND CALCUTTA. 1910.

This book will serve as a good introduction to the study of English History. The matter is

presented in an attractive form. It is neatly got-up and contains eight coloured plates and seventy-two other illustrations.

SUGGESTIONS FOR SOCIAL HELPFULNESS, BY REV. D. J. FLEMING, M.A., M.Sc. G. A. NATESAN & CO., MADRAS.

Rev. D. J. Fleming of the Forman Christian College, Lahore, has attempted in this book to create in students the desire to be helpful by pointing out the practical ways in which they may render service to their fellow men. If books can awaken young men to a sense of duty and responsibility, we are sure that Mr. Fleming's book will render service in that direction. Any attempt to inculcate ideals and create the desire to realise them in action is praiseworthy, and as such we welcome the suggestive book before us.

A HISTORY OF INDIA FOR SCHOOLS, ADAPTED BY MR. K. A. VIRARAGHAVACHARIAR, B.A., OF PACHAIYAPPA'S COLLEGE, FROM SRI HEMLOTA DEVI'S *History of India for Boys and Girls*. MESSRS. LONGMANS, GREEN & CO. 12 os.

We have very great pleasure in welcoming this new publication of Messrs. Longmans, Green & Co., from the pen of such a well-known teacher of History and Geography in Southern India. It is a distinct improvement on the early volume of Sri Hemlota Devi. Recent researches in the field of Indian History have rendered such an advance necessary, and in this volume there are evidences of the most recent authorities having been consulted. It is a book intended for boys and it has therefore been written in a style admirably suited to their limitations. The large number of illustrations—some of them coloured—are a great attraction, and we have very great pleasure in recommending it for extensive use in our schools.

HAZELL'S ANNUAL FOR 1911.

Hazell's Annual, now in its 27th year claims with justice to be a record of the men and movements of the time. Besides giving the usual information, we find the inclusion of a biographical list of the members of the new House of Commons, details of the pollings, comparative tables showing the changes in representation, and summaries of the most important of the pronouncements made by the party leaders in the course of the election. The Political

section of the Annual is a valuable one. The origin and progress of the constitutional crisis are outlined, the text of the Parliament Bill is given, and there are articles on the Referendum, the Osborne Judgment, Home Rule, Woman Suffrage and many other questions of the hour. There are sections giving a bird's-eye view of the world's history in 1910. The summary of international questions in 1910 will be really useful to students of international affairs. No fewer than fifty pages are devoted to the March of Science in all its details. To sum up, "Hazell's Annual for 1911" is not only a work of reference indispensable to the reader or the politician; it is a mine of lively interest which no intelligent person, whatever his bent may be, will ransack without profit.

Indian Educational Notes.

MADRAS.

Departmental Notifications.—The following gentlemen are nominated to be Ordinary Fellows of the Madras University:—

Sir V. C. Desika Chetty, B.A., B.L.
Mr. H. J. Allen, M.A., Barrister-at-Law.
Rev. J. D. W. Sewell, S.J.
Mr. J. Adam, M.A., Barrister-at-Law.
Mr. A. C. Mitchell, D.Sc., F.R.S.E.
Mr. B. Hanumanta Rao, B.A.
Mr. Rao Bihadur M. Rangachariar, M.A.
Mr. J. P. Cotelingam, M.A.
The Hon'ble Mr. J. C. Sankaran Nair, C.I.E.
Mr. R. Littlehales, M.A.
Mr. J. R. Henderson, M.B., F.R.S.
The Hon'ble Mr. H. E. Clerk.

Mr. M. C. Kannan Nambiar, Sub-Assistant Inspector of Schools, Palghat Range, acting in the Cannanore Range, is granted privilege leave for six weeks from the 3rd January 1911 or from the date of relief thereafter. Mr. C. S. Ramaswami Aiyar, Supervisor of Elementary Schools, Palghat, will act for him in the probationary class during his absence on leave or until further orders.

The furlough granted to Mr. S. T. Kallapiran Pillai, Assistant Inspector of Schools, South Arcot district, is extended by one month. His posting to the Kistna district already ordered is hereby cancelled.

Mr. Sribatso Ratho, Headmaster, Government Training School, Russelkonda, and Acting Sub-Assistant Inspector of Schools, Russelkonda Range, is appointed, with effect from the 15th December, 1910, to act as Sub-Assistant Inspector of Schools of the same range, in the Probationary class, sub. protem, vice Mr. S. Radhakrishnan, on other duty, or until further orders.

The following postings have been ordered:—
Mr. S. T. Kallapiran Pillai, Assistant Inspector of Schools, South Arcot district, on leave, to act as Assistant Inspector of Schools, Kistnao district, vice Mr. B. C. Ramaswami Aiyar on other duty or until further orders—to join on the expiry of his leave.

Mr. M. Parthasarathi Aiyangar, Sub-Assistant Inspector of Schools, Ambasamudram Range, acting in the Trichinopoly Range, to be Sub-Assistant Inspector of Schools, Tanjore Range—to join on relief.

Mr. V. C. Srinivasachari, Sub-Assistant Inspector of Schools, Tanjore Range, to be Sub-Assistant Inspector of Schools, Cuddalore Range, vice Mr. K. Duraiswami Aiyar who has been permitted to retire—to join on the afternoon of the 15th January or on the forenoon of the succeeding day.

Miss C. M. Lynch, Inspector of Girls' Schools, Southern Circle, has been permitted to return to duty.

Mr. C. E. Odgers, M.A., B.C.L. (Bar-at-Law), Junior Professor, Law College, Madras, has furlough without medical certificate for one year in continuation of the ensuing summer vacation of the Law College, Madras.

Mr. J. H. Mackintosh, to act as additional Professor of English, Presidency College, Madras, during the employment of Mr. Dodwell on other duty or until further orders. To have effect from the 2nd January 1911.

Mr. V. S. Srinivasa Sastri on Government Model Schools.—During the Educational Conference of the South India Teachers' Union held in Madras in December last, Mr. V. S. Srinivasa Sastri remarked in his paper on Model Schools, that the earliest policy in respect of higher education had been that local Government should continuously withdraw from direct management of institutions in favour of private enterprise, that only in April 1910 it was stated that 15 schools were to be taken over by Government at a cost of Rs. 91,000 a year, that the change proposed was both sudden and sweeping, that secondary schools under private management had now undergone a remarkable improvement on all sides, that there was now every evidence, if only the means were available, that private management would show both the zeal and wisdom necessary to place secondary education on a satisfactory basis, that if concrete examples are required to give a stimulus to private schools, 19 model schools were unnecessary, that the existing four Government schools were far from being model ones and that in addition to reforming these it was enough to establish four more model schools, one each at Chittoor, Bellary, Dindigul and Tellicherry.

Affiliation of Colleges.—The Governor-in-Council has sanctioned the further affiliation to the University of Madras of the following colleges,

in the groups of subjects for the B. A. (Pass) Degree examination specified against each:— Government College, Rajahmundry, (v) History and Economics and (vi) Two languages; Government College, Kumbakonam, (vi) Two languages; Noble College, Masulipatam, (vi) Two languages. Sanction is also accorded to the affiliation to the University of the Training College for Teachers at Trivandrum, in respect of the L. T. Degree examination, subject to the condition that a complete staff is provided for the model school attached to the college and to the other conditions specified in the report of the Hon'ble Mr. Stone who conducted the local inquiry required by section 21, sub-section (2) (a), of the Indian Universities Act, 1904.

Madras Christian College Day.—The twentieth celebration of the Madras Christian College Day came off on the 4th instant in the Anderson Hall in the presence of a large number of the past and present students of the College. Khan Bahadur Muhammad Azizuddin Sahib (Collector of South Arcot) was in the chair. The proceedings of the evening commenced with the toast of The King Emperor by the Chairman. The toast was carried with the singing of the National Anthem, all present standing. In proposing the toast of the College the Chairman made a long speech and wished the College all success and prosperity. Mr. R. Srinivasa Iyer proposed the toast of Dr. Miller and in responding to the same the Revd. W. Meston, M.A., read an interesting letter from Dr. Miller. Mr. M. Vijayaraghavalu then proposed the toast of "our young guests" and the proceedings terminated with a vote of thanks to the chair.

The December Lectures at Aruppukota.—Mr. K. R. Venkatarama Aiyar, Headmaster, B. P. Vidyasala, Palayampatti, writes to us:— The December Lectures organized by Mr. P. Parthasarathi Naicker, B.A., L.T., Sub-Assistant Inspector of Schools, Tiruchili Range, with the valuable assistance of Rev. F. E. Jeffery of Aruppukota, were held at Aruppukota recently for the benefit of the Elementary School teachers of the Range. As many as 200 teachers were present besides many outsiders. The proceedings of the first day began with a valuable address in English on "Kindergarten as a System of Education" by Mrs. Jeffery, B.Sc., translated in Tamil by Rev. Samuel Joseph, in the course of which she urged the teachers to love their children and their school-work and to correlate the lessons from the lowest classes with incidents or stories which the children much liked. In the afternoon Mr. P. Parthasarathi Naicker gave a lecture in Tamil on "The Value of Observation."

Two dramas were then put on the stage by the children of the A. M. Church School and this was followed by a magic lantern lecture on the beauties of Indian architecture by Rev. William Zumbro of the American Mission College, Madura.

Rev. William Zumbro commenced the second day's proceedings with a lecture on "Nature Study and School Gardening." This was translated into Tamil for the benefit of the teachers by the Sub-Assistant. After several items were gone through in the morning, the meeting dispersed. Mrs. Chandler, B.A., of Madura, spoke in the afternoon on "Moral Education" in Tamil. Rev. Chandler, M.A., followed with an interesting description of the System of Elementary Education in America. A circus performance engaged the audience for about two hours in the night.

A lecture on "Female Education" by Rev. F. E. Jeffery was the first item in the third day's proceedings. Mr. Henry, B.A., L.T. of Pasumalai, spoke on Practical School Discipline and was followed by a description of education in Sweden in Tamil by Rev. J. Sandegun of Virudupatti. The last lecture was by the Sub-Assistant Inspectress of Schools on "The Benefits of British Rule in India." The teachers left the Hall with a dignified idea of their profession and enthusiasm for their work. The whole function was a complete success.

CALCUTTA.

Education in Bengal.—The Government resolution on the Report on Public Instruction in Bengal for 1909-1910, submitted by the Director of Public Instruction, the Hon'ble Mr. G. W. Kuchler, has appeared in a recent issue of the *Calcutta Gazette*. The report is a very lucid and interesting one. It has been very ably prepared by Mr. Kuchler for which a well-deserved tribute has been paid to him by His Honour the Lieutenant-Governor in Council. Among many subjects dealt with in the Resolution, the one dealing with the education of Agricultural classes is interesting. It deals with the subject under different headings: 1. Controlling Agencies; 2. Collegiate Education; 3. Secondary Education; 4. Primary Education; 5. Training of Teachers; 6. Professional and Technical Education; 7. Female Education; 8. European Education; 9. Mahomedan Education; 10. Education of Special Classes; 11. Physical and Moral Training. These details show the value of the resolution: The other subjects are dealt with, with equal importance.

Sir E. Baker in Bankipore.—National College visited.—His Honour the Lieutenant-Governor, Sir Edward Baker, visited the Behar National College on the 10th inst. The College was very tastefully decorated with flowers and foliage. His Honour was received at the stairs of the College by the President and Members of the College Council and the Principal. Among others there were the Hon. Mazharul Haque, the Hon. Fakharuddin, Syed Hasan Imam and others. His Honour was taken to the art classes of the College where he made enquiries about the homes of the students and their nationalities. His Honour was well pleased with the physical and chemical laboratories of the College

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and inspected the workshop and hostels as well. His Honour spoke very encouragingly about the work done during the last two years for improving the College. He has passed orders for paying over Rs. 5,000 to the College authorities for buying the college building which is now the property of the Secretary on condition that the College Council should raise another Rs. 5,000 for the same. His Honour further promised a grant of Rs. 2,000 for the improvement of the chemical laboratory unconditionally. His Honour was heartily cheered by the students as he drove away in a motor.

Appointments.—The Secretary of State has appointed Mr. T. T. Williams, B.Sc. of Cardiff University College and B.A. of Cambridge University, to officiate as Professor of Political Economy and Political Philosophy at the Dacca College during the absence on deputation of Mr. Shirras.

The Secretary of State has appointed Mr. A. Macdonald, M.A., B.Sc., and Mr. D. B. Meek, M.A., B.Sc., both of Glasgow University, to be members of the Indian Educational Service and to fill the two vacant chairs of Physics at the Government College, Dacca.

The Secretary of State has appointed Mr. E. A. Horne, M.A., of St. Andrews University, to be a member of the Indian Educational Service and to fill the chair of Political Economy and Political Philosophy at the Patna College.

Maharaja of Cossimbazar's Handsome Gifts.—A meeting of the Senate of the Calcutta University was held recently at the Senate House, when the Hon. Dr. Ashutosh Mookerjee, Vice-Chancellor, presided over a fair attendance of fellows.

The only item of importance was the offer made by the Hon. Maharaja Manindra Chandra Nundy of Cossimbazar, to promote the cause of research into the history of Indian Mathematics and Astronomy. The following letter addressed to the Vice-Chancellor by the Maharaja of Cossimbazar, containing the offer, was placed before the Senate and the Registrar reported that the Syndicate had thankfully accepted the offer:—

"For many years past I have taken a deep interest in Indian Astronomy, and I am anxious to promote, if possible, the cause of researches into the history of Indian Mathematics and Astronomy. A venture like this would be peculiarly appropriate, when the University is guided by two such men as yourself and Dr. Triaubert.

I therefore propose to place at the disposal of the University a sum of Rs. 20,000 in five annual instalments of Rs. 4,000 each. It is my desire, that the fund should be applied in publishing the text and translations of works on ancient Indian Mathe-

matics and Astronomy, so that the Sanskrit works on those subjects may yet be rescued and made available to the learned world. Without such a preliminary survey, any serious investigation into the history of Indian Mathematics and Astronomy is impossible, and I hope I may have the privilege of assisting the University in this direction."

The letter was recorded with an expression of thanks to the Maharaja of Cossimbazar. The meeting then terminated.

BOMBAY.

Indian Music: Speech by Sir George Clarke.—The annual distribution of prizes to the pupils of the Gandharva Maha Vidyalaya took place at the Framji Cowasji Institute, Bombay, H. E. Sir George Clarke presiding. H. E. Lady Clarke was also present. There was a large and representative gathering.

The Hon'ble Sir Narayan Chandravarkar in welcoming Their Excellencies spoke at some length on the necessity of developing the devotional side of Indian music. He referred to the practice that once prevailed among their womankind of singing hymns, while discharging their household duties. At the present moment there was a growing demand in India of developing the art of Indian music. There had been Hindu saints who have written hymns and the singing of these hymns, he thought, ought to be encouraged.

His Excellency in the course of his address remarked that it is a mistake to suppose that the musical taste of the Western nations differs absolutely from that of the East. The sounds of the Scottish pipe appeal strongly to Pathan mountaineers on the frontiers of India. Eastern music can be said to differ from the music of the West in that it lacks organization and improved methods of recording its forms, and in that it has a complex structure. Among most peoples music has been regarded as partaking of the Divine and in the East as in the West it has its purely devotional side. There is a real demand in Bombay for good teaching which this school is able to apply. Here is surely a step towards the organization of musical art which seems to be needed in India and there is no doubt that the results obtained here will grow and be far-reaching.

Anglo-Vernacular Schools in Bombay.—The need for improvement of Anglo-Vernacular schools in Bombay is there referred to by the Director of Public Instruction in the last annual Report:—"I have devoted an unusual amount of space to these schools, because recent events, political and academic, have drawn a good deal of attention to their condition and to their curriculum. The latter is almost wholly dominated by the Matriculation, so much so that in the schedule of studies issued by the Department the highest standard is left blank. Thus, instead of a well-considered curriculum with an examination at the end to fit it, we have an examination imposed

by a body little in touch with the schools and a curriculum cut to fit it. Almost every subject in that curriculum requires overhauling as regards methods and text-books; and the Matriculation, whether regarded as a school-leaving or a college-entering examination, also requires recasting. Both of these matters are now under consideration; but, whatever happens, I do not think it likely that the Department will continue to abdicate its functions in respect of the highest classes of the schools under its jurisdiction.

Technical Scholarships.—The Bombay Government have invited applications from candidates for two State technical scholarships of the value of £150 a year tenable for two years in England to undergo (1) a course of instruction in oil-pressing and oil-refining with special reference to cotton seed oil, and (2) a course of study in the manufacture of tanning extracts and their use in tanning.

Nawsari Industrial School.—The Naib Dewan Mr. Sarangpani recently performed the opening ceremony of the Khosmasta Hormusji Sirvai Cabinet Class attached to the Jamshedji Naserwanji Tata Industrial School, jointly endowed by His Highness the Gaekwar and Mr. Hormusji Sirvai, of Bombay, who gave Rs. 10,000 as a donation.

Cambridge University Scientific Mission.—A Cambridge University Scientific Mission has arrived at Karachi for the purpose of a three months' paleontological exploration in Baluchistan. The party consists of Mr. C. Forster Cooper, Demonstrator in Comparative Morphology, and Dr. W. M. Jeffreys, with whom is Mr. H. C. Myers, who accompanies them for a part of the time. The *Sind Gazette* in making the announcement comments on the excellent field the mission will find, and adds:—An extensive and valuable collection has been made recently in this locality by Mr. Guy Pilgrim for the Indian Geological Survey and the results are now in process of publication. Specimens will eventually be placed in the Natural History Department of the British Museum.

PUNJAB.

Punjab Historical Society.—At the annual meeting of this Society, Mr. O. R. Thomson, Vice-President, read the presidential address of the Hon'ble Mr. Maclagan which said that there were a few places in the world which presented a more enhancing field for historical research, than the Punjab which had seen more changes in life and movement than any other part of India. The address outlined the proposed work of the society which was a historical society in the widest sense. The Lieutenant-Governor then addressed the meeting in a short interesting speech with which the meeting came to a close.

University Convocation: Vice-Chancellor's Speech.—At the recent Convocation of the Punjab University the Rev. Dr. Ewing delivered an address of considerable length. After dealing with the various learned professions and Government service and their merits, the Vice-Chancellor expressed the hope that graduates will more and more find themselves attracted towards, and impelled to enter upon, lives that will have to do directly with the development of the resources of the province, with the distribution of its products, and with the work of manufacture. Here there is, he said, for a man who would serve his fellows, a position of splendid opportunity.

Among the new degrees awarded, an honorary degree of Doctor of Oriental Learning was conferred on Hafiz Nazir Ahmed, a well-known Urdu writer and Persian scholar of Delhi. There were 18 Masters of Arts, 163 B.A.'s, 8 B.T.'s, 5 M.Sc.'s, 6 B.Sc.'s, 4 M.B.'s, 66 LL.B.'s.

B.A. and B.Sc. Examination Regulations.—The revised regulations in the B.A. and B.Sc. examinations passed by the Senate of the Punjab University in regard to examination by compartments has been sanctioned. Henceforth any student who has obtained 45 per cent. of the aggregate number of marks but has failed in one subject only obtaining not less than 25 per cent. of marks in that subject may be admitted to the examination of the following year and the year following after that in the subject in which he failed on payment of Rs. 30 fee on each occasion, and if he passes in that subject in either of those years he shall be deemed to have passed the B.A. or B.Sc. degree examination, provided that the candidate continued to read in a college and attended at least two-thirds of the lectures. Such candidates shall not be eligible for scholarships and honours.

Girls' High School at Jullundur.—At the anniversary of Kanya Mahavidyalaya or the Girls' High School at Jullundur maintained by the Arya Samaj, about thirteen thousand rupees including those announced at the Arya Samaj anniversary at Lahore were collected.

Educational arrangements in the Punjab.—The one most prominent and outstanding feature of educational arrangements in the Punjab as evidenced by the report of the Director of Public Instruction for the year 1909-10 is the inadequate progress made in all branches of education. In fact the results detailed in the report amount to little more than marking time. Schools, both secondary and primary, need better houses and more efficient teachers. But sufficient funds are not forthcoming to enable the Director of Public Instruction to meet both these needs. The teachers in primary schools are very poorly paid, in fact a billet in the Education Department in the large majority of cases has no attraction for even the

second best products of the University. Pay is small, and the prospects of future promotion are inadequate.

ALLAHABAD.

Idealism in Education: Lecture by the Rev. C. F. Andrews.—There was a large gathering in the Mayo Hall recently when Mr. C. F. Andrews of Delhi delivered an interesting lecture on "Idealism in Education." The Hon. Pandit Sundarlal, C.I.E., presided. The lecturer said that the title of the subject might seem somewhat strange at first sight, but he would try to explain the exact meaning. The speaker proposed to take his hearers through different great educational periods in the history of the world and try to sketch the educational ideals of those periods and thus explain what seemed to him the lessons which they might learn in India in this twentieth century. He first discussed the Aryan Period—the history of ancient India—and sketched the ideal of education which obtained among the Aryans. Next Mr. Andrews referred to ancient Greece and in conclusion to the present-day education in our country. The speaker explained how the ideal was formed and how it could be improved. The Hon. Pandit Sundarlal said that the lecturer of the night referred to the systems of education as they prevailed in several parts of the world: India, Greece, Rome, Arabia, Oxford, etc. With a vote of thanks to the President proposed by the Rev. Mr. Holland, the gathering dispersed.

Chancellor McCracken at the Allahabad Christian College.—Chancellor Henry M. McCracken (late of the University of New York) has been making an extended tour in the East with a view to studying the educational conditions in eastern countries. He arrived in India only recently and from Calcutta he came to Allahabad where he delivered an address to the students of the Jumna Mission School and later before the Allahabad Christian College on the 5th January 1911. In the course of his speech the Chancellor remarked that he viewed with pleasure that the school connected with the Allahabad Christian College was, just as is the case in America, detached from the college compass, although in the same compound. One great feature of educational work in America was the establishment of Colleges of Pedagogy for the training of teachers in which his work was pioneer endeavour. Education deserved to be treated as a separate science by itself. He believed India's greatest need was education and her young men should consecrate their lives to her service. He informed his audience that graduates of Indian Universities were eligible for admission into the American colleges of Pedagogy and hoped that in the interests of their mother-country, they would take advantage of that facility and thus be the means of furthering the cause of education of the scientific lines in which much attention has been

directed in his country. He held up for their emulation the example of Japanese students, who mustered strong in America for the purpose. The Chancellor further stated that during his recent stay in Calcutta he had occasion to meet the Hon. Mr. Butler when he told him that there was a vast field for educational work in India.

The Maharaja of Kashmir on education for Rajputs.—In the course of his presidential address at the last session of the Rajput Paropakarani Mahasabha held at Allahabad, His Highness said:—"The opening of a Rajput College at this moment is not a luxury which you may easily spare, but is a bare necessity for the elevation of your community which you cannot do without. You have no doubt a number of Chiefs' Colleges, such as Mayo College, Dally College, and others in India, which are very, very admirable institutions for the Rajput chiefs and nobility to receive proper equipment and training for the administration of their own affairs. But the education there is not easily accessible to every one. You want a College which may be able to impart University education to each and every Rajput and of which the scheme of studies should, consistently with the principle from time to time enumerated by the Education Department of the Government of India, embrace branches of knowledge such as medicine, engineering, and industry.

Anglo-Vernacular Middle Examination for Girls.—It is notified that an examination fee will be levied from candidates wishing to appear at the Anglo-Vernacular Middle Examination for girls at the rate of Rs. 2-8-0 each from candidates from a recognized school and that of Rs. 4 each from other candidates, also that the following will be the scale of remuneration to be paid to Examiners employed for the aforesaid examination:—for setting a question paper, Rs. 12; for translating it into the other form, Rs. 6; for marking answer papers for every seven papers, Re. 1.

The "All-India" Moslem League.—The annual meeting of the "All-India" Moslem League was opened at Nagpore, the capital of the Central Provinces, recently.

The dominant note of the meeting, has been the attention paid to education and communal improvement rather than to strictly political matter. The appeal for raising Aligarh College to the status of a University overshadowed the education discussion. The project was brought appreciably nearer practicability by the Aga Khan's promise of a lakh of rupees (£6,666) if the other 19 lakhs should be forthcoming. Much spade work will be necessary at Aligarh and elsewhere before the project becomes feasible. Resolutions were passed favouring women's education, improved scientific and technical instruction, universal, free, and compulsory primary education, and the creation of a Mahomedan educational fund.

Proposed Moslem University.—H. H. the Aga Khan is forming a deputation of Mahomedans to visit the principal centres in India to collect funds for the proposed Moslem University. The Nawab of Rampur and the Begum of Bhopal are likely to accompany the party to Hyderabad.

The Aligarh College.—Nawab Mustaq Hossain, who was about to resign the Secretaryship of the Aligarh College, has decided to continue in the office with a view to developing the Moslem University scheme.

BURMA.

University for Burma.—At a recent meeting the Burmese Educational Syndicate has decided to adopt the report of their Special Committee which had been discussing for the past few months the Draft Bill for the establishment of a Burma University. The matter now goes to the local Government and thence to the Indian Government for approval and sanction. The Special Committee decided to have the University based upon the model of newer University in England. It was proposed that the Rangoon College should form the nucleus whilst the Baptist College and other future Colleges to form the integral part. There are to be a Council and a Senate, the Council consisting of fifty members with a Chancellor, probably being the Lieutenant-Governor, a Vice-Chancellor, the Director of Public Instruction, Principals of Colleges and Schools and representatives of public bodies. The Senate will consist of a smaller body composed of only the Vice-Chancellor, the Principals of Colleges, and Professors in whose hands will lie the discipline of the students management and control of examination, etc. At present the main obstacle in the way of the scheme is one of finance.

Dr. Lucian Scherman, Professor of Munich.—Dr. Lucian Scherman, Director of the Royal Ethnological Museum and Professor in the University of Munich, has arrived in Burma for the purposes of ethnological study and will remain in the province for a lengthy period, making Mandalay his headquarters.

A new Lecturer for Rangoon College.—Mr. F. E. Storrs, B.A., of Radley and Jesus College, Cambridge, has been appointed lecturer in English in the Rangoon College in place of Mr. F. W. Ainsley, who on return from sick leave, will be appointed Principal, Maymyo High School.

TRAVANCORE.

The University Commission.—The University Commission, consisting of Messrs. R. A. Nelson, F. Drewsbury, Odgers, Dr. Swamyathan and Dr. A. C. Mitchell, recently inspected the Law College. The Principal, Mr. F. J. R. V. Hunt, and

all the Professors were present to receive the Commission. The Commission inspected the building, library and the records, etc. All the Professors were introduced to the Commission by the Principal of the College.

The Maharaja's College for Girls.—It is understood that Mr. P. G. Krishna Aiyar, B.A., L.T., of Malabar, is to be appointed as History Tutor of His Highness the Maharaja's College for Girls on a starting salary of Rs. 75 per mensem.

Medical Department appointments.—It is said that six graduates in medicine have applied to the Government for appointments in the Medical Department.

A Higher Grade Girls' School.—It has been decided to open a Higher Grade Elementary School for Girls at Kottarakaray. 62 cents of land are to be acquired for putting up the necessary buildings.

Medical School for Women at Quilon.—It is notified that the date fixed for holding the selection of candidates for the Medical School for Women at Quilon, has been extended to Wednesday the 15th February next. Candidates should send their applications in the form already prescribed so as to reach the Durbar Physician on or before Saturday the 11th February next. Those who have sent in their applications already should send reminders referring to their original applications.

Results of Teachers' Certificate Examination.—The result of the Teachers' Certificate Examination held in November and December last is out. According to the list published, 6 candidates have passed in the English High School Normal Certificate, 7 in the English Middle School Normal Certificate, 9 in the Higher Vernacular Normal Certificate, 36 in the Lower Vernacular Normal Certificate, and 2 in Primary Teachers' Certificate.

The School of Arts.—We learn that the School of Arts will soon be recognized by Government.

COCHIN.

Syrian Girls' School.—The distribution of prizes to the successful students of the Syrian Girls' school came off recently with His Highness the Raja presiding. To the left of H. H., the Diwan and the Diwan Peishcar, and to the right Mr. Pope were seated. An interesting programme of about fourteen items was gone through very creditably. His Highness was particularly pleased with "little things" recited by a mite. The kindergarten occupation was very amusing. The report read by Miss Viegas, the Headmistress

showed that the school was becoming more and more popular. After the distribution of prizes H. H. made a valuable speech. Mr. Pope said a few words on behalf of Miss Viegas who found herself quite unable to find words to thank H. H. for condescending to preside to give away the prizes. H. H. the Diwan, Mr. Pope and the Diwan Peishcar were garlanded and the proceedings came to a close.

The Inter-school Sports.—His Highness the Rajah of Cochin gave away the prizes to the successful students at the Residency grounds on the 23rd instant. His Highness' shield was carried off this year by the Trichur High School. This school also won the Challenge Cup given by Mr. F. S. Davies, and also another Cup given by the old students of the Trichur High School. Mr. Banerji's Cup for the Junior students was won by St. Thomas' High School. A special prize given by Mr. Pailhab Achem, a rich landlord, for the best athlete was presented to Mr. Sauragaracutty, of the Trichur High School. A race from Wadakenchery to Trichur, a distance of 11 miles, between the Police and Nair Brigade, fell to the Police and the first man did it in a little over two hours. The next interesting item, which amused the audience, was a fight between six Policemen and six Nair Brigade men. They were enclosed in sacks up to their necks and each party had to knock down the opponents. In this also the Police proved to be the better men. In a donkey race and tug-of-war between the Police and Nair Brigade, the Police were again successful.

State Scholarships in Cochin.—The Diwan, Mr. A. R. Banerji, has issued the following Order, dated 29th December 1910, Ref. on P. No. 101,86.

The Durbar, are now pleased to select the following candidates for being trained in the various technical departments as enumerated below:—

1. **Account Department.**—Messrs. M. I. Virky, B.A., Tahsildar of the Cochin-Kanayannur Taluk, and K. S. Subramann Iyer, B.A., Chief Auditor in the Account Department, are selected for training in the Accountant-General's Office, Madras, for which application will be made to the Madras Government.

2. **Agriculture.**—I. Rama Menon, B.A., clerk, Diwan Peiscar's Office, is selected for the Agricultural scholarship to be awarded for two years from the beginning of 1917.

3. **Civil Engineering.**—C. Sankara Menon, who passed the F. A. Examination in the first class from the Ernakulam College and who is now studying in the Senior B.A. Class, Presidency College, Madras, will be given a University scholarship without prejudice to the one already current under the endowment founded in 1870, for study in the Civil Engineering College, Madras, soon after he passes the B.A. degree examination.

4. **Female Medical Scholarship.**—U. Pappu Ammal, teacher, Caste Girls' School, Irinjalakuda, is select-

ed for the scholarship for the Hospital Assistant's course in the Royapuram Medical School with effect from June 1911. The two students from Cochin, Miss Paul and Miss Mathew, who are now undergoing the course in the Royapuram School, will be given a stipend of Rs. 30 for the remaining period of their training, if they agree to serve the State as Hospital Assistants after passing the examination.

5. **Soft Wood Industries.**—Suitable candidates are not forthcoming for this scholarship. Selection will therefore be postponed till applications are received from such candidates.

Educational Reforms.—The general scheme of Educational reform recently inaugurated has made itself felt in every nook and corner of the State under the able guidance of the veteran Educationalist, Mr. Pope, in whom the Durbar possesses an officer of ripe experience and mature views. The development of Primary Education, the large increase in the number of pupils in girls' schools and schools for backward classes, the opening of Night Schools for the working classes and the introduction of Industrial and Technical Education, are some of the results which are to be noted with special gratification by Cochinites. The most important changes effected during the year are summarised below:—

- (1) The re-organization of the Normal School for men and women.
- (2) The re-organization of the Inspecting staff and the fixing of their respective jurisdictions.
- (3) The preliminary arrangements for the establishment of a Sanskrit School at Tripunithura for which His Highness the Rajah was pleased to place a sum of money at the disposal of the Durbar.
- (4) The preliminary arrangements for the amalgamation of the Sirkar School at Chittur with the High School under private management.
- (5) The institution of Educational Conferences.
- (6) The preparation of the Educational Code. This is under the consideration of the Durbar.
- (7) The drawing up of complete revised curricula for schools of all grades and types.
- (8) The remodelling of the Text-Book Committee.
- (9) The promulgation of the School Leaving Certificate Scheme.
- (10) The establishment of Night School for working classes.
- (11) The opening of a Central Industrial and Technical School at Trichur, and
- (12) The development of the Hostel system.

Foreign Notes.

GREAT BRITAIN.

Greek in the University of Oxford.—At a meeting of the Conference of English Headmasters, the question of the retention of Greek as a compulsory subject in the various faculties of studies in the University of Oxford came in for a good deal of discussion. The proposal was met with some opposition from some members of the Conference, notably from the Headmaster of Rugby. He objected to it on the score of the difficulty of differentiation in the cases of boys at an early age. But the motion was carried, 22 voting for as against 14 dissentients.

Pensions and salaries of the teaching staff in English public schools.—This was another topic that came for discussion in the Conference of English Headmasters. In England among the 194 Council Schools—only 11 schools started their annum, whereas in Germany it seems to be the rule. And as was observed by Mr. Lyttleton, the Headmaster of Eton, "the average *maximum* in the German States was over £300, without taking into account rent allowances. In several States it was practically £400. In England, out of 185 schools the *maximum* salary in 106 was less than £200; in 70 it was between £200 and £350; in nine only was it over £350. Pensions were found in France, Germany, and Scandinavia; in England, so far as masters in Secondary schools were concerned, they were practically non-existent." And though no practical suggestion was made to obviate these difficulties of English school masters, State aid was hinted at, only without its interference and control.

Sir Philip Magnus, M.P.—Sir Philip Magnus, M.P., has good reason to be proud of his triumphant return as member for London University, inasmuch as he increased his previous majority, although in January he fought against a candidate who was not a member of the University, while on the declaration of the December poll he was able to describe his opponent as "a graduate who had earned a European reputation by his scientific investigations and his great skill as a member of the profession he adorned."

A Professorship of Tropical Entomology.—This is the only one in the world shortly to be established at Liverpool University. The foundation is to commemorate the work of the late Dr. J. E. Dutton, who died of fever while engaged in medical research on the Congo.

AMERICA.

School Directors in America.—*The School Bulletin* of December 1910 gives us some very interesting details about School Directors in America. Two directors have been elected on the 8th of November last, one to hold office till January 1st 1913 and the other till January 1st, 1916. At the general election of 1912 a director will be elected 1st, 1913, and so also another at the general election of 1915. A school director vacates his office by removal from him or by written resignation or by the town failing to elect one. The law requires each school director to take and file the prescribed constitutional oath of office within 30 days after his election. A school director is entitled to receive 2\$ per day for each day of actual service and his necessary travelling expenses. A director should present to the town board for which such director is chosen, a statement of his expenses, and should include in such statement a bill at 2\$ per day for each day's actual service. It is then the duty of the town board to audit such bill.

The directors of the several towns in a district constitute a board of school directors and should meet for organization at 11 o'clock in the forenoon of the third Tuesday in May, 1911 at a place to be notified shortly. At such a meeting they should organize by electing from among themselves a chairman, a clerk and two inspectors of election. They should designate a place for future meetings. The board of school directors should meet at 11 o'clock on the third Tuesday in August 1911 for electing a district superintendent of schools. In this election the voting shall be by ballot and the person receiving a majority of all votes cast shall be elected. Each school director is entitled to one vote in such election.

The clerk of the Board shall keep a record of the proceedings of each meeting and of each election. If a board of directors should fail to elect a district superintendent of schools before January 1st, 1911, a vacancy is deemed to exist in such office and the country judge should then appoint a superintendent of schools who may serve until the board shall fill such vacancy.

The New York system of education.—It is under control of a Board of 11 Regents, each chosen by legislative joint ballot for eleven years. Their executive officer elected by them for life, is the Commissioner of Education, who has more power than any other educative official in the world. He appoints subject to confirmation by the regents, three Assistant Commissioners, who have charge respectively of higher, secondary and elementary education. The immediate control of the schools is vested in trustees of boards or education elected for each school by the voters of the district. The regents have supervision of higher education, as well as of public schools, and no institution may bear the name of college or grant degrees until received under their supervision.

The Educational Review.

It is a very valuable and important document that the Board of Education in England recently issued on "The Teaching of Infant Care and Management in Public Elementary Schools." In his prefatory note Sir Robert Morant points out the reasons for issuing this Memorandum. The Board, we are told, is anxious to direct the attention of members of local education authorities, of managers and of teachers of public elementary schools throughout England and Wales to the great importance of increasing and improving the present inadequate provision in schools for instructing girls in the care and management of infants. Under the instructions of the Board this Memorandum was prepared by their medical department, but it does not aim at furnishing a syllabus for teachers or supplying a series of actual lessons. Its chief aim is to give an indication of the best ways of organizing the instruction of girls in this particular subject together with some hints as to the chief points to be borne in mind in its direction and supervision. Of late there has been much complaint about the high rate of infant mortality in India. The cause of this is no doubt the early age at which our girls become mothers. But if in all-existing "girls' schools and in zenana classes our girls and women could be taught how to take care of infants we might look for some diminution of the high rate of infant mortality. We see no objection why such matters should not be taught even to our boys in the higher forms of secondary schools. The problem of eugenics has become of late so important that every means of diminishing ill-health and suffering should be welcomed.

The attempt of the Board of Education to give girls the necessary training to ward off the large amount of unnecessary ill-health and physical suffering caused by neglect in infancy and childhood is very commendable. This action of the Board of Education of England should serve as an example to the educational departments in the various provinces of India. Under the care and guidance of these departments small and cheap books in the different vernaculars may be issued on hygienic subjects, and the benefit to the country would be immense.

In every province of British India arrangements are being made to establish model high schools.

It was once thought that secondary education must be left to private enterprise and initiative and many Government high schools were handed over to private management. After two decades the Government seems to feel that it has not really discharged its duties towards the people. In all other countries primary and secondary education is entirely under State control. Every school in Germany is a State school. It is the duty of the State to impart education and thereby provide an efficient as well as a highly schooled-generation to take up the duties and responsibilities of both public and private life. If this is really the intention of the Government in the change of policy inaugurated, we heartily welcome the change. Private schools are supposed to have made education cheap, and the spread of cheap education is considered to have made people dissatisfied with their lot. The true aim of education being to make man aspire for something higher, it is not proper to talk of educating the humble man to be contented with his lot. We there-

fore trust that the Government does not contemplate by its change of policy to check the spread of education. However, the raising of fees in Government schools seems to indicate that the Government regards the education given in Indian schools as cheap. The raising of fees in schools is, we think, a retrograde step. With the spread of civilization consequent on the development of science things which were once regarded as luxuries have become necessities and accessible to all. Similarly education which was formerly available only to special communities must be made accessible to all. The fees in private schools may be high but in Government schools, which are supported out of the earnings of the masses and are expected to be attended by the children of all classes in order to better their condition, the fees ought to be sufficiently low. We, for our part, would not object to the Government undertaking the management of all secondary schools, provided that due provision is made for the utilization of indigenous talent and nothing is done to check the spread of education. The aim of these schools should be to educate not the exceptional man alone, but the common man as well—not only the five or six per cent. who will likely follow some of the so-called learned professions, but the ninety per cent. who will be carpenters, mechanics, masons, plumbers, farmers, tradesmen.

The study of science in high schools can be justified only when the pupils gain both knowledge of the subject-matter and training in scientific thinking. Following Herbert Spencer's definition of science as classified knowledge, elementary instruction in physics has for long been so dominated by the teach-

ing of subject-matter that little attention has been given to training in methods of thought. The over-estimation of the value of mere subject-matter and the prevalence of the custom of testing the results of a teacher's work by examinations on a special syllabus, has driven teachers to use methods of teaching which are mainly formal and didactic. Definitions, laws, and principles are simply stated, memorized by the pupils and justified afterwards, if at all, by illustrations in the way of experiments and practical applications.

Both educational experience and educational theory show clearly that scientific facts may be memorized but not mastered in this way. Scientific knowledge is acquired only on the basis of concrete experience by the trying-out process known as the scientific method. Therefore a method of treatment that develops the subject from the concrete experiences of the learner, and gives practice in the framing, testing, and selection of hypotheses appropriate to the solution of definite concrete problems, is the only method that gives mastery of subject-matter. If the study of physics is also to give real training in powers of thought and action, the work in hand should also appeal to the student as being worthwhile. The problems must be such as are significant to him. Then alone the motive that impels the pupil to work will be the desire to solve the problems for the sake of knowing the solutions. It is in overcoming the difficulties with which the solution of scientific problems is beset that one secures real training in power of thought and action. The pupil can be expected to do this only when he has to deal with a problem whose solution is significant to him. The recognition of this fact raises the question whether such topics as the laws of accelerated motion, the absolute

units, and co-efficients of expansion are capable of being presented in such a way that they define significant problems in the mind of the average high school pupil just beginning the study of physics. Both common sense and experience with high school pupils leads us to answer this question unequivocally in the negative. We think that the problem method of teaching will produce beneficial results only when the topics are chosen with a view to comprise the physics which every child should know and not the physics which every physicist must know.

In India at present the English language has become all-in-all in the curricula of schools and colleges. Much valuable time is wasted in compelling every Indian at school and college to study English poetry, authors belonging to various periods of English literature, historical grammar, and the history of English literature. All that an educated Indian needs is a working knowledge of English. We perfectly agree with what the Rev. Professor C. F. Andrews, M.A., has said on this matter. "There are two uses in India," says Professor Andrews, "to which the study of English may be put. First, there is the acquirement of the language for practical purposes. It is the door to higher modern knowledge to-day in India, and in order to study any subject on modern lines, a working knowledge of English is essential. But to use English thus as an instrument of knowledge it is not necessary to read high English classics, such as Bacon or Carlyle; above all it is unnecessary to be acquainted with all types of English from Chaucer to Browning. What is needed is continual practice in composition, an intelligent appreciation of English words,

phrases and constructions, and a facility in rapidly and clearly understanding lucid Modern English Prose. This is what I mean by a working knowledge of English? In order to test such knowledge, examinations would be far more on the lines of essay-writing, composition, paraphrase, &c., and far less on the lines of text-book commentaries with elaborate notes. Secondly, there is a literary knowledge of English, which can only be obtained by reading the English classics for their style, subject-matter, ideas and literary excellence. By such study the student would obtain a first-hand appreciation of the style and sentiments of Burke, the rhythm and cadence of Shelley, to take examples that come at once to the mind. For this second use of 'English,' text-books with notes, commentaries with explanations of the author's ideas, literary histories with accounts of different writers, &c., are clearly needed, and examination questions would be set accordingly. Such a literary study of English might be of great value for a few Indian students, who have high literary tastes and wish to study the literature of the West. But such a study is quite unnecessary for the mastery of English as an instrument by means of which historical or scientific English books may be read. Once more, it is quite unnecessary for the practical services of modern life—for business, commerce, office-work, &c. The bulk of Englishmen themselves do not know their Shelley or Carlyle—why should Indians have to learn them? They would be much more profitably employed in studying the history, philosophy and classics of their own country. It is true a Rash Behari Ghose or a Surendra Nath Banerjee may become Masters of English literary style and show

what wonderful powers of appropriation and assimilation exist in Bengal. But there is no need whatever for the whole Indian educated community to attempt this feat. Indeed such attempts can only lead to denationalisation, when practised, not by master minds, but by men of ordinary talents. It therefore appears to me extremely important to limit the study of English to what is practically useful and to remodel all English examinations with this end in view. English should be learnt in a modern way, just as business Englishmen or Japanese learn German or French. Formal grammar would almost disappear—for English is not a synthetic language like Sanskrit and has no more grammar than Hindustani. Phrases, constructions, language idioms, &c., would assume a prominent place; and good, simple, accurate composition on the one hand, and intelligent paraphrasing on the other, would be the final test of proficiency. 'English literature'—an entirely different subject—might indeed be made a 'special subject' for the B.A., but I should foresee dangers in allowing even this, and would not advocate it, lest it should tempt men to desert more profitable and national subjects for a study which, after all is said and done, must remain foreign and exotic." This is a consummation devoutly to be wished, but would the Universities come to our aid in achieving this end?

At the London County Council Conference of Teachers, Mrs. Bryant, Headmistress of the North London Collegiate School, read a very interesting paper advocating a certain degree of specialization on the part of every member of the staff of a school. She considers that there is something artificial in a school where every teacher teaches every-

thing. In a condition of free growth a school develops from a minimum of specialization in the subjects taken by each teacher towards a state in which all progressive teachers specialise more or less. Specialization does not mean limitation entirely to one subject; still less does it mean one teacher, one subject, all the teacher's life. The men who teach one subject only all their life are specialists in a special sense when their subjects are not only large in extent but multiple in the nature of the subject matter they comprise. There is, however, a specialization open to the humblest holder of a pass degree or a teacher's certificate. 'For all sorts of reasons,' says Mrs. Bryant, 'teachers have the ability and an impulse to specialise and to vary their speciality. To learn a new thing and then have an audience to talk to and make talk about it—this is the joy of the teacher who is (not merely was) a student also. Moreover, the learners share the joy and are stimulated thereby.' The advantages of limited specialization are many. Each teacher can take a larger share in the work he or she is best fitted to teach. The scholarship of the teaching staff is raised, and therewith that of the learners, ideas become more accurate, inquiry more thorough, interest more real, curiosity more lively and fresh. The teacher becomes a student and to little children the reality of this makes all the difference. The good teacher is always finding some new problem and always solving it. The personal influence brought to bear upon the child becomes varied, as the child's real acquaintance with many members of the staff creates the sense of belonging, not to the class merely, but to the larger whole of the school. The employment of specialists to teach different subjects is not uncommon in our high schools, but we are not sure our

teachers view specialization from the broad standpoint of Mrs. Bryant.

One of the most interesting features of modern education is the interchange of school children. The interchange of school children is the surest method of teaching them the language of the country to which they are sent, not to speak of the other advantages that will result from residence abroad. A special society has been founded for the international exchange of school children, and its work is said to be rapidly progressing. Whether such a thing would be possible in India in the near future is doubtful. We are in matters educational almost a century behind other countries. Between Germany and the United States there is frequently interchange of professors. Professor W. Ostwald was lecturing in an American University a few years ago, and last year Professor Carl Runge was in America. Would it be difficult to have an interchange of professors between England and India or interchange of teachers between the various provinces of India and thus give opportunities for travel and acquaintance with other countries. If interchange is good for children, it is much more so for teachers, especially in a country like India notorious for the exclusiveness of its various communities.

A Conference of the Directors of Public Instruction of the various provinces of British India and the representatives of various public bodies will, it is notified, soon meet under the aegis of the newly-appointed Member for Education of the Imperial Council for the purpose of considering the question of free and compulsory primary education. We have in these columns frequently laid stress upon the imperious necessity of imparting free and compulsory education. Every civilized country has a system of compulsory primary education. The exotic character of the Government of India makes it inordinately costly and thus disables it from undertaking measures for improvement which would have been supposed natural and urgent in any other country. Compulsory elementary education and a system of military conscription will help in many ways to remove the defects in the character of the Indians and make them rise more rapidly in the scale of nations than at present. We hope therefore that something very practical would come out of the Conference that is soon to meet.

An educational conference and exhibition were recently held at Guntur. The Conference was opened by the acting Director of Public Instruction with an address. As we have not before us the details of the sittings and the exhibition we reserve our comments to the next issue.

EXTRACT FROM THE SPEECH OF HIS HIGHNESS THE MAHARAJAH GAZEKWAR
OF BARODA RECENTLY DELIVERED AT ALLAHABAD.

His Highness spoke as follows in the course of his reply to an address presented to him by the Hon'ble Pandit Sunder Lal on behalf of the citizens of Allahabad :—

Another fact which I wish to bring to your notice is this that education, especially Primary Education, is of paramount importance. Unless there is education for everybody in India, there can be no real progress. Here the local Government is trying to teach its cultivators some of the modern methods and improvements. They are people who can neither read nor write, people who cannot, many of them, even count. They cannot be expected to sympathize with the aims and objects of the organizers of the Exhibition. You must prepare the people by education, even by compulsory education, though it be of the most elementary kind. I am a great believer in compulsory education, and I should like to impress this upon you that education is the very backbone of progress. In China, Japan and other countries you will find how much they have done in this respect. India deserves greater endeavours than have yet been made on that behalf.

There is a third subject on which I wish to speak, though some of you might not think it wise to refer to it in this sacred city. That is the Liberalization of Religion. In our old history, Religion has shifted from time to time. It is not yet time that Religion should once again grow a little more liberal. It is not necessary for me to say anything beyond these few words because a hint is quite sufficient, and the question is full of delicacy and difficulty.

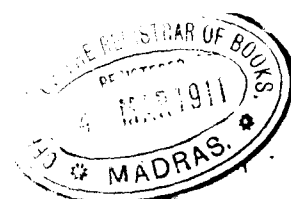
Another subject is the position of women in India as compared to those of other countries. If you want to go ahead, you must improve the condition of your women. We have rendered the half of our population useless, nay, not only useless but mischievously useless, because they actually hinder progress instead of co-operating towards it. Well, they are not to be blamed for that. It is we men who are to be blamed for not having educated them, not having taught them to know better. If you want to carry yourselves towards the goal of progress, you must carry your women with you. You must allow them to enter into the full life of a woman. Before they are expected to learn anything, to know anything even, they are married, they to have enter into a

state of wedlock. The time has come when, you should boldly set your shoulders to the task and change all this.

One of the things you have referred to in your address is the foundation of libraries.

Gentlemen, you know I have introduced compulsory education, and I can say that it is progressing as well as it can or as it could. There are great difficulties of course, the greatest of which are perhaps unseen. But all difficulties are in our path merely that we may get over them. We had difficulty for want of teachers. We started a training school, and allowed men to enter it on condition that they would turn out teachers; and in the course of a few years we shall have quite a large amount of teachers ready to enter into their work. Well, another difficulty was that the effect of a short education was not likely to last long. We have started institutions to remove that also, and many libraries have been founded. Libraries are considered so important in the West that it is one of the duties of a State to maintain some. The libraries in Baroda number over twenty-five hundred, and their number will increase largely in the future. We are also considering how to afford State help to such useful institutions. Unless such institutions are spread, the little education given will be thrown away. I am trying to do so in Baroda; but besides them, something like clubs can also be established in villages where men can meet and talk about their ideas.

These are the ideas in my mind, and if they are not realized, it will not be because I do not wish to realize them, but because there are difficulties unseen. We may live abroad and live abroad for a long time, but there are certain traits, certain characteristics, and institutions which proclaim us to be one. Whether we come from Punjab or Bengal or from Barma, we have a common character, which is the basis of a common nationality. Well, gentlemen, I need not tell you that we Indians, whether we live in the Native States or in British territory, have common aims and common interests. Such is my belief, and although we live under separate local Governments, our interests are identical, and it is our duty and our interest that we should combine with each other in our endeavours towards progress.



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LANGUAGE TEACHING.

II.

(Continued from page 2.)

ONE reason why the analytical method fails in actual use is the fact that language is very often irrational "in the way it combines words into sentences—in its synthesis. If language were perfectly rational in this respect, we should be able to handle words like the nine digits in arithmetic, and combine them into sentences at pleasure by applying a few simple grammatical rules."—(SWEET). This is what we do when we compose in Sanskrit, but we must remember that Sanskrit scarcely deserves the name of a speech because the tradition of its idiom, if it existed at all, has not been handed down to our day. Combinations of words like 'How do you do,' 'never mind,' 'I could not help being late,' 'kudirai pidungikundu ōditru,' 'bazāru cheyya vellutām,' whose meaning cannot possibly be synthesized from that of the elements are marks of a living, growing, changing language and get lost when languages die. It is because the analytical method is incapable of dealing with such locutions that the English of Indians is so frequently learned but unidiomatic.

The revolt against the analytical method has led enthusiastic reforms to advocate what

is called the natural method by which children learn their own language. This natural method is in many cases but the want of any system or method. True, children learn their mother-tongue 'naturally' and without any method, but they learn so little of the language and that in so much time. Children's brains are incapable of generalization and abstraction and have but little powers of abstraction. Therefore the method by which pupils at school can profitably learn a foreign language must necessarily be somewhat different from the 'natural' method of children. Moreover the school teacher may be assumed to be more expert at teaching than the mother and may use methods which aim at a more rapid acquisition of language than is possible to children learning it naturally at home.

The unit of speech is not the word but the sentence; therefore in a rational method of studying languages, sentences should be "grasped and studied as wholes, instead of being separated into words, and put together like pieces of Mosaic."—(SWEET). When the use of a sentence-frame, e.g., 'This is a—,' is clearly grasped, a few words which can be illustrated by showing the objects they name or by gestures or by pictures and which can be inserted in the sentence-frame, may be taught. Otherwise the memorizing of lists

of isolated words is as irrational as the old-world method of beginning the study of Sanskrit by committing to memory the Nighantu.

Very often even the sentence is not the unit of speech. It is not every sentence, isolated from its context, that yields sense, just as a word apart from its context may be ambiguous, so, too, the meaning of a sentence may be ambiguous when it is detached from its context. Hence the aim from the beginning should be to base the teaching of language on connected texts. These will also furnish the pupil with that degree of interest which will stimulate the brain and prevent it from becoming tired—a certain result of the mechanical memorizing of isolated words, phrases and sentences. It now remains for us to discuss (1) whether these 'connected texts' should at the same time present the etymological and syntactical phenomena in any definite order, providing for the constant repetition of the more frequently occurring ones, or whether these phenomena should be presented higgledy-piggledy, as in the Readers in use at present; (2) whether such texts should also follow a definite syllabus of subjects, depending on the future requirements of pupils for higher study and for life. But these questions may profitably be now deferred and the other question taken up—What are the stages into which the rational method requires the study of English in our schools and colleges to be divided.

P. T. SRINIVAS IYENGAR.

(To be continued).

THE TEACHING OF ENGLISH COMPOSITION.

I. INTRODUCTION.

THE importance of essay-writing as an essential part of any well-thought out scheme of collegiate or scholastic education is often lost sight of in this country. Adequate recognition has not been bestowed on its great value as an exercise to the mind and its immense usefulness in almost all the learned professions. One of the most melancholy sights in the educational world, is the youth, who after staying for years at school, displays absolutely no ability in expressing his ideas, at least in a clear and correct manner. That a long course of study in a language, should fail to impart this capacity to the student, is a grave disappointment and no educational system will ever be fairly complete without remedies being applied to this evil.

A similar complaint is heard in England where educationists have come to a recognition of its great value only in recent years. Even now the attention bestowed on it would not seem to be appreciable. In a publication entitled, *The Writing of English*, by Mr. P. J. Hartog, issued by the Oxford Clarendon Press, the author lays down two astonishing propositions which have however met with the sad approval of some distinguished teachers of English in Britain. 'The English boy cannot write English and the English boy is not taught to write English,' he declares calmly, and proceeds to maintain his standpoint by affording proofs which have come within the range of his actual experience. The position would seem to be better in France where a graduated system of teaching the subject is in vogue in all the public

schools. The genius of the French language seems to be specially congenial for the teaching of the principles underlying elegant prose composition and it must be a long time before English youths are trained in similar surroundings.

The conditions are necessarily worse in this country, where the language is a foreign tongue in all the schools and is not at all in the hands of competent teachers of the subject. A capacity for the appreciation of the beauties of literary excellence and an analysis of its basic principles, is a gift which few teachers in this country seem to possess. It is hardly necessary to add that a real and practical acquaintance with the difficulties of composition is never attempted by the average teacher. The results have therefore been so poor, that the most ardent of educationists have been chilled and the newspapers have repeatedly quoted the miserable performances of the students in the examinations. We here refer not merely to the poor results that have been achieved in the High School—we also take note of the little success that has attended even instruction in the college department. There is no knowing what the kind of English the average graduate might not write, what fine susceptibilities he might not shock, and what compassion he might not excite by the crudity and poverty of his efforts in wielding the King's English.

This is due as much to an absence of the knowledge requisite in the teacher for the purpose, as to want of sufficient attention in the routine of the school, both in point of time and in the *personnel* of those entrusted with the work. A satisfactory training in the art is supposed to come with the allot-

ment of one or two hours in a fortnight, for the exercise, the students being left in the charge of some member of the staff, without any reference to special qualifications. If specialisation is necessary in any branch of instruction, composition has claims of an extraordinarily pressing nature. Its principles are too subtle to be explained in text-books. A knowledge of its difficulties, and an appreciation of the secrets of success in the line, do not come by a reading of books, but are acquired only by a thoroughly practical acquaintance. It may be granted that a University man, in whatever subject he might have specialised, will be able to detect in a student's composition plain grammatical mistakes and other patent errors. But the correction of essays in any language requires a special training. It is only the scholar, with a profound acquaintance with the masters of style, and with some claims to literary expression on his own part, that can discharge the work in a useful manner. There are less patent but not less grievous faults of styles which must fail to make any impression on the amateur—irregularities of idiom, incoherence of thought, looseness of structure, want of elegance and grace, and a number of other imperfections, the absence of which contributes largely to the beauty and excellence of composition. Essay-writing like painting or music, is a delicate art, which requires a specialist for a proper exposition of its guiding principles and subtle beauties. It is impossible even in colleges to get persons who have won any distinction in the world of letters, but every effort must be made to assign the task to persons specially qualified for it.

The subordinate position to which composition is relegated is probably due to the want of a recognition of its value in all branches of

education. It is not in the composition paper alone that the student is benefited by such a training. Success in composition aids very effectively the work of achieving good results in the ordeal of examinations. Examiners in almost all subjects have often found it necessary to cool down their appreciation of a student's exhibition, owing to his poverty of expression. He fails to convey his ideas with adequate fullness and force; he is unable to draw pointed attention to his statements; and it is not rarely, that he mars his answer by a hopeless want of correct expression. A close scrutiny of examination papers of even other than language subjects that have been valued, will disclose the fact that the number of marks assigned to each paper has not been based entirely on the correctness of ideas. The present writer has repeatedly heard, teachers of Science and Mathematics even in the college department, complain of the bad English of their students. The phenomenon of students outstripping others, who are better prepared for the ordeal, but are lacking in powers of composition, is always to be observed in the class-room.

It is a pleasure to see that at least as far as collegiate education is concerned, the Madras University has been in recent years, paying more and more attention to composition. Apart from the importance paid to it, as a subject by itself, it enters largely into other subjects, the question-papers in the examination making a large demand on its help. The recent change in the syllabus of the Intermediate Examination, providing for instruction in some of the principles of composition, is also noteworthy. The regulation suggests that the students must be made familiar with the paragraph as a unit of composition; the sentence as a constituent portion

of the paragraph; the period and the loose sentence; unity, balance and emphasis in relation to paragraphs and explicit references to preceding paragraphs as securing coherence in an essay.

This solicitude to see that the student is trained in an appreciation of the principles of rhetoric and composition, is not at all extravagant. Ability in the art of expression is found necessary, not merely in the enviable regions of literary pursuits, but in almost all the learned professions. Rhetoric is no longer the easy road to fame, as it was in ancient Greece and Rome, when Demosthenes and Cicero could make empires tremble by a display of their powers. But who can deny that such merits are required in the lawyer and politician of the present day, and even the clerk in public offices is expected to attain to a fair degree of ability in the art?

If it be insisted that all valuable forms of intellectual training should enhance the charm of instruction, by a discreet addition of pleasure, there need be no hesitation in saying that exercises in essay-writing afford such means admirably. The student feels genuine pleasure in exercising the faculty of composition and as the periods shape themselves into paragraphs, the paragraphs speed into pages, and the finished essay rises before the student's eyes, he has a satisfaction and glow of joy, to which all those who have watched him at work can bear ample testimony. The production is probably full of mistakes of grammar and idiom. It does not certainly lay the least claim, to originality or research. In his most vain moments, he is not lulled into the belief that he is widening the bounds of knowledge, but he proudly surveys the fruit of his labours and at least before it is subjected to the merciless dis-

section of the teacher, it is looked upon as a triumph. This is probably not true of some incorrigible children of idleness who are to be found in almost any class-room, but the fairly good student owns to such a feeling.

The student of literature might probably be reminded of a passage in Hazlitt, *On the Pleasures of Painting* where he condemns the difficulties of this exercise in contrast to the pleasures of the sister art. But it is only the innocent and playful confession of a good-humoured friend, rather than an adverse criticism of this species of literary occupation. 'I have not much pleasure' he says, 'in writing these essays, or in reading them afterwards; though I own, I now and then meet with a phrase that I like, or a thought that strikes me as a true one. But after I begin them, I am only anxious to get to the end of them, which I am not sure I shall do, for I seldom see my way a page or even a sentence beforehand; and when I have by a miracle escaped, I trouble myself little more about them. * * * * *

For a person to read his own works over with any great delight, he ought first to forget that he ever wrote them. Familiarity breeds contempt. It is in fact, like poring fondly over a piece of blank paper: from repetition, the words convey no distinct meaning to the mind—are mere idle sounds except that our vanity claims an interest and property in them. I have more satisfaction in my own thoughts than in dictating them to others: words are necessary to explain the impression of certain things upon me to the reader, but they rather weaken and draw a veil over, than strengthen it to myself. However I might say with the poet, 'My mind to me a kingdom is,' yet I have little ambition, 'to set a throne or chair of state in the understandings of other men.' The ideas we cherish most exist best in a kind of shadowy abstraction,

Pure in the last recesses of the mind.'

While sympathising with Hazlitt in these sombre experiences, the critic must readily admit that there is a real enjoyment felt by the student in his production. The spectre of a public, the trials of the printing-house and the dread of a monstrous critic do not haunt his imagination and he is free to revel in the apparent glories of his essay.

It is unfortunate that opposition has sometimes to be encountered by advocates of its importance, even from distinguished authorities on education. Dr. Bain, in his educational work, '*On Teaching English*,' considers that there are serious advantages counter-weighing the benefits of class-room exercise in composition. His serious objection to essay-writing being done in class is that it is a mixed exercise—partly an exercise in style and partly an exercise in knowledge or thought—and must therefore, be avoided as a subject of teaching. It is true that the principle of concentrating attention upon a single purpose must be kept in view in every educational scheme. But what Dr. Bain fails to see is that the advantages accruing from exercise in essay-writing far outweigh the evils—if there are any, of violating this educational principle. Instruction in a language cannot be comprehensive and sound if the important aspect of composition is ignored. The principle has to be violated—even it be as important as Dr. Bain considers it to be—in the interests of sound education. Though the teaching of the subject is attended with practical difficulties, and though it is not quite easy to get competent teachers for the work, the subject itself is so important that it is hoped it will receive at the hands of our educationists greater attention than it has been its privilege to receive till now.

P. SESHADRI.

NOTES OF A LESSON ON GEOMETRICAL ANALYSIS.

CLASS—IV HIGH.

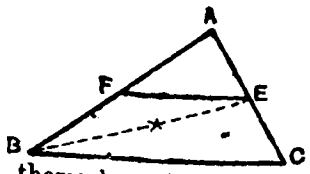
Apparatus:—Coloured chalk, mathematical instruments; the students to have their own boxes of geometrical instruments.

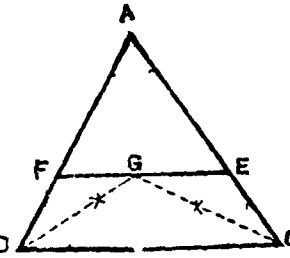
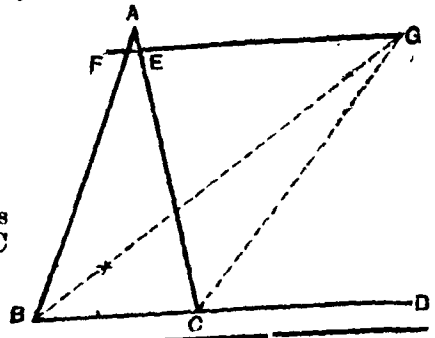
TIME—One school period.

Aims, General:—(1) To cultivate the powers of reasoning and judgment in the students.
(2) To train their hands and eyes by making proper use of the instruments.

Special:—(1) To familiarise them with the method of discovery in Geometry.
(2) To teach them the riders given below.

Previous Knowledge:—The class knows Synthetic Demonstrations in Geometry.

HEADS.	MATTER AND METHOD.
I. Preparation.	Draw the diagram of the Theorem of Pythagoras on the B.B. and with the help of the class draw the lines required in the Demonstration. Educe that the reason for drawing these lines is not clear to the beginner at the outset. Infer that. In the way in which propositions are solved in the text-book, the reasons for the various constructions are not evident to a student. Tell them that we shall study to-day the why of constructions in certain cases.
II. Presentation.	Suppose it is required to draw a straight line FE parallel to the base of the triangle ABC, meeting the sides AB and AC in F, E; such that $FE = FB$.
(a) Idea.	Draw the triangle ABC on the B.B. and let the students also draw the figure in their copy books. Tell them to draw the diagram approximately correct, and suppose that the required line FE is drawn. Join EB. By means of suitable questions elicit that $\begin{aligned} \therefore FE &= FB \\ \therefore \angle FEB &= \angle FBE \\ \text{Again } \therefore FE &\parallel BC \\ \therefore \angle FEB &= \angle EBC \\ \therefore \angle FBE &= \angle EBC \\ \therefore \angle ABC &\text{ is bisected.} \end{aligned}$ 
(b) Term ANALYSIS.	Educe that they have found out themselves how to do the proposition.
(c) Definition.	This method is called the method of Discovery or <i>Analysis</i> . Geometrical Analysis is the method of the discovery of the solution of problems or theorems. Next let them prove the proposition in the manner of the text-book.
SYNTHESIS.	Bisect the $\angle B$ by BE meeting AC in E. Through E draw EF parallel to BC. Then FE shall be the required line. This may be compared to the building work of a mason, and is consequently called the method of building up the proof or <i>Synthesis</i> . Synthesis is the method in which we begin with something known, and end with something required to be done.
2nd Exercise.	Now let us suppose that in the above triangle the line FE is such that it is $= BF + CE$.

HEADS.	MATTER AND METHOD.
	N.B. The figure to be drawn as accurate as possible by drawing the line FE low. Suppose that FE is the required line $\begin{aligned} \therefore FE &= FB + CE. \\ \therefore \text{From FE we can cut off a part } FG &= BF \\ \therefore \text{The remaining } GE &= EC. \\ \text{Join BG, and GC.} \\ \therefore FB &= FG \\ \therefore \angle FBG &= \angle FGB \\ \text{Again } \therefore FG &\parallel BC \\ \therefore \angle FGB &= \angle GBC \\ \therefore \angle FBG &= \angle GBC \\ \therefore G &\text{ lies on the bisector of } \angle B. \end{aligned}$ 
	Similarly G lies on the bisector of $\angle C$. $\therefore G \text{ lies where these two bisectors meet.}$
	Synthesis:—Bisect the angles B, C respectively, and from the point where these bisectors meet draw $FGE \parallel BC$. Then FGE shall be the required line.
	From the comparison of the above-solved two exercises educe that in Analysis— (1) We should draw the diagram in accordance with the enunciation and suppose the solution effected. (2) Then we should consider one of the given conditions and trace back the consequences of this assumption to some problem or theorem already learnt by examining lines and angles, etc., given in the diagram. Similarly deal with the other conditions. (3) If unsuccessful, we should attack the problem from another point. Such attempts are extremely useful in acquiring a thorough grasp of the subject and sometimes they lead to the discovery of other problems.
3rd Exercise.	In the above figure suppose that FE is to be drawn $\parallel BC$ in such a way that it may be equal to $BF - EC$. Analysis:—Suppose that the required line FE is drawn. N.B. The diagram should be made as neat and accurate as possible. Elicit by suitable questions that, as in the 2nd Exercise, EF should be produced to G and made $= BF$. Join GB. $\begin{aligned} \therefore FG &= FB. \\ \therefore \angle FGB &= \angle FBG \\ \text{Again } \therefore FG &\parallel BC \\ \therefore \angle FGB &= \angle GBC \\ \therefore \angle FBG &= \angle GBC \\ \therefore \angle B &\text{ is bisected.} \\ \text{Again } \therefore FG &= FB; \text{ and FE is the difference between BF and EC} \\ \therefore EG &= EC. \\ \therefore \angle EGC &= \angle ECG. \\ \therefore EG &\parallel BC \end{aligned}$ 

HEADS.	MATTER AND METHOD.
III. Association.	$\therefore \angle EGC = \angle GCD$ [D being on BC produced] $\therefore \angle ECG = \angle GCD$. or the exterior angle C is bisected. Synthesis:—Bisect the angle B and the exterior $\angle C$; and from the point G where the bisectors meet draw $GEF \parallel BG$. Then GEF is the required line. Contrast the two methods. ANALYSIS. Proceeds from consequences to principles. The method of discovery. Mode of investigation. Method of resolution. INDIRECT. Reasons of steps intelligible. Revise the main steps of the lesson. Analysis in the solution of problems. Let them do the following analytically:—Construct a triangle having given the perimeter and the angles.
IV. Visualisation.	SYNTHESIS. Begins with something given and ends with something required. Mode of exposition. Method of instruction. Method of composition. DIRECT. Steps arbitrary and mysterious. Impress the importance of
V. Application.	

BLACK-BOARD SUMMARY.

In the way in which the propositions are solved in Geometry, the why of the construction is not apparent.

Geometrical Analysis is the method of discovery of the solution of problems. The following directions are useful in Analysis:—

1. Draw the diagram in accordance with the enunciation and assume the solution effected.
2. Then consider one of the given conditions and trace back the consequences of this assumption to some problem, or theorem already learnt by examining other conditions. Combine the results so deduced.
3. If unsuccessful, attack the problem from another point. Such attempts are extremely useful.

SHIV DAYAL.

MATHEMATICS.

[Conducted by B. KRISHNAMACHARI, M.A.]

148. [M. M. VENKATACHARIAR.] A circle is described to touch the circumcircle of a triangle opposite to angle A, and the arms containing the angle A. Show that its radius $= r_1 \sec^2 \frac{A}{2}$, with the usual notation.

Solutions by P. S. Sundaram Aiyar, B.A., L.T., S. Sitarama Rao, N. S. Ramanatha Iyer, and D. P. Varadaraja Iyengar, B.A., L.T.

Let I_1 be the centre and r_1 the radius of the required circle.

In the triangle SAI_1 , $SA = R$; $\angle SAI_1$

$$= \frac{B - C}{2}.$$

$SI_1 = R + r_1$ ($\because$ the circle touches the circumcircle).

$$\text{Hence } (R + r_1)^2 = R^2 + AI_1^2$$

$$- 2R(AI_1) \cos \frac{B - C}{2}$$

$$\text{and } AI_1 = \frac{r_1}{\sin \frac{A}{2}}$$

$$\therefore R^2 + r_1^2 + 2Rr_1 = R^2 + \frac{r_1^2}{\sin^2 \frac{A}{2}}$$

$$- 2R \cdot \frac{r_1}{\sin \frac{A}{2}} \cos \frac{B - C}{2}$$

$$\therefore r_1 \left(\frac{1}{\sin^2 \frac{A}{2}} - 1 \right) = 2R \left(1 + \frac{\cos \frac{B - C}{2}}{\sin \frac{A}{2}} \right)$$

$$= \frac{r_1}{\sin^2 \frac{A}{2}} \text{ where } r_1 \text{ is the radius of the es-}$$

cribed circle opposite to A.

$$\therefore r_1 = \frac{r_1}{\sin^2 \frac{A}{2}} \cdot \tan^2 \frac{A}{2} = r_1 \sec^2 \frac{A}{2}.$$

XVII

149. [M. M. VENKATACHARIAR.] An equilateral triangle is inscribed in a circle, again a circle is inscribed within the triangle; again an equilateral triangle within that circle; and so on *ad inf.* Represent the sum of the circumferences and the areas of these inner circles in terms of the circumference and the area of the outer circle.

Solutions by P. S. Sundaram Iyer, B.A., L.T., P. Parasuram, P. Rangnatha Iyer, B.A., L.T., P. V. Krishnier, M. S. Sundaresawaran, D. P. Varadaraja Iyengar, B.A., L.T., T. S. Gopala Krishna Iyer, B.A., and N. S. Ramanatha Iyer.

The radius of the incircle of an equilateral triangle $= \frac{1}{2}$ the radius of the circumcircle.

$$\therefore R = 2r, \text{ or } r = \frac{1}{2}R.$$

$\therefore$ the sum of the circumferences of the inner circles is

$$2\pi \left(\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \dots \right) R = 2\pi R, \text{ the}$$

circumference of the outer,

and the sum of the areas

$$= \pi \left(\frac{1}{4} + \frac{1}{16} + \frac{1}{64} + \dots \right) R^2$$

$$= \frac{1}{4} \pi R^2, \text{ i.e., } \frac{1}{4} \text{ area of the outer circle.}$$

150. [M. M. VENKATACHARIAR.] By using the test of divisibility for 11, find a method by which the remainder when a number is divided by 11, can be easily found (as in the case of 2, or 3, or 4, or 9, or 25).

Solutions I. by T. Sundara Rao, B.A., and D. P. Varadaraja Iyengar, B.A., L.T.; and II. by M. S. Sundaresawaran, S. Sitarama Rao, and S. R. Venkateswara Iyer.

A number is divisible by 11, when the sum of the digits in the odd places plus ten times the sum of the digits in the even places is divisible by 11.

In other words, a number is divisible by 11, when the number being divided into groups of two digits, the sum of the numbers so formed is divisible by 11.

Therefore when the given number is not exactly divisible by 11, the remainder is obtained by dividing the sum abovementioned by 11.

EXAMPLE.

	573829	758392
Sum of the digits in the odd places	24	10
Ten times the sum of the digits in the even places	100	240
	124	250
	$= 11 \times 11 + 3 = 22 \times 11 + 8$	
Ans.	3	8

Again $29 + 38 + 57 = 124$, $92 + 83 + 75 = 250$.

Or we can add together the remainders obtained by dividing by 11 the number formed by every set of two digits in succession.

In the first case $7 + 5 + 2 = 14 = 11 + 3$.

In the second case $4 + 6 + 9 = 19 = 11 + 8$.

ANOTHER METHOD.

A number is divisible by 11 when the difference between the sums of the digits in the odd places and of those in the even places is zero or a multiple of 11.

If the sum of the digits in the odd places is greater than the sum of the others, the remainder obtained by dividing the difference by 11 is the remainder required.

If the sum of the digits in the odd places is less than the sum of the others, the complement of the difference with reference to the unit higher multiple of 11 is the remainder required.

	573829	758392
Sum of the digits in the odd places	24	10
Do. in the even places	10	24
Difference	14	-14
Ans.	$14 - 11 = 3$	$22 - 14 = 8$

II. Let N be a number and D , considered positive, the difference between the sum of the digits in the odd places beginning with that in the units place and the sum of the digits in the even places.

Then if D is $+ve$, $N - D$, or if D be $-ve$, $N + D$ is a multiple of 11.

Hence the remainder obtained by dividing N by 11 is D itself or what remains when it is divided by 11 if D be $+ve$, whereas if D be $-ve$, it is $11 - D$ or $11 -$ the remainder obtained by dividing D by 11.

151. [M. M. VENKATACHARIAR.] The bottom of a mine is reached by two inclines, the first 234 ft. long, with a fall of 3 yds. for every 25 yds. along the incline; the second 516 ft. long, with a fall of 1 yd. in every 6 yds. along the incline. What would be the shortest distance between the top of the mine and the point where the lower incline meets the bottom?

Solutions by P. S. Sundaram Iyer, B.A., L.T., and T. S. Gopalakrishna Iyer, B.A.

The sum of the vertical heights of the two inclines is the required answer.

The first vertical height is $234 \times \frac{3}{25} = 28.08$ ft.

The second do. do. $516 \times \frac{1}{6} = 86$ ft.

$\therefore$ the total height..... is 114.08 ft.

152. [M. M. VENKATACHARIAR.] S, S' are the circumcentres of triangles ABC, AOC where O is the orthocentre of triangle ABC . Show that $ASCS'$ is a rhombus.

Solutions by T. S. Ramaswami Iyer, B.A., L.T., P. Runganatha Iyer, B.A., L.T., R. Krishnier, B.A., D. P. Varadaraja Iyengar, M. S. Sundareswaran, P. Parasuram, S. Sitarama Rao, P. V. Krishnier, T. S. Gopalakrishna Iyer, B.A., S. R. Venkateswara Iyer, and N. S. Ramanatha Iyer.

The angle AOC is supplemental to $\angle ABC$.

And if B' is a point on the circle AOC on the side opposite to B , then the angle AOC is supplemental to $\angle AB'C$.

$\therefore \angle ABC = \angle AB'C$ and the base AC is the same.

$\therefore$ the circle $ABC =$ the circle AOC .

$\therefore$ the radii are equal; hence $ASCS'$ is a rhombus.

153. [K. KRISHNAMACHARI, B. A.] If two of the odd numbers, between any two given

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numbers have the greatest common measure; show how to find the two numbers.

Solution by T. S. Gopalakrishna Iyer, B.A.

The G. C. M. of odd numbers is an odd number and since the numbers are odd they are odd multiples of the G. C. M.

Hence to get the less of the two numbers we have simply to find the odd multiple of the G. C. M. which is greater than and nearest to the less of the two given numbers and to get the other, find the odd multiple of the G. C. M. which is nearest to and less than the greater of the two given numbers, e.g., if 501 is the G. C. M. and the two given numbers are 10000 and 20000 the required numbers are 10521 and 19539.

154. [K. KRISHNAMACHARI, B. A.] If α, β, γ be the roots of the equation $x^3 - px^2 + qx - r = 0$, show that α, β and γ represent the dimensions of a rectangular parallelepiped, the sum of whose edges is $4\Sigma\alpha$, the surface $= 2\Sigma\beta\gamma$ and the volume $= \pi\alpha$.

Solution by M. S. Sundareswaran, D. P. Varadaraja Iyengar, B.A., and N. S. Ramanatha Iyer.

If α, β, γ be the dimensions of a rectangular prism and if its sides be produced so that each side is the same (*) and the cube be completed, $x - \alpha, x - \beta, x - \gamma$, would be the dimensions of a rectangular prism diagonally opposite to the original one. This prism is what remains when from the whole cube we exclude the prisms $\alpha\beta\gamma, x^3\alpha, x^3\beta, x^3\gamma$ and include those whose volumes are $x\alpha\beta, x\alpha\gamma, x\gamma\alpha$.

$$\therefore \pi(x - \alpha) = x^3 - px^2 + qx - \gamma.$$

If $x^3 - px^2 + qx - \gamma = 0$, one of the dimensions of the prism, viz., either $x - \alpha$, or $x - \beta$, or $x - \gamma$ would be zero.

i.e. x would be equal to one of the dimensions of the prism.

155. [K. KRISHNAMACHARI, B.A.] Show that the arc of the circum-circle intercepted between the perpendiculars drawn from any two

vertices of a triangle to the opposite sides, is bisected at the third vertex.

Solutions by P. Runganatha Iyer, B.A., L.T., D. P. Varadaraja Iyengar, B.A., S. Sitarama Rao, T. S. Ramaswami Iyer, B.A., L.T., M. S. Sundareswaran, P. V. Krishnier, T. S. Gopalakrishna Iyer, B.A., P. Parasuram, N. S. Ramanatha Iyer, and S. R. Venkateswara Iyer.

The $\perp$ through A meets Bb at D and the $\odot^c$ at F and the $\perp$ through B meets Aa at E and the $\odot^c$ at G .

$\therefore AEDB$ are concyclic $\therefore \angle EAD = \angle EBD$ that is $\angle CAF = \angle GBC$. $\therefore$ arc $CF =$ arc CG .

156. [N. S. RAMANATHA IYER.] Express $(a^2 + b^2)^n$ in the form $m^2 + n^2$ where m and n are two algebraic expressions prime to each other.

Solution by S. Sitarama Rao.

Suppose $b^2 = -x^2$. So that $(a^2 + b^2)^n = (a^2 - x^2)^n = (a + x)^n (a - x)^n = \{a^n + c_1 a^{n-1} x + c_2 a^{n-2} x^2 + c_3 a^{n-3} x^3 + \dots + c_{n-1} a x^{n-1} + x^n\} \times \{a^n - c_1 a^{n-1} x + c_2 a^{n-2} x^2 - c_3 a^{n-3} x^3 + \dots + (-1)^{n-1} c_{n-1} a x^{n-1} + (-1)^n x^n\} = \{a^{2n} + c_2 a^{2n-2} x^2 + \dots + x^{2n}\} + x \{c_1 a^{2n-1} + c_3 a^{2n-3} x^2 + \dots\} \times \{(a^n + c_2 a^{n-2} x^2 + \dots) - x(c_1 a^{n-1} + c_3 a^{n-3} x^2 + \dots)\} = (a^{2n} + c_2 a^{2n-2} x^2 + \dots)^2 - x^2 (c_1 a^{n-1} + c_3 a^{n-3} x^2 + \dots)^2 = (a^n - c_2 a^{n-2} x^2 + \dots)^2 + b^2 (c_1 a^{n-1} - c_3 a^{n-3} x^2 + \dots)^2 = (a^n - c_2 a^{n-2} b^2 + \dots)^2 + (c_1 a^{n-1} b - c_3 a^{n-3} b^3 + \dots)^2 = m^2 + n^2.$

157. [N. S. RAMANATHA IYER.] Of all quadrilaterals of the same area the square has the least perimeter; and of all quadrilaterals of the same perimeter the square has the greatest area.

Solutions I. by D. P. Varadaraja Iyengar, B.A., S. Sitarama Rao and P. S. Sundaram Iyer, B.A., L.T.; II. P. Runganatha Iyer, B.A. L.T.

I. From Q. 158 below it follows that the area of any quadrilateral can be increased without altering the length of any of the sides by making it concyclic.

Hence if the perimeter be given the quadrilateral must be concyclic to be the maximum and then $s^2 = (s-a)(s-b)(s-c)(s-d)$.

Here the sum of the four factors $= 4s - 2s = 2s = \text{const.}$ If $a+b+c+d$ is constant, the product is maximum when $a=b=c=d$.

$\therefore S^2$ is maximum when $s-a = s-b = s-c = s-d$, i.e., when $a=b=c=d$.

Thus the figure is a concyclic rhombus, i.e., a square.

Let ABCD be a quadrilateral having a given area.

Then keeping the $\triangle ACD$ fixed, the point B may be moved in a line parallel to AC without altering the whole area while the perimeter will be least when $AB=BC$.

Thus to have the least perimeter, the figure must be a rhombus. Then area of the rhombus $= x^2 \sin A = \text{a constant}$ and the perimeter $4x$ will be least when x is least, i.e., when $\sin A$ is greatest, that is when $A = 90^\circ$.

Hence the figure is a square.

II. Let ABCD be a quadrilateral of the given perimeter.

Join AC. Then if AB, BC be not equal, let ABC be an isosceles triangle with the same perimeter as ABC.

Then, then area of triangle ARC is greater than that of ABC and therefore the area of the fig. ARCD is greater than the area of ABCD.

Hence when the polygon is greatest, each consecutive pair of sides must be equal, i.e., the quadrilateral must be equilateral. Since the sides of an equilateral polygon of given number of sides and of given perimeter are of fixed lengths, it

follows that the quadrilateral is greatest when it can be inscribed in a circle, that is, when it is equiangular.

$\therefore$ The quadrilateral is a square.

158. [N. S. RAMANATHA IYER.] Of all quadrilaterals whose sides are four given straight lines a, b, c, d , that quadrilateral which is also cyclic has the greatest area.

Solutions I. by P. Runganatha Iyer, B.A., L.T., D. P. Varadaraja Iyengar, B.A., T. S. Ramaswami Iyer, B.A., L.T. and M. S. Sundareswaran.

II. by S. V. Ramanatha Iyer, S. Sitarama Rao, and P. V. Krishnier.

I. Area of the quadrilateral $S^2 = (s-a)(s-b)(s-c)(s-d) - abcd \cos^2 \frac{A+C}{2}$.

$\therefore$ Since a, b, c and d are given, S^2 will be max. when $\cos^2 \frac{A+C}{2} = 0$ as the first term is constant, that is when $\frac{A+C}{2} = 90^\circ$, that is when $A+C = 180^\circ$, that is when the quadrilateral is concyclic.

II. Let ABCD be the position of maximum area of a quadrilateral whose sides are a, b, c, d .

Let $ABC'D'$ be a consecutive position keeping AB fixed and having $BC' = BC$, $AD' = AD$ and $CD = C'D'$.

Let AD and BC meet in E; then because $AD = AD'$,

the angle ADD' is ultimately a right $\angle$ $\therefore$ also EDD' is a right $\angle$ and ultimately $ED = ED'$.

In the same way, $EC' = EC$ ultimately, and $CD = C'D'$.

$\therefore \angle DEC = \angle D'EC'$ and $\triangle ECD = \triangle EC'D'$ $\therefore \angle DED' = \angle CEC'$.

Again in the limit, the area $ABCD = ABC'D'$ $\therefore$ by addition.

$\triangle EAB = \text{area } EC'D'AD'$

Taking away the common part $EBAD'$, we have, the $\triangle EAD' = \triangle DBC'$

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And an angle AED' of the one = the $\angle BEC'$ of the other.

$\therefore EA \cdot ED' = EB \cdot EC'$

$\therefore$ ultimately, $EA \cdot ED = EB \cdot EC$.

$\therefore$ ABCD are concyclic

159. [S. SITARAMA RAO.] The line of collinearity of the middle points of the diagonals of a complete quadrilateral is perpendicular to the line of collinearity of the orthocentres of the four triangles.

Solutions I. by M. R. Nadkarni.

II. by P. V. Krishnier, and P. S. Sundaram Iyer, B.A., L.T.

I. Lemma: If the base of an isosceles triangle ABC be produced to D then $DA^2 - AB^2 = DB \cdot DC$. Let FBCE be the quadrilateral, BF, CE meeting in A, and FE, BC meeting in D. Let O, O' be the orthocentres of triangles ECD, EAF. Let OE, O'E cut BC, BF in N and M and let OC, O'F meet AC in K and L respectively, (perpendiculars of course since O, O' are orthocentres). Let G, H be the middle points of the diagonals CF, and BE in order.

Then, G is the middle point of the hypotenuse CF of the right-angled triangle CLF; $GF = GL$. By lemma therefore,

$$OG^2 - FG^2 = OF \cdot OL$$

Similarly $OQ^2 - GC^2 = OC \cdot OK$ ($\because GC = GK$)

$\therefore$ Since $GC = FG$,

$$OG^2 - OG^2 = OF \cdot OL - OC \cdot OK \\ = OM \cdot OE - ON \cdot OE$$

(Euc. III. 36) ... (1)

Again, $O'H^2 - EH^2 = OM \cdot OE$

(Since $HM = HE$)

$$OH^2 - EH^2 = ON \cdot OE \quad (\because HN = HE)$$

$\therefore OH^2 - OH^2 = OM \cdot OE - ON \cdot OE$... (2)

Hence $OG^2 - OG^2 = OH^2 - OH^2$.

Thus the perpendiculars from G and H on OO' meet OO' in the same point, i.e., GH is perpendicular to OO' .

II. This follows from the solution of problem

57. The line of collinearity of the orthocentres

is there proved to be the radical axis of the circles described on the three diagonals as diameters; it should therefore be perpendicular to the line of centres of the co-axial system.

QUESTIONS FOR SOLUTION.

187. [M. R. NADKARNI.]

Prove that the orthocentres of the four triangles of a complete quadrilateral lie on a straight line.

188. [M. R. NADKARNI.]

If ABCD be a quadrilateral circumscribing a circle with centre O, then the common chord of circles round OAC, OBD and OEF (where EF is the 3rd diagonal) is the symmedian of the respective triangles, the symmedian vertex being O in each case.

189. [S. V. RAMANATHA IYER.] Explain the following rule to find the day of the week corresponding to any date of a month in any year, say the 18th of June 1815 (Battle of Waterloo).

Add together the number representing the year (1815), the number of days from the 1st January up to the date (inclusive) where day of the week is to be found [169] and (the number representing the year $- 1$) $\div 4$ leaving off the remainder $1814 \div 4$ or 453. From the sum of 1815, 169 and 453 (2437) subtract the number of years which end in centuries and which are not leap years such as 100, 200, 300, 500, etc., up to the year wherein we have to find the day of the week [2437 - 14 or 2423]. Divide the result by 7. If there is a remainder one the day of the week is a Sunday, if there is a remainder two the day of the week is a Monday, etc. If there is no remainder the day of the week is a Saturday. In the present case dividing 2423 by 7, we get the remainder 1. Therefore the Battle of Waterloo took place on a Sunday.

190. [R. KRISHNA IYER, B.A.] From a point P draw a line PQR such that the intercept QR between two given lines AB, AC, is equal to a given length.

191. [R. KRISHNA IYER, B.A.] A and B can do a work in 8 days: they work for 2 days, when B leaves; but C joins and they work together for 3 days when B rejoins and the whole is finished in $1\frac{1}{2}$ days more. In how many days can A, B, and C together finish the work?

192. [R. KRISHNA IYER, B.A.] AB, AC, AD are three given lines. Locate an equilateral triangle PQR such that the three vertices of it shall each lie on the three given lines respectively.

193. [G. V. TELANG.] X is the isotomic conjugate of the incentre with respect to a triangle ABC. AX, BX and CX meet the sides BC, CA and AB in L, M and N respectively. If MN meets BC in L', NL meets CA in M' and LM meets AB in N', show that the circles on LL', MM' and NN' as diameters intersect on the line joining the circumcentre to the centroid of the triangle ABC. (Suggested by Question 87).

194. [G. V. TELANG.] Two circles touch each other internally or externally. A triangle ABC is inscribed in one of them. Tangents AA', BB' and CC' are drawn to the other circle. Show that of the rectangles AA'·BC, BB'·CA and CC'·AB one is equal to the sum of the other two.

By means of the converse of this proposition, prove that the nine points circle touches the in and ex-circles of a triangle.

195. [G. V. TELANG.] The in-circle of a triangle ABC touches the side BC at D; E and F are the middle points of BC and AD.

Show that EF passes through the incentre I and prove that $IE:IF=BI:IC:AI:ID$.

196. [G. V. TELANG.] In the sides AB and AC of a triangle ABC (?) points X and Y are taken such that $BX=CY$. Find the locus of the point of intersection of BY and CX and also that of the middle point of XY.

197. [M. BHIMASENA RAO.] ABC is an equilateral triangle and P any point on the circumcircle of ABC. Show that

(i) Lines through A, B, C parallel to BP, CP, AP intersect in a point Q and lines through A, B, C parallel to CP, AP, BP intersect in another point R.

(ii) Q and R lie on the circumcircle of ABC.

(iii) The triangle PQR is equilateral.

(iv) A circle can be inscribed in the triangles ABC and PQR.

(v) The polars of A, B, C with respect to the triangle PQR and the polars of P, Q, R with respect to the triangle ABC co-intersect in the common median point of the triangles.

(vi) Project the above orthogonally and deduce that if a point S be found on the circumcircle of any triangle ABC such that lines through A, B, C parallel to BS, CS, AS are concurrent, the polar of S with respect to the triangle ABC passes through the median and the symmedian points of the triangle.

The point S is called the Steiner point of the triangle ABC.

198. [M. BHIMASENA RAO.] The points of concurrence in Question 166, are respectively the isogonal conjugates of the centres of perspective of ABC and the triangle formed by joining the internal points of contact of the escribed circles with the sides; and of ABC and the triangle formed by joining the points of contact of the inscribed circle with the sides.

These centres of perspective are called the Nagel point and the Gergonne point of the triangle ABC. [M'cdelland's Geometry.]

199. [V. VENKATA SATYANARAYANA.] Find a point such that the feet of the perpendiculars drawn from it to the sides of a given quadrilateral may form a parallelogram.

How many solutions can be got? In what case can we get only one solution? Is there any case in which the solution is impossible?

Name one point satisfying the given condition when the quadrilateral given becomes cyclic.

200. [V. VENKATA SATYANARAYANA.] OAB is a sector of a circle whose centre is O and $OA=OB=AB$. A circle is described upon one of the bounding radii (OA) as diameter. Show how to describe another circle having its centre on the other bounding radius (OB) and touching the bigger circle internally and the smaller circle externally.

201. [V. VENKATA SATYANARAYANA.] Two circles intersect having their centres on the same side of their common chord. Show how to inscribe a circle within the area common to the two circles, having its centre on a given diameter of the smaller circle. How many solutions are possible? When can there be only one solution?

202. [V. VENKATA SATYANARAYANA.] What is the locus of a point which moves so that the sum of the squares on the lines joining it to the vertices of a given triangle may be equal to a given square. Find the minimum value of the given square.

203. [V. VENKATA SATYANARAYANA.] Find the locus of a point, so that the sum of the squares on the lines joining it to the angular points of a given quadrilateral may be constant. Find the minimum value of the

constant so that the construction may be possible.

204. [V. VENKATA SATYANARAYANA.] Construct a triangle having given the bisector of the vertical angle and the median through the vertex, in length, and the difference of the base angles.

205. [V. VENKATA SATYANARAYANA.] AB is a diameter of a given circle. Find the locus of the centre of another circle of given radius, which moves so that the sum of the squares on the tangents drawn to it from A and B may be equal to AB^2 .

205. [M. R. NADKARNI.] Give a geometrical construction for finding a length equal to $\sqrt{2 + \sqrt{2 + \sqrt{2}}}$ inches and also one equal to $\sqrt{2 + \sqrt{2 + \sqrt{2 + \sqrt{2 + ad inf.}}}}$ inches.

206. [M. R. NADKARNI.]

If $\cos A = \tan B$
 $\cos B = \tan C$
 $\cos C = \tan A$, } find the magnitudes of the 3 angles.

207. [M. R. NADKARNI.] Express $\sqrt{2 - \sqrt{6 + 3}}$ as the ratio of 2 linear functions of $\sqrt{2 + \sqrt{3}}$.

208. [M. R. NADKARNI.] Give a geometrical construction for dividing a given angle into 2 parts such that the sum of their cosines may be equal to a given quantity C; what are the greatest and least values that C can have? Do the latter part also geometrically.

209. [D. P. VARADARAJA IYENGAR, B.A., L.T.] Solve geometrically the equations

$$x^2 + xy + y^2 = a^2,$$

$$y^2 + yz + z^2 = b^2,$$

$$z^2 + zx + x^2 = c^2,$$

and hence deduce the algebraical method of solution.

Notice to Correspondents.

S. R. Venkateswara Iyer.—Solution to Question 130 has already appeared in the *Review* for September 1910.

LORD MORLEY ON LANGUAGE
AND LITERATURE.

RELATION OF SCIENCE AND LETTERS.

ADDRESS TO THE ENGLISH ASSOCIATION.

As President of the English Association, Lord Morley of Blackburn delivered an address at the annual meeting on the 27th January last on "Language and Literature." The Theatre of the Civil Service Commission, Burlington-gardens, in which the meeting was held was scarcely large enough to accommodate the crowd of men and women which assembled to hear him. He spoke for an hour, and the address was followed throughout by the audience with close attention and great delight.

Mr. A. H. D. Acland (Chairman of Committee) presided, and among those present were:—

Sir Frederick Pollock, Mr. Krishna Govinda Gupta, C.S.I., Professor C. H. Firth, Mr. and Mrs. Frederic Harrison, Lord and Lady Reay, Mrs. Cobden Unwin, Mrs. Alec Tweedie, Mr. Richard Whiteing, Mrs. W. K. Olifford, Miss E. E. Constance Jones (Girton College), Miss M. J. Tuke (Bedford College), Miss Higgins (Holloway College), Mrs. Bryant (North London Collegiate School), Mr. John Bailey, the Master of the Temple and Mrs. Woods, the Provost of University College, Professor W. P. Ker, Professor Hugh Walker, Mr. Justice Hamilton, and Lady Hamilton, Canon G. C. Bell, Mr. A. P. Graves, Professor J. W. Mackail, Mr. G. L. Bruce, Sir Theodore Morison, Sir John Struthers, Mr. Sidney Lee, Dr. J. G. Kenyon (British Museum) and Miss Elizabeth Lee, Secretary of the Association.

LORD MORLEY'S ADDRESS.

Lord Morley, who was received with cheers, said:—I owe you my warm thanks for the honour you have done me in choosing me to be your President for the year. Along with my gratitude goes a very keen sense that I can contribute nothing to the special educational objects that your Association exists to promote. Personally I cannot remember that I was ever taught English. At school I once competed for an English prize poem without success, but not without an encouraging compliment from the Headmaster that my heroic poem contained the promise of a sound prose style. I shall not

attempt to stake a part, though as a constant learner I cannot but take an interest in the various controversial points connected with English teaching that figure in your transactions. They are important, they are full of life, of experience, and of real enthusiasm. They open new problems for what is, after all, if we look at it in all its bearings, the most responsible of professions. It is not for me to instruct teachers in their own arduous business. Whether the teaching of English is overmethodized, whether grammatical terminology should be uniform, whether in English grammar gender should cease to be recognized, or, at any rate, should not be emphasized, whether a sentence containing a subordinate clause is to be called a simple sentence; whether future perfect in the past is the right name for a certain tense—of all those and many others I am sure that they touch points of real significance both for scientific analysis of language, and for teaching habits of accurate distinction which mark the difference between slovenly and orderly minds.

THE TEST OF GOOD WRITING.

I have heard of one singularly attractive writer of my generation now dead who used to teach his pupils that the true test of good writing lay in the adverbs. Adjectives, he said, usually took you little further than the expression of broad characteristics; it is the adverb that displays the delicacy of the thing, and a precise use of the adverb is the sure sign of a truth-loving mind. This, I admit, strikes me as rather a subtle flavour but such matters are for experts, and for this afternoon you will allow me to let them slumber. An observation of your secretary's struck me as hitting the real mark of your proceedings. She says of a certain author that he takes us into that atmosphere of beauty, more or less frequent excursions, but which are necessary to help us to endure what she calls the rush of life and the enforced ugliness of much of our surroundings. Grammar, philology, rules of rhetoric are indispensable apparatus. They are a worthy exercise for careful, ingenious, and erudite minds. But all this technique is only a means of access to these treasures of our literature, that in the old famous words are with us in the night, and in the hurry of the prime, stir youth and refresh age, adorn success and to failure furnish shelter and consolation.

It is no trifling concern that exercises your Association, no art of abstruse pedagogics, no pedantry, like Carlyle's favourite example of the

fiery grammarian who cried out against his rival, 'May Heaven eternally confound you for your theory of the irregular Greek verbs.' The case has been explicitly opened at least in one of its parts in the rather startling sentences with which Mr. Hartog some three or four years ago began his excellent little book on the "Writing of English." The sentences were four—the English boy cannot write English, the English boy is not taught to write English, the French boy can write French, the French boy writes French because he is taught. On Mr. Hartog's plan for applying French methods to English scholastic circumstances, I can venture on no opinion. If there is substance in the first two of his propositions the significant thing is not merely that the boy cannot write and is not taught to write English, but the sort of indifference implied in such a stare of facts in the general atmosphere to one of the noblest of tongues, and in these days far the most widely-spread and far the most powerful of tongues.

I was asked the other day how many members of Parliament had ever read a page of Milton's "Areopagitica." I wonder I would not too confidently answer even for another place. Your object is to get both parents and teachers to shake off his indifference, whatever it amounts to, for it may be that even teachers are not always animated by delight, which among the elect falls little short of passion, for the glorious literature they have to teach. I do not mean that people do not care for books and libraries. The evidence is all decisively the other way. But the library without the school is of as little avail as schools would be without the library. A library is a labyrinthian maze without a clue to one who has never been trained. I will not say systematically, but even in the elements of English language and literature.

ENGLISH AS A UNIFYING AGENT.

I called English the most widespread of living tongues. Surely not the least stupendous fact in our British annals is the conquest of a boundless area of the habitable globe by our English language. There is no parallel. You have been told here, I see, that Arabic is or has been our rival. This is a proposition that needs far deeper limitations and qualifications than I can either set forth or examine. Arabic scholars assure me that though Arabic in Islamic lands for some three or four centuries became the medium for an active propagation of ideas, and though by the Koran it retains its hold in its own area, and keeps in its literary as distinct from its spoken form, the stamp of thirteen

centuries ago, yet there is no real analogy or comparison with the diffusion of English. Latin is a better analogy. Latin was universally spoken pretty early in Gaul, Britain, Spain, and somewhat later in the provinces on the Danube. In the East it spread more slowly, but by the Antonines and onwards the spread of Latin was pretty complete, even in Africa. Greek was common throughout the empire as the language of commerce in the fourth century. St. Augustine tells us that pains were taken that the imperial state should impose not only its political yoke but its own tongue upon the conquered peoples, *per pacem societatis*.

This is what among other things, is slowly coming to pass in India. Though to-day only handful, a million or so, of the population use our language, yet English must inevitably spread from being an official tongue to be a general unifying agent. An Englishman who adds to the glory of our language and letters will deserve Cæsar's grand compliment to Cicero, declaring it a better claim to a laurel crown to have advanced the boundaries of Roman genius than the boundaries of Roman rule. Whether Julius was sincere or insincere, it is a noble truth for us as well as for old Rome.

THE HUGE AUGMENTATION OF READERS.

Looking at contemporary conditions, what is there to strike us? We cannot miss the leading fact that two enormous changes have come to pass within the last two generations. One is the rise of physical science and invention into reigning power through the whole field of intellectual activity and interest. The other is the huge augmentation of those who know how to read and who have come under the influence of books. Or shall we say of printed matter? For if we were to judge from the legions who travel by rail, literature, means too often books that are no books and only a mere or less respectable provision for wasting time. The Headmasters of Eton a year ago told you boldly that we live in an age when there is the greatest abundance of bad literature that ever was known in any country in the world, the cheapest and most accessible bad literature. On the other hand, it is quite true, and much to the point, masterpieces are now, in cheap form, finding a market to overwhelming numbers. One well-known series, now numbering 500 volumes, has in five years had a gross sale of seven million copies, with no sign of decrease. The world's classics from Oxford count for many of their heroes a sale of 100,000 and an average between

50,000 and 60,000. Let us add that even in the cheapest daily journals no book of serious worth ever goes without a notice, handling it with a degree of competence that not so many years ago was only to be found in half a dozen expensive weeklies. Add on the same side the extension, popularity, and success of public libraries, encouraging as these facts are in every way. Still let us face the unpleasant reflection that if one of the main objects of education must always be to strengthen the faculty of continuous and coherent attention against that tendency to futile and ignoble dispersion which confuses the brain and enervates the will, then are we sure that the printing press might be blessing as it is, cannot be counted a blessing without alloy.

What is to be the effect upon the great, the noble, the difficult art of writing? The writer of either prose or verse is not, and cannot be, independent of surrounding atmosphere and a responsive audience. Even the sublimest genius, whose dawn upon the world seems like an accident, out of all range of knowable cause or condition even he is carried upon the stream of time and circumstance. We all know how French was shaped into its extraordinary perfection in the social influences of the greatest of French Courts. How will our own English fare amid the swelling tides of democracy? So far if anybody thinks that some oddities of diction or tricks of affection in construction, or invention of ugly words or revival of worn-out and inappropriate old ones, that these vicious fopperies show signs of creeping in, it is rather from above than below; from who ought to know better than those who have had little chance of knowing.

LETTERS AND SCIENCE.

This wholesale admission, then, of the principle of universal franchise, male and female, into the world of letters is one mark of our new time. Now let me offer a few words on the effects of the relations of letters and science. We may obviously date a new time from 1859, when Darwin's Origin of Species appeared, and along with two or three other imposing works of that date launched into common currency a new vocabulary. We now apply in every sphere, high and low, trivial or momentous, talk about evolution, natural selection, environment, heredity, survival of the fittest, and all the rest. The most resolute and trenchant of Darwinians has warned us that new truths begin as rank heresies and end as superstitions; and if he were alive to see to-day all the effects of his victory on daily

speech, perhaps he would not withdraw his words. That great controversy has died down, or at least takes new shape, leaving, after all is said, one of the master contributions to knowledge of nature and its laws and to man's view of life and the working of his destinies.

Scientific interest has now shifted into new areas of discovery, invention, and speculation. Still the spirit of the time remains the spirit of science and fact and ordered knowledge. What has been the effect of knowledge upon form, on language, on literary art? It adds boundless gifts to human convenience. Does it make an inspiring public for the master of either prose or verse? Darwin himself made no pretensions in authorship. He once said to Sir Charles Lyall that a naturalist's life would be a happy one if he had only to observe and never to write. Yet he is a writer of excellent form for simple and direct description, patient accumulation of persuasive arguments, and a noble and transparent candour in stating what makes against him, which, if not what is called style, is better for the reader than the finest style, can be. One eminent literary critic of my acquaintance finds his little volume on earth-worms a most fascinating book even as literature. Then, although the controversial exigencies of his day affected him with a relish for laying too lustily about him with his powerful flail, I know no more lucid, effective, and manful English than you will find in Huxley. What more delightful book of travel than the "Himalaya Journals" of the great naturalist Hooker, who carried on his botanical explorations some sixty years ago, and happily is still among us?

Buffon, as man of science, is now, I assume, little more than a shadow of a name, and probably even the most highly educated of us know little more about him than his famous pregnant saying that the style is the man—a saying, by the way, which really meant no more than that, while Nature gave the material for narrative, it is man who gives the style. Yet the French to this day count him among the greatest of their writers for order, unity, precision, method, clearness in scientific exposition of animated nature, along with majestic gifts of natural eloquence. And anybody who as orator, preacher, professor, seeks guide and stimulus for trying the grander effects upon an audience might do much worse than read Buffon's long renowned and influential "Discourse on Style." Even less ambitious people will find in it much that is useful and admirable, provide only that we are not drawn to imitate. May I note that Buffon keeps clear of

the mortal sin of trying to produce with the instrument of prose, effects that are by all the natural laws of language reserved for the domain of poetry, or, in other words, of asking from any art whether words, colour, or form, effects that are beyond its resources. Then comes the greatest of all. Whatever the decision may be as to the value of Goethe's scientific contribution, this, at least, is certain, that his is the most wondrous, the unique case of a man who united high original scientific power of mind with transcendent gifts in flight, force, and beauty of poetic imagination.

THE POETS AND SCIENCE.

As for science and the poets, only the other day an attractive little book published by Sir Norman Lockyer shows how Tennyson, the composer of verse unsurpassed for exquisite music in our English tongue, yet followed with unflagging interest the problems of evolution and all that hangs upon them. Whether astronomy or geology—terrible muses, as he well might call them—inspired the better elements of his beautiful work, we may doubt. An English critic has had the courage to say that there is an insoluble element of prose in Dante, and Tennyson has hardly shown that the scientific ideas of an age are soluble in musical words. Browning, his companion poet, nearly universal in his range, was too essentially dramatic, too independent of the scientific influences of his day, too careless of expression, to be a case much in point. Tennyson said of him, he had power of intellect enough for all of them, "but he has not the glory of words." Whether he had or not, science was not responsible.

I should like to name in passing the English poet who, in Lowell's words, has written less and pleased more than any other. Gray was an incessant and a serious student in learned tongues; and his annotations on the "System of Nature," by Linnaeus, his contemporary, bear witness to his industry and minute observation as naturalist. On a page of the first volume he has transcribed some Greek words about our dumb friends. We ought to feel, says Aristotle, no childish dislike at inspecting even the humblest living creatures, for in them, too dwells something marvellous; I bid you enter with confidence, for even here is the divine. It is pleasant to associate these humanities with the author of the poem, of which I am still bold enough, with your leave, to say that it has for a century and a half given to greater multitudes of men more of the exquisite pleasure

of poetry than any other single piece in all the glorious treasury of English verse.

Now let me take a contemporary the other way. Gabriel Rossetti, a true poet, if not a great one, very firmly declared himself not at all sure that the earth really revolved round the sun. He even aggravated this scandalous position by asking, what, after all, did it matter whether it moved or not. But then Rossetti was not like other poets, painters, or plain men. I once happened to meet him on the evening of a General Election, and was thunderstruck to find that he was not aware of the immense event shaking the world around us. He added by-and-by that he did not suppose it made much difference whether Whig or Tory won. A greater poet than himself was with us, and shared the Laodicean humour; I forget who won the election, nor do I recollect exactly what difference it did make, if any.

In prose fiction was one writer of commanding mind, saturated with the spirit of science. Who does not feel how George Eliot's creative and literary art was impaired, and at last worse than impaired, by her daily associations with science? Or would it be truer to say—I often thought it would—that the decline was due to her own ever-deepening sense of the pain of the world and the tragedy of sentient being? She never looked upon it all as *ludibrium humanarum* the cruel sport of human things. Nor could she dismiss it in the spirit of Queen Victoria's saying to Dr. Benson, about the follies and frivolities of Vanity Fair:—"Archbishop, I sometimes think they must all be mad." The theatre was too oppressive for George Eliot. The double stress of emotion and thought, of sympathy and reason, wrought upon her too intensely for art. She could not, as virile spirits should, reconcile herself to nature. It needed all her native and well-trained strength of soul to prevent her, science or no science, from being crushed by the thought in Keats's lines how men sit and hear each other groan, how earth is full of sorrow and leaden-eyed despairs.

HISTORY'S BURDEN OF FACT.

Let us look at the invasion of another province by the spirit of the time. The eager curiosity of all these years about the facts of biology, chemistry, physics, and their laws has inevitably quickened the spread both of the same curiosity and the same respect, quickened by German example, for ascertained facts into the province of history. We live in the documentary age.

New sources emerge and new papers are daily dragged to light. In the history of Great Britain alone documents are every year brought almost in barrow-loads to the grateful student's door. Sacred archives everywhere are being unsealed. Whether all this be new truth or falsehood not every explorer can be quite sure. But the dilemma is now fixed by fate and literary fashion, which is itself a kind of fate. A fabric of inspiring narrative built on foundations of quicksand, on the one side; on the other, a fear some jungle of minute detail, every regiment in every battle numbered, every hour accounted for, every turn of diplomatic craft tracked. Is this over-burden of recorded fact a misfortune for modern history? How hard to move with freedom under it! Is the pure scientific impulse—to tell the exact truth with all the necessary reservations—easy to combine with regard for artistic pleasure?

I have been reminded that Renan, who possessed both scientific and artistic instinct, somewhere wishes that he could use polychromatic ink, so that he might indicate the subtle shades of doubt that belong to each adjective and adverb. How distracting to the ordinary reader, who loves firm line and bold colour! What would have become of the splendours of Carlyle's "French Revolution," if he had followed the scale and method of his "Frederick the Great"? It is an interesting guess that a good scholar, familiar with the two ancient languages and with French, could read Gibbon's authorities in five years. The actual mass of print and manuscript through which Ranke, or Gardiner, must have fought his way can hardly have been less than five or six times as bulky. This is the labour of a lifetime. Form as form is buried alive.

THE PERIL OF THE DOCUMENTARY AGE.

Some critics insist that the rarest beauty a style can have is to resemble speech. Others put it in another way, that if you are content to give exactitude to the spontaneous thought, then power and grace enough will follow. Taine says the disappearance of style is the perfection of style. If these schools are right, Gibbon's writing will hardly please and there have been many whom as style it does not please. Be that as it may, Gibbon's unsurpassed greatness as historian lies not at all in his selection of words or the fall of his sentence, but in majesty of historic conception, in superb force of imagination, in the sustained symmetric grandeur of his design. And here is the peril of the documentary age.

The English writer of our own immediate time, with the fullest knowledge and deepest understanding of the fact and spirit of history, would, I think, be pronounced by most critics with a right to judge to be the late Lord Acton. His learning has been called by learned men a marvel. Nor did it ever loosen his hold on practical life, for he was one of the fortunate beings who are all of one piece. His mind, notwithstanding a rather puzzling union within the reserved precincts of theology of submission to authority with his vehement passion for individual freedom, was still a complete whole. May I read to you how Mr. Bryce in 1883 once heard from him late at night in his library at Cannes explain in what wise a history of liberty might be made the central thread of all history? "He spoke for six or seven minutes only; but he spoke like a man inspired, seeming as if from some mountain-summit high in air; he saw beneath him the far-winding path of human progress from dim Cimmerian shores of prehistoric shadow into the fuller, yet broken and fitful light of the modern time. The eloquence was splendid, but greater than the eloquence was the penetrating vision that discerned through all events and in all ages the play of those moral forces now exciting now destroying, always transmuting, which had moulded institutions, and had given to the human spirit its ceaselessly changing forms of energy. It was as if the whole landscape of history had been suddenly lit up by a burst of sunlight."

Acton's was a leading case where knowledge and profundity was not matched by form. His page is overloaded, he is often over-subtle, he has the fault, or shall I call it the literary crime, of allusiveness and indirect reference—he is apt to put to his reader a riddle or a poser, and then to leave him in the lurch. When all this is said, even in his severest chapter you will find some of the pregnant, luminous, and stimulating things, that are the very heart and soul of good literature. It sometimes occurs to me that if those faithful disciples of his were to make a selection of these deep sayings of their master, they would produce an anthology of historic wisdom that might well deserve a favourite place even with the reader whose whole library does not go beyond a couple of shelves. Meanwhile, here is Acton's own account of the historian's direct debt to the methods of science:—"If men of science owe anything to us," he says, "we may learn much from them that is essential. For they can show how to test proof, how to secure fulness and soundness in induction, how to restrain and employ with safety hypothesis and analogy. It is they

who hold the secret of the mysterious property of the mind by which error ministers to truth, and truth irrecoverably prevails."

THE QUALITIES OF STYLE.

I find in Sir James Murray's Dictionary—a splendid triumph for any age—that I am responsible for having once called literature as the most seductive, deceiving, and dangerous of professions. That text demands a longer sermon than your time allows. If any of you reject my warning, impatient as I confess myself of over-doing precepts about style, let me urge you, besides the fundamental commonplaces about being above all things simple and direct, lucid and terse, not using two words where one will do—about keeping the standard of proof high, and so forth—let me, commend two qualities—for one of which I must against my will, use a French word—*Sanity* and *Justesse*. *Sanity* you know well at least by name. *Justesse* is no synonym for justice; it is more like equality, balance, a fair mind, measure, reserve. Voltaire, who, whatever else we may think of him knew how to write, said of some great Lady; "I am charmed with her just and delicate mind: without *Justesse* of mind there is nothing." You must curb your ambition of glory, of writing like Carlyle, Macaulay, Ruskin. You must take your chance of being called dry, flat, tame. But one advantage of the two qualities is that they are within reach, and grandeur for most of us is not. And with this temper it is easier to see the truth, what things really are, and how they actually come to pass.

I had noted one further admonition, but opening Mr. Ker's two little volumes of Dryden's prefaces, for which we owe the editor a debt, I came on Johnson's account of Dryden's prose, far better worth your pondering than anything I could say:—"Dryden's prefaces have not the formality of a settled style. The clauses are never balanced, nor the periods modelled: every word seems to drop by chance, though it falls into its proper place. Nothing is cold or languid; the whole is airy, animated, and vigorous; what is little is gay; what is great is splendid. Everything is excused by the play of images and the spiritedness of expression. Though all is easy, nothing is harsh; and tho' since his earlier works more than a century has passed, they have nothing yet uncouth or obsolete." This contains both true criticism and good guidance.

Nobody here will undervalue criticism, or fall into the gross blunder of regarding it as a mere parasite of creative work. If there be such a person, may I commend him or her to a very modest volume by Mr. Saintsbury called "*Loci Critici*," containing passages to illustrate critical theory and practice from Aristotle downwards. For those whose

appetite may grow as they eat, the same editor's history in three volumes of "Criticism and Literary Taste in Europe," from the earliest texts to the present-day is a striking monument of literary enthusiasm, vastly extensive learning, and much good suggestion. I need not recall how criticism has been defined—the endeavour in all branches of knowledge—philosophy, history, art, science—to see the object as it is in itself.

Mr. Courthope's "History of English Poetry," now completed, is full of value to the student and of lively interest to all the better kinds of general reader. A new history of the literature of the Victorian era is of rather special interest to me personally, because it was my truly happy fortune to be the friend, and in many cases the intimate, of most of the later writers whom Professor Walker so skilfully and conscientiously commemorates. Of Mr. Sidney Lee's incessant and admirable toil, why need I speak, or of the other well-known workers in the field of English letters? Such a body of criticism is infinitely useful for the present of literature and of good promise for the future.

LITERATURE AND LIFE.

A graceful French description of what literature means in certain of its types is worth hearing:—"The man of letter is a singular being; he does not look at things exactly with his own eyes: he is not the creature of his own impressions; he is a tree on whom you have grafted Horace, Virgil, Dante, Milton, Shakespeare, and the rest, and hence grow flowers not natural, yet not artificial. Of all the mixed colours he make for himself a colour of his own; from all the glasses through which his eyes pass to the next world, there is fused a peculiar tint, and that is the imagination of the man of letters. If he has genius all these memories are dissipated by the energy of his personal gift."

You will think this too fastidious, too enervating, too dilettante; so it is, if it were taken for the whole story. We must add the saving counsel of Cicero—who has himself been called the greatest of all men of letters. You must always take care to end by exposing yourself to contact with men, and trying your strength in the struggles of life. Yes, that is the end of books and everything. You remember the jest in one of Goethe's verses: how a stubbornly secluded student was once induced to go to a grand evening party. They asked him how he had enjoyed himself. "If they had been books," he answered, "I would not have read one of them." Without being sworn devotees of evening parties, we are sure the gruff sage, if he ever existed, must have been so out of touch with his fellow-creatures and their action, *votum*, *timor*,

ira, voluptas, that he had read his books to little purpose after all:

There were some interesting and good natured observations in *The Times* a few days ago about the decline in the eloquence of our modern prose. It is unhappily impoverished, the writer says; it is not rich in expressing some of the noblest experiences of the human mind and heart. Grand prose, it may be true, is not heard in debate or in the pulpits, and hardly abounds in the exercises of historian, critic, or biographer. Assuredly we cannot envy the man whom high passages of our classic prose—Sir Thomas Browne, Raleigh, Bacon, Hooker, Burke, the last of them notably in the Address to the King—do not affect with something of the same swell of emotion as comes from soul-inspiring verse. But grand prose comes from supreme issues, earnest convictions, eager desire to convert and persuade, sublime events, passionate beliefs—those are what move to eloquence at its highest. Lincoln was no scholar, but the Second Inaugural is not to be surpassed, and I remember a passage of Cadden's about the Irish famine that is a masterpiece of eloquent feeling on that fateful tragedy.

When the themes and issues are those of scientific truth, that prose should be unemotional is natural. Everybody knows Darwin's own account, how, as the laborious years passed, he so lost his taste for poetry that he could not endure to read a word of it, Shakespeare became so dull it nauseated him, and music set him thinking too energetically on what he had been working at, instead of giving him pleasure. If all this loss was the price of years of fruitful concentration in the master, who can wonder if the scientific and documentary age is an age of prose. Still I hope it is not too pontifical of me to say that I believe I see in the room to-night men who write prose as firm, as delicate, as easy, as pure, as the heart of man could wish.

ENGLISH IN AMERICA.

After what has been said of its spread over the globe, we cannot be indifferent to the fate of our language across the Atlantic. Emerson, that most lovable of our teachers, once said: "We have listened too long to the country muses of Europe." But I remember an afternoon long ago at Washington with Walt Whitman, when he made particularly light of Emerson, and was all for packing of the courtly muses, European or Bostonian bag and baggage. America has not followed this felonious purpose—George Meredith used to say that the high-water mark of English prose in our day was to be found in some pages of Charlotte Brontë,

and some in Hawthorne's "Marble Faun." It will be no hard labour to seek out such pages for yourselves. I need not mention Lowell, and a dozen more Americans, grave and gay who are the living delight of English readers. American novelties in the way of picturesque and unexpected diction, so piquant and effective in colloquial use, have not yet lowered the standard of writing or oratory.

In the new edition of his famous book Mr. Bryce gives us a glowing account of what is being done, not only by American workers in every branch of science, but by American scholars; how admirably through and painstaking Germany, and how they are even betrayed into the German fault of indifference to form and style—no brilliant personalities in letters or art, but is this not true of Europe too? Perhaps, he says, the world is passing through an age with a high level of mediocrity as compared with the outstanding figures of the last century.

THE VACANT LITERARY THRONE.

There is, we must admit, to-day no monarch in any tongue upon the literary throne, no sovereign world-name in poetry or prose, in whom—as has happened before now not so many generations ago, in royal succession, to Scott, Byron, Goethe, V. Hugo, Tolstoy—all the civilized world, Teuton, Latin, Celt, Slav, Oriental, are interested, for whose new works it looks, or where it seeks the gospel of the day. *Nobochlish*, to use an Irish word that became a favourite with Sir Walter Scott; it does not matter. Do not let us nurse the humour of the despondent editor, who mournfully told his readers, "No new epic the month."

Nobody can tell how the wonders of language are performed, nor how a book comes into the world. Genius is genius. The lamp that to-day some may think burns low will be replenished. New orbs will bring light. Literature may be trusted to take care of itself, for it is the transcript of the drama of life, with all its actors, moods, and strange flashing fortunes. The curiosity that it meets is perpetual and insatiable, and the impulses that inspire it can never be extinguished.

The vote of thanks to the President was proposed by Mr. Sidney Lee, seconded by Professor Mackail, and Lord Morley was again loudly cheered on rising to say a few words in acknowledgment.

MADRAS STUDENTS' ADVISORY COMMITTEE.

DIFFICULTIES THAT INDIAN STUDENTS IN ENGLAND MAY FALL INTO FROM INSUFFICIENCY OF FUNDS.

Circular No. IX.

A Committee on Distressed Colonial and Indian Subjects has recently issued a report from which the following extracts are taken:—

"Of the young Indians who come every year to this country, the great majority have acquired some measure of education before their arrival, and the object of their visit is to complete their studies. The greater number come to qualify themselves for a call to the Bar; we understand that a call to the English Bar enables them to get admittance to the legal profession in India upon easier terms than they could in their own country. Others are attracted by the facilities for higher education which are offered by the Universities of Great Britain, and a small but increasing number come to study the industries and technical processes of manufacture of Western Europe. In the student class are a few whom one witness described to us, in no disparaging sense, as adventurers. They are young men who come with no very clearly defined aim, in the hope that amid the riches and manifold activities of Europe they may somehow or other find means to support themselves here, and they calculate, perhaps rightly, that familiarity with Europe will enable them to find something to do in India upon their return. We desire to add that we do not believe that the prospect of material advantage is the sole attraction which draws Indian students to this country; there are moral and intellectual factors in the problem which we do not overlook. Most of these young men have in India studied English History and English Literature, and many of them have thereby imbibed a reverence for the civilisation and political institutions of this country; we have nothing but sympathy for the feeling which impels them to come to learn at first hand the lessons which they think that England can teach them.

We understand that the most trustworthy estimates put the number of young Indians in this country at 1,000 or 1,200. As far as we can judge, this number will tend rather to increase than to decrease. Caste restraints upon foreign travel are losing their stringency, and the day may not be far distant when even orthodox Hindus will cease to feel a prejudice against a sea journey; in that case a visit to Europe may easily become as recognised a part of the complete education of

an Indian as the grand tour through Europe was to our own ancestors. We are satisfied that there are now material advantages to be gained from visiting Europe which must tend to bring Indians to this country in increasing numbers."

"It is not necessary for us to explain that there is practically no chance of these young men being able to provide for themselves by their own exertions. Some of them have been driven to pitiable straits in their efforts to make a living; one of them, an educated man, an undergraduate, acted as a showman to a tea company and stood in front of the doors as an advertisement."

"The 'adventurers,' as Mr. Chowdry calls them, probably represent only a small fraction of the Indian student population in the United Kingdom; the majority are supported by regular remittances from their parents or guardians, but even among them cases of destitution occasionally arise; the death or sickness of the bread-winner, an unexpected law suit, or the failure of the monsoon, whereby tenants are unable to pay their usual rents—any one of these mishaps may prevent the family from forwarding the monthly or quarterly remittance, and when this disaster occurs the Indian student, with few acquaintances in this country and slender credit, is brought to the verge of destitution."

"It will be clear from what we have already said that a certain number of Indians come to this country under a mistaken impression that they will be able to support themselves here by their own exertions; we think that efforts should be made to correct this misapprehension."

In view of these extracts this Committee has been requested to give as wide a publicity as possible, among those interested, to the difficulties into which Indian students in England are likely to fall if they are not provided with sufficient funds and to diffuse a correct idea of the conditions under which students live in England.

Intending students and their parents are therefore advised to ascertain very carefully exactly what the course they propose is going to cost, and should clear their minds altogether of any mistaken impression they may have that otherwise insufficient funds can be supplemented by some means or other in England.

(Signed) ARTHUR DAVIES,

Secretary,

Madras Students' Advisory Committee,

January 1911.

OUR ENGLISH LETTER.

February, 1911.

The question of blind-alley employment for children, with all its attendant evils, is still occupying the attention of civic and educational authorities. Liverpool was the first city to move in the matter, and certainly no town in the Kingdom suffers more, or has more to gain from an adequate solution of the problem than, Liverpool. Inasmuch as the pioneer-work has been done here, it may be worth while detailing the steps that were taken. The Liverpool Education Committee formed a Children's Employment Committee. They placed on it six of their own members, their director, and three of their chief officials. They then invited the 250 head teachers of senior departments to appoint six teachers upon it. This was done by ballot. The Trades Unions were invited to send two representatives, and two others were chosen from the Victoria Women's Settlement and the University Settlement. They also secured the formation of an advisory committee of employers—a step which might have far-reaching consequences on education itself. With the aid of this advisory committee a register is in course of preparation in which it is intended to record the whole of the businesses in Liverpool which employed in any capacity boys or girls under the age of eighteen. A schedule of questions has been issued in order to ascertain from his employer the number of his employees; the way in which he obtains young people now and at what age he engages them; whether they are apprenticed; what proportion remains with him as adults, and at what wages; and whether he would in future take them from the Children's Employment Committee. A large number of forms have already been returned, and the answers have in almost every case been favourable to the scheme. Some mitigation of the evils of blind-alley employment is secured when as under this scheme it is looked upon merely as a temporary makeshift to be resorted to until the boy can enter upon permanent employment, and when it is possible to keep a record of the boys who ought to be at continuation classes and to put pressure upon them to that end.

Until November 28th of last year the work was without legislative sanction. But on that date, just a moment or two before the dissolution—the early death—of the last Parliament, the Education (Choice of Employment) Act received the Royal Assent. Of the few measures of the 1910 Parliament this was not the least important. The education authorities have given it a welcome, but a half-hearted one. It recognizes the necessity of

the work, and is so far good, but it seems to assign it to the Labour Bureaux, and there a mistake is made. But are they justified in their criticism? The Board of Trade and the Board of Education have just joined hands and issued a memorandum urging education authorities to use the powers given them in the act and insisting that they should exercise them in the fullest co-operation with the national system of Labour Exchanges. There is contained in the memorandum a sketch of the arrangements which would secure a reasonable distribution and correlation of the functions of the two bodies. And the distribution certainly seems reasonable. The proposal is to divide the care of juvenile employment between the two competing authorities, giving to the education authority the advisory side of the work and to the Board of Trade authority the actual task of registering and finding vacancies for the children. The executive officer of the advisory committee is to interview the applicants and to advise them on their choice of career, with the fullest co-operation of school teachers, school attendance officers, and volunteer workers; and the interests of the child are to be watched before and after he receives employment. Unless the education authorities co-operate, the work will fall to the Labour Exchanges. And surely this is the right course to pursue. It would be highly arbitrary and unscientific to attempt to segregate the problems of juvenile and adult employment, and to deal with them as if they had no relation to one another. It is because the labour of boys and girls has been regarded in the past as unconnected with the labour of men and women that the present evils have been brought into existence. Those who have to advise the young would find an up-to-date knowledge of the conditions of adult labour just as valuable, and in fact essential, as a knowledge of the conditions of juvenile labour. And to secure this knowledge is no slight task, in view of the enormous complexity of the industrial world. The work of the teacher is surely to give advice on the general principles governing the choice of an occupation: the teacher cannot go much further. The memorandum does not hand the child over to a lifeless and mechanical system. It makes ample provision for the advisory side of the work, and the suggested arrangement will fail, if it does fail, not from any intrinsic defect, but because the two authorities cannot decide to put on one side their mutual jealousies, and make a whole-hearted attempt to work in co-operation. Whether the education authorities will throw themselves into the work or no, remains to be seen. Those which have been ardent reformers feel they have received a check, those which have so far done nothing feel they

are being asked to do too much: and both alike regard as portentous the issue of a joint memorandum from the Boards of Trade and Education. The chairman of one authority has remarked that it is ominous and bodes no good to education when Herod and Pilate agree.

At the Northern Conference on Education, Miss Geraldine Hodgson of Bristol, put in a plea for the teaching of history, a subject which, she claimed, was pre-eminently necessary if the scholars were to be trained to be citizens. There is no room for another subject in the curriculum, and yet education in citizenship is essential. History, properly taught supplies the present lack. "She had often thought that room might be made for more and better teaching of history by the excision of 'trick arithmetic.' Which of them, average adults, really used in life more than the four simple and compound rules, a few 'weights and measures,' and occasional vulgar fractions? If it be urged that this arithmetical worry was mental training, that desirable process could be effected quite as well by a rightly-directed use of history, which called for moral as well as mental judgment, exercised the constructive imagination, and made demands on taste. Might not the time spent upon hypothetical tons of turnips, whereas in life few of us required turnips by the ton, or upon the number of hours spent by non-existent men in reaping imaginary fields, have been better devoted to learning how a nation came into being, what virtues were essential in a State, what vices disastrous? She was not asking for a study of 'civics,' but for a wide, fair, true presentation of the past with all its manifold factors—the political exigencies, the social possibilities, the national dangers, the supreme efforts, the great renunciations, the shining valour, the daily monotonous drudgery, the political sagacity, the moral strength, the spiritual illumination, the clash of will on will,—in fact, the slow evolution of the life and character of a great and puissant nation. She was not advocating the use of twisted history, viewed from any particular standpoint, for the purpose of instilling this, that, or the other virtue or quality, but for a fair, truthful, and vivid presentation of the great complex drama of the past. The most obvious difficulty in the way was the fact that such handling undoubtedly demanded historians of great width of knowledge, possessing comprehensive grasp, who were at the same time skilled teachers, who could select without falsifying the issue and who could present their knowledge with that dexterity and tact which carried it to the mind and appreciation of the child with the teacher's exact intention. To ask all that was to

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ask a very great deal." We agree,—with the last remark at least. But will not the solution of this and certain other difficulties have to be sought in modifying the 'one class, one teacher' principle? If we can have special science teachers, why not history teachers? The elementary schools will be forced to follow the example of the secondary schools in this matter. It is interesting to note in passing, as an illustration of the diametrical differences of opinion existing between teachers on almost every disputable point, that a subsequent speaker disagreed entirely with Miss Hodgson in the matter of method, and advocated the separate teaching of 'civics.' Indisposition to take up civic work was largely the result of ignorance. English literature and history were indispensable auxiliaries, but every girl and boy should have systematic instruction in the functions and methods of Government. There should be no text-books, no note-books, and no examination, because people were apt to remember what they were at liberty to forget! And with regard to history as a mental discipline your correspondent remembers a remark that fell from the lips of an Oxford friend who took the History school after taking Greats; he said he had spent a most enjoyable year, 'plenty to do, but no need to think.' He took a high place in the honours lists.

Professor Adams has been saying some good things upon discipline, and against the man who enters his class-room with the determination to be obeyed. Obedience must be unconscious before it is worth very much from the teacher's point of view. 'Trespassers will be prosecuted' merely announces the presence of some desirable spot whose existence might else have been unsuspected. The application is obvious.

Circular 753 on the teaching of English has received an unusual amount of notice in the press. Its positions have been treated with general respect, and most men qualified to judge are inclined to accept the greater part of them. 'Literature must be regarded and treated as a foreign language' is a dictum that ought to make the lot of those doomed to learn English after childhood an easier one: it always does one good to hear that others are faring as ill as oneself. Grammar is regarded as incidental and not as a subject in itself: "it should not bulk largely in regular school teaching of English and not be isolated from composition and literature, and made into an abstract exercise."

Reviews and Notices.

ARNOLD'S SHILLING ENGLISH HISTORY, BY C.E.M. HAWKESWORTH, M.A.

The book gives fuller facts than is usual in a small book. It contains 170 pages of close type. They are admirably well-grouped and clearly put. An Indian reader of such a book as this is willingly led to say, what a good book we have for a small price and to wish for a time when Indian History will have a similar good fortune. We may mention as an instance of good arrangement, heads like the following under James I: (1) the issues of the struggle; (2) the war policy; (3) personal government and its results, as well as the rapid survey of the last half-century (1865—1901). This is suitable for use in Form IV of Indian Schools, before special periods are taken up in Forms V and VI.

A SENIOR HISTORY OF ENGLAND FOR ELEMENTARY AND SECONDARY SCHOOLS, BY A. E. MCKILLIAM, M.A. GEORGE BELL AND SONS, LTD., LONDON. 2s.

It is called 'A Senior History,' as it is one of a concentric series approved of by the Board of Education. It contains sound readable matter of 300 pages of beautiful type. Primarily meant for pupils in Britain, it contains chapters on Indian History in the time of Clive and Warren Hastings, on the Indian Mutiny and the recent events in India, Egypt and South Africa. It has brought the events to the present time. Candidates for the public examination of the School-Final Board may very safely use it for a general knowledge of English History, while they may read special books for special periods. There might have been sufficiently good information of Indian History even before Clive and Warren Hastings. While the wood-cuts are excellent, the pity is that the map of the British Empire should have been contained in a single page of the book. We heartily welcome it and like to see it used in our schools.

LANDMARKS IN THE HISTORY OF EUROPE FOR USE IN SECONDARY SCHOOLS, BY E. M. RICHARDSON, B.A. GEORGE BELL & SONS, LTD., LONDON. 2s.

The University of London Inspectors suggested that children in the Lower Secondary Forms

between the ages of 10 and 12 might be taught elements of European History. The book was compiled, in consequence; but, it serves to show how even such a work can be made useful and instructive, when (the broad points affecting different countries are treated in a simple, narrative form. The rise and fall of Greece and Rome, the Renaissance, the Reformation and the French Revolution are admirably summarised. It is best fitted as an introduction to Freeman's well-known book.

SCENES FROM EIGHTEENTH CENTURY COMEDIES, EDITED BY A. BARTER. CAMBRIDGE UNIVERSITY PRESS. 1s. 6d.

The eighteenth century dramatists have been among the most neglected of authors in English Literature. To the student of the present day, the Drama seems to begin with Shakespeare, only to jump to a Bernard Shaw or Pinero. We are occasionally reminded of the Elizabethan dramatists by the indiscriminate eulogies of a Swinburne but the play-wrights of the period denounced by Carlyle as the 'age of fraud and barrenness' do not seem to command any interest. Sheridan it is true, holds his own, but who reads *She Stoops to Conquer* or Colman's *Heir at Law*? It is only fitting that the authorities of the Cambridge University Press should have put specimens of the work of the eighteenth century comedians in a single volume. The selection is representative enough and the judicious notes at the end enhance their value. It is admirably suited for use in Colleges, and as a handy book of reference.

SELECTIONS FROM CARLYLE: SELECTED AND EDITED BY ELIZABETH LEE. GEORGE BELL AND SONS, LTD., LONDON. 1s.

One remarkable feature of the book-making activity of recent years has been the effort made to bring masterpieces of literature to the doors of the very young student, by the publication of excellent editions of selections. Messrs. George Bell and Sons must be credited with one more attempt in that direction. Carlyle is hardly a person to be read in the original by young boys and Miss Elizabeth Lee has earned their gratitude, by this little volume. It also serves the useful purpose of acquainting the reader, with at least some parts of *Oromwell* and *Frederick*, works which are not certainly so

popular as his *French Revolution* and *Heroes*. The volume must serve as an excellent and easy introduction to a more advanced study of Carlyle.

STUDENT'S ARITHMETIC, BY BAKER AND BOURNE. GEORGE BELL & SONS, LTD., LONDON. 1910.

The book is an abridged edition of the authors' Public School Arithmetic, so that those, who object to the bigger book on the ground that it contains too much of explanation of theory and too many worked out examples to be put into the hands of students, may use this as a student's book and the bigger book as a teacher's book.

The book is of the modern type containing many graphical and practical examples. If there had been greater correlation with Algebra and Geometry and of the portion on Mensuration had been more elaborate it could be recommended to the students preparing for the School-Leaving Certificates. Its general appearance, size and get-up are very satisfactory.

PRACTICAL DRAWING BY T. S. USHERWOOD, B. SC. MACMILLAN AND CO. 1910.

The preface says that the book is intended to provide a preliminary course of work for students who will later begin a formal training in Mechanical Drawing. So far as the Madras Presidency is concerned we cannot think of any particular class of students for whom the book will be useful as a text-book. But the book contains some good exercises on 'on the drawing of plans' and on the representation of solids by means of plan and elevation and will therefore afford a course which may be profitably taken by students as preparatory to joining a Mechanical or Engineering Institute and by those who take up 'Practical Mathematics' as an optional subject for the School-leaving Certificates. It is not like ordinary books on Geometrical Drawing which contain merely geometrical exercises with no reference to questions occurring in practical life; but it contains a clear intelligent exposition of geometrical facts and truths and the examples are such as are met with in the life of the Engineer or the Mechanic.

JEEVABHUPATI: A TAMIL NOVEL, BY MESSRS. C. R. SRINIVASA IYENGAR AND V. RAJAGOPALA IYENGAR. Price 10 As.

As the authors themselves tell us in the preface, this is a rendering into popular Tamil prose one

of the most well-known of Scott's novels "The Talisman." Mr. V. Rajagopala Iyengar is already known to us as the author of a translation of "Ivanhoe" and another story book entitled "Kathaikothu," two Tamil books intended to be used as text-books in schools. The present book is written in a simple and interesting style and can be easily understood by an ordinary reader in Tamil. The authors have greatly succeeded in their attempt to convey to the Tamil public the imagination, the conception and the idea of the great foreign writer and thereby enrich the Tamil language. Even a hasty perusal of the book makes us recollect the genius of Scott as a novelist, his portraiture of character and his description of men and things. We would remark that the translation would be more readable and less foreign to the Tamil public if the authors instead of retaining the original names of men and places, could in a future edition substitute more familiar Indian ones in their places.

TRAVANCORE ALMANAC, PRINTED AT THE GOVERNMENT PRESS, TRIVANDRUM. Re. 1-4.

We have received from the Travancore Government a copy of the Travancore Almanac and Directory for 1911, published by order of the Government of His Highness the Maharajah. It is replete with information regarding Travancore, and also contains a short directory of the Cochin State and British Cochin.

THE KAPALEE POCKET DIARY FOR 1911, WITH FLAP, PENCIL AND RIBBON. PUBLISHED BY MESSRS. MURTHI & CO. Price As. 6.

We have received a copy of this excellent diary containing much useful information on all subjects. For the size and get-up the diary has been cheaply priced and we heartily recommend the use of it to the public.

Indian Educational Notes.

MADRAS.

We are desired to publish the following :—

Palayampatti Educational Exhibition, April 1911.—In connection with the annual meeting of the Balasubramania Pradhama Vidyasala Teachers' Association, Palayampatti, an Educational Exhibition including an Industrial and an Agricultural Branch is to be held on the 6th, 7th, and 8th April 1911, when R. G. Grieve, Esq., M.A., Inspector of Schools, 7th Circle, Madura, will deliver the opening speech with S. G. Roberts, Esq., I.C.S., District Judge of Ramnad in the chair. A number of lectures are being arranged for the three days. Magic Lantern exhibitions and exhibition of Athletic feats will also form part of the programme as also the exhibition of Musical talent.

2. To make the Exhibition a success, we request the favour of your cordial sympathy and co-operation. May we request you to favour us with any or all of the following Exhibits at your early convenience or at any rate before the 25th March 1911. We also solicit the favour of your presence on the occasion :—

A. Educational Section :—

1. Handwriting of pupils.
2. Freehand Drawing on paper by pupils and teachers in different stages.
3. Freearm Drawing do.
4. Mechanical Drawing do.
5. Map Drawing do.
6. Relief Map Drawing do.
7. (a) Geographical Globe-making do.
(b) Geographical and Historical pictures.
8. Brush Drawing by pupils and teachers. Also oil-painting, water colour and crayon work by teachers, pupils and artists.
9. Clay models (uncoloured) do.
10. Do. (coloured) do.
11. Colour-work do.
12. Paper folding, paper cutting and mounting and card-board modelling.
13. Bead-work, basket-work, pea-work, pith-work, perforating, embroidery, wool-work and needle-work.
14. Simple apparatus and appliances for teaching devised by teachers themselves (with a description of their working).
15. Any article of industry or art which is the bona fide work of pupils and teachers.
16. Collection of stamps, coins, insects and the like by pupils, teachers and others.

Also :—

17. Photos of eminent persons including teachers, professors, school buildings, class-rooms, work-shops, factories, machines and museums.

18. Any local product which may be conveniently sent to the Exhibition.

19. Any product or mineral ore which deserves a place in a school museum.

20. Any other article which you may think interesting or fit for the Exhibition.

B. Agricultural Section :—

1. Any agricultural product which deserves to be brought to the notice of the public by reason of its economic or other valuable use.

2. Any agricultural product which has been grown under special conditions or under modern improved methods of agriculture.

3. Any agricultural implement or appliance or invention which is useful to the agricultural world by virtue of its superiority over its older brethren.

C. Industrial Section :—

1. Any article of industry which may be useful to the public at large by virtue of its special usefulness to the world. Also the cheapest and best recipes for writing surface on wall boards and similar recipes for black writing surface on wooden black-boards (to be sent with samples of the coating on bricks or a small wooden board).

2. Any article exhibiting excellence of workmanship or any production displaying artistic talent and skill.

3. Any industrial implement, appliance or machine deserving of the notice of the public by virtue of its superiority over others commonly used.

D. Music Section :—

Exhibition of native music playing on the Violin and the Veena (of course these exhibitors will not charge for their performances). Not open to dancing girls.

E. Athletic Section :—

Exhibition of native Athletics (of course these exhibitors will not charge for their performances). Sections D and E will be open only to the Ramnad and Madura Districts to those who obtain permission by the 15th March.

N.B.—(a) All exhibits will be received and sent back if so needed—at the costs of the exhibitors.

(b) All exhibits should bear the name, age, and occupation of the exhibitor and description of the exhibit. Exhibits from teachers and pupils should also contain particulars about the standard taught or studied and the name of the school and range.

(c) Medals and certificates are to be awarded to the best exhibits for all sections as decided by Judges. The work of pupils, teachers and experts will be separately judged.

(d) Exhibits for medals and certificates should be made distinctively marked as such and should bear all particulars regarding their identification and description.

(e) Valuable exhibits will have to be taken charge of by owners or their agents throughout the Exhibition and no complaints regarding the loss of exhibits can be entertained. But every possible endeavour will be made to safeguard the interests of exhibitors. This ruling does not apply to Loan Exhibits.

3. We shall be glad to hear in advance before the close of February 1911 what exhibits you are willing to send.

4. We thank you in anticipation in the name of the Committee and await the favour of your cordial co-operation in this matter of public interest.

We remain,

Sir,

Your most obedient servants,

P. PARTHASARATHY NAICKER, B.A., L.T.,

Sub-Assistant Inspector of Schools,

Tiruchuli Range, and President,

B. P. V. Teachers' Association,

Palayampatti, Ramnad District.

REV. F. E. JEFFERY, M.A., B.D., and

A. P. ALLIMUTHU NADAR.

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All articles sent by Railway to be addressed to Mr. Manikkavasaga Nadar, B.A., Headmaster, Kshatria Vidyasala, Virudupatti, with an intimation to Mr. P. Parthasarathy Naicker, B.A., L.T., the 1st signatory.

N.B.—Traders will be allowed to sell their goods at reasonable cost after these are inspected by the Judges. But previous permission should be obtained before the 15th March next.

Kumbakonum Range Elementary Schools Drill Competition and Tug-of-War.—Under the auspices of the Kumbakonum Elementary Teachers' Association a competition in Drill and Tug-of-war was held among the Elementary Schools in the Kumbakonum Range at 3 P.M., on Saturday, the 21st January at the Town High School Foot-ball Ground under the Presidency of T. O. Hodges, Esq., M.A.,

Inspector of Schools, VI Circle. A special pandal was put up on the northern side of the ground and was decorated with ever-greens and flags. In the centre of the ground an enclosure was put up for holding the competition and at the entrance a triumphal welcome arch. On the whole the ground presented a grand appearance. The clarionet was in attendance. The following were the leading gentries that graced the occasion with their presence:—Mrs. J. A. Yates, Mr. J. A. Yates, M.A., Principal, Government College, Kumbakonum, the Hon. Dewan Bahadur R. Ragunatha Rao, Mr. I. Krishna Rao, Asst. Inspector of Schools, Mr. A. Govindarajulu Mudaliar, B.A., Sub-Assistant Inspector of Schools, Mr. Muhammad Fuzluddin Sahib, B.A., B.L., District Munsif, Mr. K. P. Gurusami Aiyer, B.A., Lecturer, Mr. K. P. Doraisami Aiyer, B.A., Mr. Abel Arulanandam, B.A., Mr. T. K. Hanumantha Rao, B.A., L.T., Mr. K. Natesa Aiyer, M.A., L.T., Mr. T. K. Venkataramier, M.A., L.T., Mr. D. Subramania Sarma, M.A., L.T., Mr. N. Ragavachariar, M.A., L.T., Rao Bahadur S. Appasastrial, B.A., Mr. R. Saminada Aiyer, B.A., L.T., Mr. K. Venkatarama Aiyer, B.A., Mr. Singaravelu Mudaliar, Stationary Sub-Magistrate, Mr. Visvanatha Mudaliar, Police Inspector, Mr. R. C. Gurunatha Pillay, Mr. Venkatanarayana Pillay, Mr. A. R. Chakrapani Chettiar, Mr. A. B. Venkatachalam Chettiar, Mr. Chakrapani Rao, Mr. Rajaram Aiyer, Mr. Narayanasami Aiyer. The proceedings began with prayer songs, sung by the girls of the Saraswati Girls' Patsala in accompaniment with harmonium.

Physical Drill.—6 Elementary schools competed for this Drill and the following prizes were awarded to the winners:—1st Prize of Rs. 7 by the Hon. Rao Bahadur N. Krishnasami Aiyengar, B.A., B.L. to Thirumanjana Veethi Elementary School, 2nd Prize of Rs. 5 by Mr. Gurunatha Pillay, Municipal Councillor to the Yanaiyadi Elementary School, and the 3rd Prize of Rs. 3 by Mr. Kasivisvalingam Pillay, B.A., B.L., Tahsildar to Karubatta Visvanathaswami Koil North Street Elementary School.

Kindergarten Drill.—11 schools competed for this Drill. 1st Prize of Rs. 7 was awarded by Dewan Bahadur R. Ragunatha Rao, to Puda-palaiya Street Elementary School, 2nd Prize of Rs. 5 by Mr. I. Sami Aiyer, B.A., B.L., Sub-Judge, to Avaniapuram Muhammadan Elementary School, and the 3rd Prize of Rs. 3 by Mr. K. Ranganatha Rao, B.A., Municipal Councillor, to the Rajagiri Board Muhammadan School.

Flag Drill.—8 schools competed for this Drill. 1st Prize of Rs. 7 awarded by Mr. A. B. Venkatachela Chettiar, Municipal Councillor, was won by Peria Street Elementary School, the 2nd Prize of Rs. 5 by Mr. Sivagurunatha Chettiar, B.A., B.L., Municipal Councillor, by Tirumanjana Veethi Elementary School, and the 3rd Prize of Rs. 2 by Mr. Muhammad Fuzluddin Sahib, B.A., B.L., District Munsif, by the Rajagiri Board Muhammadan School.

Tug-of-war.—9 schools competed for it. The Prize of Rs. 7 was awarded by Mr. A. R. Chakrapani Chettiar, Municipal Councillor, to Kumbeswaram Koil South Street School.

Mrs. J. A. Yates was much pleased to distribute the prizes to the winners. Mr. T. O. Hodges, President, rose amidst loud cheers and delivered an interesting speech in the course of which he remarked that though the drill appeared to be simple, it was very difficult to be taught to the pupils especially in Elementary schools and gave a few pieces of advice as to how it should be improved. He thanked Mrs. Yates for the kindness with which she consented to distribute the prizes and Mr. Yates and other leading gentries that honoured the occasion with their presence. He accorded special thanks to all the donors of the prizes and to Mr. Venkatanarayana Pillay, who was good enough to arrange for the pandal and the clarionet. He expressed his thankfulness to Mr. A. Govindarajulu Mudaliar, B.A., Sub-Assistant Inspector of Schools for having got up the competition within 3 days. The Hon. Dewan Bahadur R. Raghunatha Rao garlanded Mr. Hodges and in proposing a vote of thanks to him declared the following speech:—Ladies and gentlemen—We have all enjoyed a very pleasant afternoon and witnessed various physical exercises by the boys of many institutions under the superintendence of our worthy President Mr. T. O. Hodges. He knew that the improvement of the mind by itself was insufficient to make one a man and that the improvement of the physique is necessary to make a man fit for becoming a useful citizen. As the Principal of the Kumbakonum College, he took great trouble to improve the mental capacity of the students and now as the Inspector of Schools, he has taken the trouble to organize a competition in Drill and Tug-of-war, the exhibition of which we have now had the pleasure of witnessing to-day. I am sure that I express the opinion of all of you that he is entitled to our sincere thanks. Mr. A. Govindarajulu Mudaliar, B.A., Sub-Assistant Inspector of Schools thanked the Supervisors, Headmasters, Managers and Teachers, who heartily co-operated with him in making the competition a success and Mr. Krishnasami Rao Ayl., B.A., B.L., Sub-Judge for his contribution towards the expenses of the competition. In doing so he remarked that he had to arrange for the competition within a few days and so he had no opportunity to enlist the sympathy and co-operation of all the men of light and leading of Kumbakonum. He said that he was taken to task by some gentlemen for not having given them an opportunity to evince their interest in elementary education in connection with this competition. He begged their pardon for having failed to do so in the circumstances represented by him but assured them that there would be many an occasion in the near future to manifest their interest in the cause of elementary education. He proposed votes of thanks to Miss Muthammal, Headmistress, Saraswati Girls'

Patasalai, who made her school girls sing prayer-songs. Mrs. Deivasahayam, Headmistress, Government Girls' School, brought forward her girls and sang the National Anthem in English in accompaniment with harmonium while the whole audience was standing with a vote of thanks to Mrs. Deivasahayam. The proceedings was brought to a close.

Setupati High School, Madura.—At the twenty-first anniversary and the prize-distribution of this school held recently, the Headmaster referred to the recent policy of Government in withdrawing grants from schools, and pointed out that, without Government assistance, the efficiency insisted upon by Inspectors as a result of the recent reorganisation, could not be reached by private schools.

He said that while the Government found it difficult to afford help to Secondary schools of established reputation, it was contemplating to spend a large sum on the proposed Model High Schools. The establishment of the so-called Model Schools in places where there were already well-equipped and well-managed schools under private management, was indeed an act of superfluity. On the other hand, should the Government start its Model Schools in localities where the people and education were backward, it is feared that such schools could in no way serve as models for other institutions, and the designation "Model Schools" would in all likelihood, prove a misnomer. If the Government should only make up its mind to give as Grants-in-Aid to the deserving Secondary Schools, only one-half of what it would have to spend on its so-called Model Schools, the result would be most gratifying, and the disappointment averted.

Mr. Hammet, the District Judge, who presided, sympathised with the Headmaster over the unexpected change in the policy of the Educational Department which had resulted in the withdrawal of all Government grants, making it almost impossible for the Committee of the school to find the necessary funds to keep it up according to the very high standard of equipment required for a school of this kind. They all hoped, he said, that the Headmaster would succeed in inducing the authorities to restore at least a portion of the grant. But whether he succeeded in this or not, he felt sure that this new policy of withholding grants from Secondary Schools would only serve to stimulate the patrons, teachers and students alike to raise from some source or other the funds necessary for their upkeep, and that we need have no misgiving as to the continued success of this institution.

Departmental Notifications.—The following appointments have been made:—Mr. T. S. Kalyanarama Aiyar, Sub-Assistant Inspector of Schools, Kulittalai Range, to act in the Trichinopoly Range, vice Mr. S. Swaminatha Aiyar on other duty or until further orders.

Mr. C. Gopala Aiyar, Sub-Assistant Inspector of Schools, Sivaganga Range, to act in the Kulittalai Range, vice Mr. Kalyanarama Aiyar.

Mr. R. Rangaswami Aiyangar, Headmaster, Government Training School, Coimbatore, to act as Sub-Assistant Inspector of Schools, Sivaganga Range, in the probationary class, vice Gopala Aiyar. All the above officers should join expeditiously on relief.

Mr. S. Swaminatha Aiyar, Second-class and acting in the First-class, to revert to the Second-class with effect from 16th December 1910.

Mr. C. M. Srinivasachari, Second-class and acting in the First-class, vice Mr. H. Sawmi Rau, to act in the First-class vice Mr. T. Krishna Rau, promoted from the 16th December 1910, to the 22nd January 1911, and to revert to the Second-class from the 23rd January 1911.

Mr. A. V. J. Vas, Assistant Professor, Presidency College and Acting Assistant Inspector of Schools, Madura district, in the First-class, vice Mr. S. T. Kallapiran Pillai, to act in the same class vice Mr. T. Krishna Rau, from 23rd January 1911.

Mr. A. S. Nageswara Sastri, Third-class and acting in the Second-class, to revert to the Third-class with effect from the 16th December 1910.

Mr. K. Duraiswami Aiyar, Third-class and acting in the Second-class, vice Mr. S. Swaminatha Aiyar, to act in the same class, vice Mr. C. M. Srinivasachari, from the 16th December 1910, to the 15th January 1911, the date of his retirement.

Mr. K. C. S. Anantanarayana Aiyar, Third-class and acting in the Second-class to be permanent in the Second-class with effect from the 1st January 1911.

Mr. S. Lakshmana Aiyar, Fourth Assistant, Teachers' College, and Acting Sub-Assistant Inspector of Schools, Erode Range, in the Third-class, to act in the Second-class with effect from 1st January 1911, vice Mr. N. Venkoba Rau.

Mr. M. Bava, Fourth-class and acting in the Third-class, to be sub *pro tem* in the Third-class from 1st January 1911, vice Mr. K. E. S. Anantanarayana Aiyar.

Mr. V. S. Vasudeva Sastri, Fourth-class and acting in the Third-class, vice Mr. A. S. Nageswara Sastri, to act in the Third-class, vice Mr. K. Duraiswami Aiyar, from 16th December 1910, to 15th January 1911.

Mr. A. Kadir Kutti, Fourth-class and acting in the Third-class, to be sub *pro tem* in the Third-class with effect from the 16th December 1910.

Mr. T. M. Satagopachari, Probationary class and Acting in the Fourth-class, to be sub *pro tem*, in the Fourth-class with effect from 16th December 1910, vice Mr. A. Kadir Kutti.

Mr. P. Raghavendra Rau, Probationary class and acting in the Fourth-class, to be sub *pro tem*, in the Fourth-class, vice Mr. M. Bava, from 1st January 1911.

Mr. Diwan Bahadur K. Narayana Rao, is to be an Ordinary Fellow of the University.

Mr. F. J. R. V. Hunt, Barrister-at-Law, has resigned his Ordinary Fellowship of the Madras University.

Mr. P. N. Ramaswami Sastri, Sub-Assistant Inspector of Schools, Kanigiri Range, acting in the Ambasamudram Range, to be Sub-Assistant Inspector of Schools of the latter range, with effect from the 1st February 1911, vice Mr. M. Parthasaradhi Aiyangar transferred.

Mr. S. Venkatarama Aiyar, Fifth Clerk and sub *pro tem* Head Clerk, office of the Director of Public Instruction, to be Sub-Assistant Inspector of Schools, Kanigiri Range, in the Probationary class, with effect from the 3rd February 1911, vice Mr. P. N. Ramaswami Sastri, but to continue in his present officiating appointment.

An Educational Conference at Trichinopoly.—The Eighth Annual Educational Conference under the auspices of the Trichinopoly Teachers' Association was held on the 16th instant in the S. P. G. College Hall, the morning Session being presided over by the Rev. Allan F. Gardiner, M.A., Principal of the S. P. G. College, and the afternoon Session by the Rev. Father H. J. Quinn, S.A., Principal of the St. Joseph's College.

There was a large gathering of teachers and others interested in education.

Rev. Allan Gardiner, President of the Association, welcomed the members of the Conference and then delivered an address on loyalty, in the course of which he said that young minds being essentially inclined towards lawlessness of every kind—it was the duty of the teachers to divert this energy into rightful channels.

Mr. S. K. Mathurbutham Aiyar, B.A., L.T., who next spoke on "Education and Matrimony" referred in some detail to the pernicious system of dowries, the evils to the Hindu society it brought on and the sufferings of the parents of the girls whose husbands took every opportunity of extorting as much as they could from their fathers-in-law. A discussion followed and the Conference rose for lunch.

At the adjourned Session, Mr. S. S. Vyasa Rao (S. P. G. College) spoke on the new Model Secondary Schools proposed to be opened by Government. He said that recently there had been a discussion on this subject in the press, in the platform and in the Legislative Council. The South Indian Teachers' Union at its Conference in December last also discussed the question and arrived at a compromise. A resolution on this subject was moved by Mr. S. S. Vyasa Rao to the effect that the money proposed to be spent on the establishment of Model Schools could profitably be utilised in giving increased grants to the existing institutions under private management for their better equipment. The resolution was passed by a majority.

Lecture on Elementary education.—Mr. A. C. Pranatharthihara Iyer, Inspector of Schools, recently delivered an interesting lecture at the Kellet Hall, Triplicane, on "Elementary Education" with Rev. James Cooling in the chair. The lecturer in the course of his lecture said that the question of Primary Education was engaging the attention of all people from the Government of India to the ordinary intelligent Indian. The ideal was good but there was want of funds—a great obstacle. Speaking of the state of things as regards Elementary Education in Madras, he pointed out that only about 12 per cent. of the male population and not even one per cent. of the female population were school-going people. Referring to the present cry of free and compulsory education, he said that it was not so much the higher rate of fees charged in the schools that prevented children from attending schools but it was on account of the importance of their assisting the family-work they had to stop away... With a vote of thanks to the Chairman and the Lecturer proposed by Rev. D. G. M. Leith, the meeting terminated.

The Native High School, Kumbakonam.—A public meeting in regard to this well-known institution came off on the evening of the 9th instant under the presidency of Mr. T. O. Hodges, Acting Inspector of Schools of the Sixth Circle. Mr. R. F. Austin, the Collector, Mr. C. G. Austin, the Sub-Collector and Mr. Yates, the Principal of the Government College were present at the meeting. A very large number of gentlemen engaged in education, most of the members of the Bar, the two Sub-Judges, the two Munsiffs and several retired officials attended the meeting.

Mr. Hodges explained to the meeting the need for placing the Native High School on a better footing both with regard to management and to accommodation and appliances. He spoke very appreciatively and sympathetically of the services rendered to the cause of Secondary Education at Kumbakonam by Rao Bahadur S. Appu Sastriar, B.A., during the last three decades and more and since he desired to relinquish the management for good private reasons, it was the duty of the public to come forward to take up the management and maintain the school in accordance with the present-day needs of Secondary Schools, there being much to be done to the Native High School before it could be regarded as satisfying the requirements of the Department. He estimated the probable amount required for the purpose at Rs. 70,000 out of which between Rs. 25 and Rs. 80 thousand would have to be paid to the present managing proprietor for the good-will, the building and furniture. He read extracts from the reports of successive Inspectors to prove that neither the accommodation, nor the furniture and appliances approached anything like what the Department expected of Secondary Schools and their Managers and as the educational needs of Kumbakonam demanded two High Schools, no time should be lost in doing all that was necessary for insuring

the stability of the Native High School. He next proposed to the meeting that a Committee should be formed immediately for collecting a fund not only to purchase the school, but also to establish an endowment which might enable the Committee to maintain the school efficiently.

A Committee with power to add to its numbers was appointed for collecting an endowment on behalf of the school. Some other minute details of business were gone through and the meeting terminated.

Mrs. Sathianadhan's Girls' Schools.—The annual distribution of prizes to the four schools took place on the 9th instant under the presidency of Mrs. R. W. Peachy. There was a large attendance of visitors. The proceedings of the evening began with the singing of a lyric. After some preliminary programme was gone through, the Rev. Mr. Peachy briefly addressed the meeting in the course of which he said that his advice to the teachers was to get among the people and explain to them what they were teaching. Mrs. Peachy afterwards distributed the prizes. The National Anthem was sung by the children and the meeting terminated.

Dr. Nair on Education—Speech at Palghat Native High School.—Wednesday the 1st instant marked the completion of the 25th year of the existence of the school since its establishment by its proprietor, manager and headmaster, Mr. V. V. Peramesvara Iyer in the year 1886. The celebration committee spared no pains to make the function a great success and Dr. T. M. Nair presided at the evening function. The President after a short introductory speech spoke on "Education" at length; in the course of which he said that the kind of education which we have in India at the present time has its origin in the famous minute written by Lord Macaulay in 1835. He referred to the practical acceptance of the great principle embodied in Lord Macaulay's minute by the Court of Directors in 1854, and the re-affirmation of this educational policy in 1859 by the British Crown. He described in detail our present position in this country so far as education is concerned. With a vote of thanks to the chair, the proceedings came to a close.

CALCUTTA.

Education in Eastern Bengal.—From the Report of the Director of Public Instruction for the last official year, we understand that there has been a remarkable decrease in the number of public institutions, no less than 593. In the previous year an increase in the number by 1,413 was shown and the increase in the number of pupils was 81,797. The number of private institutions decreased during the year by 135 and that of pupils by 1,976. An analysis of the general statistics shows that the worst results were obtained in the department of Primary Education.

Crown Prince at the University.—The Senate Hall of the Calcutta University was the scene of a very interesting and brilliant function on the 3rd instant, a special Convocation having been convened for the purpose of conferring the Degree of Doctor in the Faculty of Law, "Honors Causa," on His Imperial Highness the Crown Prince.

VICE-CHANCELLOR'S SPEECH.

His Excellency the Chancellor having declared the Convocation open, the Hon the Vice-Chancellor, Mr. Justice Ashutosh Mukerjee, then made the following address:—

My Lord—Among the many privileges enjoyed by our University, we highly prize that of conferring degrees *honoris causa*. This privilege possesses quite a special value and significance, for it enables us to associate with ourselves from time to time, eminent persons who have not proceeded to a degree in the ordinary way, and thus to remind ourselves as well as the outside world that our University claims and acknowledges relations, interests, sympathies, wider than what is commonly understood by the term academic, interests and relations, which indeed, may be legitimately designated as national and imperial. We rejoice to think that now five years ago, we were allowed to give to these wider relations their fullest and fittest expression by enrolling as one of our Honorary Doctors in the Faculty of Law His Gracious Majesty King George at that time Prince of Wales.

To-day, My Lord, I as spokesman of the Fellows of the University of Calcutta request you to admit to the same Degree an illustrious kinsman of the Royal House of England, His Imperial and Royal Highness the Crown Prince of the German Empire and of Prussia, who has now for some time been a guest of this country and its government. That the recipient of the degree is a great grandson of Queen Victoria of loved and revered memory, would alone suffice to secure to him the affectionate regard of every Indian and to account for our wish to do him such honour as is in our power. After a long and interesting speech dwelling on "German Research in India," "German Scholars and Indian Dramatic Literature," "Germany's provision for teaching Sanskrit" and "H. I. H.'s sympathy with oriental studies, the Hon. The Vice-Chancellor presented His Imperial Highness to H. E. the Chancellor for the purpose of receiving the Degree of Doctor in the Faculty of Law.

BOMBAY.

Bombay University Convocation.—Sir G. Clarke's Address.—The Bombay University Convocation was held on the 21st instant, His Excellency the Chancellor presiding. There was a large gathering, including Members of the Executive Council, Syndics, Deans and the Vice-Chancellor. The usual procession was formed and proceeded to the Hall where the usual business was gone through and presentation of degrees and medals took place.

His Excellency made a classical speech referring to Ruskin's definition of schoolmaster and said those were counsels of perfection which may be unattainable except in individual cases. Further, he said everywhere education had become the subject of controversy which sometimes was acute and usually involved. Of Great Britain and the United States it may be said huge systems have not produced all that was expected of them and led to results never anticipated. Whether this is due to faulty methods capable of detection and elimination, whether attributable to higher laws which we failed to conform to and whether to what extent it is possible for education which State systems can provide to mould character and evoke the best intellectual qualities which the individual child possesses are great questions which cannot be discussed. Whatever may be the merits and effects of the present educational methods, it is at least certain that great changes have been introduced in recent years and is still in progress. Such a country as Japan, little hampered by the past, was advantageously circumstanced for building up of systems that can be regarded as modern. India has undoubtedly lagged behind time and partly by reason of the conservatism of the country the path of a reformer is strewn with obstacles.

His Excellency continuing said:—The future direction of education is one of the most important and difficult problems that Government is called upon to face and too much public attention cannot be devoted to it. In the first place in Bombay we may fairly take credit for liberality of public expenditure in comparison with that of other provinces. A total of £786,868 for the year 1908-09 places Bombay second only to Bengal with a population nearly three times as great. The expenditure of the Municipalities of the Presidency is the highest in India. In proportion to the population our total of 792,559 scholars stands the highest. Judged by statistics we have proportionately the largest number of scholars, the greatest public expenditure and the greatest provincial expenditure. Our position as regards the education of girls is relatively most satisfactory. We are spending up to the limit of our resources and nothing but a natural increase of revenue, additional taxation, local or provincial, or grants from the Imperial Government can enable us to do more. We are frequently urged to make primary education free and compulsory and a gradual movement in this direction is clearly desirable. But the question is complicated in many ways which are imperfectly understood.

His Excellency then showed the reasons for excluding classical history from the compulsory curriculum and for making Indian history and Indian polity obligatory upon all students. He said: "I believe that manual training reacts with real advantage upon the mental and moral faculties. For this reason we hope to introduce manual training of some kind into all Secondary Schools."

"Of science teaching I have no time to speak to-day. The munificence of four of our leading citizens will enable fine institutes to be built at Bombay and Ahmedabad. The need of science training in India is growing more and more urgent and it will now be fully supplied in the Presidency."

"Of technical education I can only now say that we have in the Victoria Jubilee Institute a course of training unrivalled in India. I should like to see it filled up with students from the Presidency. But if that cannot be I am glad that it attracts them from a distance. Calcutta has nothing equal to our art school with its technical adjuncts and its 408 pupils."

His Excellency concluded a very lengthy speech by quoting Ruskin: "Let every dawn of morning be to you as the beginning of life and every setting sun be to you as its close, then let every one of these short lives leave its sure record of some kindly thing done for others, some goodly strength or knowledge gained for yourselves to the young men and women who to-day end their period of pupilage and stand at the great parting of the ways in their lives." He could offer no truer advice than those noble words.

The Convocation dissolved after the speech.

Commercial Education: Lecture by Mr. K. Subramania Iyer.—Mr. K. Subramania Iyer of Bombay delivered recently a series of lectures on "Commercial Education in the Universities and a new career for our young men" in the Kayastha Pattashala Hall before a large gathering of students. Mr. Iyer in the course of his lectures dwelt on the importance of Commercial Education, pointed out that the career opened up by a higher course of commercial training would be as lucrative as that in the case of law and other subjects, and pleaded for the recognition of the study of commerce by our Universities.

Moslem University Scheme.—The Moslem University scheme has now advanced so far that it is possible to discuss the question of a Royal Charter. Subscriptions are now most likely to exceed the sum asked for, and it is expected that by March the whole amount required for the establishment of a Moslem University at Aligarh will have been subscribed. The amount so far promised by the supporters of the movement will now be collected immediately, and deposited in the Bank of Bengal. His Highness the Aga Khan did not accept the payment of subscriptions at an earlier stage, as he was desirous of ascertaining whether the Moslem community was in favour of the University movement and also whether the prospects of the scheme were absolutely sure of realisation. The response to the Aga Khan's appeal has been most cordial.

It has been decided to convene a meeting of prominent Moslem leaders, sometime in March, probably in Aligarh, to discuss the constitution and

scope of the University. It is difficult, at present, to say exactly what the constitution of the University would be, but the meeting would have the models of Oxford and Cambridge before it, with the necessary modifications to suit the requirements in India.

The meeting will also select some gentlemen in London to draw up the necessary documents before approaching His Majesty King George V. for the grant of a Charter for the University. The petition for a Royal Charter will, it is believed, be presented in April next.

ALLAHABAD.

Educational Conference.—The Educational Conference opened on the 13th instant and was attended by Mr. G. K. Gokhale, Rao Bahadur R. N. Madholkar, Monvie Syed Shamsul Hudda, Mr. L. Stuart, Mr. R. Burn, Sir Edward Parratt, Mr. J. E. Stone, Mr. W. H. Sharp, Dr. G. W. Kuehler, Mr. C. F. De La Fosse, Mr. J. C. Godley, Mr. N. L. Hallward, Mr. J. C. Covert, Mr. A. L. Wright, Mr. J. A. Richey, Mr. A. Chatterton, Dr. Morris, Mr. W. Travers, Mr. Masani, Mr. Dikabit, Dr. Ziauddin Ahmed, Mr. W. H. James, Pandit Sunder Lal and Mr. H. Sharp. On the first day the whole question of Primary Education was exhaustively discussed, especially the necessity for educational survey, expansion of the board of aided schools, minimum instruction to be imparted in an elementary school, the question of differentiation in the curricula of urban and rural schools, the number of hours, strength of the staff, division of schools into classes, training of teachers, minimum of standard of qualification to be aimed at, respective merits of the board of schools and of aided schools in case of large expansion, salaries of teachers, strength of the inspecting staff, measure of control to be vested in the department and local bodies respectively, etc.

On the second day, the members discussed matters covered by the draft resolution which Rao Bahadur R. N. Madholkar withdrew from the Imperial Legislative Council. Several definite conclusions were reached and practical schemes for the advancement of technological instruction in all its branches were discussed. The proceedings were throughout marked by great interest and enthusiasm and at the end the Indian members present expressed their high appreciation of the sympathetic manner in which the matters had been dealt with and out before the Conference by the Hon'ble Mr. Butler.

The question of religious and moral instruction was the subject for the Third day and also certain other questions connected with education.

Education in United Provinces.—Sir John Hewett has issued a Resolution on Education in the United Provinces in which he says he is dissatisfied with the present state of it. The Lieutenant-

Governor regards the work of the year as very disappointing. "In no branches of education," he says, "has sufficient progress been made, and in some there has been retrogression." In Primary Education there is stated to have been actual failure.

A Central Boys' School at Mussoorie.—The scheme which has received the warm support of the Hon'ble Mr. Madge and those working with him for the same cause purposes the establishment of a Central Boys' School at Mussoorie. The school is to be equipped with every modern appliance for sound education including teaching up to the standard of the F. A. qualification of the Allahabad University, also for special courses of training for various Indian Government departments and, when required, for English examination up to the London Matriculation standard. It is to be built on the hostel or house system to accommodate 300 boys, exclusive of any preparatory department which may be added afterwards, and five houses to take 60 boys each are to be built on the estate. The headmasters of each of the three private schools of Mussoorie and Landour are to be invited to transfer their schools and become house-masters, and various houses, each provided with an additional resident-master trained like a house-master in India are to charge various fees in order to attract the children of different classes of the domiciled community. At least five masters including the warden and headmaster are to be engaged from England. Special provision is to be made for denominational religious teaching.

CENTRAL PROVINCES.

Education in the Central Provinces.—The Chief Commissioner in his report remarks that the total expenditure on education 'which has been showing a large annual increase for some years past,' was slightly less in the year 1909-10 than in the preceding year. District boards spent liberally on education for, while the administration considers that a reasonable expenditure would be 33 per cent. of their total income, they actually spent 41.77 per cent. while in certain districts the expenditure exceeded this limit, Chhatisgarh spending so much as 56 per cent. The Chief Commissioner utters the warning that more money for education cannot be found from this source. 'It is only when revision of settlement increases the income from cess that anything more than trivial additions can be made to primary schools at the expense of the District Funds.' More. 'The limits of provincial expenditure have been nearly reached in the existing financial position and unless additional sources of income are tapped and fees increased, any substantial advance in education must be indefinitely postponed. The Chief Commissioner believes that it is generally recognised that secondary education is unduly cheap and that a reasonable increase in the fees, which would set free fund for the increase of primary education, would have the support of public

opinion. The *Leader* in its issue of the 21st ultimo protests against the idea of raising the school fees, for it says, that the middle class who find it hard enough to maintain their boys at school at present will find it the more so when they are required to find more money for fees.

Scholarships instituted by the Chief Commissioner.—The Chief Commissioner has been pleased to institute scholarships to commemorate the Jubilee of the Nagpur Volunteer Rifles. They shall comprise:

(a) Six Scholarships of Rs. 10 each per mensem, tenable for three years, to be held in the Middle School Classes of any European School in the Central Provinces and Berar.

(b) Two Scholarships of Rs. 15 each per mensem, tenable for two years to be held in the High School Classes of any European School in the Central Provinces and Berar.

(c) One Scholarship tenable for two years, of Rs. 18 per mensem for the first year and Rs. 20 per mensem for the second year, to be held in the Civil Engineering Class of the Engineering School when established at Nagpur.

(d) One Scholarship, tenable for three years, of Rs. 18 per mensem for the first year, Rs. 20 per mensem for the second year, and Rs. 25 per mensem for the third year, to be held in the Mechanical Engineering Class of the Engineering School when established at Nagpur.

Certain rules have been framed to show the persons eligible for the scholarships and the tenure of the scholarships.

PUNJAB.

Education in the Punjab.—There was marked development in education in the Punjab in 1909-10, for the number of pupils went up to 320,466, of whom 285,480 were males and 43,986 females, the total increase being 26,890, comprising 19,855 males and 7,035 females. Side by side with this increase the expenditure also, as was only to be expected, increased by Rs. 2,84,104 or by about 5 per cent. More than half of this increase was met from fees or other private sources and the Provincial Government contributed nearly a lakh more than in the previous year. The most noticeable increases have been in the number of pupils attending primary as well as those attending high schools, the former being treble and the latter double of those in the preceding year. The number of scholars in arts colleges rose from 1,860 to 2,022 of which the four arts colleges at Lahore claimed as many as 1,483.

More than ordinary care has been taken to give in the report an exhaustive survey of the activities of the Education Department in the field of moral instruction. A series of moral text-books containing fables, moral precepts and poems have been in-

roduced. Conspicuous among these is 'My Duties,' a Junior Moral Text-book with an Address to Teachers by Dr. Murdoch.

MYSORE.

The subject of improving the Industrial Schools in the Mysore State has been engaging the attention of the Durbar and they have considered it essential that a definite policy and plan of work should be adopted so as to secure the best possible results in this important branch of education. They have appointed a Committee consisting of the undermentioned gentlemen for considering the subject and submitting their proposals:—(1) Mr. M. Visvesvaraya, Chief Engineer (President). (2) Mr. J. Weir, Inspector-General of Education in Mysore. (3) Mr. V. Rangaswamiengar, Executive Engineer. (4) Mr. C. Krishna Rao, Head Master, Government High School, Bangalore. (5) Mr. G. Subbasawmi Iyer, Superintendent, Industrial School, Mysore. The Committee will consider the subject in all its aspects and submit a full and detailed report, within six months, indicating among other things, how the Industrial Schools should be conducted according to a comprehensive programme and what defined courses of training should be systematically followed.

The Indian Institute of Science: Bangalore. His Highness The Maharajah of Mysore laying the corner-stone of the library building.—The Indian Institution of Science is the outcome of the sagacity and patriotism of the late Mr. J. N. Tata. Dr. Morris Travers gave on the occasion a very interesting review of the history of this magnificent enterprise, its present position, and its future outlook. The laboratories, students' quarters and bungalows for the staff will be ready early this year for occupation and the library building now commencing will be completed in two years. The institute will be open for regular work on the 5th July this year and applications from graduates of recognised Universities or similar institutions have been invited for the purpose of undergoing training in any of the departments which have been established, namely, General Chemistry, Organic Chemistry, Applied Chemistry, and electrical technology.

COCHIN.

Opening of a School at Ernaaculam by H. H. The Raja of Cochin.—On Saturday, the 28th January at 4-30 P.M. a large gathering assembled on the premises of the Krumal Devaswom, Ernaaculam to witness the ceremony of opening the Subbaraya Pai Memorial School, established by the Goud Saraswat Brahman Samaj of Ernaaculam.

The meeting was presided over by His Highness the Raja of Cochin. Among those present were Their Highnesses the Fifth Prince, the Twelfth Prince, and the Fifteenth Prince, Messrs A. R. Banerji, Dewan of Cochin; V. Kulu Eradi, Chief

Justice of Cochin, K. Narayana Marar Senior, Puisne Judge of Cochin, F. J. de Rozario Puisne Judge, Chief Court of Cochin, V. T. Krishnamachari, Dewan Peishkar, J. V. Pope, Special Educational Officer, Mr. and Mrs. Brown, Mrs. Davies, Dr. Coombes, Chief Medical and Sanitary Officer, and others. A large number of Saraswat gentlemen from Mangalore, Kasargod, Tellichery, Calicut and Travancore also specially came down for the occasion.

The proceedings began with a prayer on the Sarang, a welcome and an action-song by some of the girls. Then was read the address of welcome which was printed on silk cloth in gilt letters and was enclosed in a beautiful basket of local workmanship produced by the Industrial School. The Raja replied in his usual happy style.

H. H. THE RAJA'S REPLY.

He said:—"President and Members of the Goud Saraswat Brahman Samaj.

It is a matter of great pleasure to me that I have been able to accept your invitation to preside over this interesting function. I am particularly gratified to find that you realise the importance of female education, and that your first attempt to bring your community in a line with your fellow subjects is to open a school to educate your girls. I am glad you are able to secure the co-operation of the Tirumal Devaswom authorities and they have come to your assistance in the matter of accommodation and equipment. The name of the Saraswat Brahman of South Canara, by which you have resolved to call the institution will, I hope, create a sacred association, and carry with it to your school his spirit of genuine and disinterested self-sacrifice for his fellow-beings. His example should be your beacon light, his many sided activities to elevate his fellow classmates should inspire you with hope and aspiration, and I have no doubt that the little beginning that I see to-day amongst you of progress, will in the course of time enable you, Saraswat Brahmans of Cochin, to take an equal, if not a higher place, amongst the members of your caste in other more important centres of India. I now declare the Subbraya Pai Girls' School open, and wish it all success."

And being given a silver key opened the school in the midst of loud applause. Then followed music, the recitation of Sanskrit slokas by Mr. P. N. Srinivasa Pai and Malayalam slokas by Mr. U. Hari Kamath, the whole of proceedings terminating with the usual vote of thanks and three cheers to H. H. the King-Emperor and H. H. the Raja of Cochin which were loudly responded to by the whole audience standing. H. H. the Raja with his usual condescension stayed a few minutes after the close of the proceedings to speak a few words of encouragement to the President of the Samaj to persist in his good work of regenerating his community.

TRAVANCORE.

The Travancore Educational Code.—Ever since Dr. Mitchell's appointment as Director of Public Instruction, there seems to exist a widespread belief that aided schools would suffer from his administration. The publication of the Educational Code intensified this feeling and an attack was made on the Director and his policy in the S. M. P. Assembly last year. Dr. Mitchell at the time promised that the clauses of the Code complained of by the assembly would be interpreted in a liberal spirit. It is contended by Dr. Mitchell's critics that he has not maintained his pledges. The departmental stringency has been considerable in the case of Aided Schools, though the Government schools which are held out as models of the other schools have never been in a more neglected condition in the matter of staff, equipment, efficiency and morale. Recently the Right Rev. Dr. H. Benziger, the Roman Catholic Bishop of Quilon, who controls a vast number of Aided Schools in the State voiced the feelings of Dr. Mitchell's critics in a memorial which he presented direct to H. H. the Maharajah, complaining of the action of the Educational Department against the development of aided schools generally and of Roman Catholic Schools specially. Dr. Mitchell in an elaborate reply, confined himself to meeting some of the details of the Bishop's argument. The Durbar however has wisely added the following: "The Educational Department is not actuated by any spirit of hostility towards Catholic schools. The increased stringency introduced by the Education Code applies to all schools, and Government rely on managers of private schools generally, including those of Catholic schools, to work up to the level indicated by the Code." Aided effort has undoubtedly done good work in the past in the field of education and His Highness' Government do not see why it should not continue to do equally good work in the future." This G. O. has to some extent relieved the tension and restored confidence by making the people see clearly that Government are not hostile towards aided education and that the common belief to that effect was unfounded.

BARODA.

Free and Compulsory Primary Education.—In Baroda, primary education is not only free but compulsory also. In each village a regular directory is being kept of children of school-going age and adequate penalties are imposed on all parents who without good reasons keep their children away from the schools provided liberally by the State. Various inducements also, such as exemption from certain local taxes, quicker promotion in the public services, suitable rewards for exemplary service to the educational department, etc., are held out to the parents as well as to others willing to help the spread of the educational movement. In industrial education also Baroda is making admirable progress. A splendid library will be established at

Baroda at no distant date and a unique picture gallery in connection with the Baroda Museum. It is intended to benefit Indian students of art and will contain a large collection of original paintings, ancient as well as modern, by masters of the art from both the West and the East. The pictures will be such as to show the development of the art of painting from the earliest times to the modern. There will be, of course, an Indian section to the gallery which will be representative of all the great schools of art known to this country. As in the case of Central Library it is apparently His Highness' wish that this unique and priceless collection of the world's masterpieces may stimulate the study and cultivation of the art not only in Baroda but also in other parts of India.

KASHMIR.

Proposed Kshatriya College: Maharajah of Kashmir's Appeal.—The Maharajah of Jammu and Kashmir, President of the Kshatriya Upkarni Mahasabha, has issued an appeal to the Rajput community in which His Highness suggests the establishment of a Rajput College as a memorial to the late King-Emperor. His Highness refers to two existing high schools for the Kshatriyas, one founded by the Raja of Bhinga at Benares at a cost of eleven lakhs and another by the late Raja of Awagath at Agra at a cost of ten lakhs but these do not fully satisfy the requirements of the community. "We wish," says His Highness "to develop esprit de corps among young men of our community and ensure the development of Kshatriya characteristics. If His Highness estimates that thirty-five lakhs will be needed for the establishment and equipment of a grade Kshatriya college and five lakhs for scholarships. The foundation-stone of the College, it is proposed, may be laid by the King-Emperor when he comes to India.

Foreign Notes.

GREAT BRITAIN.

Moral Instruction in India.—Mr. F. J. Gould, Demonstrator of the Moral Education League, recently gave a model lesson in Moral Instruction to a class of children aged from 11 to 13. The chair was occupied by Sir Theodore Morrison, K.C.I.E., Vice-President of the India Council. The lesson which was illustrated by materials drawn mainly from Eastern sources, so invited the attention of the children, that they appeared quite oblivious of the large audience behind them. The leading idea underlying this particular lesson was the beauty and value of a "generous spirit" in our thoughts for shaping the conduct of lives. Stories from the Hindu, Mahomedan and other Eastern scriptures were told in simple language. The interest of the children was kept up by frequent questioning as to the meaning of words and their equivalents in

different phraseology, with the occasional use of the black-board. After the lesson, the children having left the room, an interesting discussion followed; and at the close of the meeting, Sir Theodore Morrison delivered an eloquent address in which he expressed his conviction, though he was careful to say that he spoke unofficially, that such lessons would be of inestimable value in Indian schools—supplying a real want in our educational system.

Teaching of English in Secondary Schools: Interesting circular by the English Board of Education—An interesting circular has been issued by the English Board of Education on the teaching of English in Secondary Schools. The object of the circular is to give suggestion and guidance to teachers by setting forth aims to be followed and errors to be avoided. Dealing with the teaching of English under the two heads of literature and composition, it says that these subjects 'are organically inter-connected, so much so as to make it eminently desirable that in any given class the same teacher should be responsible for both, and essential that where this cannot be managed they should be at all events kept in close touch with each other.' The circular does not deal with English grammar under a separate head. Of this subject it says: There is no such thing as English grammar in the sense which used to be attached to the term. Grammar is the structure of language reduced to theoretic system, but no system based on the phenomena of any living language can be final. English is not a language the growth of which is ended and the usages of which can therefore be collected and expressed in settled formulæ, but is a living organism in process of constant change. In the past the formal teaching of English grammar was based on Latin grammar. It is now realised that this was a mistake founded on a whole set of misconceptions. 'We are told that the teaching of English in a school is not, and cannot be, confined to the hours definitely set apart by the time-table for the subject. Practically every lesson throughout the school is incidentally an exercise in speaking, reading, or writing English. The bearing of this fact on the

work of the special teacher of English must never be overlooked.'

The writing of English: an interesting address by Prof. Walter Raleigh.—'The Writing of English' was the subject of an entertaining address recently delivered by Professor Walter Raleigh to the students of the University of London. 'My first advice to the writer,' said the Professor, 'is "Do not begin too soon." The difficulty lies not in finding words, but in doing two things at the same time—forming opinions and finding words. The thinking must be done beforehand. If you do not know exactly what you mean you are extremely liable to that common literary disease called veracity. You merely seek for words that sound all right.'

Interest and experience in a subject were essential to a writer. 'What you want is not an abundance of facts so much as the connections between the facts. It is the connection of things with each other, the ability to go from point to point which makes literature.'

'Then there is the question how to begin—one of the most difficult things in literature. Good writers, like good musicians, can always be known by their "attack." There is no better way of beginning than that of the direct launch into the subject. You will often be surprised to find how clearly and well an essay begins on the third or fourth page. Sweep away all those artificial beginnings which may seek to demonstrate the importance of the subject, or perhaps to trace the beginnings of it from the Garden of Eden.'

'It is not easy to be simple in writing, but you must write simply and definitely because you feel what you write. There are few opportunities in life for eloquence. A great mistake is to think that a writer may be eloquent on anything, even a broomstick. The effect of an eloquence that loses touch with its audience is very dangerous. It is like the speaker who gesticulates while his hearers remain cold. You must recognise the importance of determining how much passion or feeling a subject warrants, and the importance of allowing your self somewhat less.'

In the Press—will be ready shortly.

The School Leaving Certificate & Matriculation Examinations, 1912.

CAPTURE & CONQUEST OF MEXICO

BY

WILLIAM HIKLING PRESCOTT

Edited carefully with Introduction and Notes.
Printed in bold type—lines numbered.

SRINIVASA VARADACHARI & Co., TRIPPLICANE AND ESPLANADE, MADRAS.

THE ENGLISH ASSOCIATION.

THE SOUTH INDIAN BRANCH, MADRAS.

In response to a notice, signed by the Professors of the local Colleges, a number of gentlemen interested in the advancement of English language and literature met on the evening of Friday, the 17th February, at the Presidency College, with the object of founding in Madras a branch of the English Association.

The objects of the English Association are:—

(a) To afford opportunities for intercourse and co-operation among those interested in the study and teaching of English literature and language.

(b) To promote the due recognition of English as an essential element in the national education.

(c) To discuss methods of teaching English and the correlation of School and University work.

(d) To encourage and facilitate advanced study in English literature and language.

Among those present were:—Rev. J. H. Russell, Mr. Mark Hunter, Mr. E. W. Middlemast, Mr. K. B. Ramanathan, Rev. G. Pittendrigh, Mr. W. F. Grahame, Miss Lynch, Rev. W. Meston, Mr. J. H. Mackintosh, Mr. C. P. Ramaswami Aiyer, Mr. V. V. Srinivasa Aiyengar, Mr. S. E. Ranganathan, Mr. V. Masilamoni, Mr. S. Srinivasa Iyengar, Mr. H. A. Hart, Mr. P. Seshadri, Mr. G. A. Natesan, Mr. P. N. Raman Pillai, Rao Sahib S. Bhavanandam Pillai, and Mr. T. Ramakrishna Pillai.

CHAIRMAN'S REMARKS.

The Rev. G. Pittendrigh occupied the chair and in opening the proceedings of the evening said that they were all aware of the object of the meeting. The object had been put before them in a pamphlet circulated among them and announced in the local papers. They were there assembled to consider the desirability of opening a branch in South India of the English Association in London, which had now acquired a considerable importance. Some of them might feel that an Association of the kind was less needed here than in England. As a matter of fact it was so. At the same time, he pointed out that the proposed Association would serve very useful purposes.

THE BRANCH ASSOCIATION.

Mr. Mark Hunter then proposed "that a branch of the English Association be formed in Madras and that the name of the branch be the South Indian Branch of the English Association."

In moving the proposition Mr. Hunter said that the presence of those assembled implied approval

of the proposal before the meeting. From the number of letters received from sympathisers with the movement it was evident that they would be able to start the Branch with at least fifty members, about thirty of whom were Professors of English in Colleges affiliated to the Madras University. Before long he doubted not that, without any extraordinary effort, the number of members would rise to a hundred. They could also rely on the support of the administrative and inspecting officers of the Educational Department, as well as of many others not professionally connected with education. Amongst others Sir Ralph and Lady Benson, Mr. Justice Wallis, the Hon'ble Mr. P. S. Sivaswamy Iyer, the Hon'ble Mr. T. V. Seshagiri Iyer and Mr. A. I. Mayhew had expressed sympathy and approval.

The speaker then dealt with the general aims of the Association and showed that these were sufficiently comprehensive to appeal to all classes of persons interested in English language and literature; to those to whom English literature was chiefly a matter of aesthetic enjoyment, to those whose interests lay in the direction of exact scholarship; and to those who were concerned with English mainly on the pedagogic side, in its relation to education.

The work of the Association was carried on chiefly by means of meetings and publications. Members of the Association resident in India could of course benefit only indirectly from meetings held in England, but the indirect benefits were considerable. The meetings held by the Central Body in London and by the Branches, and the subjects discussed were reported in the Association's Bulletins which were issued to all members. It was of the greatest value to those engaged in teaching or studying a particular subject to be brought into touch with others similarly engaged in other parts of the world, to know what aspects of the subject were chiefly attracting attention, and how the subject was being approached. These advantages members of the Association enjoyed through the bulletins, which frequently contained reports in considerable detail of important papers read at meetings of the Association by distinguished scholars and educationists. The publications of the Association, from which they could directly profit, consisted of these bulletins, issued three times a year, of the so-called leaflets, the modest title of which by no means did justice to their contents; of occasional reports relating to special matters which from time to time engaged the attention of the Association—all of which were supplied to members at no cost beyond the small annual sub-

scription; and lastly of volumes of essays, by members of Association which could be purchased by members on specially advantageous terms. The bulletins were the record of the work of the Association. In addition to reports of Branch and other meetings, they contained a variety of interesting and important matter, including at times critical matter of a high order. Mr. Hunter instanced especially appreciations of Swinburne, George Meredith and Dr. Furnivall. Important speeches and addresses by distinguished scholars on matters relating to English studies were often reported in full. Lastly there were the select bibliographies which each bulletin contained. These were of the greatest value, and were in themselves well worth the modest annual subscription. The bibliographies were carefully selected lists of all really important and useful contributions to scholarship in English, both books and periodical literature which had recently appeared in England, America and the continent of Europe. The German and American lists were specially prepared for the Association by distinguished scholars in Germany and the United States.

These there were some of the advantages of membership, and it could scarcely be questioned that those engaged in teaching in Indian schools and colleges would derive immense profit from being brought into touch with a body such as the English Association, a body whose activities were carried on and guided by some of the most eminent living scholars and educationists.

It might be asked, wherein lies the special need for a Branch? Why should not those interested simply join the Central Body? The first answer was that only through a local Branch could the Association benefit India to any considerable extent. Unless a large number of teachers was brought into relationship with the Association no considerable results could be expected, and in the absence of a Branch it was extremely unlikely that more than a handful would join. Thus merely viewed as a recruiting agent a Branch was indispensable. But a Branch might serve a variety of other purposes. We had our own local conditions and local needs to face, toward which the Central Body could render only indirect assistance. This was particularly the case with English studies in schools. Here quite other problems confronted us than those with which educationists in England had to deal. It might be expected that a local Branch would specially take up such problems, and the constitution of the Branch would afford facilities for doing so. We should have our own programme of meetings, papers and discussions; we could also arrange to have our own publications, which

would be issued to members of the Branch. It was proposed, in addition to a small executive committee, to have a large and representative general committee, from which sub-committees of experts could, whenever necessary, be formed. These sub-committees could consider and report on special matters referred to them, and the Branch would thus be in a position to make representations on matters relating to English studies to the educational authorities. It was not too much to expect that these authorities, both the Department and the University, would ere long recognise that the Branch could be of distinct service to them, and would refer questions in which the Association is concerned to the general committee of the Branch for consideration and report.

Mr. K. B. Ramanadban seconded and Mr. C. P. Ramaswami Aiyer supported the proposition which was unanimously carried.

OTHER RESOLUTIONS.

The following resolutions were also adopted during the evening:—

1. That the membership of the Association shall be open to all persons interested in English language and literature.
2. That the objects of the Association shall be the same as those of the Central Body with special reference to South Indian conditions.
3. That the officers of the Association shall consist of one President, not more than nine Vice-Presidents, two Honorary Secretaries and one Honorary Treasurer.
4. That there shall be a General Committee consisting of the office-bearers and 20 other members.
5. That there shall be, besides the Honorary Secretaries and the Honorary Treasurer an Executive Committee of five members, being residents of Madras, to be elected by the General Committee.
6. That the annual subscription shall be Rs. 4 including the subscription to the Central Body.

The following office-bearers were then elected:—

President.

The Hon'ble Mr. Justice J. E. P. Wallis, M.A.,
Bar-at-Law.

Vice-Presidents.

The Hon'ble Justice Sir Ralph S. Benson, Kt.,
M.A., LL.B., Bar-at-law, I.C.S.
The Hon'ble Mr. J. H. Stone, M.A.
E. W. Middlemast, Esq., M.A.
The Rev. G. Pittendrigh, M.A.

THE ANNUAL MEETING OF THE CENTRAL ENGLISH ASSOCIATION, LONDON.

THE annual general meeting of the English Association, held on January 27th and 28th, was an unqualified success. At the business meeting with which the proceedings opened, the Report and Financial Statement for 1910 were adopted, both testifying to the growth and prosperity of the Association. Some slight changes were made in the rules of the constitution. Mr. A. C. Bradley was unanimously elected President; Lord Morley (as Past President) and Mr. Sidney Lee (in place of the late Dr. Furnivall) were chosen as new Vice-Presidents; and Mr. C. T. Hagberg Wright as Hon. Treasurer in succession to Mr. E. S. Valentine, who retires. Mr. A. H. D. Acland continues the Chairmanship of Committee for another year; and Mr. Percy Simpson was re-elected Hon. General Secretary. Mr. G. E. S. Coxhead resigned the office of Hon. Secretary for business connected with branches in England and Wales early last year, and it was moved and carried that the office be abolished. A vote of thanks to Mr. Valentine and Mr. Coxhead, two of the chief originators of the Association, was unanimously carried. Several new members representing scholarship and teaching were elected to the General Committee.

The great event of the meeting was Lord Morley's Presidential Address, delivered to an appreciative audience of over 800 persons (among whom were some of the most distinguished writers and teachers of the day) in the Lecture Theatre of the Civil Service Commission, Burlington Gardens. Lord Morley spoke for more than an hour, and in fascinating manner treated a number of points concerning English literature and language at the present time. The address was packed full of observations that, as our French neighbours say, give furiously to think. Lord Morley's main purpose was to discover how literature or language would "fare amid the swelling tides of democracy." He spoke of the effect of science on prose and on poetry, and of the peril of the documentary age in regard to the writing of history. For the spirit of the time was the spirit of science and fact and ordered knowledge. He showed how such men of science as Darwin, Hooker (happily still with us), Huxley, and Buffon were writers of excellent form, and that Tennyson's interest in the problems of evolution did not prevent him from being an exquisite melodist. He then discussed the qualities of style, highly commending two, those

Mark Hunter, Esq., M.A.
The Hon'ble Mr. P. S. Sivaswami Aiyar, C.I.E.,
B.A., B.L.

The Hon'ble Mr. T. V. Seshagiri Aiyar, B.A., B.L.

General Committee.

Lady Benson.
H. S. Duncan, Esq., M.A.
The Rev. A. F. Gardiner, M.A.
W. E. Hoare, Esq., M.A.
L. C. Hodgson, Esq., M.A.
Miss C. M. Lynch.
A. I. Mayhew, Esq., B.A.
G. A. Natesan, Esq., B.A.
A. C. Pranatharthahari Iyer, Esq., B.A.
The Rev. Father Quinn, S.T. D.D.
K. B. Ramanathan, Esq., M.A., B.L., L.T.
C. P. Ramaswami Aiyar, Esq., B.A., B.L.
The Rev. J. M. Russell, M.A.
P. T. Srinivas Iyengar, Esq., M.A., L.T.
V. S. Srinivasa Sastri, Esq., B.A., L.T.
J. G. Tait, Esq., M.A.
J. A. Yates, Esq., M.A.

Honorary Secretaries.

W. F. Grahame, Esq., I.C.S. (Retired).
P. Seshadri Esq., M.A., Pachaiyappa's College.

Honorary Treasurer.

J. H. Mackintosh Esq., B.A., Presidency
College.

The meeting terminated with a vote of thanks to the chair.

The following Executive Committee was provisionally elected by the members of the General Committee present at the meeting:

The Rev. G. Pittendrigh, M.A.
Mark Hunter, Esq., M.A.
K. B. Ramanathan, Esq., M.A., B.L., L.T.
Miss C. M. Lynch.
C. P. Ramaswami Iyer, Esq., B.A., B.L.

of sanity and *justesse*—qualities that have the advantage of being within reach, while the grandeur of Carlyle, Macaulay, and Ruskin is not. It was pleasant to some of his auditors to hear Lord Morley's warning not to undervalue criticism, or to fall into the blunder of regarding it as a mere parasite of creative work.

The address concluded on a note of hope for literature in the future. Although there is to-day no monarch in any tongue upon the literary throne, no sovereign world-name in poetry or prose, there is no cause for despair.

"Genius is genius. The lamp that to-day some may think burns low will be replenished. New orbs will bring light. Literature may be trusted to take care of itself, for it is the transcript of the drama of life, with all its actors, moods, and strange flashing fortunes. The curiosity that it meets is perpetual and insatiable, and the impulses that inspire it can never be extinguished."

The vote of thanks for the eloquent address was moved by Mr. Sidney Lee, who referred to another great instance of the combination of a Secretary of State and a man of letters in Addison, and seconded by Prof. Mackail.

A dinner followed at the Criterion Restaurant, at which 200 ladies and gentlemen were present. Lord Morely had intended to preside, but was prevented by a command to dine at Windsor. At his request Mr. Sidney Lee took the chair. The toast of the Association was proposed by Mr. John Bailey, who said that the Association had a real claim to respect and approval, and was treated with increasing regard by schoolmasters throughout the country, and recognized by the Board of Education, who had asked its assistance in the preparation of a circular on the teaching of English in Secondary Schools. He thought that in whatever spirit the teaching of English literature was to be guided in the future, it was certain that there would be increasing study of it on right lines. Prof. C. H. Firth in responding spoke of the success of the Association in enlisting in its cause a large number of the most eminent living representatives of English letters, a circumstance that proved, he humorously added,

that English literature was not regarded merely as a subject for examination purposes.

Prof. Ellershaw, President of the Durham Branch, proposed the "Guests," and Mr. Richard Whiteing in reply said that authors were enormously interested in the work of the Association, for was it not true that the Association was making readers for authors? Mr. John Albert Bright also responded, warmly praising the objects and methods of the Association. The health of the Chairman was then proposed by Mr. A. H. D. Acland, who spoke in appreciative terms of Mr. Lee's work as a man of letters, and in particular praised his latest book, 'The French Renaissance in England.'

On Saturday morning a discussion on 'Phonetic Spelling' was held at University College, Dr. T. Gregory Foster presiding. It arose from the very interesting paper on 'The Present State of English Pronunciation,' contributed by Mr. Robert Bridges to the volume of 'Essays and Studies' by members of the English Association, edited by Mr. A. C. Bradley, in which Mr. Robert Bridges criticized Mr. Daniel Jones's system of phonetics. Among the speakers were Prof. Skeat, Mr. William Archer, Mr. Bridges, Mr. Bernard Shaw, Mr. Daniel Jones, Miss A. D. Butcher, and Mr. W. W. Sawtell. Prof. Skeat declared that the history of every word was really the history of its pronunciation. The spoken word was the real word. Mr. Bridges took a hopeful view of the situation in stating that he thought the present generation would see phonetic spelling in use in the elementary schools. Mr. Bernard Shaw said that it was really time something was done in the matter of spelling reform. He suggested as a first step that the play of 'Hamlet' as pronounced by Mr. Forbes-Robertson, the best living speaker of English, should be issued in Mr. Bridges's script. There was evidently much difference of opinion among the speakers as to the methods in which a reform of English spelling could be carried out, but such a discussion has its uses in bringing to light the various systems proposed.—*The Athenæum*.

The Educational Review.

We publish on another page an account of a preliminary meeting recently held in the Presidency College for the purpose of founding in South India a branch of the English Association. The proceedings throughout were of a satisfactory character. There was a considerable attendance of educationists and of gentlemen interested either in education or in English literature or in both, and a large number of ladies and gentlemen who were unable to be present wrote to express their sympathy with the objects of the meeting, and their wish to become members of the Association. The Branch indeed enters on its career under the happiest auspices and with the brightest prospects of success. The list of office-bearers is an imposing one. The Vice-Chancellor of the University is President; the Vice-Presidents include a former Vice-Chancellor, the Director of Public Instruction, the Advocate-General, the representative of the University on the Legislative Council and the Principal of the Presidency College. One of the Honorary Secretaries is a retired member of the Indian Civil Service whose zeal and energy in everything relating to books and literature are well-known. The General Committee is thoroughly representative of English studies, in Colleges and Schools, not only throughout the Madras Presidency but in the States of Hyderabad, Mysore and Travancore. The number of members already enrolled approaches, we understand, a hundred. If this figure is reached—as there is every reason to hope it will very shortly be reached—the Branch, according to the rules of the Association, will have the right to nominate two of its members to serve on the General

Committee in London—a privilege which should prove no empty distinction.

The inclusion of South India within the sphere of influence of such a body as the English Association is undeniably a matter for congratulation. Within a very few years the Association has achieved a most conspicuous and remarkable success, a success by no means confined to the United Kingdom. Branches have been established in far distant parts of the British Empire; members have been enrolled in the United States, in France and in Germany, and distinguished scholars in these countries are now rendering the Association active and valued support. The position which the Association has attained in England may readily be gathered from the space and prominence assigned in the London Press to the recent annual meeting of the Association, a meeting over which the outgoing President Lord Morley presided, and at which he delivered a characteristically brilliant address. Lord Morley indeed was at his best—how good that is requires no exposition; and it was fitting that he should be so, for the gathering assembled to hear him was no common one, but included not a few of the most distinguished representatives of letters, scholarship and education in England, all of them members of the Association. To all of these the Association in its several aims specially appeals; from many of them it has received and receives, not merely a passively benevolent patronage, but active support and co-operation. Such support and assistance has imparted to the work of the Association—as its numerous and valuable publications abundantly testify—an undeniable tone, a note of distinction, the note of scholarship and the note of critical taste—things of

priceless value in education, particularly where language and literature are concerned; and for this reason, that probably in no other province of education is the presence of scholarship and taste so great a desideratum, for in no other is the absence of these things attended by results so deplorable.

It is perhaps the special distinction of the English Association that it strives to blend and unite aims and ideals in educational work hitherto kept too much apart—to no one's advantage; that it brings the sense of scholarship and literary taste to freshen the atmosphere of the school-room and the lecture-hall; that it seeks to substitute a liberal and humanising culture for a wearisome drudgery dedicated to dull prosaic ends; in a word that in its use special province it makes the dry bones of education live. This, we think, is the special feature of the English Association, marking it off from other organisations for the advancement of scholarship or education, of which of course it is no rival, but which are inevitably less comprehensive in aim and appeal. Nor could the Association have given better proof of the high standard and comprehensive ideal they set before them than in the election of the eminent scholar, man of letters and teacher whom they have chosen as Lord Morley's successor in the Presidential chair. To the active help and guidance of Dr. A. C. Bradley, as contributor to and editor of the publications of the Association, and as member of the Executive Committee, the Association owes much of its success in the past. Whether on the score of actual services rendered or of personal distinction no fitter choice could have been made, and the election is in itself a guarantee of the continuance of the high standard

which has hitherto characterised the work of the Association.

In the benefits of this work South India, through the establishment of the Association, may fully participate. It was remarked at the preliminary meeting that, though the Association might be useful in various ways to India, it was actually more needed in England than in this country. The suggestion contained, in a restricted sense, a certain measure of truth. No doubt one of the aims of the Association has long been realised here; but the realisation of the single aim renders that of the others all the more necessary, just as the possession of a powerful and elaborate machine renders skill and knowledge in working it particularly imperative in the possessor. We in India have long possessed the machine. English studies have for many years occupied unchallenged a prominent position in University and school curricula. Can it however be maintained that we have always shown ourselves, that we now show ourselves peculiarly skilful or competent workmen? On the other hand can it be denied that we have still much, very much, to learn in this matter; and is it not apparent that in no way can the much-needed instruction and stimulus be more readily and profitably imparted than through the agency of the English Association? The extension of the activities, above all, the infusion of the spirit of the Association in our colleges and schools may very well, we believe, will assuredly, result in a quickening of energies now partially dormant, and in a diversion of effort now largely misdirected into fertilising channels. Capacity in our teachers, high and low, is, we imagine, not essentially lacking; zeal too is not in any way rare; but knowledge both of matter and method

is unfortunately too often much to seek. Not that there have not been encouraging signs of late; an awakening to what is required; individual, and even organised effort in various quarters and in the right direction, not unattended by something more than a promise of success; but a further impetus is wanted, and the recognition of the need, the appearance of independent effort to meet it, render the moment particularly opportune for the impetus to be supplied. The English Association, we are confident, will be found the best source of supply; the Branch, viewed merely as a recruiting and distributing agency, the best, if not the only, means of supply.

But the Branch can do much more than merely recruit and distribute. We have our own special needs and requirements towards which we can expect from the central body only indirect assistance. Much that concerns ourselves mainly or exclusively has to be considered and done before English studies in our colleges and schools are placed on a thoroughly satisfactory footing; and the Branch has already enrolled amongst its members the men who by position, experience and capacity, are the most fit to do it. We may confidently trust that the will too will not be lacking, and that when the programme of work for the First Session appears, it will be found that, while the demands of advanced students and lovers of literature have been adequately recognised, special and local educational needs and requirements have by no means been forgotten.

The Convocation of the University of Bombay took place on the 21st instant and His Excellency the Governor of Bombay as the Chancellor of the University

delivered the usual address to the graduates. The Chancellor surveyed the development of education in India and took stock of its present condition. The result of this comparative survey is that "India has undoubtedly lagged behind time and partly by reason of the conservatism of the country." The remarks about free primary education are noteworthy: "We are frequently urged to make primary education free and compulsory and a gradual movement in this direction is clearly desirable. But the question is complicated in many ways which are imperfectly understood. I need hardly point out that 'free education' is a term loosely employed. Obviously no State-provided education is free. The recipient in any case must pay, even if the fact is not brought home to him and the difference lies in the proportion of his share to that of other tax-payers. In our Presidency exemptions from fees are liberal and wherever schools are available, the parent, who is unable to pay them, can have what is conventionally called "free education" for his children. In order to fix the ideas on this point it should be realised that the average fee now paid in all primary schools up to and including the seventh standard is 10·8 annas per annum and in the rural schools 7·7 annas. If it could be said that our existing elementary schools were satisfactory, that their teaching was of permanent value in all cases and that parents were eager to make full use of those that have already been provided, then it could be claimed that an indefinite extension of these schools would be an advantage and that the Government should go on increasing them as rapidly as funds permit. Unfortunately, these conditions do not obtain and bare statistics are wholly misleading." We are glad to find the Chancellor in agreement

with us in saying that manual training and a study of Indian History and Indian Polity should be made obligatory on all. His Excellency concluded his lengthy address with the following quotation from Ruskin: "Let every dawn or morning be to you as the beginning of life and every setting sun be to you as its close; then let every one of these short lives leave its sure record of some kindly thing done for others, some goodly strength or knowledge gained for yourselves." To the young men and women ending their period of pupilage and standing at the parting of the ways in their lives no better advice could have been offered.

In another place are printed all the papers read at the Educational Exhibition held last month at Guntur. As the President of the Exhibition the Hon'ble Mr. J. H. Stone, Ag. Director of Public Instruction, made a valuable pronouncement on the School Final Examination. He explained how in educational matters we are tending towards freedom and how this tendency is showing itself in all directions. "For instance, the University is manifesting this freedom to a certain extent and the boys have a considerable choice in the Intermediate course. This choice is still greater in the B.A. class in the Honours' Courses as well as in the Pass Courses. The spirit of freedom shows itself still more plainly in the Secondary School Leaving Certificate Scheme. In this scheme the one principle is that no subject is compulsory; but that does not imply too great liberty. A student may have a certificate that contains no entry about English or an entry about Mathematics. He may have such certificates if he likes. But it is pretty clear that for some purposes they are not

valuable. If a student wants a certificate he must take these subjects the first time he appears for the public examination, because if he does not take the first time he cannot take the second time at all. If a student wants any certificate, he must take at the first time, what we call Group A. Another point is with regard to Group C. Here again he ought to observe that unless he takes at least one subject for the first time he appears for the examination he cannot subsequently take any subject at all in Group C."

The papers read at the Exhibition are all important and useful to secondary teachers and they are handled by authoritative men as the Rev. W. C. Penn, Principal, Noble College, Masulipatam; P. V. Seshu Aiyar, Asst. Professor of Mathematics, Presidency College, and others. A perusal of the papers read there, all of which appear as supplement to this number, will amply repay.

On the whole the Exhibition was a success and we congratulate the Secretaries on their untiring efforts throughout.

In the January number of *School Hygiene* appears a paper on school hygiene in rural schools, in which are considered the reports of school medical officers for various county education areas. Prominence is given to a report in which is discussed at length the question of the school medical officer, pointing out the obvious advantages of entrusting the routine work of medical inspection to local practitioners who are not only better acquainted with the general life of the community and have greater influence outside the school, but are able to save the time and energy expended in travelling from school to school. The rest of the article deals with various aspects of school hygiene culled from the reports. One

doctor points out that stammering could be cured by the practice of deep breathing, but this is doubted by another, as he thinks that deep breathing exercises in the vitiated atmosphere of the school-room are likely to be productive of more harm than good. It is pointed out that, if eye-sight were considered of paramount importance, no child would be admitted to school under seven years of age. Most of the reports allude to dental defects, but no effective remedy is suggested. We in this country do not suffer much from dental defects. The medical inspection of our schools would throw a flood of light on the physical defects of our children. All Indian educationists would do well to study this article.

At the North of England Education Conference held at Liverpool on the 7th of the last month, a paper was read

on "Education in Citizenship" by Miss Geraldine E. Hodgson, D. Litt., Lecturer on Education, University of Bristol. We draw the attention of our readers to this paper partly because of its own intrinsic merit and partly because it is the production of a lady whose name is not unknown to the readers of this magazine. The paper is full of literary charm and the interest in it is heightened by the abundance of historical references. In whatsoever manner boys or girls may act, their actions must ultimately bear upon their value as citizens. "The girls cook the meals which enable the boys to fight; citizenship is the same essentially, for the underlying impulse which drives both to act is—concern for the state." Miss Hodgson has great faith in the study of history as a very important factor in the training of children in right views of citizenship. She thinks that much

of the time spent in arithmetical calculations may be better spent in the study of history. "If it be urged that this arithmetical worry is 'mental training,' that desirable process can be effected at least as well, and probably better, by a rightly directed use of history, which calls for moral as well as intellectual judgment, exercises the constructive imagination, and makes demands on taste. Might not the time spent upon hypothetical tons of turnips, whereas in life few of us require turnips by the ton, or upon the number of hours spent by non-existent men in reaping imaginary fields, have been better devoted to learning how a nation comes into being; what virtues are essential to a State, what vices disastrous?" Though we do not entirely agree with Miss Hodgson as regards the disciplinary value of a study of history, yet we are at one with her in the high place she assigns to history in the education for citizenship.

In the early part of this month Mr. Hartog read before the Royal Society of Arts under the chairmanship of Lord Cromer a paper on examinations in their bearing on national efficiency. Mr. Hartog's devotion to this question for many years makes him fitted to speak with authority on the subject. The paper is in many ways a reproduction of the article on examinations which Mr. Hartog has in conjunction with Mr. Watson contributed to the eleventh edition of the *Encyclopædia Britannica*, and therefore deserves careful study. Are the examinations in England at the present day wisely designed? Do they work with certainty and accuracy, and tend on the whole to improve the boys and girls, the men and women, whose education, whose lives and careers,

they so largely control? These are some of the questions raised in the paper. Though Mr. Hartog admits that there are many judicious examiners, and examining bodies of unquestioned wisdom, yet he thinks that "the body educational as a whole is suffering from the aches and pains of examinations." Mr. Hartog suggests the appointment of a Royal Commission to inquire not only as to the influence of examinations, good and bad,

on education as a whole, but into the hygiene of the examination room and how far our different sets of competitive examinations select the persons most fitted for the posts which they are intended to occupy. The answers to these questions are of the greatest importance to us in India, as there is in certain quarters great faith in the selection of men to posts in Government service by competitive examinations.

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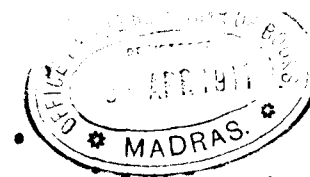
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LANGUAGE TEACHING.

III

(Continued from page 46.)

THE first stage in the teaching of English to Indian children must necessarily be entirely conversational. Reading may well come a year after the conversational lessons are started. These conversational lessons ought, of course, to utilize the many English words that have crept into the vernaculars of the country, of which there are about 200, known to all. Luckily many of these words are just such as one would naturally begin English speech with, when teaching Indian boys, e.g., 'chair', 'bench', 'black board', 'pencil', 'pen', 'book', 'clock', 'watch', 'chalk', 'paper', 'ink', 'coat', 'shirt', 'shoes'. These, linked with easy sentence-frames, e.g., 'this is', 'that is', 'here is', 'there is', 'what is', 'where is', and furnished with an article, or a possessive adjective, would form the very first lessons. The same words joined to imperatives that can be easily illustrated by action, e.g., 'give', 'bring', 'take', 'look at', etc., would furnish material for a few more lessons.

The negatives, 'is not', as also the negative imperative may now be introduced with a general explanation in the vernacular that the word 'not' indicates negation. The

names of parts of the body, parts of the school-house, parts of a dwelling-house and other things that can be easily shown to the children may now be introduced in the sentence-frames familiar to them. Constant conversation-drill is needed so that English sentences containing these words may come to them as naturally as vernacular ones. From the beginning the aim should be to let the English sentences form themselves in the brains of the children without the corresponding vernacular expressions interposing themselves. Translation is generally supposed to be indispensable at this first stage of teaching English, but can be avoided by a judicious choice of nouns and verbs, adjectives and adverbs (the few prepositions that will be necessary may be treated as parts of the verbs to which they are attached). The vocabulary to which pupils are to be introduced should be such as can be taught "directly", i. e., by actually showing the object or the action, by pictures thereof and by gestures. For the special danger of resorting to translation at this stage is this—that it will start the fatal habit of first thinking in the vernacular and then translating into English; this is a habit easy to acquire but almost impossible to throw off when once acquired; this habit is responsible for the fact that many Indians while speaking ex-

cellent English (often yards of dignified Johnsonese) suddenly let drop such S. Indian idioms as 'what is there' for 'it does not matter,' 'I do not think' for, *not* 'my brain has ceased to function,' but 'I don't think so.'

The next lessons may deal with the plurals of 'this' and 'that' and of the nouns learnt already, with the personal pronouns, 'I', 'we', 'you', 'he', 'she', 'it', 'they', and the verbs 'am' and 'are'. The fact that some of these words refer to one person or thing and others to many, need not be overtly pointed out. What is wanted is drill in the combinations 'I am', 'he is', 'you are', 'they are'. It is the association of the proper words that has to be created in the child's mind and not the rationale of such association nor the generalization of them, as grammatical laws or as exceptions to grammatical laws, that has to be expounded. The child's mind will perhaps make some such unconscious induction and this natural process may very well be let alone for the present.

The pupils may next be introduced to the Indicative Present Progressive forms of the verbs already known. The reasons why it is convenient to start with this particular tense are (1) the S. Indian vernaculars possess only this form of the Present tense, (2) the action of verbs in this tense can be shown to the class directly. The English Present indefinite tense is likely to be puzzling to our children at this early stage. The introduction of the Progressive tense will afford opportunity for a further extension of the pupil's vocabulary; more verbs, prepositions, and nouns may be introduced, thus making possible at the end of a year fairly long conversations between master and pupil and between pupil and pupil. The questions, what words ought thus to be taught in this first stage of teach-

ing English and in what order they ought to be introduced are not considered here, for these will depend upon the locality of the school, circumstances of the scholars, the skill of the teacher and other local conditions. Each teacher will have to draw up his own syllabus of lessons and follow it. Such a syllabus need not be a rigid one but may be altered and amended as the experience of the teacher, year by year, points out.

When English words and sentences are taught, their component sounds should be clearly and accurately pronounced and the children trained to make them correctly. The positions of the organs of speech in making the various sounds should be pointed out and vigorous voicing of voiced sounds and sharp, clear-cut enunciation of breathed sounds should be insisted on. Some exponents of the reformed method of teaching modern languages advocate that the first lessons should consist merely in training children to make the foreign sounds one after another and that the conversation lessons should follow this training. But lessons on individual sounds are likely to become dull and unattractive and deserve the same condemnation as the old-fashioned method of starting the study of a language by learning long lists of words by heart. Hence it will be more advisable to take up the sounds as they occur, to discuss the method of their formation when pupils fail to make them correctly and to drill the children in proper pronunciation. Here, too, frequent drill is indispensable, for oft-repeated drill is the only means we have for the prevention of bad speech habits and the formation of good ones.

This stage of language-learning may be called the pre-reading stage; we shall now discuss the question why it is necessary that

training* in conversation should precede by a year at least the teaching of reading English.

(To be continued).

P. T. SRINIVAS IYENGAR.

MANUAL TRAINING IN SCHOOLS.

I. INTRODUCTORY.

THE closing years of the nineteenth and the opening years of the twentieth century have witnessed many wonderful changes on all sides, but nowhere can such startling developments be observed as in the sphere of education. Conservative by tradition as we are in all things, in nothing has our opposition to change been more marked than in our refusal to adopt reforms long since proved effective—nay more, necessary, by more progressive nations. And it is doubtless owing to our inertia in these matters that the changes now taking place or already effected seem to us so startling, so revolutionary. In spite of this inertia however, the adoption of the "direct" method in modern languages, of the "heuristic" method in science work and of "practical" methods of teaching geometry, are accomplished facts, while at length the claims of teachers of handicraft—of manual training, if you prefer the term—are beginning to receive some small measure of that recognition which the importance of their subject deserves and which common sense demands.

In consequence, perhaps, of these changes, the position of educational affairs, particularly in Secondary Schools, may be described as chaotic. The grounds on which we teachers rely for establishing the position of manual work in the Educational Scheme, are now commonplaces of education and, but for the

stupefying effect of tradition and the mental inertia of most governing bodies, there is no doubt that its claims would receive the attention it has already won in Elementary and a few Secondary Schools. It is, of course, this tradition—mathematical, classical and the like—which is the chief stumbling block, for even when the importance of establishing courses of manual work is admitted, it is asked what subject is to be robbed of valuable time, in order that room may be made for the new comer.

It is for this reason that the teacher of manual work must continually press his claims. If his efforts stimulate his colleagues to overhaul their methods of instruction and accept some reasonable modification in the spirit in which those methods are applied, it will be advantageous. If governing bodies are thereby led to appreciate the fact that there are guides to knowledge other than books, and that the most efficient teaching tends to fall into grooves and so requires the application of external pressure to shunt it into new lines, it will be of more avail. But it will be best of all, if the exponents of the new teaching can so influence public opinion that it will demand the extension of existing and the establishment of new courses of manual work. For the subject, while admittedly both disciplinary and utilitarian, aims at fostering self-reliance, trains in habits of accuracy and truth, and is at the same time capable of development in such directions that there is no risk of destroying that freedom, variety and elasticity which is an essential feature of a good school.

In this series of articles, the writer proposes to give some account of what is being attempted in manual schools—of their establishment, of typical curricula, their aims and

methods, etc. But it may not be out of place to give first, some indications of the effect of the establishment of courses of manual work in ordinary schools, in broadening the bases for study and in affording logical grounds for investigation, and it is convenient to consider the subject of Mathematics in particular.

Students of Mathematics in our schools owe a debt of gratitude to Professor J. Perry for his efforts to place the subject on a less formal a "practical" footing; but his efforts, admirable as they are, have admittedly been made chiefly on behalf of engineers, with a view to satisfying his own demands as a teacher of engineering subjects to graduates. All recent syllabuses, however, show traces of his influence and the resulting modifications have undoubtedly been in the direction of simplicity, in the direction of removing restrictions, considered from the "practical" aspect. But all alike seem to fail in one important particular at least. It is a truism in educational science to assert that "*no step shall be made with the pupil unless the advisability of that step is apparent to him, unless the necessity for that step is vividly felt by him.*" What is there, one would ask, in the ordinary methods of approach—no matter how distinctly labelled "practical"—which can make any step in class mathematics appear necessary, so long as the subject is divorced from matters in which the average boy can and does take a real interest? Professor Dewey, in his *Essay on Underlying Education*, wrote "the moment mathematical study is severed from the place which it occupies with reference to social life, it becomes unduly abstract even from the purely intellectual side." It is the practical impulse towards mathematics, the purely utilitarian—an impulse at once the strongest

and the most valuable to the teacher—of which full advantage should be taken, at any rate in the early years of study and this requires that studies be carefully co-ordinated and the environment selected accordingly. The impulse to systematise, to perfect the formal creation of the human brain, belongs to later years and yet it is just these factors which have received most consideration, which have been allowed most to influence the schemes now being followed. At present the teaching of mathematics is entrusted largely to specialists who are naturally most interested in its systematic and aesthetic aspects, who aim at selecting likely candidates for scholarships and for mathematical honours, and who, if they teach mathematics "practically," do so as a concession to public opinion and not from conviction. How many teachers of mathematics, one wonders, put off the undertaking of any investigation until their pupils feel that it is not only desirable, but unavoidable? They may and do appeal to interest, to utility, but the appeal should be from within. The approach should be from concrete to abstract and, under present conditions, there is little or no room for a foundation of actual fact or legitimate curiosity in a pupil's personal experience, on which mathematical investigations may be based. It is probably appreciation of the point which accounts for the fact that problems on interest, stocks, shares, profit and loss, etc.—commercial problems—from so large a part of work in arithmetic. That mathematicians themselves realise the importance of the views here urged, is evidenced by the fact that they have recently claimed that the teaching of Optics, Hydrostatics, Mechanics, etc., should be entrusted to them: and this step

would be justified, provided they have the requisite qualifications and a sympathetic feeling for experimental science: if, in fact, they realised the necessity for a wider outlook and, working on more rational lines, understand that no matter how logical, how up-to-date, how appealing to the imagination, a scheme may be on paper, it is quite uneducational unless its genesis is natural. There is no doubt that our boys must develop their own mathematical ideas just as our ancestors developed their crude concepts of number, in the course of their struggles with their environment: the ideas must not be implanted by teachers and forced by hot-house methods in the class-room. In this connection, perhaps, one might suggest that the success in mathematical work of boys in technical schools is largely due to the fact that so much of their work is on the constructive side, on the side of active research; that so large a proportion of their time at school is spent in workshops where a proper sense of perspective in the mathematical outlook is eminently necessary.

It is admitted that drawing—geometrical and mechanical drawing—must be taught in close connection with manual work: in other words, it has been realised that a boy's chief interest in such work is utilitarian and not æsthetic. This principle, that pupils take a far keener interest in a subject when they realise and appreciate its practical aspect and ramifications, is susceptible of the widest applications, and the introduction of graphic methods in Algebra and of courses of experimental Geometry show that the principle is recognised in mathematics. But to be valid, the introduction of these methods should be forced on the pupils either by reason of their appreciation of the resulting

economy of space, time, or thought, or by reason of their absolute necessity, not—as is generally the case at present—because such methods form part of a certain syllabus of work or appear in such a text-book. Take the case of experimental geometry. The pupil may reasonably ask why he should measure the three angles of any triangle and add them together; why he should measure and compare the angles at the base of an isosceles triangle; why he should do the thousand and one other things he is asked to do under the system now followed in which the aim is to dilute or to dodge Euclid. But if he is attending the manual school, it is probable that he will realise the necessity for making a working drawing of the first model he attempts, and in most instances this drawing will consist of a network of parallel and perpendicular lines. The construction of this drawing necessarily involves the use of the set squares. This and similar exercises assure a firm foundation of geometrical experience and are bound to result in the discovery of certain relations between geometrical concepts, thus affording valid grounds for undertaking investigations in pure geometry.

It is unnecessary to labour the point further. Every indication points to the fact that the chief source of weakness in present mathematical work in schools, is this lack of grounds for undertaking any investigation, which the scholar recognises as valid, with the apparent inconsequence of much of the resulting work. Further, in the desire to be "practical," many problems are tackled on data foreign to the scholar's experience or out of immediate connection with his own activity; the "interest" is consequently fictitious, the "correlation" forced and un-

real. At every stage, however, the teacher of manual training is confronted with problems which afford adequate grounds for mathematical investigation; in fact, such investigations cannot well be avoided. Further they arise quite naturally and in so interesting a connection that the pupil realises their importance, their necessity.

At present, the time allotted to manual work in most schools is ridiculously inadequate. It is obvious, therefore, that the teacher responsible for this work cannot actually undertake the mathematical investigations as they arise; nor, perhaps, is it advisable that he should do so. The mathematical work is incidental, but its connection with the other work is immediate and direct. The teacher can therefore point out the desirability of investigations in certain directions and close correlation should ensure that the mathematical study is developed in these directions and at the necessary pace. One does not, of course, intend that only those problems arising in manual work, should receive consideration. Mathematics is a desirable and necessary adjunct to work in experimental science, in geography, etc. It is axiomatic, however, that there be an appropriate foundation of actual experience, a feeling of desirability or the dawn of a spirit of curiosity, before undertaking any mathematical work, and it is in manual work that such experience may most conveniently be gained, that such desires are most readily awakened, that such curiosity is aroused.

It is of the greatest importance that the meaning of the term Manual Training be appreciated correctly; that one should accurately grasp all that it connotes. Perhaps it is better not to give a rigid definition, but it must be postulated that, so far as schools

are concerned, it is not industrial, nor technical—although it may be argued that there is little harm done if it be both to some extent. It is, however, emphatically the foundation upon which a technical training may be built, if the pupil have the requisite ability. It should be far too wide in its scope to be industrial. It should be concerned with teaching and learning the use of tools of all kinds; the methods of using and working various materials; the construction and use of working drawing, without which manual training becomes a mere series of aimless experiments. The ideal is, in short, the mastery of tools, materials and processes. Incidentally, there is no doubt that it affords the best, because the most adequate preparation for formal work in science—its application to the genesis of mathematical work being, perhaps, most noteworthy. It stimulates pupils to think for themselves, to learn to help themselves without outside interference, to appreciate the difference between right and wrong as no other subject possibly can—bad workmanship always bringing its own punishment. The effect on the rate of the mental development is great owing to the close connection between the physiological and psychological efforts involved. It necessarily correlates (i) mathematics—size and cost of material, how waste may be avoided, measurement, geometrical work, etc.; (ii) drawing—involving the power of visualisation of the finished product from given working drawings, design, etc.; (iii) science—properties of materials, their strength, life, texture, colour, etc., under various and varying conditions; (iv) physiology—differentiation, specialisation and development of various muscles, etc. Further the work requires prolonged, continuous and concentrated effort, which is

not without its effect on the mental state as indicated above.

These facts are worthy of consideration, no matter what pursuit the boy intends to follow when he leaves school. If, in addition, it be remembered that a large proportion of the youth of any country must, of necessity, become artisans and consequently specialists in some form of manual work, its claim to consideration from the utilitarian point of view becomes overwhelming. On its social and altruistic aspects, it is unnecessary to dilate, but it can never be too often stated that while good 'joins,' good workmanship, are desirable, these do not form the whole aim and end of the ideal scheme of manual training. Too often one finds a scheme devised from the point of view of the adult who wishes to learn the rudiments of a trade; i.e., one in which the whole aim is that manual dexterity should be trained by means of an orderly sequence of exercises. This is motor training pure and simple; we aim at mechanical skill and incidentally acquire intellectual training. In the kindergarten, on the other hand, one aims at intellectual training and the mechanical skill acquired is incidental. The ideal scheme must blend these aspects, hence it is desirable that the course be systematic, it is essential that it be expressive. The teacher must, of course, bear these points in mind when formulating or developing his schemes. Finally it must be remembered that the training sought is of a really practical nature, so that the work done must not confine itself to mere exercises in method, but should, from the very outset, be directed towards the production of actual objects, useful to the maker himself wherever possible, but of some real value to somebody in every case.

We may then summarise as follows:—

(i) Manual Training is admitted to be desirable. The form it should take and the time which should be allotted to it are left for future discussion, but it is clearly advisable that the teacher responsible for the organisation in any particular case, should have a wide discretion on these points.

(ii) The work affords valid grounds for investigations in mathematics, science, etc., and is valuable as a link, in that it unites these subjects in a real and not a fictitious correlation. It is particularly useful in the genesis of mathematical ideas, the present treatment of mathematics being too systematic for beginners, if not actually illogical.

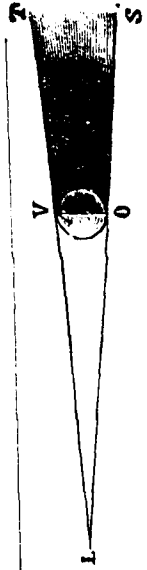
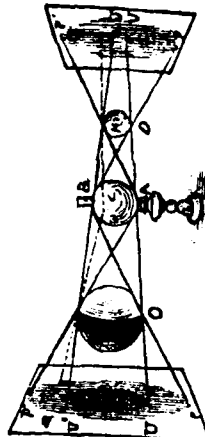
(iii) It is important that the term "Manual Training" be understood in its wider sense, not confined to work with a single material or to one particular group of exercises or methods. It is advisable that the scheme be systematic, but it is essential that it be expressional and that scope be allowed for individuality of treatment.

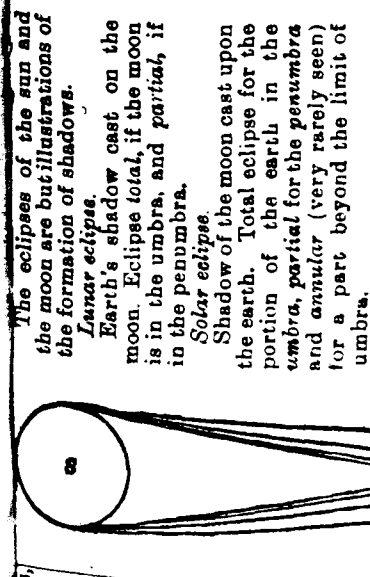
T. S. USHERWOOD.

(To be continued.)

NOTES OF LESSONS IN SCIENCE.

LIGHT.—(continued.)

Main Heading.	Matter.	Appliances, diagrams, reference to books, correlation, etc.
Formation of Shadows : Umbra ; Penumbra.	If light from a luminous source falls on an opaque body, part of the space behind the latter receives no light, because of light travelling in straight lines : the body is then said to cast a <i>shadow</i> (the section of the shadow received on a screen is generally spoken as a shadow). i. If the source of light be a point, the shadow is <i>uniformly dark all over</i> and is called the <i>Umbra</i> (Fig. 7). ii. If the source be not small, the shadow is not <i>equally deep throughout</i>, but consists of a <i>black central part</i> (the umbra) fringed by a <i>less dark patch</i> which is called the <i>penumbra</i> (Fig. 8). The umbra receives <i>no light</i> from the source but the penumbra is illuminated by <i>light from a portion of it</i>. iii. If the source be <i>larger</i> than the obstacle, the umbra gradually decreases to a point, after which there is only the penumbra seen on the screen (cf. the annular eclipse of the sun).	 Fig. 7.  Fig. 8.



Expt. 1. A quarter-inch coin is held (1) broadways, (2) edgewise between a small flame and a screen. What is seen on the screen? What difference would there be if the flame were large?

ii. Hold a pen between a sheet of paper and the window, and close to the paper. Move the pen away from it. What happens to the shadow and why?

*Photometry.

Illuminating power ;

A candle-power ;

Intensity of illumination.

Different sources of light emit different amounts of light. This is expressed by saying that they have different *illuminating powers*.

A *candle-power* : To compare the illuminating powers of different sources, the standard is the amount of light of a sperm candle weighing six to the pound and burning 120 grains of wax per hour and is called a *candle-power*. (C. P.)

At different distances from a luminous source, say a gas-flame, the brightness produced on a screen differs. This is expressed by saying that the *intensity of illumination* varies.

(The *illuminating power* of a source is to be distinguished from the *intensity of illumination* it produces.)

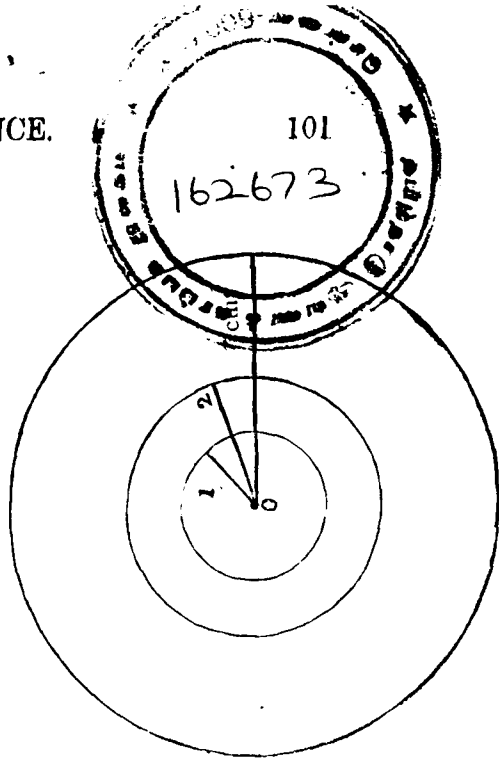
The *intensity of illumination* (I) due to a given luminous source at any point is the amount of light received per unit area of the surface round the point :

It depends upon—

(a) the illuminating power (P) of the source.

(b) the distance (d) of the point from the source.

Fig. 9.



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Let O be a source emitting light uniformly in all directions. With O as centre, describe a series of spheres of radii 1, 2, ..., r cm. The same quantity of light energy crosses each sphere per $1''$. The areas being $4\pi \times 1^2, 4\pi \times (2^2) \dots 4\pi r^2$, the light falling on unit area is in the ratio of $1, \frac{1}{2^2}, \dots, \frac{1}{r^2} \dots$

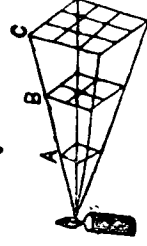


FIG. 11.

Expt. Make a small square frame (as at A) of wire and fix it half-way between a candle flame and the wall of a darkened room. Cut a piece of paper to the size of the square shadow (B) on the wall and fold it across and across. Notice that the folded sheet just fits the frame. Similarly, if the frame were at $\frac{1}{3}$ rd the distance (between the wall and flame), $\frac{1}{9}$ th of the shadow will be equal the frame in area.

In experiments with photometers, mirrors and lenses, it is convenient to have the different pieces of apparatus, such as screens, candles, mirrors, etc., mounted on holders capable of sliding on a graduated bar. An arrangement of the kind is called an 'Optical Bench.' For the construction of a simple form of the Optical Bench, refer to 'Heat, Light and Sound,' by D. E. Jones, page 129.

In the absence of the Optical Bench, a long straight chalk-line divided into mm or inches may be drawn on a table, and the sources of light placed along it at the same height. The exact position of the screen on the line may be determined by a plumb-line consisting of a thread, one end of which passes through a hole in the screen and is knotted and the other has a bit of wax attached.

(a) I is directly proportional to P, when the distance is constant.

(b) If the distance is altered, the same amount of light coming from a given source is spread over different areas, so that the intensity of illumination varies, becoming less as the distance increases. If d becomes double, the light is spread over 4 times the area, and the intensity is $\frac{1}{4}$; similarly, if d becomes thrice, 4 times, etc., I becomes $\frac{1}{9}, \frac{1}{16}$, etc. Thus, I varies as $\frac{1}{d^2}$ when P is constant. (Figs. 10 and 11).

From (a) and (b), $I = \frac{P}{d^2}$.

'The intensity of illumination at a point, due to a given source is inversely proportional to the square of the distance of the point from it.' Upon this 'law of inverse squares' are based the various methods used in Photometry.

Photometry deals with the comparison and the measurement of the illuminating powers of different luminous sources.

An instrument used for the purpose is called a Photometer.

Principle applied in photometers.

Two sources are made to illuminate two neighbouring patches on a screen and their distances (on the same side or opposite sides) from it adjusted until the two portions are of sensibly equal brightness. Then applying the law of inverse squares, we get $I = \frac{P}{d^2} = \frac{P_1}{d_1^2}$, or $\frac{P_1}{P} = \frac{d_1^2}{d^2}$. The illuminating powers of two sources are directly proportional to the squares of their distances at which they produce equal intensities of illumination.

This relation between P and d should not be confounded with 'the law of inverse squares.'

Rumford's Shadow photometer.

Introduced by Count Rumford.
Principle. Two shadows of an opaque body (due to two sources) cast on a screen are equally deep, when each of them is equally illuminated by the light from the other source.

Apply $\frac{P_1}{P} = \frac{d_1^2}{d^2}$ to compare the illuminating powers.

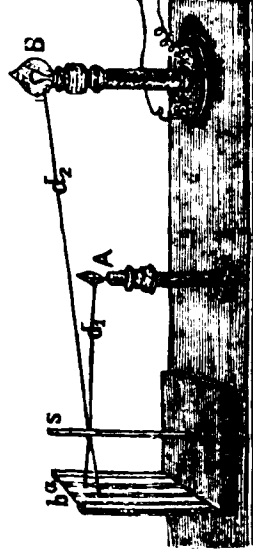


FIG. 12.

A vertical rod or pencil is placed in front of a white screen of unglazed paper or ground glass and two sources, say a candle flame and a gas-lamp, are kept before it (not in the same line) and their distances from it adjusted until two shadows are formed side by side and are equally dark.

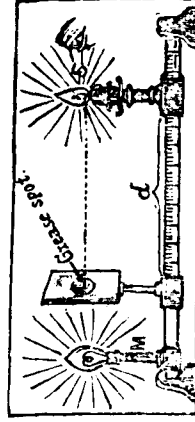


FIG. 13.

i. To make a grease-spot screen, gum the ring of a stand and stretch unglazed paper over it. On the centre, let a drop of grease fall from a lighted candle and scrape it off with a knife, when cold. Heat the knife a little and press the spot on both sides, so as to make the grease soak well through the paper. Or, drop carefully a single drop of a clear, transparent oil on the centre of a clean sheet of drawing-paper and allow it to dry.

As it is very difficult to get a perfectly colourless oil, the grease-spot even when equally illuminated on both sides, will usually appear slightly darker than the rest of the paper.

ii. Use this photometer to illustrate the 'law of inverse squares.' Place 4 candles on one side at a convenient distance and one candle on the other at half the distance.

iii. Easy sums on 'Photometry' may be advantageously given. Vide 'Practical Physics,' by L. M. Jones.

A. VARADACHARIAR.

Law of Inverse Squares.

Photometry:

Bunsen's Grease-spot photometer.

Two sources of light on opposite sides of a screen. The grease-spot on the screen will appear as bright as the general surface, only when both its sides are equally illuminated by them.

Note.—If the spot is held between the eye and the light, it is brighter than the rest of the paper; if held so that light is at your back, the spot appears darker. Greasing makes the spot translucent; in the former case, more light gets through it than through the other parts; in the latter, the spot reflects less light than the rest of the surface; when the light lost by transmission through the spot in one direction is compensated for by equal passage in the opposite direction, it appears equally bright with the rest of the paper.

SECONDARY SCHOOL LEAVING CERTIFICATE DETAILED SYLLABUS.
GEOMETRY.

Schedule B.

(Continued from page 13.)

IX. Areas of Rectangles.

Geometrical theorems corresponding to certain algebraic identities :—

1. $k(a+b+c) = ka + kb + kc$.
2. $(a+b+c)(x+y+z) = ax + ay + az + bx + by + bz + cx + cy + cz$.
3. $(a+b)^2 = a(a+b) + b(a+b)$.
4. $a(a+b) = a^2 + ab$.
5. $(a+b)^2 = a^2 + 2ab + b^2$.
6. $(a-b)^2 = a^2 - 2ab + b^2$.
7. $(a+b)(a-b) = a^2 - b^2$.
8. $(a+b)^2 + (a-b)^2 = 2(a^2 + b^2)$.
9. $(a+b)^2 - (a-b)^2 = 4ab$.
10. $x^2 + ax - a^2 = 0$.

Squares on sides of triangles :

11. In an obtuse-angled triangle, the square on the side opposite the obtuse angle is greater than the sum of the squares on the other two sides by twice the rectangle contained by one of the two sides and the projection on it of the other.

12. In any triangle, the square on the side opposite an acute angle is less than the sum of the squares on the sides containing the acute angle by twice the rectangle contained by either of these sides and the projection on it of the other side adjacent to the acute angle.

13. The sum of the squares on two sides of a triangle is double the sum of the squares on half the third side and on the corresponding median.

14. The difference of the squares on two sides of a triangle is equal to twice the rectangle contained by the base and the intercept between the middle point of the base and the foot of the perpendicular from the vertex to the base.

15. In a right-angled triangle, if a perpendicular is drawn from the right angle to the

hypotenuse, the square on this perpendicular is equal to the rectangle contained by the segments of the hypotenuse.

X The Circle.

1. A circle is symmetrical about its diameter.
2. Every chord of a circle lies entirely within the circle.

3. A straight line drawn from the centre of a circle to bisect a chord not a diameter is at right angles to the chord.

4. The perpendicular to a chord from the centre bisects it.

5. A straight line drawn at right angles to a chord of a circle through its mid-point is a diameter of the circle.

6. There is one circle and one only which passes through three non-collinear points.

7. In equal circles or in the same circle, if two arcs subtend equal angles at the centres, they are equal; and, conversely, if two arcs are equal, they subtend equal angles at the centres.

8. Equal angles at the centre determine equal sectors.

9. In equal circles or in the same circle—
(i) if two chords are equal, they cut off equal arcs;

(ii) if two arcs are equal, the chords of the arcs are equal;

(iii) equal arcs or equal chords determine equal sectors and equal segments.

10. In equal circles or in the same circle, equal chords are equidistant from the centre; and, conversely, chords that are equidistant from the centre are equal.

11. In equal circles or in the same circle, if one chord is greater than another that which is the greater is nearer the centre than the less; and, conversely, if one chord is nearer the centre than another that which is the nearer is greater than the more remote.

12. The tangent at any point of a circle and the radius to the point are perpendicular to one another.

13. If two circles touch, the point of contact lies in the straight line through the centres.

14. Two circles cannot touch at more than one point. If they touch externally the distance between their centres is equal to the sum of the radii. If they touch internally the distance between their centres is equal to the difference of the radii.

15. If two tangents are drawn to a circle from an external point—

(i) they are equal;

(ii) they subtend equal angles at the centre of the circle;

(iii) they make equal angles with the straight line joining the given point with the centre;

(iv) the quadrilateral formed by the two tangents and the corresponding radii is cyclic

16. In any quadrilateral circumscribed about a circle the sum of one pair of opposite sides is equal to the sum of the other pair.

17. If the sum of one pair of opposite sides of a quadrilateral is equal to the sum of the other pair, a circle may be inscribed in the figure.

18. If two circles intersect, the line of centres bisects the common chord at right angles.

19. The angle which an arc of a circle subtends at the centre is double that which it subtends at any point on the remaining part of the circumference.

20. Angles in the same segment of a circle are equal. The angle in a segment greater than a semicircle is less than a right angle. The angle in a semicircle is a right angle. The angle in a segment less than a semicircle is greater than a right angle.

21. The diameter is the greatest chord in a circle. In equal circles or in the same circle equal arcs subtend equal angles at the circumferences. The shortest chord through a given point within a circle is that which is perpendicular to the diameter through the point.

22. If the line joining two points subtends equal angles at two other points on the same side of it the four points are concyclic.

23. The opposite angles of a cyclic quadrilateral are supplementary.

24. If a side of a cyclic quadrilateral is produced the exterior angle is equal to the interior opposite angle.

25. If two opposite angles of a quadrilateral are supplementary, the quadrilateral is cyclic.

26. If one side of a quadrilateral is produced and the exterior angle so formed is equal to the interior opposite angle, then the quadrilateral is cyclic.

27. If through the extremity of a chord of a circle a straight line is drawn—

(i) if the straight line touches the circle, the angles which it makes with the chord are equal to the angles in the alternate segments;

(ii) conversely, if either of the angles which the straight line makes with the chord is equal to the angle in the alternate segment, the straight line touches the circle.

28. If two chords of a circle intersect either inside or outside the circle, the rectangle contained by the segments of the one is equal to the rectangle contained by the segments of the other.

29. If through a fixed point within or without a circle any number of chords are drawn, the rectangles contained by the segments are all equal.

30. If from any point without a circle a tangent and a secant are drawn, the rectangle contained by the whole secant and the part of it without the circle is equal to the square on the tangent.

31. If from any point without a circle two straight lines are drawn to meet and cut the circle respectively and if the square on the line meeting the circle is equal to the rectangle contained by the segments of the line which cuts the circle, then the meeting line is a tangent to the circle.

32. If two finite straight lines intersect or both being produced intersect so that the rectangle contained by the segments of the one is equal to the rectangle contained by the segments of the other, the extremities of the lines are concyclic.

XI. Loci.

1. The locus of a point at a fixed distance from a fixed point is the circumference of a circle described with the fixed point as centre and with the fixed distance as radius.

2. The locus of a point equidistant from two given points is the right-bisector of the line joining the two points.

3. The locus of a point equidistant from two intersecting straight lines consists of the pair of bisectors of the angles between the lines.

4. The locus of a point at a fixed distance from a given straight line consists of two straight lines parallel to the given line one on each side of it at the fixed distance.

5. The locus of a point equidistant from two parallel straight lines is a straight line parallel to either, lying midway between the two.

6. The locus of the mid-points of straight lines drawn from a given point to a given straight line is a straight line parallel to the given straight line through the mid-point of any one of the straight lines drawn from the given point to the given straight line.

7. The locus of the vertices of triangles of equal area on the same base consists of two straight lines parallel to and equidistant from the base one on each side of it.

8. The locus of the vertices of triangles on the same base having the sum of the squares on the other two sides constant is a circle described with the mid-point of the base as centre and with radius equal to the median of the isosceles triangle on the base satisfying the given condition.

9. The locus of the vertices of triangles on the same base having the difference of the squares on the other two sides constant consists of two

straight lines perpendicular to the given base and equally distant from the mid-point of the base, the distance being half the side of a rectangle of given area on the given base.

10. The locus of the centres of circles of constant radii passing through a given point is a circle whose centre is the given point and whose radius is the constant radius.

11. The locus of the centres of circles passing through two fixed points is the right bisector of the line joining the points.

12. The locus of the mid-points of equal chords in a circle is a concentric circle whose radius is the distance of any one of the chords from the centre.

13. The locus of the mid-points of parallel chords of a circle is a diameter of the circle perpendicular to any one of the chords.

14. The locus of the vertices of triangles on the same base having a constant vertical angle consists of the arcs of two segments of circles on the base containing an angle equal to the given angle.

15. The locus of the vertices of right-angled triangles on a common hypotenuse is the circle described on the common hypotenuse as diameter.

16. The locus of the centres of circles touching a given straight line and having a given radius consists of two straight lines parallel to the given line one on either side at the given distance.

17. The locus of the centres of circles touching a given straight line at a given point is the perpendicular to the given straight line through the given point.

18. The locus of the centres of circles touching a given circle at a given point is the straight line joining the given point with the centre of the given circle.

19. The locus of the centres of circles touching two given straight lines consists of the pair of bisectors of the angles between the lines when the given lines intersect, and is a straight line parallel to the given lines lying midway between them when the given lines are parallel.

20. The locus of the centres of circles of given radius touching a given circle consists of two circles concentric with the given one and with radii equal to the sum and difference of the given radius and the radius of the given circle.

21. The locus of a point such that the tangents from it to two given circles may be equal is a straight line which cuts the line of centres of the two given circles at right angles so that the difference of the squares on the segments of the line of centres is equal to the difference of the squares on the radii.

22. The locus of the mid-points of chords of a circle passing through a fixed point is the circle on the line joining the fixed point to the centre of the given circle as diameter.

23. The locus of the vertices of triangles on a given base having the ratio of the other sides constant is a circle described on the line between the points of internal and external division of the base in the given ratio, as diameter.

XII. Elementary Maxima and Minima.

1. Of all straight lines that can be drawn to a given straight line from a given point outside it, the perpendicular is a minimum.

2. The minimum chord through a point within a circle is the line perpendicular to the diameter through the given point.

3. The diameter is the chord of maximum length in a circle.

4. Of the straight lines that can be drawn from a given point to a circle, the maximum is that which passes through the centre and the minimum is that which passes through the centre when produced.

5. If A and B are two fixed points and XY a fixed line, then for that point P in XY at which AP, BP make equal angles with XY, $AP + PB$ is a minimum, if A and B are on the same side of XY.

6. Of all triangles standing on the same base and between the same parallels, the isosceles triangle has the minimum perimeter.

7. If A, B are two fixed points, and XY a fixed line, then for that point P in XY at which AP, BP make equal angles with XY, $AP - BP$ is maximum, if A, B are on opposite sides of XY.

8. If P is any point in a given straight line AB, rectangle AP·PB is a maximum when P is the mid-point of AB.

9. Of all rectangles of given area, the square has the minimum perimeter.

10. Given two intersecting straight lines AB, AC and a point P between them; of all straight lines which pass through P and are terminated by AB, AC, that which is bisected at P cuts off the triangle of minimum area.

11. When two sides of a triangle are given in length, the area of the triangle is maximum when they are placed at right angles.

12. If P is any point on a given straight line AB, $PA^2 + PB^2$ is a minimum when P is the mid-point of AB.

13. If the sum of the squares on two lines is given, the sum of the lines is a maximum when they are equal.

14. If A and B are two fixed points and P any point on a given circle, the area of the triangle APB is a maximum or minimum when P lies at the extremities of the diameter perpendicular to AB.

15. If A, B are fixed points and P any point in a fixed line, the angle APB will be maximum when the circle APB touches the fixed line.

16. Of all isoperimetrical triangles on the same base, that one of maximum area is the isosceles.

17. The rectangle of maximum area that can be inscribed in a circle is a square.

18. Of all triangles that can be inscribed in a given triangle, the pedal triangle has the minimum perimeter.

19. Of all lines through a point of intersection of two circles and terminated by the circles, the maximum is the one parallel to their line of

centres and is twice the line joining their centres.

XIII. Proportion: Similar Triangles.

1. A straight line can be divided in a given ratio internally or externally at only one point.

2. Geometrical illustration of the following:—

- (i) If $a : b = c : d$, then $ad = bc$.
- (ii) If $a : b = c : d$, then $a : c = b : d$.
- (iii) If $a : b = c : d$, then $b : a = d : c$.
- (iv) If $a : b = c : d$, then $a + b : b = c + d : d$.
- (v) If $a : b = c : d$, then $a - b : b = c - d : d$.
- (vi) If $a : b = c : d$, then $a + b : a - b = c + d : c - d$.

(vii) If $ad = bc$, then $a : b = c : d$.

(viii) If $a : b = c : d = e : f = \dots$, then each $= a + c + e + \dots : b + d + f + \dots$.

(ix) If $a : b = l : m$ and $b : c = m : n$, then $a : c = l : n$.

(x) If $a : b = b : c$, then $a : c = a^2 : b^2$ or as $b^2 : c^2$.

3. The areas of triangles of the same altitude are to one another as their bases.

4. If a straight line is drawn parallel to a side of a triangle, it cuts the other sides or those sides produced proportionally; conversely, if the sides or the sides produced are cut proportionally, the straight line which joins the points of section is parallel to the remaining side of the triangle.

5. If the interior or exterior vertical angle of a triangle is bisected by a straight line which also cuts the base, the base is divided internally or externally into segments which have the same ratio as the sides of the triangle; conversely, if the base is divided internally or externally into segments which have the same ratio as the sides of the triangle, the straight line drawn from the point of division to the vertex bisects the interior or exterior vertical angle.

6. If two triangles are equiangular to one another, the sides about the equal angles are proportionals, those sides which are opposite to equal angles being homologous.

7. If the sides of two triangles, taken in order about each of their angles, are proportionals, the triangles are equiangular to one another, having those angles equal which are opposite to the homologous sides.

8. If two triangles have one angle of the one equal to one angle of the other and the sides about the equal angles proportionals, the triangles are similar.

9. In a right-angled triangle if a perpendicular is drawn from the right angle to the hypotenuse, the triangles on each side of it are similar to the whole triangle and to one another.

10. Similar triangles are to one another in the duplicate ratio of their homologous sides.

11. If the vertical angle of a triangle is bisected by a straight line which cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base together with the square on the bisector of the vertical angle.

12. If in a triangle the perpendicular from the vertex to the base is drawn, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the diameter of the circle circumscribed about the triangle and the perpendicular.

13. The rectangle contained by the diagonals of a cyclic quadrilateral is equal to the sum of the rectangles contained by its opposite sides.

14. If any transversal meets the sides BC, CA, AB of a triangle in D, E, F, then $AF \cdot BD \cdot CE = AE \cdot CD \cdot BF$; and conversely, if three points D, E, F, taken on the sides BC, CA, AB of a triangle, satisfy the relation $AF \cdot BD \cdot CE = AE \cdot CD \cdot BF$, then D, E, F are collinear.

15. If the lines joining any point to the vertices A, B, C of a triangle meet the opposite sides in D, E, F; then $AF \cdot BD \cdot CE = FE \cdot DC \cdot EA$; and, conversely, if three points D, E, F taken on the sides BC, CA, AB of a triangle, satisfy the

relation $AF \cdot BD \cdot CE = FE \cdot DC \cdot EA$, then AD, BE, CF are concurrent.

XIV. Miscellaneous propositions.

1. If two circles touch, the square of their common tangent is equal to the rectangle contained by their diameters.

2. The feet of the perpendiculars let fall on the sides of a triangle from any point in the circumference of the circumscribed circle are collinear.

3. If from any external point P two tangents are drawn to a given circle whose centre is O and if OP meets the chord of contact at Q, then the rectangle OP · OQ is equal to the square on the radius.

4. If the inscribed and circumscribed circles of a triangle are concentric, the triangle is equilateral; and the diameter of the circumscribed circle is double that of the in-circle.

5. A rhombus and a square are the only parallelograms in which a circle can be inscribed.

6. All cyclic parallelograms are rectangular.

7. D, E, F are the points of contact of the inscribed circle of the triangle ABC, and D_1, E_1, F_1 are the points of contact of the escribed circle which touches BC and the other sides produced; a, b, c denote the lengths of BC, CA, AB, s the semiperimeter of the triangle and r, r_1 the radii of the inscribed and escribed circles. Prove the following equalities:—

$$(i) AE = AF = s - a; BD = BF = s - b; CD = CE = s - c.$$

$$(ii) AE_1 = AF_1 = s.$$

$$(iii) CD_1 = CE_1 = s - b; BD_1 = BF_1 = s - c.$$

$$(iv) CD = BD_1 \text{ and } BD = CD_1.$$

$$v. EE_1 = FF_1 = a.$$

$$vi. \text{The area of the } \triangle ABC = rs = r_1(s - a).$$

8. In the triangle ABC, I is the in-centre, and I_1, I_2, I_3 are the ex-centres. Prove the following properties:—

- (i) The points A, I, I_1 are collinear; so are B, I, I_2 ; and C, I, I_3 .

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- (ii) The points I_2, A, I_3 are collinear; so are I_3, B, I_1 ; and I_1, C, I_2 .

- (iii) The triangles BI_1C, CI_2A, AI_3B are equiangular.

- (iv) The triangle $I_1I_2I_3$ is equiangular to the triangle formed by joining the points of contact of the in-circle.

- (v) Of the four points I, I_1, I_2, I_3 , each is the orthocentre of the triangle whose vertices are the other three.

- (vi) The four circles, each of which passes through three of the points I, I_1, I_2, I_3 , are all equal.

- (vii) $I I_1, I I_2, I I_3$ are bisected by the circumference of the circumscribed circle.

9. In any triangle, the mid-points of the sides, the feet of the perpendiculars drawn from the vertices to the opposite sides, and the mid-points of the lines joining the orthocentre to the vertices are concyclic.

- 10. (i) The centre of the nine-points circle is the mid-point of the straight line joining the orthocentre to the circumcentre.

- (ii) The radius of the nine-points circle is half the radius of the circumcircle.

- (iii) The centroid is collinear with the circumcentre, the nine-points centre and the orthocentre.

P. RANGANATHA AIYAR.

(To be continued).

III. ON THE TEACHING OF MATHEMATICS IN SECONDARY SCHOOLS.*

MULTIPLICATION (continued.)

BEFORE Multiplication on a large scale is begun the teacher should revise the chapter on 'The Numeration System.' The boys must be made to understand clearly that a number of two or more digits is really the sum of two or more numbers arranged in the descending order of their magnitudes. *e. g.*, 354 is $300 + 50 + 4$ or more shortly $3 \cdot 10^2 + 5 \cdot 10^1 + 4 \cdot 10^0$ *i.e.*, $3 \cdot 10^2 + 5 \cdot 10 + 4$. The extension of the system to the decimal scale must be well grasped by the students. 543·80476 is $5 \cdot 10^2 + 4 \cdot 10^1 + 3 \cdot 10^0 + \frac{8}{10^1} + \frac{0}{10^2} + \frac{4}{10^3} + \frac{7}{10^4} + \frac{6}{10^5}$, *i.e.*, $5 \cdot 10^2 + 4 \cdot 10 + 3 + 3 \cdot 10^{-1} + 0 \cdot 10^{-2} + 4 \cdot 10^{-3} + 7 \cdot 10^{-4} + 6 \cdot 10^{-5}$. The student should be made very familiar with the index notation.

At this stage the students should learn to compare the magnitudes of numbers. From the explanation given above the magnitude of a number depends upon the number of its digits. The highest digit stands for a multiple of that power of 10 which is one less than the number of digits. Thus a number of 5 digits has its highest digit a multiple of 10^4 . We can conveniently call such a number one of the 4th degree or grade. Thus the grade of a number of n digits is $n-1$, and a number of the 5th grade is greater than one of the 4th grade whatever may be the intrinsic value of its highest digit. Of two numbers of the same grade, one is greater than the other according as its highest digit is greater than the highest digit of

the other. If these digits are equal the next higher digits should be compared. These are called the 'leading digits' of the numbers.

Of numbers less than unity the grade is evidently negative. The first digit after the decimal point is a multiple of 10^{-1} , and the grade of the number is -1 ; if there is a cipher after the decimal point, the next significant digit is a multiple of 10^{-2} , and its grade is -2 , and so on. Thus if the grade of a number is -3 , written generally $\bar{3}$, there are two ciphers after the decimal point. If the grade of a number is known then the number of digits in the integral portion is known or the number of ciphers after the decimal point and before the first significant digit is known.

Now every number is the sum of the multiples of different powers of 10; and the product of two numbers can be expressed in the general form $(a + b + c + d + \dots) \times (p + q + r + s + \dots)$, and this product is evidently the sum of the partial products, $p(a + b + c + d + \dots) + q(a + b + c + d + \dots) + r(a + b + c + d + \dots) + s(a + b + c + d + \dots) + \text{etc.}$

In multiplying together two large numbers the pupils should take that number as the multiplier which gives the fewer partial products *e. g.* in 36647×40083 , 40083 gives 3 partial products while 36647 gives 5; again in 57985×28814412 , 57985 gives 5 partial products while 28814412 allows of the partial products being multiplied successively and it is necessary to write down only 3 partial products.

The student will do well to learn that the product of two numbers of grades a and b is a number whose grade is $a + b$ if the leading digit of the product is equal to or greater than the greater of the leading digits of the numbers multiplied and is $a + b + 1$ if that digit is equal to or less than the lesser of

the leading digits multiplied, a and b being integers positive or negative. *e. g.* i. $3264 \ 8906 \times 245 \cdot 006$, the grade of the product is 5 and the product has 6 digits in its integral portion; ii. $566 \cdot 086 \times \cdot 00659$ the grade of the product is $2 + \bar{3} + 1 = 0$ and the product has one digit in the integral portion. This grade rule for multiplication is not so important as the rule for division, but when the importance of the contracted and approximate work in multiplication is admitted and the complete product is not written down and the students depend mainly on the arrangement of the digits in a multiplication question such a test has its value. *e. g.* *Find to five significant figures the product of 437·0037 and 3706·028. The grade of the product is clearly $2 + 3 + 1$ or 6, *i.e.*, there are 7 digits in the integral portion of the product and the question is therefore to find the product of the given numbers to the nearest one hundred. Again to find the product of 0005678 and 001576 to two significant figures, it is necessary to know the number of ciphers after the decimal point in the product, this the grade rule gives; the grade of the product is $\bar{4} + \bar{3} = \bar{7}$; hence there are 6 ciphers after the decimal point and the question is to multiply 5678×1576 to the nearest hundred thousand.

I shall say a few words about contracted multiplication before concluding this portion of the subject. In very few of the modern text books, the working rule is properly explained; only a few examples are worked out. To explain the working rule let me adopt a convention with regard to the digits of a number. Let the digit in the 5th place from the units place be called a digit of the 4th degree for it is a multiple of 10^4 , a

digit in the 2nd place one of the 1st degree, a digit in the 4th place after the decimal point one of 4th degree and so on. When the product is required correct to 3 decimal places, the partial products must be found to the 5th place. Therefore each partial product has its lowest digit a multiple of 10^{-5} . Remembering $10^0 \times 10^{-5} = 10^{-5}$, $10 \times 10^{-6} = 10^{-5}$, $10^2 \times 10^{-7} = 10^{-5}$, etc., and $10^{-1} \times 10^{-4} = 10^{-5}$, $10^{-2} \times 10^{-3} = 10^{-5}$, etc., it is easily seen that to get these partial products, the '0 degree' digit of the multiplier should begin with the '5th degree' digit of the multiplicand, carrying the number, if any, by multiplication with the lower digit, the '1st degree' digit with the '6th degree' digit and so on, on the integral side, '1st degree' digit with the '4th degree' digit and so on, on the decimal side, in each case carrying the number if any by multiplication with the next lower digit. In every case the student must be convinced of the reasoning, for instance, the '3rd degree' digit begins with the '5th degree' digit, for $10^3 \times 10^{-8} = 10^{-5}$, giving a '5th degree' digit as the last one of the partial product; if the '3rd degree' digit multiplied into the '5th degree' digit gives a number greater than 9, say 13, the 3 is of the 6th degree and the 1 is of the 5th degree and so the 1 belongs to the '5th degree' digit of the partial product and hence we carry it on.

The arrangement of the digits is very important. Let us consider the question, Multiply $3676 \cdot 08654 \times 463 \ 365$ correct to 2 decimal places. Here the partial products are to be found to 4 places. A vertical line is to be drawn after the 4th place of the multiplicand, the '0 degree' digit of the multiplier is written against the '4th degree' digit of the multiplicand, the '1st degree' digit against

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* Madras University, Feb. 1909. (Metric.)

the '5th degree' digit and so on with the integral portion and '1st degree' digit against the '3rd degree' digit and so on with the decimal portion. The working stands thus:—

3676	086540
	563364
1470434	6160
220565	1924
11028	2596
1102	8259
220	5651
18	3804
1703369	84

Care should be taken to write the columns properly and to leave some space between the integral and decimal portions. The grade rule gives the product to be of the (3+2+1)th or 6th grade and there are seven digits in the integral portion.

Again to find to five significant figures the product of 437.0037 and 3706.028 (Madras University, Matric. Feb., 1909). As already explained the grade of the product is 6. Therefore there are 7 digits in the integral portion. We require the first 5 digits, hence the question is to find the product to the nearest 100 and the working stands thus:—

4370037
8206073
1311011
305902
2622
8
3

16195... 1619500.

The other example referred to also requires some explanation. To find to two significant figures the product of .0005678 and .001576. The grade of the product is 7. There are therefore six ciphers after the decimal point. Now the question is to find the first two digits in the product of 5678 and 1576. By the grade rule there are 7 digits in the product; hence we must multiply 5678 and 1576

to the nearest 100000, and the working stands thus:—

5678
6751
5678
2839
396
33
89

Hence the required product is .00000089.

Division:—Before commencing division the student must practise multiplication and subtraction in one operation. For instance, to subtract 6×56786 from 428978, the pupil utters the following and writes down only the italicised figures: $6 \times 6 = 36, 0$; $6 \times 8 + 3 = 51, 6$; $6 \times 7 + 5 = 47, 2$; $6 \times 6 + 4 = 40, 8$; $6 \times 5 + 4 = 34, 8$. Thus he writes down 88260 as the result. A student who has good practice in this exercise will have very little difficulty in following what is known as the 'Italian method' of division, which consists in writing down at once the remainder obtained by subtracting a multiple of the divisor from a portion of the dividend considered as a whole number. This method of division saves time and space and the student is trained to be good at mental work. In a division question the arrangement of work is very important. The following arrangements of a small division question deserves to be noted. Divide 256572 by 12.

(a) 12]256572[21381

24

16

12

(b) 21381 45

12]256572 36

16 97

45 96

97 12

12 12

0 —

(c) 12 | 256572

14910

21381

(d) 12 | 256572

21381

Arrangement (a) is our old way of doing division on a large scale; arrangement (b) is

the 'Italian method' referred to above; arrangement (c) is a shorter form of writing (b); this arrangement is possible even when the divisor is a large number. I shall explain this arrangement in my next article. Arrangement (d) is a shorter form of (c) which is not practicable when the divisor is a large number.

S. CHINNASAMI AIYAR.

(To be continued).

LIFE IN THE UNIVERSITY OF EDINBURGH.

II. EDUCATIONAL IDEALS.

LIKE many things relating to ancient institutions, the meaning and purpose of Edinburgh's Educational Ideals can be understood only by reference to their history. In these days of evolutionary learning, this is a truism but in this particular case the truism does not degenerate into a platitude owing to the tenacity for life that is exhibited by the spirit of Scottish institutions. The University is over three hundred years old and though she has passed through many vicissitudes during that period, she has remained true to one fundamental principle. In course of time the principle developed into an ideal which was that she should turn out year after year men and women of a wide and generous culture. That ideal is one of our heritages from the Middle Ages and the only respect in which the grand revolution known as the Renaissance modified that ideal—it was, as I have just said, never radically altered—was in the difference engendered by the more insistent emphasis on the Hellenic Element in the post-Renaissance view of life. You find practically the same ideal in the Oxford and Cambridge Universities—but Oxford and Cambridge have always remained aristocratic

in the narrow sense of the word. A consideration of the history of this ideal as it was sought to be realised by the Edinburgh University will bear out this view.

For my present purpose the whole period since 1580 can be conveniently divided into three unequal parts. The first portion covers nearly three hundred years, the second nearly a quarter of a century, the third is only three years old. Throughout, the matter was controlled by the state of Secondary Education in Scotland. Till the middle of the nineteenth century, Secondary education was in a very unsatisfactory condition and the methods of Edinburgh University were really determined by it. She had a double burden to bear—she had not only to impart a true and comprehensive University culture but had also to supply the omissions of the system of Secondary education. Consequently in the days of which we speak the scope of University education was very much wider than what it is at present. After a boy had picked up the rudiments of education, he had nowhere to look to for further progress except to the University. Thus we find the University of those days stepping bravely into the breach and sustaining more or less successfully this double and trying role. One natural consequence of this state of affairs was that the Arts Course in the University, always the final embodiment of the true ideal, was a much more extended affair than now. According to the present curriculum thirty months constitute the minimum period for graduation in Arts, but in those days four years used to be the average period. The first eighteen months used to be taken up with the work in the junior classes—the attempted substitute for Secondary education. Boys used to come to the University at the early age of fourteen and fifteen and the sight of these juvenile

under-graduates should have proved sufficiently diverting. Another consequence of this arrangement was that the necessity of a preliminary examination was soon forced upon the authorities. No extensive system of Secondary education assured a sufficiently high average as a pre-condition to profitable University instruction and some such test had to be supplied. It is remarkable that there never was in England a state of affairs at all analogous to the Scottish system. Oxford and Cambridge, the only useful parallels in this respect were always supplied with boys from the great public schools which have maintained a uniform of sufficiently high educational efficiency and the problem of extensive rather than intensive culture had never to be solved by those ancient seats of learning. The public schools turned out boys sufficiently equipped to face life as gentlemen should, and as for those who cared for the Church and the learned professions or for scholarship as such—these had open before them the portals of the Universities. In a sense, therefore, the Universities were luxuries even for gentlemen and the sons of gentlemen. Scotland on the other hand, never had a public school with the same purpose or significance as Eton or Harrow, and Secondary as well as University education had to be supplied if anywhere by the Universities themselves. Indian educationists will observe that a similar situation but under widely different conditions, had to be faced in India in the middle of the last century and it has always been a matter of respectful amazement to me why inspiration was not sought from the Scottish model. But it has to be remembered that Macaulay was a Cambridge man. This is, therefore, the problem that the Scottish Universities set themselves to solve and I shall briefly describe how they did it.

It was obvious at once that Latin and

Greek the ancient classical tongues and the repositories of much that is permanent and precious in European civilization were to form essential elements of true culture. They have in them the most valuable things that were taught by the immortals of the classical age. Homer, *Æschylus*, *Sophocles*, *Plato* and *Aristotle* sang or wrote in Greek and any European with pretensions to culture could not do without Greek poetry, drama and philosophy. But if Greek was important, Latin was more important still. It is true that the essentials of European statesmanship and legislation would be incomprehensible without the vast and wide significance of the Roman Empire and the Digests of *Gaius* and *Justinian*. It is true that even to-day, we have not exhausted the suggestiveness and inspiration of Roman history. But there was a more weighty circumstance still which gave Latin an undeniable title to be counted as one of the essentials of culture. It was this. The Bishop of Rome was also the Vicar of God on earth. It is manifest even to the superficial student of European history that the Christian religion has shaped the fortunes of Europe to mighty issues whether for good or evil to a greater degree than any other single force on earth. The Universities of Scotland supplied in the sixteenth century as they do now, the religious leaders of the land. The language of the Church was Latin and Papal theology had become so vital a part of the dogmas of the Christian Religion that a knowledge of Latin became essential even to the rebellious spirits of the Reformation. It will be remembered in this connection that *Luther* himself was a Papal theologian before he led the Reformation. In this way Latin came to have a place in the curriculum of the Edinburgh University. But no man could possibly be content with ancient learning apart from its bearing on modern life; it became therefore necessary to have a com-

petent grasp of European history. The history of European civilization covered roughly speaking a matter of two thousand years and the study of it to any useful purpose was fraught with complicated difficulties of a peculiar nature. That history involved the development of the fundamental ideas implied and sometimes definitely expressed in the ancient world but how the new vital force of Christianity, the variations of place and the sheer growth of time affected their progress were matters requiring careful and expert estimation. Though the general history of Europe was, as indicated, of great importance, it was felt that the more essential element of an educated Scot's culture was constituted by an intimate acquaintance with the history and literature of the Island over whose fortunes the influence of Scotland was so profound and varied. It was decided that English History and Literature with the requisite reference to the course of general European history should be one of the subjects for graduation in Arts.

It will, however, be manifest to the discerning educationist that these topics of learning could not possibly be held to exhaust the requirements of culture. So far a certain logical development is perceptible even in the appreciation of educational needs. But another and distinct branch of culture is still to be mentioned. It is the department of abstract ideas. The initial basis is of course Mathematics. It is superficial and elementary to call it the science of numbers. No doubt it is the science of numbers but it is more and in that 'more' lies all the fascination and romance of Mathematics. It is the science of abstract symbols subject to nothing but the rigid logic of equalities. It is the only science which in its farthest and most abstruse reaches is free from the subjectivism that taints much of human reasoning and inferential calculations.

It provides one of the most rigorous and inestimable exercises to the intellect and its importance was not lost on the authors of the curricula of the Edinburgh University. The further question arises as to how these abstract considerations and methods of work could be applied to the phenomena of nature; the answer to this question consists in the now wide and highly specialised natural sciences. The old Scottish educationists took a juster view of the matter and spoke not of the science but of the philosophy of nature. This view still survives in the name Natural Philosophy which has now the restricted meaning of what is known in India as Physical Science. Natural Philosophy has always found a warm welcome within the University and it is not one of the inconsiderable glories of Edinburgh that her professors of the subject have left their mark on the age in which they respectively lived. But the study of nature more or less external, more or less without moral inspiration could not be said to complete a man's education and sooner or later reflection has to turn 'inwards.' You have the problem of conduct, the conflicting issues and stresses of life, the trying questions of a complicated social and political system and it is the business of a University to teach her sons and daughters how to bear themselves in the face of these doubts and questionings. So she taught them Moral Philosophy. Going still further back, every reflective mind has to answer the ultimate questions of life and suffering, of God and the hereafter—and it is Philosophy's mission to accomplish this task. It is curious that Edinburgh has always regarded the study of Philosophy as the crown and summit of her culture and there is a fine justice in the appreciation of Philosophy as the 'science of sciences.' Philosophy was regarded not only as the critic of all the sciences but also as

the completion and synthesis of them all. The Edinburgh University thus came to contrive a curriculum of studies which with due reference to the necessities of the age was about as perfect and fine a human performance as any else in the world. Latin, Greek, English, Mathematics, Natural Philosophy, Ethics and Metaphysics—what more intelligent list than this can you conceive? These constituted the Sacred Seven of University culture for well nigh three hundred years.

But a concession has to be made. If indeed a rigid and unalterable curriculum was the best educational thing in the world, it would be very difficult to improve up on the foregoing list. However a movement for greater freedom in the choice of subjects made itself felt. There were a good many reasons which contributed to this result. To begin with, there was the natural reaction against the very rigidity of the existing system. People said that some freedom must be given to students in the arrangement of the curricula to suit individual needs. A second reason was that the spread of Secondary education was in a sense taking away the need for a comprehensive rather than intensive form of instruction. A Commission was appointed to inquire into the whole matter and they reported in favour of a change. They said that the necessity for junior classes had almost vanished and recommended that thirty months should be made the minimum period for graduation. It was rather in a characteristic way that the University effected the recommendations of the Commission. She prescribed a scheme of alternatives. She said that the number of subjects for ordinary graduation must still remain seven and with regard to five of them certain of the old restrictions were still to be maintained. These alternatives were Latin or Greek, Mathematics or Natural Philo-

sophy, English or History, Moral Philosophy or Logic and Metaphysics, provided that the final curriculum chosen by a student contained both the subjects in each of these groups, e.g., Mathematics and Natural Philosophy, Latin and Greek, etc. With regard to the remaining two subjects, absolute freedom of choice was given to the students and individual interests were always consulted. It will be noticed that this was an improvement on the rigidity of the old system and it worked very well for nearly a quarter of a century. In the meanwhile, Secondary education received an extraordinary impetus in Scotland. The consequence of it was that a further step in the direction of freedom was urged within the University. The party of reform maintained that it was only Secondary education that had any right to insist upon a rigid and inelastic curriculum and it was the function of the University to help and encourage specialised branches of learning. They urged that the spirit of the existing system was evoked by the necessities of a time which had passed away and that it would be fatuous to persist in a system whose *raison d'être* had ceased to exist. They therefore demanded that there should be fewer subjects, absolute freedom in the choice of them, and longer time for the study of each. Naturally, there was a prolonged and warm controversy about the matter; but the party of reform finally won. A Commission was again appointed to consider the question and report thereon. Their recommendations were three: (1) that five subjects should be sufficient for ordinary graduation; (2) that no rigid restriction should be placed on the arrangement of a student's curriculum provided he consulted the Curriculum Board (a body of advisers and superintendents appointed by the University) and had the curriculum approved by the Board; and (3) that one hundred lectures and fifty hours

of tutorial work should be devoted to each subject instead of one hundred lectures as before. The Commission also suggested the possible abolition of the test of the Preliminary Examination and the substitution for it of the leaving certificates of the Secondary Schools in Scotland. This last proposal received a considerable amount of support but since it would affect the policy of all the Scottish Universities, the matter was dropped. The other proposals were accepted and the present curricula of the University are based on them. Having come so far, the reader may ask me about the Educational Ideals of the Faculties other than that of Arts. It is an important question, no doubt and I shall try to furnish an answer to it in the next article.

GEORGE JOSEPH.

(To be continued.)

THE CORRECTIVE VALUE OF ENGLISH LITERATURE.*

BY

MR. C. P. RAMASAWMI IYER, B.A., B.L.

Speaking the other day at the opening of the South Indian Branch of the English Association, I ventured to observe that English Literature has occupied, and for a long time will occupy, in India the position enjoyed in Europe until recent times by the so-called classical literatures. In making this remark, it was far from my intention to belittle the efforts of those of our distinguished countrymen whose aim and endeavour it is to bring about a unification of Indian languages or the introduction of a common script throughout our continent based on the Sanskrit traditions. Believe me, I hold the view that the first great step towards national unity must be a common script and a common language, and that as we cannot walk away from our shadow so also we could not, even if we would, get past the literary ideals of ancient times. What I meant,

* An address delivered in Pachaiyappa's Hall on Monday, the 27th February, 1911.

however, by the remark above alluded to was that true culture and all the humanising influences desirable from the highest forms of literature will come to us under present conditions rather through the medium of English Literature, than through the Sanskrit and the Vernaculars.

A dead language, however full of traditions and of models can never quicken the soul and the translation into literature of our aspiration and thoughts can only be done through a living palpitating medium of expression. Viewed from this standpoint and recognising as we must that our culture for a long time to come must be essentially Western, it may not be unprofitable to analyse the elements which differentiate that literature from ours and which serve to stamp it with its distinctiveness. So doing, we shall not only keep in view the best there is in that literature, but the attempt will also serve the wholesome purpose of self-analysis—a process which is always useful unless it starts with pre-concerned notions. In more skilful and trained hands it may result in the chalking out of a path of literary progress in the future and the work of criticism being easier than that of construction, there will at least be an exposure of the pitfalls of the wanderer on the slopes of Parnassus. Man further lives not by bread alone, and the study of literature is at least as imperatively essential to cultivate the habit of fine distinctions as for the imbibing of the great ideals. In those distinctions it has been said, truth and highest culture greatly find their account. All of us have not the creative force in us, nor rejoice in the possession of a current of living ideas. To recognise the current and rightly to appreciate the force is itself a happiness and a training and the pursuit of this ideal is as beneficial even from a strictly utilitarian point of view as it is fascinating to the student of literary tendencies. The ascent of man always means the growth of ideals; and the birth of ideals is as often the result as the cause of great literature.

Such a pursuit however interesting is by no means easy. From one aspect, all high literature is alike. Excellence above a certain degree knows of no limitations of time and place. The Ramayana, the Bible, Shakespeare's Tragedies and the Paradise Lost are all life histories of the soul of equal grandeur and of a surprising similarity in the essentials. Nevertheless, there are variations due to inherited tendencies and immemorial traditions, due to the genius of the race and due to the course of history which stamp themselves ineffaceably upon the literature of each community. Some of these characteristics

may be racy in the best sense of the term—so individual that any adaptation or borrowing will be a mimicry. Others again may have the elements of the universal and may rightly be assimilated by an alien race of civilisation. To copy all the points of the Restoration Comedy or of the Railyard School of Fiction may lead to a grotesque result but is it too much to hope that the humanity of Scott, the kindly cynicism of Thackeray and the healthy breeziness of Stevenson may permeate our beings?

What then are the lessons to be learnt from a study of English Literature as a whole? What are the peculiarities, what the essential divergences or distinguishing characteristics which make for the individuality of that literature? And in what respects is there a lesson or warning conveyed to us by a study of that language? These are questions which I shall endeavour to answer. The answer must inevitably be sketchy not only because of the limitations of the case but because it represents only an amateurist or dilettantish point of view. It may also be felt to be somewhat exaggerated but the consolation is that dogmatism may sometimes be attributed to zeal for emphasis, though it is mostly associated with an uncompromising ignorance of detail.

Briefly put, the distinguishing traits of English Literature, its peculiarities if that expression can be used in this connection, are embodied in four ideas: courage, curiosity, catholicity and humour. And classification of this kind is subject at once to the remark that it is paradoxical. But in the main, I shall attempt to show that these are four of the essential features of modern civilisation and necessarily also of modern literature which differentiate the old from the new—the Eastern and the Western forms of thinking. Mr. William Watson, one of the most inspired of the later English poets, comparing the Eastern spirit with the Western—has said:

“Even so, methought the genius of the East
“Reposeful, patient, undemonstrative
“Luxurious, enigmatically sage,
“Dispassionately cruel, might look down
“On all the fever of the Occident . . .
“Aloof from our mutations and unrest
“Alien to our achievements and desires
“Too grey and grave for our adventurous hopes
“For our precipitate pleasures too august.”

These lines sum up in admirable form, the underlying difference between the one spirit and the other. The one is curious, adventurous, precipitate, the other is reposeful, patient and undemonstrative. How then does this curiosity

and this catholicity manifest itself in literature? The answer is conveyed in the word “Realism.” Search as you may our Sanskrit and vernacular literatures, you will hardly come across one instance where the author sets himself to see life as it is. It is all the reign of a hero, of the impossibly virtuous and the imaginably wicked—not a trace of virtue about the villain, and no blemishes in the kind. Isolated instances like *Meichakatika* and *Mudraraksasaa* are only exceptions proving the rule. Coming now to the West, what do we find? With few exceptions the great mass of writers in England and France keep before their eyes the ideal of depicting life as it is. It has been said of a great book, “*The Le Misérables*” of Victor Hugo that its intention was to awaken a little, if it may be, for such awakenings are unpleasant—to awaken as to the great cost of this society that we enjoy and profit by—to the labour and sweat of those who support the litter of civilisation in which we ourselves are so smoothly carried forward. That is one aspect of the matter. Read through Shakespeare, through Dickens and coming to recent times through Meredith, and you find that there is no part of life however mean which the artist deems to be below his ken, there is no aspect of vice which he will not face, there are no ugly sores which he hastens to cover. I shall only take one example and it is crucial. Read through that marvellous book the “*Egoist*.” In it you see how a man endowed with all natural advantages, full of the utmost possibilities of good is yet rendered useless to the world and to himself by the working of that subtle fiend Vanity. You see how insidiously the temptation assists him and how when all the world thinks he is scoring a triumph, he is only dragged deeper into the mire—how the springs of action are weakened and his virtues turn away. Psychology of this kind is not conspicuous in the literature of the East.

Our writers feel that the weaknesses of the good and the great, the aspirations of the fool and the knave may be tolerated in life but literature is a cloister whereto you fly from these disquieting inconsistencies. In that cloister everything is uniform, and alas unreal. You mourn like poor Queen Guinevere that King Arthur had not one human weakness.

Probably the Western spirit is only another phase of the scientific curiosity which regardless of consequences pushes a theory to extremes which thrust the theory of evolution down the throat of clericalism and discovered Radium and has conquered the realms of air.

Nothing can be more instructive from this point of view than to compare, for instance two extremes—the “*Sakuntala*” with say one of Whitman’s productions—“*The Leaves of Grass*.” Whitman is not one of those who can be deceived by familiarity. He is possessed by “an insatiable curiosity in all the shows of the world and all the secrets of knowledge.” Nothing is too trivial or common to be transmuted into literature. He will sing of digestion and of the sexual appetite as willingly as of the finer problems of love or the glories of nature. In the one, there is just enough difficulty and obstacle to give piquancy to the smooth course of love. Nothing ordinary is obtruded on our vision and we see a smooth pageant from a safe distance; and there is just enough background to give a sense of relief. The other is like a mountain torrent forcing itself into every cranny breaking its heart over every hollow and crevice in the rocks. In the *Bride of Lammermoor*, in *Esmond* and *Richard Feverel*, to cite only three cognate instances, you have the great failure, the desperate struggle and the difficult success. The Eastern artist paints a dream and the Western seizes hold of the actual.

Closely akin to the spirit of research is the daring of the Western. Nothing he passes by, naught is too mean for the portrayal, naught is too high to be attempted. It was one of the conventions of the ancient Sanskrit drama that there ought to be no death on the stage, no shedding of blood and no trivial or ordinary incidents of life. The idea being that the life heroic, the life transcendent was the only subject fit for the artist, and the slum and the channell-house were the by-lanes of life from which the artist would turn aside in relief.

The grave-digger in “*Hamlet*,” the Dicks, Swivellor and the Dombey’s of life had no fascination for the Oriental. He would have recoiled from Moll Flanders or Peregrine Pickle. Balzac with his restless inquiry into all the phases of life would have appalled him and the study of the problem of widowhood as in George Eliot’s *Middlemarch* or Meredith’s *Diana of the Crossways* would have appeared to him both ineffectual and mischievous. And if he came across Hardy’s *Tess of the D’Urbervilles* or “the Woman who did” he would have shuddered and shut his eye to keep out of sight the spectacles of active sympathy with the waifs and strays. The artist could only take account of royal processions, stately battles and of sedate loves and decorous laughter. Far different has been the spirit in which the late novelists and dramatists of the

West have worked. For a long time indeed even in England this artificial mode of looking at life was in vogue; and the so-called comedy of manners and the genteel couplets of Pope were the result. But with the beginning of the 19th century under the influence of what is usually called the Romantic movement, the artists of the West, in this instance only going back to the days of Shakespeare, turned themselves away from the role of wax-works exhibition and deemed it a mission to see life whole and paint it as it is. No doubt this tendency has been pushed to its illogical extreme. We are all aware of the excesses perpetrated by the later French writers. We are all aware of the revolting details in which Maupassant and even Zola “wallowed.” But so we turn with a sigh of relief to England where on the whole this movement has been productive only of good; where the artist has not very often taught that the life of the street is necessarily the life of the gutter. This aspect of English literature is especially valuable to us as the Indian mind is ever prone to loose itself in ideas and in vague imaginative excesses, where there is no sympathy with the patient study of detail with all the accuracy consistent with art. Half the novels and dramas written even now in India deal with impossible personages and unimaginable situations. To none does it seem worth his while to reproduce the failures and the tragedies of life, the hardness of existence and the care that grows at the heart of the destitute. “People,” it hath been said, “are all glad to shut their own eyes. And it gives them a very simple pleasure when they forget that our laws commit a million individual injustices to be once roughly just in the general.” It is the function of the artist to depict not only these simple pleasures but also the injustices of life—albeit they may be inevitable. This is a point of view from which all European and especially English literature is full of lessons to us. In every individual production, there is of necessity an exaggerated importance given to a particular personage or a phase of thought. But for this, a novel or a drama would be a picture without a background. On the other hand, the great and distinguishing feature of the work of European artists is a sympathy, a wide outlook which, while it pats the hero on the back is yet not unmindful of the good points of the villain. Iago may be a desperado but he had loved his wife. Pecksniff might be a blackguard but he was devoted to his daughter. There is nothing unrelieved in life as in art and the web of life is of mixed texture. It is the forgetting of this fact that makes the *Kadambari* and the *Dasikumaracharitra* appear so un-

real and so fantastic to a student trained in English Literature. The same qualities which I have tried to designate as catholicity and courage might be illustrated in other ways. And I think it can best be done by a contrast of two writers, both of them English—say Fielding and Scott. I may also refer here to what may be called the sense of atmosphere—the recognition that an idyll, a drama, or a poem or a novel is only one of the embroideries on the big tapestry of life—that there is something behind and beyond which must be recognised and delineated in order to realise the full idea. Fielding wrote well, superbly well. He saw his characters as if he had lived with them. He knew their lives and their tendencies. But are we not lost in the struggles of Amelia, the bluff exuberance of Squire Western and the lapses of Tom Jones into virtue? Do we see the life beyond, can these gentlemen be recognised as belonging to a particular country, to a particular time or as living in a particular land? Scott can show his readers behind and around the personages that for the moment occupy the attention of the reader—"The continual suggestion of the landscape, the turn of the weather that will turn with men's lives in future, dimly foreshadowed on the horizon, the fatality of distant events, the stream of national tendency, the salient frame-work of causation." To realise the sense of something beyond and around, we can turn not only to Scott but to George Eliot, to Meredith, to Kipling and to a host of others, who in moments of inspiration seem not only to create men and women but to create a country for them and an epoch. It was once said of Balzac, I think with reference to that powerful romance of his "The man who laughed" that if you meet with one of his characters in London, you would at once recognise him and call him by his name. This individuality, this freshness of impression is gained by the artistic transmutation into words not of reminiscences but of actual visualised experience. Signs are not wanting of a literary awakening in this direction and we may well point with pride to Bankim Chandra Chatterjee who in his remarkable series of novels unites with the languor, the mysticism and the fervour of the East a keen analysis of life and a deep sympathy with all forms of existence and varieties of thought and feeling.

I now come to the last of the features. I referred to—humour and the delineation of it. Laughter we know and tears. We have split our side with the recurrent Vidushaka; we have shed scalding tears over the sorrows of Sita abandoned in the forest. But there is something betwixt and

between—a smile that is born of ridicule, a laugh that is full of sympathy and this is the essential quality of the higher humour. Eastern literatures have not often cultivated comedy as thus understood. I shall illustrate what I mean. Physical deformity is hardly a subject to be laughed at. But when in *Oliver Twist* and in the *Pickwick Papers*, you cast around it such a wreath of honest fun, you are impelled, not so to say to laugh at the object of the witticism, but with him. Sam Weller getting himself confined in prison and cracking jokes at his hard-hearted father all the while may make us laugh uproariously, but we turn aside and wipe away a furtive tear at the devotion of the honest soul to his master. Our comedy is embodied in the buffoon of our dramas. The mental linen of the hero was too tarched to be crumpled and none could crack a joke with him. The result of this attitude of mind was that the humorous aspect of common things, the comedy that there is in all the happenings of life was never recognised by the artist. And there was no just which was not almost like a poke in the ribs. It has, I think been justly cast in our teeth as a reproach that we as a nation are wanting in the sense of humour. And I think a study of Thackeray and Dickens might well be suggested as an effective mental prescription to us. Life has been described by a very cynical writer to be a tragedy with the laughter of gods in the background. I am afraid we are too prone to take this view of existence. It would be a wholesome training to be able whilst laughing at our fellow mortals, foibles now and then to discern the comic aspect of our life, the futility of our earnestness, and the jest in our seriousness—now and then to laugh with the gods in the background. Mark Twain destitute and forlorn, making fun of himself and of American institutions is a spectacle which only keeps away the tears from our eyelids, because we are smiling all the while at the kindly joke. Thus the comedy of "As You Like It" of Guy Mannering of the *Vanity Fair* and of Dickens is a great cleanser and a moral force. It destroys all the shams and pretentiousness that entrap us at every step. It removes the tumour of vanity but leaves no scar behind. Nothing will save a nation from the ever-threatened inroad of the humbug and the mystery-monger, of the crank and the cheat as much as a well-cultivated sense of humour. Thus can you take hold of things by the right end, thus avoid all slipperiness in the grasp. The comic spirit is the greatest of all correctives. Mark, however, that laughter without human feeling is like the crackling of thorns under the pot. Congreve and Sheridan are masters not of humour but of the legerdemain often called

"wit." What we need is something to bring to communion with the every-day human face, and as was once said of Hogarth's pictures "to prevent that disgust at common life which an unrestricted passion for ideal forms and beauties is in danger of producing." I have thus tried to indicate what are the chief correctives which are afforded to us by a study of English literature. But in dwelling on these, our wants, who that has even dabbled in our literature can lose sight of the lyric tenderness, the keen sense of the idyllic, the formal mastery of technique and the discernment of the true philosophy of life that pervades our writings and invests the *Ramayana* and the *Puranas*, the works of Kalidasa and Bhavabhuti and Bana with a halo of imperishable glory? In one of his intimate letters to his friend Sidney Colvin, R. L. Stevenson wrote "We but attain qualities to lose them. Life is a series of farewells, even in art." Let us fervently hope that Indian art will not bid farewell to its past qualities. My plea however is not for their abolition but for the absorption of the best in Western craftsmanship, of the determination to face life in all aspects, to unveil Isis, shirking nought and nought extenuating and so to do not grimly and with the spirit of the vivisector, but under the presiding influence of the shyest of all visitors, "the comic muse."

OUR ENGLISH LETTER.

LIVERPOOL, March 1911.

There is news of trouble from Russia. Apart from questions of foreign policy, of far-reaching reforms at home, and of railway building, which are sufficiently important to give cause for serious thought in view of the anti-Government schemes which are discussed secretly or openly, we notice signs of an educational crisis. We may have the remarkable phenomenon of a general University strike. What has already happened has been summarily described as a "strike of students unwittingly abetted by the bulk of the professors and supported by radicalism, revolutionism, and anarchism throughout the Empire." The dispute arose from a measure adopted by the Government. Some years ago the Universities were given a large measure of self-government. Within the University precincts the students were to be allowed full and free scope. The consequence was that many radical and revolutionary pronouncements were made at students' meetings.

Accordingly politics was forbidden as a subject for discussion, much as the Oxford Union might be forbidden to discuss the Government proposals

with regard to the Veto! But this prohibition was disregarded. Your correspondent recently had an interview with a Russian student who was forced to leave his University on account of his indiscreet praise of Tolstoy. Recently a new minister, M. Casso, has further curtailed the students' privileges. By way of protest, the students have proclaimed a strike to last until next autumn. The Universities shall close down, they say. But the Government insist on their remaining open. The professors have been more or less neutral. But some have absented themselves from their posts and others have yielded to the protests of the students. At Moscow, the Rector, Vice-Rector, and Pro-Rector gave up their administrative posts, but asked to be allowed to retain their chairs. But their request was refused, and they were dismissed. As a result, thirty professors have resigned *en bloc*. Disorder followed. Hundreds of students have been arrested, and some of them imprisoned for three months. Education is at a standstill. No one can foretell what turn affairs will take. And here is your correspondent side-tracked in Liverpool, where the students are capable of nothing more than a visit in costume to the local pantomime!

It has been known for some time that the Board of Education was taking very serious exception to the way in which the London County Council was treating their demands for improved accommodation and for smaller classes in their Elementary schools. A week or two ago the Board of Education's letter, which had been treated as a confidential document, was made public. It appears that in a considerable number of London Council schools the accommodation is still reckoned on the old basis of eight or nine square feet per scholar instead of on the basis of nine or ten square feet. London is seriously in arrears of the provinces in the matter of bringing their arrangements into harmony with the new regulations. In 1909 the Board called attention to the unsatisfactory condition of 22 schools, of which particulars were given, and declared that it was imperative that the defects in these scheduled schools should be remedied with the greatest possible expedition. In not one case has the improvement been carried out, and indeed in only one of them have finished plans been approved by the Board. The Board certainly seems to have a strong case against the County Council, whose attitude is, however, symptomatic of a widespread feeling among the Municipal authorities of the country against the Board of Education. For Mr. Runciman, unable to legislate, has been

giving himself to administrative activities, and these activities have cost the Municipal authorities very dear. Bigger buildings and smaller classes are not secured without heavy expenditure. The Board of Education is taking a strong line with the County Council in this matter, and it is said that the Council has to show cause why it should not lose £20,000 of the annual Parliamentary grant.

In this connection may be mentioned the fact that a Sub-committee of the Liverpool Council has decided that all children under the age of five shall be for the current year excluded from the schools of the city. This means the exclusion of numbers of children of three and four living in the poorest parts of the city. Curiously enough, this rule becomes operative before the Council has had an opportunity of discussing it. The Sub-committee has skilfully seen to it that a discussion is not in order until the April Council, when the new regulation will have been in force some weeks. More than one strong protest has been entered against this course. Of course, children of three and four cannot receive much in the way of definite and regular instruction, but they are peculiarly amenable to training, and good work has been done among them. Within the last ten years in Liverpool primary teaching has been revolutionized. And the admission of the young children to the schools has been an immense boon to the parents. It has been suggested that at the back of this regulation is the desire of certain denominational extremists whose own schools have become crowded to prevent other schools from accepting younger children than they themselves can accommodate. If this be the case, no words could be found that would be too strong for the condemnation of such a miserable "dog-in-the-manger" attitude.

The question of compulsory attendance at Evening schools is occupying the careful attention of educationists. Public opinion is not yet strong enough on the point to justify much pressure being used. There is, of course, an Act on the Statute book—Education (Scotland) Act, 1908—which in clauses 10 and 11 gives powers to local authorities to frame bye-laws making attendance at evening classes compulsory between the ages of fourteen and seventeen. But this provision is obviously in advance of public opinion. Enquiries have been made of the School Boards in Scotland, and it appears that nowhere have these optional clauses been enforced, though at Dumfries the School Board passed a bye-law to the effect that all children, who had left school since January 1st, 1908 and had not passed a certain qualifying

examination, should attend Continuation classes during the winter: but this bye-law was rejected by the Scotch Education Department on the ground that it was badly drafted.

It is interesting, however, to note what is being done in Scotland with regard to Evening schools. At Coatbridge in the case of children who have been exempted from the obligation to attend school before reaching the age of fourteen, attendance at Continuation classes is made compulsory. At Wishaw a similar regulation is enforced, and the report is that without compulsion the attendance of young people at the classes is very satisfactory. At Cathcart the Board is endeavouring to obtain the attendance of those who had not, prior to leaving the Day school, been one year in a supplementary class or higher grade school. There is a general feeling that it is possible to compel those who had been for some reason backward at school or had left early, to make up their leeway. There are undoubted difficulties in the way of anything more drastic. The unwilling pupils would spoil the discipline and tone of the classes and make them less efficient, the pupils being at an age at which discipline is difficult to maintain. Moreover, the variety of courses of technical instruction and the Code Regulation of the Education Department make it difficult to say what classes any particular pupil should be made to attend: you can take a pupil to the school, but you cannot make him choose. The other objection—the interference with business—is a short-sighted one, because the further instruction, if successful at all, is found to make the pupils more efficient and more effective in business. What strikes one personally as more forcible is the contention that the end of the day, when the earlier hours have been spent in hard and exacting work, is not the best time for imparting instruction to tired and faded youth. But the instance of the engineer can be quoted on the other side. Evening classes are virtually compulsory upon any youth who takes his work seriously: so that rising at five every morning, and working until late afternoon, he has his evening classes afterwards, and yet is able to profit enormously by them. The engineer is the best paid of working men, because he is the best educated.

The long overdue adjustment of imperial and local finance cannot come this Session owing to the constitutional crisis. But we have Mr. Lloyd George's assurance that "it is the full intention of the Government to deal with it. Else the Chancellor of the Exchequer will constantly have to hand out hundreds of thousands of pounds, if

not millions, to the Local Authorities in a thoroughly wasteful manner. I have now to give another £1,500,000 to local authorities without exacting anything in consideration and without any bargain in the matter." This was in a discussion which arose out of the Government's grant to local authorities in lieu of the whisky money, which is no longer applied to meet the cost of education, as was the case for so long. Perhaps it was the issuing of the Temperance syllabus for elementary teachers that dissolved the happy union. It was a distinct insult to "John Dewar."

The 'Journal of Education' for March is an interesting number, and worthy of study. It is the 500th monthly issue, and contains a supplement full of interesting articles. Professor John Adams writes on the 'Training College of the Future.' "The Training College of fifty years hence will be free, State-supported, and State-controlled." Not altogether a pleasing prospect. In England this will be known as the century of municipalization.

Reviews and Notices.

SOME ASPECTS OF MODERN EDUCATION (I. P. MISSION PRESS, SRINAGAR)

Is a collection of essays on different aspects of education by Mr. R. D. Patel. Other writers also contribute to the collection, Mr. James Smith dwelling on the need for manual training and on his own share in introducing the subject as a subject of educational discipline, Mr. S. De Brath insisting on the need for the study of Indian Humanities and Science, a Bombay civilian treating of the Religious Crisis, Dr. W. T. Harris of the Cultivation of Aesthetics in School and Dr. King of the Future of Moral and Religious Education.

Mr. Patel advocates educational reform in School and University teaching, dwells on the need—for training and discipline and character formation, for fewer subjects and more thorough grounding, for introduction of science subjects and for teaching them properly, for making the teachers better by insisting on their going through a course of special studies with a view to fit them for their profession and for making the profession attractive by offering higher pay to the teachers.

Madras is referred to in complimentary terms as being ahead in educational matters, notably in the matter of training teachers in our model College at Saidapet. We welcome the booklet as helpful in spreading right views on education.

EDUCATION IN BRITISH INDIA, BY M. L. ZUTSHI, M.A. (THE INDIAN PRESS, ALLAHABAD.)

In the first part of the book the writer gives a brief account of educational progress in India from 1813 to 1907. The second part and not the least important consists of a number of appendices like Macaulay's Minute (1835), General Education Despatch of 1854, The Recommendations of the Indian Education Commission (1882-1883), Mr. K. T. Telang's Minute of Dissent, and Government of India's Despatch on the Progress of Western Education under British Rule in India.

The book is a valuable publication and is indispensable to students of Indian Educational problems.

HEREDITY IN THE LIGHT OF RECENT RESEARCH, BY L. DONCASTER (CAMBRIDGE UNIVERSITY PRESS); THE COMING OF EVOLUTION, BY J. W. JUDD (CAMBRIDGE UNIVERSITY PRESS.)

We welcome the series of which the above form the pioneers. The books give in a short compass lucid presentments of the advances made in evolution and heredity. In these days of avid curiosity the man in the street wants to be told in a way that he can understand but also in a sufficiently accurate manner what the latest information is on such topics as evolution and heredity. The Cambridge Press has done a distinct service in bringing out such books which seem to meet the public demand. Lucid exposition and accuracy of presentment are rather hard to combine but the writers have successfully overcome the difficulties. The general reader may be congratulated on his being able to procure for a shilling such booklets dealing in a fairly adequate manner with the results of latest research.

ENGLISH LITERATURE FOR SECONDARY SCHOOLS:

SELECTIONS FROM 'A Survey of London,' of John Stow, EDITED BY A. BARTER; SELECTIONS FROM *Pioneers of France in the New World of Francis Parkman*, EDITED BY KENNETH FORBES, M.A. (MESSRS. MACMILLAN & Co.) 1s. each.

Messrs. Macmillan have added two more volumes to this useful series of School-mannals. The scholarly introductions, the questions, subjects for composition bearing on the books, and the judicious notes, which form features of this series are attractions which must commend them or wide use in schools.

TALES OF OLD ROMANCE: THE WANDERINGS OF ULYSSES; STORIES FROM THE FAIRIE QUEENE; STORIES FROM CHAUCER; BALDUR THE BEAUTIFUL; JASON AND THE GOLDEN FLEECE; THE STORY OF SIEGFRIED. (EDWARD ARNOLD). 4d. each.

We are in receipt of these six booklets which must form valuable aids to school work. It is probably the story-aspect of literary master-pieces that appeals to young minds most, and there cannot be a better introduction to Chaucer, Spenser and the ancients, than these manuals. We have great pleasure in recommending these books to the Headmasters of our High Schools.

ENGLISH READING BOOKS FOR INDIAN STUDENTS, BY A MEMBER OF THE INDIAN EDUCATIONAL SERVICE. LONGMANS GREEN & CO. BOOKS I AND II: Prices Re. 1-4-0 AND Re. 1-0-0.

Book I may be used in Form III. It contains no poetry. Book II may be used in Forms IV and V. Both of them attempt to follow a middle course between too short pieces of poetry or lessons in prose from different writers and too long a work of one author. The selections are varied and taken from standard authors. Even the work of compilation is not quite an easy task when the language is foreign; but some subjects, Indian in character, may be added. In poetry, some selections may be made from Griffith's Translation of the Ramayana. In prose, such descriptions as that of the Kaveri Anicut may be better suited to them. The notes on the teaching of English and the introduction to the poetical selections in Book II are worthy of being read with care. Notes on the text might have been much less than what they are. The prices of the books are too heavy for Indian students.

PLANT-ANIMALS—A STUDY IN SYMBIOSIS, BY F. KEEBLE, SC.D., PROFESSOR OF BOTANY IN UNIVERSITY COLLEGE, READING. Pp. viii + 163, WITH 22 ILLUSTRATIONS IN THE TEXT AND A COLOURED FRONTISPIECE. (CAMBRIDGE: THE UNIVERSITY PRESS, 1910.) Price 1s.

This little book belongs to the series of the Cambridge Manuals of Science and Literature, most of which are on scientific subjects but all of which are presented in a very accept-

able form to people who have had no scientific or scholastic training. The present volume is about Plant-Animals, certain plants and animals living together in a state of mutual help-mateship, living, not side by side but one within the other and the one helping the other in all possible ways. Naturally to the layman, the existence of a plant in an animal, will appear strange, in fact his early if not only idea of symbiosis is probably the fig tree on the forehead of Baron Munchausen's stag. Of course the stag and the fig tree are objects of the past, and we do not meet now-a-days with such symbiosis of the higher orders of plants and animals but they are not uncommonly seen in the lower orders of both plants and animals. Professor Keeble has been making an intimate study of such symbiotic lower organisms for a period of over ten years in a small marine laboratory on the coast of Brittany, and the deep interest evinced by many of his visitors in his experiments and researches, we are told, was what made the Professor to write this popular account of his 'catch.' We thank the Professor and his visitors. In his book the Professor confines his description to two species of Convoluta, a kind of small, lowly organised Planarians or flat worms. The book is divided into two parts and in the first part, the mode of occurrence, the structure and the habits of Convoluta both in a state of nature in the sea and in the aquarium of the Laboratory, are beautifully described. These Convoluta rightly merit the term Plant-Animals, because they exhibit plant as well as animal features not only in their structure but in their habits and mode of nutrition as well. They all possess a small ventral mouth, and a pair of eyes like animals and they move about, but internally they are composed of a number of cells, green in one species and brown in the other, which are exactly like plant cells. These coloured cells are wanting in the young forms of Convoluta, but are found in plenty in the adults who exhibit certain phenomena peculiar to plants such as trophistic and periodic movements as are seen by their moving towards the light, appearing with the tide and so on. Again as regards nutrition the young Convoluta capture and ingest solid food whereas the adult ones practically do not feed at all, but are supplied by these coloured internal cells with the necessary food in a state of solution. What these cells are, how they got into the body of the Planarians, the part they play in the economy of the animal and the significance of their presence there, are all graphically described in the second part of the book. These coloured cells are none but small marine Algae or a very low order of plants, who usually lead a free and independent

life in the sea, but owing to the want of sufficient nitrogen in the sea water to build up their body, they suffer from 'nitrogen hunger' and in their struggle for existence they are compelled to discover regions where nitrogen could be had in plenty. Now Convoluta are unique amongst the Planarians in not being blessed with an alimentary canal or organs of excretion, so much so that they could not help storing up all their nitrogenous waste products within themselves. These waste products in course of time accumulate in the body to such an extent as to bring on death by blood-poisoning or 'uric acid disease.' Consequently a way of ridding themselves of these waste products is eagerly sought after by these flat worms. Thus a mutual attraction, as it were, takes place between the Algae and Convoluta. The hungry free Algae enter the body of the latter, act as scavengers, gorge themselves with the heaps of nitrogenous waste found there, grow and multiply in situation. The animal on its part has now completely stopped its habit of taking solid food, but simply digests the oxygen, fat, etc., liberated by the plants in its interior and builds up its tissues. Now a curious transformation takes place. As the Algae are constantly fed by the animal without any exertion on the part of the former to get any, they gradually grow lazy, and as they have abandoned their former free existence, they now get themselves rid of their locomotor organs and become a part of the internal tissues of the animal, so much so that the animal and the plants which were independent beings once, have now become so intimately blended together that the separation of the one from the other means death to both. In other words the animal together with the plants have turned into a Plant-Animal. In this symbiotic state they live for a period, during which the animal reproduces, and in end as this constant interchange of food brings about a lack of nitrogen, the greedy Convoluta digests its own plant cells as a last resource, whereby the golden goose of the animal's food supply is lost and the animal falls a victim to its own greediness.

The above is a short sketch of the main points graphically described by Professor Keeble in his charming little book, which thus forms an admirable introduction to a study of the Physiology of animals and plants in general and of Plant-Animals in particular. We are glad that the Professor does not belong to the two common species of writers on popular scientific subjects, the one, the book specialist, who could not sink below the level of his technology, and the other, the amateur, who always appears in big borrowed terms; on the other hand the chief feature of the book is the lucidity with which it is written so as

to interest the layman by avoiding unfamiliar biological terms as much as possible and the originality of the information contained in it. The ginality of the information contained in it. The excellent paper, the bold types, and the neat get-up, also form an attractive feature of the book. We strongly recommend this book and such books about real living objects and containing facts and generalisations arrived at after careful observations and experiments, to take the place of some of the dry books on dead matter that are now and then put in the hands of students appearing for University Examinations.

Indian Educational Notes.

MADRAS.

Pachaiyappa's High School, Chidambaram.—We are asked to publish the following:—The Prize-distribution of Pachaiyappa's High School, Chidambaram, was celebrated on Monday, the 13th instant, in the High School premises, at 4-30 P.M., with Khan Bahadur Azizuddin Sahib Bahadur, F.M.U., the popular Collector of South Arcot in the chair, before a large gathering of gentlemen, some of whom had specially come from Cuddalore and other surrounding places, chief among those present being Messrs. M. Ramasawmi Aiyar, B.A., B.L., Chakravarti Aiyangar, B.A., B.L., E. S. Kuppusawmi Chettiar (Deputy Collector), P. Narayana Chariar, M.A., B.L., (District Munsiff), Ponnusawmi Mudaliar (Tahsildar), Theodore (Sub-Magistrate), Varadachariar and others. The day was a red letter day in the history of Pachaiyappa's High School, and never in the annals of the institution has Chidambaram witnessed a more interesting function.

Precisely at 4-30 P.M., the spectators including the President witnessed several excellent gymnastic feats performed by the new Gymnastic Instructor (Mr. Masilamony Mudaliar) and many pupils trained by him, while at intervals, "The Indian Royal Band" of Tanjore played a few select aids.

The proceedings commenced at 5 P.M., with welcome songs to the President, composed in English, Tamil and Sanskrit by the students and teachers of this school. This was followed by a Tamil song sung in accompaniment to harmonium and fiddle by several students of the Primary Department including some girls.

This over, the Headmaster read a consolidated report of the working of the institution from 1907 to 1909. The report showed steady work and increased prosperity under the regime of the present Headmaster. The following are some extracts from the Headmaster's report:—

Strength.—The strength of the school rose steadily from 291 in 1907, to 314 in 1908, and to 381 in 1909, and it will be highly gratifying to you, Gentlemen, when I say that the strength has since reached

400, the highest on record ever since the establishment of this institution.

Staff.—Among the changes, the most important one was the appointment of the present Headmaster in the place of the late lamented S. Subramaniasastri, B.A., who had been the Headmaster of this institution till June 1908. The chief cause of the constant changes in the staff seems to be the low scale of salaries, obtaining in this institution, and I am therefore endeavouring to raise the present scale of salaries with a view to obtain or retain the services of really efficient teachers. Now you will be glad to note that the High School staff has been strengthened by the appointment of three more graduates, one of them a Gold Medalist from the Government College at Kumbakonam. I may add that the Primary Department has, for the first time in the annals of this institution, been strengthened by the appointment of three fully-qualified trained Matriculates, who are acquainted with the Kindergarten methods of teaching the several subjects, including music.

Examinations.—Though the general failures in December 1909 affected us in common with the rest of the Presidency, you will be glad to know, Gentlemen, that our school stood not only first in the District but produced far better results than those of Mayavaram, Kumbakonam, Madura and other important educational centres.

School Building.—The Trustees have since sanctioned a sum of Rs. 3,000 towards the extension of the building. Rao Bahadur Rathnasabapathi Pillai Avl., B.A., B.C.E., Mr. C. P. Ramaswami Iyer Avl., B.A., B.L., and Mr. Masilamony Pillai Avl., B.A., B.L., inspected the spot, not long ago and I doubt not that the work will be commenced at an early date.

Library.—The number of volumes in the Library has increased from 1,200 in 1907 to 1,800 in 1909. I may add that something has already been done to create in the students a taste for reading with the result, that many of the students of the High School Department are constantly applying for the new books, recently added to the library.

Games.—While every encouragement is given to the cultivation of the mental faculties, the development of the Physical powers is not neglected. Not long ago, the Headmaster secured with the greatest difficulty within a distance of less than half a mile from the school, a spacious play-ground which was a long-felt want and which the school authorities were not able to supply during the last 60 years. Rao Bahadur L. C. Williams Pillai, the late Inspector of Schools, was kind enough to open the Football Club and was pleased to remark in the course of his opening speech that "the students ought to thank their present Headmaster for the trouble he had taken in securing that spacious playground."

Inspection Report.—Messrs. T. T. Logan and H. Champion and Rao Bahadur L. C. Williams Pillai, inspected the school in 1907, 1908, and 1909

respectively and were entirely pleased with the progress the school had made from time to time.

This was then followed by some choice recitations and dialogues, which were excellently done. A farce in Tamil "The Learned Fools" was enacted by the pupils of the Primary Department, which excited roars of laughter.

The President then gave away the prizes to the successful pupils of the school, and presented a gold medal to one C. S. Venkataraman of the 6th Form for proficiency in games. This done, the learned President rose amidst deafening cheers and spoke as follows:—

THE CHAIRMAN'S SPEECH.

Ladies and Gentlemen:

I am glad that it was possible for me to be present here and to preside over to-day's ceremony. I need scarcely say, that this time of the year is the busiest for the Collectors, being the closing period of the financial year when the several branches of the District Administration have to be carefully supervised; the anxieties are numerous and the work very pressing—the most onerous of them being the Census work, which is just now closing. In these circumstances, I was naturally inclined to request Mr. Govindarajulu Mudaliar, the energetic Headmaster of this flourishing institution, to leave me alone but there was the fear of disappointing no less than 400 members of the rising generation, I mean the students of Pachaiyappa's High School at Chidambaram, which I have tried my best to avoid. I am therefore in your midst but I must apologize for not having come prepared to enthral you with any interesting speech. I know that you will readily grant that the gift of the gab is not given to all, at any rate, I have not, unfortunately, been given enough of it. If there were a regeneration, I would wish to be born either a District Court Pleader like my deceased father, or preferably, a High Court Vakil, when I am sure I shall have ample scope to exercise my tongue, which, especially in these days, is proving itself a very useful and paying organ.

2. To begin with, I have to congratulate my young friends on the entertainment got up by them in my honour and I will be failing in my duty if I omit to say that one and all of them acquitted themselves very creditably. Now turning to the report, which covers a period of three years, I must congratulate the Headmaster and his Assistants upon their satisfactory work and the steady progress of the school under their efficient management. That the Headmaster has rendered the school most popular is obvious from the fact that the strength of the school has now increased to 400 and that in consequence of it, the expansion of the building has become an immediate necessity. I must confess that I have not adequate opportunities to make myself sufficiently acquainted with Mr. A. Govindarajulu Mudaliar but from what little I have seen of him, I have been most favourably

impressed about his earnestness to advance the interests of the school. I hope that the school will continue to flourish under his able management and that the sphere of its usefulness will be widened from day to day. It is most gratifying that the Trustees of the Pachaiyappa's Charities have been able to secure an efficient staff of teachers for the school and to provide it with the necessary furniture and all other up-to-date requirements, and I hope that the Trustees will heartily co-operate with the Headmaster in further advancing the interests of the institution by giving effect to his suggestions tending to the improvement of the institution in his charge.

3. I shall now endeavour to say a few words of advice to my young friends, the Pachaiyappa's students. Students! I exhort you to keep up a high standard of honour. The expression, you will mark, is most comprehensive; it includes truthfulness, uprightness, fair-dealing and every other good trait of character, necessary to entitle one to the claim of being called a gentleman. Examples of great men are not wanting in the Eastern literature to guide you. Who could be more truthful than Harischandra and more honourable and upright than Rama, the illustrious son of Dasaratha? Nothing could survive the former from the path of truthfulness and to the latter an exile of 14 years was preferable to the violation of promise made by his father to the intriguing Kikayi. As to fair-dealing, I may mention a small anecdote connected with an ancient Parsi King of Persia. It is said of Nowsherawan that he gave orders for the construction of a palace for him. Those who were entrusted with the work found it necessary to acquire a hut belonging to an old woman who occupied a portion of the site selected for the royal building. The old woman was asked to part with the hut but she did not consent to the request. She questioned the officers of the King whether the King was not content with his extensive Empire of Persia that he was disposed to disturb her in the possession of a small hut. When this complaint reached the ears of the Parsi King he promptly ordered that the old woman's cottage should remain as it was and that his palace may be constructed crooked. There is a pithy saying of the great master of Nazareth which you will do well to bear always in mind:—"Do unto others as you wish that others should do unto you." Nowsherawan evidently acted upon this saying. Those great men have passed away but you see that their great deeds have survived them and they are still admired by the world. The great Prophet of Arabia used to pride that he was disposed to be just because he was born in the days of Nowsherawan, the just. I must, however tell you that keeping up a high standard of honour alone will not be sufficient to get on successfully in the world. You have to add two more qualities to it, viz. "Courtesy" and "Kindness." The worth of these attributes is most emphatically expressed by Hafiz, the well-known poet of Persia. He says that the whole success and

happiness of the world are concentrated in two simple phrases, "courtesy to enemies," "kindness to friends." However, good you may happen to be, unless you practise these two noble qualities, you cannot win the hearts of your fellow beings. When you leave the school and are out in the world, you will find it impossible to win any one's love except by love. An Eastern sage mentions in one of his works that on a certain occasion he noticed a person leading a sheep by a rope and observed to him that it was that rope which made the animal go after him. The man on hearing this removed the rope from the animal's neck and began to run about in various directions. The animal ran after him whichever direction he took and when the demonstration was over, he told the sage, you see the animal is not attached to the rope, but it is attached to me. When kindness can produce this effect on irrational creatures, you can imagine its effects on rational beings. I hope I do not expose myself to the charge of flattery when I mention in this connection a recent incident which made a profound impression upon me and I believe upon many others in this District. I refer to Their Excellencies Sir Arthur and Lady Lawley's journey from Cuddalore to Chidambaram. It was about 11 A.M. when they left Cuddalore in their motor car. I had, as you know, the privilege of travelling with them. The loyal people of South Arcot were lining on both sides of Their Excellencies' route from Cuddalore to Chidambaram, a distance of 44 miles; after the car had travelled a reasonable distance, I suggested to His Excellency the desirability of putting on the hood of the car as the sun had grown very powerful. The reply was remarkable. These good people, His Excellency said, "have come out to see us which they will not be able to do if the hood is put on." I confess I felt ashamed at having made the suggestion and admired His Excellency's courtesy and kindness to the people in having travelled from Cuddalore to Chidambaram accompanied by Her Excellency, absolutely exposed to the burning sun. The result of this self-sacrifice is obvious. His Excellency has won the hearts of the people of this District not only for the British Raj, but also, to use the phrase of His Excellency's worthy predecessor, Lord Amptill, for all the pukka "Sahibs" of the great English race. My young friends, I do not wish to detain you further but before we part, I must request you to bear in mind the unbounded gratitude we owe to the British rule. It was due to that rule represented by the East India Company that the late illustrious Mr. Pachaiyappa, the founder of many a magnificent charity, was able to flourish and become an opulent merchant; and it is now due to the same rule if our country enjoys peace and prosperity from one end to the other and if Indians are advancing in civilization never known before to India. I would therefore exhort you to ever remember the debt of gratitude we owe to the great English people, to be always loyal to Government and to be steadfast in honouring the King.

Mr. A. Govindaraja Mudaliar, the Headmaster,

then proposed a hearty vote of thanks, in a few well-chosen words to the worthy President for the trouble he had taken in presiding on the occasion and for the invaluable piece of advice he had given to the students.

With a vote of thanks to the popular Headmaster by Mr. M. Ramasawmi Aiyar (retired Sub-Magistrate) and the singing of the National Anthem by the pupils of the Primary Department, the interesting function came to a close.

Board High School, Amalapuram.—We are asked to publish the following:—The prize-distribution of the above institution and the anniversary of the Aryan Students' Debating Society attached to the school took place in the High School hall on the 18th instant at 5.30 p.m., when M.R. Ry. P. Subbiah Mudaliyar Avergal, B.A., B.L., Principal District Munsiff, presided and kindly gave away the prizes.

The proceedings commenced with the reading of the school report for the year 1909 by the Headmaster, Mr. T. V. Srinivasa Aiyar, B.A., L.T. The report showed that the school had been steadily growing in strength and popularity. It had over 600 pupils on its rolls. The results of the year in the Matriculation Examination in which 8 passed out of 50 sent up were though in themselves poor not bad, when compared with the average for the Presidency. In all departments of work, in games, reading room, debating society, teachers' council, the school has worked efficiently. Mr. J. A. Yates, M.A., who has breathed a new spirit in the educational world in the Circars wrote as follows in his inspection report of the year:—"The school continues prosperous and the improvements made in equipment and in uniformity and methods of teaching are obvious. The freedom given to the headmaster to do supervision work is bearing good fruit; the teachers' council works regularly and well..... There is new life and earnestness. If the rate of progress made hitherto continues, the school will be thoroughly efficient before long." As the school is steadily growing in strength we hope before long the management will have additional buildings erected, which the institution is in absolute need of. It may be noticed that steps are being taken in this direction.

The debating society did very satisfactory work as is evident from the report of its work read by the secretary of the society. The public were entertained with choice English recitations. The dramatisation of the story of William Tell and his shooting of the apple, and the enactment of the drama of the Slave of the Lamp were particularly interesting and it reflects great credit on the organisers and the pupils that took part.

The Chairman of the evening, Mr. P. Subbayya Mudaliyar, congratulated the prize-winners on their having won the prizes by hard work and then proceeded to give a few choice words of advice. He was glad the boys took a deep interest in the work

of the society and impressed on them the value of such work to them in their after lives. He noted with approval that the boys studiously avoided taking up political subjects for their discussions. In these days boys' minds were often poisoned with wrong ideas and they were used as tools by unscrupulous people for bad purposes. Taking the political situation, he said they had no reason to be dissatisfied with their situation. Peace and order were preserved and everyone was at liberty to pursue his occupation without molestation. There was nothing humiliating in their position. After dwelling at length on the subject, he emphasised the importance of boys forming good habits and upright character early in their lives and quoted Mr. Gladstone's advice to one of his sons. He wanted them to strictly keep down their wants, limit their expenses to their income, to value all kinds of honest labour, to try to become men of character, which, it was possible for every one to do, to submit to discipline, and to cultivate the habit of reading good books. He specially urged them to study the biographies of great men whose lives would inspire them to do deeds of kindness and glory. Above all he wanted them to work hard and equip themselves during their school career to fight the battle of life. With the usual vote of thanks and the singing of the National Anthem in Telugu, the proceedings came to a close.

Departmental Notifications.—The following gentlemen have been appointed to be Government Members of the Council of the Victoria Technical Institute, to hold office for a period of three years:—The Hon'ble Mr. Alfred Chatterton, B.Sc., A.C.G.I., A.M.I.C.E., M.I.M.E., and Mr. J. R. Henderson, M.B. F.L.S.

Mr. J. R. H. Mackintosh, acting additional Professor of English, Presidency College, Madras, to act as Inspector of Schools, Seventh Circle, during the absence of Mr. R. G. Grieve on leave or until further orders.

Mr. A. V. J. Vas, Assistant Professor, Presidency College, and Acting Assistant Inspector of Schools, Cuddapah district, appointed in the second class of Sub-Assistants with effect from the 22nd instant, vice Mr. O. Kodandarama Nayudu, permitted to retire, but to continue to act in the first class in his present appointment.

Mr. V. Vijayaraghavachari, Supervisor of Elementary Schools, Trichinopoly, to act as Sub-Assistant Inspector of Schools, Trichinopoly Range, in the probationary class, in addition to his own duties with effect from the 13th January 1911 vice Mr. S. Swaminatha Aiyar on other duty or until further orders.

Mr. S. T. Kallapiran Pillai, Assistant Inspector of Schools, South Arcot district, acting in the North Arcot district, extraordinary leave without allowances for two months from the date of his relief.

Mr. M. Rangaswami Aiyangar, Sub-Assistant Inspector of Schools, Erode Range, acting in the Chittoor Range, to act as Assistant Inspector of Schools, North Arcot district, vice Moulaui Muhammad Azam Sahib Bahadur on other duty or until further orders, and to have charge also of the office of the Sub-Assistant Inspector of Schools, Chittoor Range, until relieved by Mr. S. K. Venkatarama Aiyar.

The posting of Mr. M. Rangaswami Aiyangar as acting Assistant Inspector of Schools, Cuddapah district, is cancelled.

Miss P. F. Parsons, Second Assistant Inspectress, Madras Girls' Range, to act as First Assistant Inspectress, without change of station, vice Miss Patterson on other duty or until further orders. To have effect from the 1st February, 1911.

Mr. Reginald A. Nelson, M.A., LL.M., to be an Ordinary Fellow of the University of Madras.

The Acting Director is pleased to grant Mr. T. Venkatesa Aiyar, Sub-Assistant Inspector of Schools, Madanapalle range, privilege leave for three months with effect from the date of relief, and to make the following appointment:—

Mr. M. Seshagiri Ran, Supervisor of Schools, Bellary, to act as Sub-Assistant Inspector of Schools Madanapalle range, in the Probationary class during the absence of Mr. T. Venkatesa Aiyar on privilege leave or until further orders. To join forthwith.

The Madras Collegiate School, Vepery.—The interesting function of distributing prizes to the successful students of the Madras Collegiate School, Vepery, in the Prayer Book Examination, and the School and Scholarship Examinations was performed on the 7th instant by Her Excellency Lady Lawley. His Lordship the Bishop of Madras was also present. Her Excellency and other distinguished visitors were received by the Sisters and conducted to the *dais*.

The proceedings commenced with the singing of a hymn, which was followed by the reading of the report which showed that the work of the school during the past year was satisfactory. The prizes were then distributed by Her Excellency.

On behalf of the Sisters, His Lordship thanked Her Excellency for her kind presence. His Lordship was sorry that Her Excellency was unable to stay there until the end of the proceedings, as Her Excellency had two other engagements to attend to, the same evening. His Lordship also thanked Her Excellency for the constant interest Her Excellency had evinced in the school, ever since Her Excellency came to Madras.

Her Excellency after thanking them all left the Museum Theatre and motored to the South Indian Athletic Grounds, People's Park.

Sannadhi Secondary School, Madura.—A correspondent writes to the *Hindu* from Madura:—The Hon'ble Mr. J. H. Stone, the Acting Director of Public Instruction, during his short stay at Madura, had the kindness to visit the Sannadhi Secondary School, at 5.30 p. m., on the 3rd instant. Mr. J. H. Mackintosh, acting Inspector of Schools, also accompanied him. Both went round the school noting the method of teaching and the discipline of the young students. It seems that the Director was satisfied with the general tone and discipline of the school. The Inspector also was pleased with the kindergarten tables and other things generally used in classes. After a short stay of 40 minutes the Director signed the Visitors' Book. It has now on the rolls 224 students and nearly 200 students were present on the day on which the Director paid a visit to the school. The school is located in the busy part of the town and has an excellent staff, the Headmaster being a trained F. A. The school is working under a Committee of 11 members of which Mr. C. N. Subramanya Aiyar, B.A., Retired Assistant Inspector of Schools, is the President.

Madanapalle Memorial High School.—An interesting and important function was gone through on the 6th instant—the laying of the foundation-stone of the Memorial High School buildings by Miss Atkinson. Mr. R. A. Jenkins, the Divisional Officer, presided and Mr. H. Champion, the Acting Inspector of Schools, III Circle, delivered the address for the occasion on 'The Immediate Needs of Education.' Mr. Champion in the course of his remarks said that in delivering the address of the evening he was more concerned with the connection of parents with school work than with any other details on the education of the present day.

He said that Indian teachers and parents were culpable in the matter of discipline. They were not competent nor had they seen other systems in other countries. The Indian teacher was too kind and hence the lax discipline. There was a tendency to forgive wrong doings. Moral, social, and physical offences should be visited with suitable punishment. The interference of the parents in this direction was not uncommon in this country. The Headmaster was afraid of incurring the displeasure of the parents. Punctuality was never observed in schools. Unpunctual boys were admitted into the class without a word of reproof from the teacher. Herein the parent must co-operate with the teacher and co-operation does not mean poking your nose into every affair. You must trust the Headmaster and the teacher.

He next went on with the *Muscular Development* of the boys. Absolute indifference of parents in this direction was also not praiseworthy. Parents seemed to have a limited conception of education. Manly qualities should be inculcated. The day was not far off when the want of sportsman-like qualities in a teacher would be a disqualification for teachership. The locality also did not support organised games. The mimic warfare of the play-

ground would qualify a student for the stern warfare of the world.

He said that mental education was insolubly bound up with moral education. Moral education had been neglected in favour of mental education. He deeply deplored the neglect of observation, sound reasoning and independent thinking in the Indian students. He said that the Matriculation examination required facts and facts only. He was hopeful of a sounder kind of education according to the present scheme for the award of school-leaving certificates. But he had doubts as to its complete success on account of the teacher and the parent. Miss Atkinson then laid the memorial tablet and the proceedings terminated after a short speech from the chair.

Khadir's Hostel Literary Society, Tanjore.—The first anniversary of the above Association was celebrated on the evening of the 27th ultimo at 5 p.m. in the premises of Khadir's Hostel, East Rampart, in the presence of a large audience with Mr. J. T. Gillespie, I.C.S., District Judge, in the chair. The proceedings began with the reading of Secretary's Report, which was followed by the acting of a scene from Julius Caesar. In the unavoidable absence of the Hon'ble Khan Bahadur Mahommed Habibullah Sahib, Mr. T. Rajam Aiyengar, B.A., Headmaster, Kallayana Sundram High School, delivered a lecture on "Ideals and their necessity." The lecturer began by observing that students may be said to be in a stage of formative imitation. He defined an ideal as a conception proposed, by the mind for imitation and example. Hugh Fleming, the German poet, was of opinion that an ideal must be perfect in itself. The ideal of one man may not be the ideal of another. But we should not be intolerant in this respect. Great men were not wanting in our country or for the matter of that in any country we should have ideals for moral, physical and intellectual perfections. The lecturer concluded by declaiming against the reading of bad novels and the use of objectionable pictures by students and ended with an appeal to their parents to realise their responsibility in the matter of forming and moulding the moral character of their children.

Srivilliputtur Teachers' Association.—The first anniversary of the above Association attached to the Hindu High School, was celebrated on the evening of the 26th ultimo, under the presidency of Mr. P. Sankunni Menon, B.A., B.L., the District Munsiff. The meeting commenced at 7 p.m. and was fully representative of the educated gentry of the locality. The proceedings began with the reading of the annual report followed by a lecture on 'The Teacher and his position in society,' which was delivered by Mr. A. Rangaraja Sbastrigal, B.A., L.T., the Sub-Assistant Inspector of Schools. The President, then, made a short and humorous speech and certain eulogistic remarks regarding the efficient working of the Association.

BOMBAY.

The Muslim University.—A large gathering of Muslim students of Bombay was held on the 7th instant in honour of His Highness the Aga Khan under the presidency of the Hon'ble Sir Narayan Chandavarkar, Judge, Bombay High Court. The Aga Khan said he was very grateful to say that the Muslim University was in sight—thanks to the Nawab of Mahomudabad, the Nawab of Jehangirabad and many other influential friends in other parts of India who had devoted themselves wholeheartedly to the task of establishing a Muslim University. In Bombay the response to his appeal was encouraging enough and he took the opportunity of thanking his friends, Mr. Fazulbhoy and Mr. Cassim Ali for the help they had given him in this matter. He had made the greatest mistake in his life when he in a thoughtless moment said twenty lakhs of rupees were required. That was not enough. If the Mussalmans wanted to have a really good University they must raise 40 or 50 lakhs or even a crore of rupees. The University would be of a non-sectarian character and Hindus would be more than welcome to it.

Social Gathering of Davar's College of Commerce.—The Annual Social Gathering of Prof. Davar's College of Commerce of Bombay was held on the 5th instant. A large commodious bungalow of Mr. Karani, a prominent Parsi merchant of Bombay, was left at the disposal of the College authorities situated in Anderi, a healthy suburb of Bombay, where the past and present students collected in large numbers daily in the morning. Special arrangements were made for Hindu students under high caste Brahmin management. Breakfast, lunch and dinner were taken there and music, sports, recitations, etc., were the order of the day. In sports some of the prizes were carried away by Madras students among whom the achievement of Mr. G. Ramkrishnayya in the wide jump match was much appreciated. At night after dinner, Prof. Davar called all students together and proposed the health of the King and Emperor and the Royal Family which was received by the students among cheers. The other speeches that followed included that of Mr. C. S. Gopala Rao of Mysore, who is a scholar of the Government of H. H. The Maharaja of Mysore, who spoke of his experience as a student of Commercial Education both in Madras and Bombay. He said that he only knew how to properly appreciate High Commercial Education by experts after his joining Prof. Davar's College and remarked his satisfaction at seeing more than 20 of his Madras colleagues present there, and who were the students of the College. The results for the Highest Professional Accountants Examinations held in India by the Association of Accountants of London are just out and it is a great satisfaction to see at least two Madras names in the list—both Davar's College boys, viz., Messrs. I. Krishna Iyengar and I. Kameswara Rao.

CALCUTTA.

Educational appointment.—The following *communiqué* is issued by the Education Department:—The Secretary of State has appointed Miss M. C. Somerville, M.A., of Edinburgh University, to the Indian Educational Service as Second Inspector of Schools in Eastern Bengal and Assam.

The Calcutta University Convocation.—The Annual Convocation of the Calcutta University was held on the 11th instant. His Excellency the Chancellor presided but did not make any speech. The Vice-Chancellor, as usual, presented the degrees to graduates and delivered an address in the course of which he referred briefly to changes in the Regulations. He said that immense sums would have to be spent to improve secondary schools and that the mere severity of examinations does not always effectively advance the standard of teaching. The Vice-Chancellor in referring to students' quarters said the surroundings in which many of our students live and the obvious dangers to which they are so often exposed are calculated in many cases to effect the complete ruin of the student. What is imperatively needed is the development of a comprehensive policy whereby all our colleges in course of time will be furnished with suitable residences for their students, and it is a matter for congratulation that the subject has attracted the attention of His Excellency the Chancellor.

The remainder of the address was directed to urging of claims of research into ancient history of India and fostering of a true historical spirit.

Education in India.—Education Department Tables are published in the *Gazette*, showing the progress of Education in India as a whole, and also in the different provinces in the past four years. It shows that in this period the expenditure upon all classes of Education in India has risen from five hundred and fifty-nine lakhs annually to six hundred and eighty-six lakhs, about half of these sums being from the public revenues and half from fees and other sources. At the same time the total number of scholars has risen from five millions to six millions, and the total number of primary schools from nine thousand to eleven thousand.

ALLAHABAD.

The Allahabad University.—At a meeting of the Senate of Allahabad University on the 10th instant, it was resolved on the motion of Mr. Justice Karamat Hussain that the recommendation of the Joint Board with regard to the substitution of Persian for Arabic be passed, the reason being that the pure Persian was easier than Arabic with Persian. The Hon'ble Mr. De La Fosse's motion, that an examination for commercial certificate should be opened, was also adopted.

Jamna Mission High School.—The annual sports day of the Jumna Mission High School was held on Friday, February 24, on the grounds of the American Presbyterian Mission in Allahabad. The day was a school holiday and all the 806 boys on the Register were present. The festivities began at 9.30 A.M. and continued through till sunset. The two motor cars generously loaned for the occasion from His Highness the Maharaja of Benares and Lala Kamta Prasad were the centre of attraction and taken in instalments, the students were given a ride around the forty-two acre compound, a novel experience for the great majority. There was also in attendance an elephant graciously lent for the day by Rao Ragho Prasad Narayan Singh Bahadur and on the back of this means of transportation many were shown the sights of the Jumna. The two methods of transportation caused great pleasure and they were in rivalry for the morning. The other amusements were well patronized. Besides the gramophone to please the ear with a fine selection of Indian airs, there were five merry-go-rounds that kept revolving the whole morning and engaged the activities of the younger lads. Meanwhile on the football field the athletic contests were being held under the direction of Mr. J. M. Charles, the Director of Athletics. At 2 p.m. the unveiling of the Memorial Tablet in the auditorium of the school was held. This is a black marble stone inserted in the wall, with letters in gold commemorating the gift of the main school building from Mrs. Isabella Crawford of Redlands, California, United States. Mrs. Crawford with her daughter visited Allahabad in 1904 and the gift of the money for the construction of the school was in the form of a memorial to her husband. Dr. A. H. Ewing, the Manager of the School and the Principal of the Allahabad Christian College, on the same compound spoke. At 3 p.m. came the prize-giving in a large tent temporarily erected for the purpose. Twenty-six silver medals were awarded to the athletic winners, Mrs. A. H. Ewing pinning them on the boys. The shields were presented to the winners of the class tournaments, the tenth year students securing the football shield, the ninth the cricket cup, the seventh the football shield and the special B another cricket cup. The sixth year students also carried off trophies in the shape of a football shield and cup. One hundred and thirty-nine books were awarded as prizes for Sunday School attendance at the Jumna Mission High School and Dr. A. H. Ewing closed the exercises with a witty speech in Hindustani. After this refreshments were served to all the boys and guests present, a picture of the students who are leaving this year was taken, three cheers given for the Principal and his wife and Dr. J. G. Ghose, J.L.D., the Headmaster, and Mrs. Ghose; the wrestling contest was held and the evening exercises were over.

Central Hindu College, Benares.—On the 19th February at 5 p.m., a general meeting was held at

the Exhibition Darbar Tent with the object of raising a subscription for the O. H. C. Prof. Wodehouse and Pandit Ikbai Narain Gurtu had been invited from Benares. The meeting was very largely attended.

The speakers were Raja Durga Prasad, Prof. Wodehouse, Rai Ikbai Narain and Thakur Mashal Singh.

About Rs. 10,000 were subscribed on the spot. The Raja Sahib of Katari headed the list with a handsome donation of Rs. 2,500, the Hon'ble Pt. Jwala Prasad subscribed 1,000, Mr. F. S. Tabor 100, Pt. Bishan Narain, B. Mohan Lal, Raja Durga Prasad, Thakur Shankar Bakhsh Singh, Babu Sheo Sahai and Mr. Chanpat Rai each subscribed Rs. 500, B. Ram Prasad, B. Ram Chandra, Syed Itifat Rasul, Babu A. K. Dutt, B. Rameshwar Prasad, Syed Wajid Husain, Dr. P. C. Roy, Rai Bishambar Nath and Pt. Brij Mohan Narain Rs. 100 each, B. Mathura Prasad Rs. 75, B. Maunilal, B. Sirish Chandra, B. Mata Prasad, B. Lal Behari, Pt. Brij Nath, the students of the District School, Thakur Mashal Singh, Mr. G. Singh, B. Bhagwan Prasad, each Rs. 25. A *chaprasi* of the Collectorate paid in cash Rs. 6, his one month's pay. A collection in coppers was also made, nearly Rs. 100 being collected in petty donations. There was much enthusiasm in the meeting. The meeting was very successful.

Lakhimpur Dharm Sabha School.—The eleventh anniversary and prize-distribution of the Kheri Lakhimpur Dharm Sabha School was celebrated with great rejoicing on the 14th instant in the hall of the school. The Hon. Mr. D. C. Baillie, C. S. I., Member of the Board of Revenue, presided over the meeting. After Sanskrit and Hindi recitations by the boys, Pandit Brij Behari Lal Ojha recited seven slokas (verses) in honour of His Most Gracious Majesty the King-Emperor of India and of the Hon. President. Pandit Balbhadra Prasad Shukla, Vakil, Secretary of the School, then read the annual report after which the President distributed the prizes to the boys and gave certificates to four successful candidates in the Prathama Pariksha examination of the Benares College. After this the Chairman spoke highly of the generosity of the Lakhimpur public and particularly of Seth Tulsī Ram, an Honorary Magistrate, Sahukar and Zamindar of the town for his noble generosity in constructing a spacious boarding-house for the school entirely at his own cost. Pandit Mohanlal Tewari, Vakil, Assistant Manager of the school, proposed a vote of thanks to the chair and prayed for the long and peaceful reign of His Majesty King George V., Emperor of India. After this, the meeting dispersed and sweets were distributed to the boys of the school.

Crosthwaite Girls' School.—The sixth annual prize-distribution of Crosthwaite Girls' School, Allahabad, took place recently. A large number of ladies and gentlemen were present. The Hon. Sir

John Stanley took the chair. There were first songs, recitations and dialogues, and then the business of the evening was commenced by the Principal reading her annual report. Having thanked the benefactors of the institution, the Principal spoke of the progress made by it. Sir John Stanley expressed his great satisfaction at the progress made and his confidence that the school had a great future before it. He spoke of the need for increased boarding accommodation and appealed to the community to help the institution. Sir John Stanley spoke in terms of praise of the work of the Principal and staff, and of the active interest taken by the Honorary Secretary. Lady Stanley gave away the prizes, and the proceedings terminated with the usual votes of thanks.

PUNJAB.

Punjab University Library.—Before laying the foundation-stone of the new Punjab University Library on the 27th ultimo, Sir Louis Dane made a long and valuable speech in the course of which he said:—

"I am glad to have been able to take part in this ceremony, which makes a further stage in the development of our University, and all the more so because the laying of this foundation stone is the first step towards providing a suitable and permanent home for the oldest and most distinctive feature of the University, the Oriental College. A rolling stone gathers no moss—or as the Persians have it, *bar sang-i-gardan na royad nabat*, and possibly the degree to which our Oriental College has fallen short of the hopes and aspirations of the founders may be due in part to the fact that it has had no permanent home. It was first in the Government College building, but was crushed out by that rapidly developing and expanding institution and sought refuge in the offices of the University Hall, hardly a suitable place for a properly organised College. University requirements have now demanded its expulsion, and I am glad to think that I was able to come forward and offer it a home on this very commanding and valuable site in a building which, with suitable alterations, should give it ample room to expand and flourish in all its branches.

Some time ago a project for the improvement of the College was mooted which appeared to me to have a true vital spark in it. This was, I think, that it should take over advanced Oriental teaching for the other colleges. I hope that the scheme has not been dropped. We should of course have to improve our instructional facilities, and most important of all, get the best Orientalists for our professors and pay them proper salaries. In a humble way I am deeply interested in Oriental literature, and I have done what I could to help by inducing the Government of India to give one of the Sanskrit research scholarships to Prabhu Dutt Shastri, who should soon be returning with a vision clearer and wider for his two years' training in Western Universities. I hope that by dint of

persistent entreaty we may secure an Arabic scholarship of the same class in due course. It might even pay us to give special scholarships and so create more rapidly a class of workers and professors, who by applying Western critical methods to Oriental traditional learning will gain a reputation as Oriental savants and teachers, which will truly make our Oriental College a place of resort for all interested in Oriental learning and history and a real glory to the University of the Punjab.

Islamia College: Prize Distribution.—His Highness the Aga Khan presided at the prize-distribution of the Islamia College on the 24th ultimo. The members of the Muslim deputation including the Raja of Mahmudabad, Dr. Syed Ali Bilgrami, the Hon. Rafiuddin, Nawab Vicar-ul-mulk were present. The report of the College was read by the Principal, Mr. Martin, who made special reference to religious instruction given at the institution. After the distribution of prizes the Aga Khan in a short speech hoped that the College would become the eldest daughter of the Mahomedan University at Aligarh.

Haji Rahim Baksh, President of the Council of Regency, Bahawalpur State, made over a cash donation of sixteen thousand rupees collected from the State to the College.

Forman Christian College, Lahore.—The 25th anniversary of the Forman Christian College, Lahore, was celebrated recently, the Bishop of Lahore presiding. In the course of his report, the Principal, the Rev. Dr. J. C. R. Ewing, summarised the changes that had occurred during the last year in connection with the work and improvement of the College. He was followed by the Rev. Mr. H. C. Velte, who addressed the assembly on the history of the College and referred to the pioneer work along the line of education done by Christian Missionaries in this country. He divided the successive stages in the progress of education since the beginning of British rule in India into three, namely, the Missionary, the Government, and the people. He differed from the popular notion which styles Macaulay as the "Columbus of Indian Education," and tried to prove historically that the Missionaries were the rightful claimants to the aforesaid title. Next, he traced the history of the educational movement in the Punjab as initiated by Dr. Forman, whose name the College bears. He referred to the difficulties encountered by him and showed how he achieved success eventually. The speaker divided the life-history of the College into three periods:—(1) The period of infancy (1886-1890); (2) The period of expansion (1890-1900); (3) The period of crowning success (1900-1910); and briefly touched on its landmarks. The Bishop of Lahore distributed the prizes and in his closing remarks brought home to the students the lessons of translating knowledge into conduct, of adminis-

trating this trust to the benefit of the masses, of making it a bond of sympathy and unity among mankind even across the great barriers of different races, creeds, or cultures. The assembly adjourned to the quadrangle where Dr. Wherry of Lodiana declared the K. C. Chatterjee Science building open. The building contains three large laboratories for Physics, Chemistry, and Biology.

MYSORE.

The Mysore Maharani's College.—On the eve of her departure to England, after her retirement, an address was presented to Miss Palethorpe, M.A., Lady Superintendent of the Maharani's College. The address, among other things, said:—

It may not be out of place to state that this College, associated with the name of the distinguished Dowager Maharani of Mysore, Her Highness Vanivilas Sannidhana, and supported by our beloved Maharajah, His Highness Sri Krishnaraj Wodeyar Bahadur, G.C.S.I., is the foremost educational institution for the upper classes of Indian women, and it is no ordinary distinction to be called upon to preside over it. How worthily you filled this high position is borne ample testimony to by your nine years' tenure of office. To refer only to a few of the important measures by which the College made a distinct advance under your regime, we would mention the formation of the Oriental classes for the encouragement of higher Sanskrit studies, and the opening of the special B.A. classes for the benefit of the three under-graduates, who were anxious to proceed to the degree of Bachelor of Arts. You had the satisfaction of seeing both these measures bearing fruit. A student of the Oriental class succeeded in obtaining a first-class diploma in Sanskrit and the College won the proud distinction of having produced for the first time in the history of female education in South India, three Brahmin lady graduates. The Training class which prepares students for the teaching profession considerably benefited under your watchful care, and year by year achieved excellent results. The Primary Department of this institution is now almost wholly managed by the Mistresses trained here and many of them are also serving with credit in the mofussil. The unfortunate widow-pupils who came for tuition in the College always found a sympathetic supporter in you.

MISS PALETHORPE'S REPLY.

Miss Palethorpe, in the course of her reply, said: Saubhagyavathi Rukmaniamma, members of the staff and High School students of the Maharani's College—I thank you most warmly for your address and for the handsome casket in which you have enclosed it. I am using no empty form of words when I say that the Maharani's College is too deeply fixed in my heart for me to require any material object to remind me of the nine years and more which you and I have spent together within

these walls. They have been years of hard wholesome and happy work of struggles, defeats and victories of increasing knowledge of and sympathy with each other. But wherever my future home may be in it your parting words and your gift will always hold an honoured place and when my friends ask "where did you get this pretty Indian casket," I shall show them your farewell Address and tell them of our College and of its work for Hindu women, begun and carried on by Hindus and through Hindus.

Indian Sanskrit Institute.—In aid of the above institute opened and patronized by his Holiness Sri Sringeri Jagad Guru at Bangalore City, it is pleasing to hear that Mr. Nagar Subha Row, B.A., Sub-Divisional Officer, French Rocks, has presented a sum of Rs. 1,000 for the purpose of building a house to accommodate students desirous of being benefited by the institute. The donation is thankfully accepted by Mr. Srikantha Sastri, Agent of the Sringeri Mutt. The new house will soon be erected by the side of the set of buildings erected and presented by Mr. V. P. Madhava Rao, in obedience to his father's wishes.

TRAVANCORE.

The Maharajah's Girls' College.—Miss D. H. Watts, B.A., the popular and talented Principal of H. H. The Maharajah's Girls' College, intends to go to Europe on nine months' furlough. The absence of the Lady Principal for even so short a time will, it is considered, be a great loss to the institution. When Miss Watts succeeded Miss Williams, as Principal, over a year ago, there were misgivings in certain quarters as to how the institution would thrive under her administration especially because the Educational Department itself, with characteristic obstinacy, has been throwing obstacles in her way. She has, however, triumphed over all petty tyrannies and it is no more complement, to say that the Girls' College has had the most brilliant and prosperous record under her management. A stern disciplinarian, a kind and sympathetic Principal, an efficient organizer, a successful teacher, Miss Watts has made herself indispensable to that institution. It is stated that Miss Rosemeyer, an Assistant in the Royapettah High School, is to be appointed to act for Miss Watts during her absence on furlough.

The Maharajah's College.—Mr. R. S. Lepper, M.A., LL.M., Professor of History and Economics in H. H.

the Maharajah's College, has resigned his appointment owing to ill-health. Mr. Lepper came to Travancore about ten years ago when the History Chair in the College was instituted and under his professorship the History Branch became the most popular in the College. He threw himself heart and soul into the work and before long, Trivandrum became 'one of the places where History is taught best.' A profound scholar, an efficient and sympathetic teacher, Mr. Lepper was greatly loved and respected by his students. As Honorary Secretary of the Public Lecture Committee he did excellent work, and, under him, the Committee received new life and vigour. A Hindu Hostel was started about three years ago, he was made its warden and under his efficient and sympathetic management the Hostel soon became a real home to its residents. In Society and having a kind, noble and generous heart, he made himself popular with all classes. His many students and friends in Travancore, deeply regret his premature retirement and wish him long life, happiness and prosperity in his distant home in Ireland. His place, as Professor of History and Economics, will, it is understood, be taken by Mr. K. V. Rangaswami Aiyangar, M.A., F.R. Hist. S., Acting Professor. Mr. Rangaswami Aiyangar entered the service of the State nine years ago. He has been in charge of the duties of the Professor of History and Economics on six occasions and has officiated as Secretary to Government, Educational Department, for a period of six months—a period of much activity in the Department.

The Trivandrum Law College Association.—The eighth Annual Meeting of the Law College Association was held on the 3rd instant at 5.30 p.m. in the Victoria Jubilee Town Hall, under the presidency of Dewan Bahadur P. Rajagopalachariar, C.I.E., Dewan of Travancore, and was well attended. The proceedings commenced by the reading of the Report of the past year, by the Secretary which mentioned the grievances of Law Students in respect of accommodation, hostel, play-grounds and library. After the report was read, the Chairman called upon Mr. A. M. Muttanayagam Pillai to deliver the valedictory address on "the Increase of Civil Litigation, its Causes and Remedies." The lecture which was very interesting and instructive was followed with great pleasure by all.

At the conclusion of the lecture, the Chairman, who rose amid loud and continuing applause, said that he followed with great pleasure the interesting address which was delivered by Mr. Muttanayagam Pillai. The Dewan wished the Law College every success. With a vote of thanks to the Chairman and the Lecturer, the proceedings came to a close.

The Educational Review.

We have recently come across certain strange views concerning science equipment and science teaching.

We deem it our duty to expose their unsoundness. It is no doubt true that the teaching of science is more expensive than the teaching of literary subjects. But it should not be made to appear that science cannot be taught in the elementary or intermediate stage without the costly apparatus made by instrument-makers. What can be simpler than the means employed by Volta, Dalton, Guy-Lussac, Biot, Arago, Malus, Foucault and others who laid the foundations of modern physics? We can give as much training in Practical Physics for the Intermediate Examination of the Madras University with the simple apparatus described in Schuster and Loes' *Intermediate Practical Physics* as with the costly apparatus given in the list prepared by a member of the Board of Studies of the same University. The aim of every teacher of science ought always to be to use such simple apparatus as clearly reveal the underlying principles of any phenomenon. For example, much more is learnt by a student about the measurement of the refractive index of sodium light with the aid of the simple apparatus described by Professor Quincke in his *Optische Werkstatt* than by the employment of a costly spectrometer provided with tangent screws and finely divided verniers. Why should money be thrown away on a spherometer reading to thousandths of a millimetre, when for the stage of a student one reading to a hundredth of a millimetre would do.

We are told that in the majority of second-grade colleges the lecturers in physi-

cal science are lacking in manipulative skill. This is no doubt a matter for regret, but this is not the fault of the teachers. No provision has been made in training institutions for giving any special training to the teachers of physics and chemistry. We do not think that a mere apprenticeship in a well-equipped laboratory will supply the resourcefulness that is often necessary in a poor laboratory. We are acquainted with many Masters of Arts in physical science who have spent more than a couple of years in a well-equipped laboratory who had neither resourcefulness nor the manipulative skill, the lack of which is the subject of complaint. Even men who have had their training in well-equipped European laboratories, when fresh from college, have been found to be entirely lacking in manipulative skill. Very often it is found that the man who has worked in a well-equipped laboratory with instruments nicely made by well-known instrument-makers is nonplussed by what he meets with in a poor laboratory, where resourceful teachers have done with simple apparatus all that is done with very expensive apparatus in rich laboratories. As regards laboratory organization, management and control, these are matters on which there is not oneness of opinion, and it is no good laying down any cut and dry schemes.

It looks to us wonderful that there can possibly be any dissociation between the lectures on any subject of science and the practical work done by students in connection with them. The primary object in any college course in any scientific subject, such as physics, is to establish a vital connection between theory and experiment. One of the circumstances unfavourable to such connection is the use in the class-room and the

laboratory of separate text-books, separate courses and separate instructors. The student, who is provided in the laboratory with an isolated set of directions or with a laboratory manual which consists essentially of a compendium of directions of all sorts of experiments, does not in the majority of cases obtain a grasp of the theory and bearing of his experiments. If the primary aim of laboratory work is grasp of principles and not mere manipulative skill, laboratory work ought not to be a mere servile following of directions. It is with this end in view that in all good teaching every endeavour is made to connect the lecture course intimately with the practical course. The use of a text-book written specially with this end in view saves the necessity for a detailed syllabus in practical work. The intimate connection that exists in any good scheme of instruction reveals to the student what he has to do when he is in the laboratory. This is further facilitated by all students working simultaneously on the same problem. No thoughtful teacher would deny the advantages of this method, known as "the even front," as distinguished from the irregular method, in which the different members of a class are doing different experiments. The superiority of the former method over the latter has been pointed out so clearly by Prof. Edwin Hall of Harvard University in his *Teaching of Physics* that we desist from adducing here any arguments in defence of that method. We shall only quote what Oberlehrer Hermann Hahn, the author of the excellent *Handbuch für physikalische Schülerübungen*, says, on this method in Part 4 of *Abhandlungen zur Didaktik und Philosophie der Naturwissenschaft*. "I formerly made my students work in groups according to the

irregular method and then made them work in even front individually at the same experiment. The result was a significant improvement in the work turned out. If in any experiment the sets of apparatus are not enough, I do not give up the method of equal front but group together a number of students. If any student finishes his exercise earlier than the others, a case that has not come within my knowledge, he may be asked to repeat the same experiment in a somewhat modified form or be given a numerical problem to solve."

In this connection we note with surprise the discredit cast on the system of working in pairs. The only objection to working in pairs is division of responsibility and that one of the pair is likely to dominate the other. These objections may be valid in groups of more than two, but so far as our experience goes we have always found that each member of a pair does his own portion of the work quite independently of the other, though both of them are making observations on the same apparatus. The system of working in pairs is the one usually adopted in many laboratories, both elementary and advanced, in England, Germany and America. In the preface to his *Dynamics* Prof. Glazebrook describes the practice in the Cavendish Laboratory at Cambridge as follows: "In order to deal with classes of considerable size it is necessary to multiply the apparatus to a large extent. The students usually work in pairs (the italics are ours) and each pair has a separate table. On this table are placed all the apparatus for the experiments which are to be performed. Thus for a class of 20 there would be 10 tables and 10 specimens of each of the pieces of apparatus."

Prof. Worthington, F.R.S., says in the introduction to his *Physical Laboratory Practice* that at Clifton boys work in pairs, "an arrangement found on the whole quite satisfactory." Similarly says Prof. Grimsehl in the introduction to the *Catalogue of German Educational Exhibits at the Brussels' Exhibition*: "The students do their practical work almost exclusively in even front. The maximum strength of a class in an Oberrealschule is 40. Any such class is divided for practical work into two divisions of approximately equal strength, of which one division does its work in the last two hours of a day, while the other division does its work in the first two hours of the next day. Thus the hours of practical work of both the divisions of the same class follow one another immediately without any lecture intervening between the practical work of the two subdivisions. By this method all the students of a class have advanced equally in their practical work before the next lecture. Two students are always grouped together, so that twenty students do the same experiment simultaneously in ten groups." The same system of working in pairs is followed also in the Universities of Erlangen and Chicago. Even Prof. Edwin Hall, who is not favourably disposed towards working in groups, is compelled to admit that "working in groups of two is the common practice in one of the most successful and satisfactory school laboratories with which I am acquainted. A great deal depends on the spirit with which the teacher is able to inspire his class."

Another astounding remark we have met with is that demonstration experiments, that is, those done by the lecturer himself during the course of his lectures, are in many cases

merely qualitative in character and that the practical course of experiments done by the students themselves should be mainly quantitative in character. We, on the other hand, think that both the classes of experiments can be qualitative as well as quantitative. Wherever it is possible to arrive at quantitative results, the experiment accompanying the lecture should also be quantitative. Similarly where qualitative results are educative, the students may also perform qualitative experiments. The experts who have made this astounding remark seem to have forgotten that there is such a thing as qualitative analysis in chemistry and that most of the experiments done by the students in this line of work in the chemical laboratory are purely qualitative. Nor need the apparatus for lecture experiments be different from the apparatus used by the students in their practical work. In one of his books, Prof. Glazebrook says: "It has been my object in the lectures to avoid elaborate apparatus and to make the whole as simple as possible. Most of the lecture experiments are performed with the apparatus which is afterwards used by the class, and whenever it can be done the theoretical consequences are deduced from the results of these experiments."

Much has been made in some quarters of lecturers and professors in some colleges not giving attention to necessary repairs in apparatus. This appears to us to be making a mountain of a mole hill. Even in the best of laboratories there are always likely to be some instruments in need of repair. But this does not necessarily prove carelessness and want of attention. In this land where it is so inconvenient to work with closed doors and windows larger use has to be

made in lectures of sensitive pointer galvanometers than reflecting galvanometers. We have now moving-coil galvanometers provided with pointers which are sufficiently sensitive for all lecture purposes and these instruments are very convenient to work with as they require no darkening of rooms.

The unsoundness of the views we have criticised is all the more regrettable as they have emanated from a source from which the teacher of science naturally expects some helpful and valuable advice. Instead he gets the most common place platitudes, not evincing any of the cautious spirit which ought to characterise the man of science, but brimful of bias in every direction. It seems to be an irony of fate that in this land of slavish dependence no freedom will be granted in any direction. While the freedom to teach in his own way characterises the work of the teacher in every progressive country, no teacher in this country is allowed to teach in the manner he thinks best. There seems to be a silent dislike in certain quarters against any initiative on the part of the natives of the soil. Undue interference with time-tables, schemes of work and methods of instruction prove more harmful than beneficial by creating anxiety and unrest among teachers.

The annual Convocation of the University of Calcutta for conferring degrees took place on the 15th instant. His Excellency the Governor-General and Viceroy of India presided over the Convocation, and the address was delivered by the Vice-Chancellor, the Hon'ble Mr. Justice Ashutosh Mukerjee. The address dealt with various problems of education. It is a noteworthy fact that the University is making vigorous efforts for the

promotion of post-graduate studies and research. We are glad to note that the University has secured the services of an able Japanese scholar, Mr. Yamakami, to deliver a course of lectures as University Reader on Systematic Buddhism. As the Vice-Chancellor pointed out, "the subject is one of abiding interest, and the materials available to the distinguished lecturer are practically inaccessible in this country, and possibly also in Europe, to students of this important department of Indian philosophy." As regards secondary education the Vice-Chancellor avowed that the general condition of secondary schools had markedly improved during the last two years, but he was not so optimistic as to forget the unwelcome truth that immense sums would have to be spent before these schools could be deemed fully qualified to prepare students destined to receive a University education. "The subject in which the teaching is most palpably defective, and, in many instances conducted on what must be regarded as by no means rational lines, is English. Indeed, when we remember that our students in the earliest years of their life, learn the first rudiments of English language from teachers who themselves never had any adequate training, it becomes a matter for astonishment that many of them learn as well as they do. This is a subject which demands attention. Mere severity of examinations does not always effectively advance the standard of teaching; and the aim of all sound systems of education ought to be, not so much to keep back the unqualified as to reduce their number to an absolute minimum. The efforts of the professors in our colleges must be lamentably wasted if they are called upon to impart instruction to students imperfectly in the

course of their career in schools, and it would be a real assistance to the colleges if a comprehensive scheme for the radical improvement of secondary education could be speedily brought into operation." These remarks apply with equal force to secondary schools in this part of the country as in Bengal.

The remarks on the affiliated colleges also deserve attention. Although the general condition all round shows considerable improvement, two outstanding problems have emerged from the results of the inspection during the last twelve months, problems of paramount practical importance, which claim immediate attention and are by no means easy of solution. In the first place, the accommodation in the colleges is entirely insufficient to meet the demands of the natural growth in the number of our students; in the second place, the provision made for the residence of our students is of the most inadequate type. Both these problems must be squarely faced and can be solved only with the help of funds furnished by the aristocracy of the land.

The observations of Dr. Mukerjee on the neglect of research into the past history of India by the Indian Universities are perfectly correct. We have very few professors, who, themselves engaged in research, widen the bounds of knowledge and incorporate in their lectures all the important information on their subjects available at the time. The absence of true professorial teaching has proved fatal to all true proficiency and scholarship in the peculiarly Indian subjects. It is a pitiable fact that Indian Universities have been hopelessly backward in the discharge of what is their unmistakable duty.

The result has been a vague and uncritical admiration for the past and a fanciful estimate of the greatness and happiness of old times. He who is an indiscriminate admirer of the past is apt to become an unfair critic of the present. It therefore behoves in the first place the Indian Universities to do their best to foster by all means in their power a true historical spirit in their midst.

We note with pleasure the introduction of a bill on compulsory primary education in the Imperial Legislative Council by Mr. Gokhale. The difficulty in the way of making elementary education free is the lack of funds. If the State should choose, it can easily find the money. Much of the money which is now utilised for less important expenditure could be more profitably spent on education. If the State cannot do this, it would be good even to have compulsory primary education by levying a special educational cess, for the benefits accruing from the spread of elementary education would be far-reaching and extensive as compared with the slight inconvenience caused to the people by the increase of taxes. It is unavoidable in the present position of our country that we should pay taxes disproportionate to its economic conditions. But the beneficial consequences of education, even if it be of the most elementary sort, are so great that we should not flinch to put ourselves to some inconvenience. In this connection we note with pleasure that the Government of Bombay have already opened five hundred free elementary schools and are prepared to open a thousand more when these are full and that they do not complain of the lack of funds.

Sir William Tilden delivered a very interesting lecture on the teaching of Chemistry to the Science Branch of the London Section of the Assistant Mistresses. The following summary contains the leading ideas in the lecture. Chemistry should not be begun before the age of thirteen. As introductory to science the most suitable subject is botany. It is well to approach the subject of chemistry from the historical point of view. This lends interest and serves as an aid to memory. Children cannot verify all first principles and must take some for granted. Apart from

utility the value of chemistry is that it teaches measurement of all kinds and the principles of classification. Classification should not be attempted in the first year or two. Instruction should not be limited to quantitative chemistry. It is doubtful whether the chemistry of common life, which forms what may be called domestic science, can be taught to young pupils as the applications of chemistry are not easy to understand. A laboratory need not be costly or elaborate. What is wanted is plenty of light, fresh air, gas and water, and a few bottles. All else for young pupils is a superfluity of naughtiness.

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THE TEACHING OF ENGLISH COMPOSITION—II.

CAN COMPOSITION BE TAUGHT?

(Continued from page 49.)

ONE of the most baneful theories relating to the teaching of composition is the belief that it is a subject which cannot be taught in the class-room. It will not be denied for a moment that the virtues of literary success of any high degree cannot be imparted by means of lectures. Nor will it be denied that the handling of an instrument of expression with distinguishing ability comes largely by experience and natural endowments. We might even go so far as Cicero who thought that the prose-writer was born and not made, but when all this has been recognised, it must be said that instruction can accomplish very striking results in composition. It is not the hope of even the wildest of pedagogic dreamers to manufacture Hazlitts and Ruskins within the four walls of an English class. But there is certainly the possibility of enabling students to express themselves clearly and well in simple, correct English, devoid of grotesque mistakes of idiom and lamentable lapses of literary taste.

The soundness of this position will be more manifest when we enter into an analysis of the qualities brought into action in the acquirement of a good style. Even the most superficial student of the style of the great masters will feel, that they exhibit certain characteristics which baffle comprehension and defy exposition. Arthur Symonds has

said of Poetry that it is always difficult to say why Poetry is Poetry and which student of literature has not had to make a similar confession even with regard to Prose, before the urbane eloquence of Newman, the simplicity and grace of Stevenson and the indescribable charm of Addison? It will not be difficult to expound some of the secrets of Macaulay—his love of the balanced structure, the periodic sentence and the clear division of the paragraphs. But who would venture to account for his quickness and rush, the majestic march of his words which seems to swell into the reader's mind? One can easily detect some of the means employed by Ruskin to produce the delightful effects with which we have always associated his style. But the use of archaisms, simplicity of diction and picturesqueness of imagery do not seem to explain it all and the last is certainly not easy of comprehension with a view to practice. Grace, strength and melody are virtues which it is not possible for the student to exhibit in his poor work; the command of Comedy and Pathos comes of genius, and the rank of a writer is reserved for the possession of natural endowments of a very high order. But the technique of composition belongs to a lower sphere, and a system of education which does not pay adequate attention to this stands condemned.

It is worthwhile referring here to a well-known distinction drawn by Matthew Arnold in his essay on the *Literary Influence of Academies*, between the 'incommunicable' and

'communicable' elements of intellectual work. Reference has already been made at some length, to the 'incommunicable' elements in the style of the great masters, the virtues which lend imitable grace and charm to the work of a Stevenson, a Newman, or an Addison. But there are the 'communicable' elements, which it must be the duty of every composition-teacher to study and teach. Order, unity, coherence, evolution, precision and proportion are as Matthew Arnold says only 'affairs of the intelligence,' but they play an essential part in literary excellence and ought therefore to be striven after in the work of essay-writing.

This writer is aware of the most despondent statements made with regard to the teaching of style. Professor Walter Raleigh has expressed himself in very severe terms, strangely enough in a work intended to expound the secrets of *Style*: 'But style cannot be taught. Imitation of the masters, or of some one chosen master, and the constant purging of language by a severe criticism, have their uses not to be belittled; they have also their dangers. The greater part of what is called the teaching of style must always be negative, bad habits may be broken down, old malpractices prohibited. The pillory and the stocks are hardly educational agents, but they make it easier for honest men to enjoy their own. If style could really be taught, it is a question whether its teachers should not be regarded as mischief-makers and enemies of mankind. The Rosicrucians professed to have found the philosopher's stone, and the shadowy sages of modern Tibet are said, by those who speak for them, to have compassed the instantaneous transference of bodies from place to place. In either case, the holders of these secrets have laudably refused to pub-

lish them, lest avarice and malice should run amuck in human society. A similar feat might well visit the conscience of one who should dream that he had divulged to the world at large what can be done with language. Of this there is no danger; rhetoric, it is true, does put fluency, emphasis, and other warlike equipments at the disposal of evil forces, but style, like the Christian religion, is one of those open secrets, which are most easily and most effectively kept by the initiate from age to age. Divination is the only means of access to these mysteries. The formal attempt to impart a good style is like the melancholy task of the teacher of gesture and oratory; some palpable faults are soon corrected; and for the rest, a few conspicuous mannerisms, a few theatrical postures, not truly expressive, and a high tragical strut, are all that can be imparted.'

The American writer Thoreau has spoken almost in similar terms: 'Literary gentlemen, editors, and critics, think that they know how to write, because they have studied grammar and rhetoric; but they are egregiously mistaken. The art of composition is as simple as the discharge of a bullet from a rifle, and its masterpieces imply an infinitely greater force behind them.'

It will not be denied that there is a profound truth in these two observations but it must be borne in mind that they are thinking here mainly of the 'incommunicable elements,' the 'affairs of genius' and not of the 'qualities of intelligence' which play a very important part in literary composition. Frederic Harrison refers only to those aspects when he says in his essay on *Style*: 'Style cannot be taught. . . Nothing practical can be said about style. None of you by taking thought can add one cubit to his

stature; no, nor one gem to his English prose, unless Nature has endowed him with that rare gift—a subtle ear for the melody of words, a fastidious instinct for the connotations of a phrase.' If an attempt is made to widen the scope of Professor Raleigh's remark so as to include all aspects of composition, the most effective opposition lies in his treatise itself, which has served to strengthen the literary aspirant in his work, in addition to its being an academical enquiry into one of the most fascinating of human institutions.

The 'affairs of intelligence' in literary composition, will form the subject of the following articles, as the teaching of the theory of composition must be based to a large extent, on these aspects of style. A brief treatment of these topics will serve to indicate the scope of this branch of instruction. There are in the first place, the artistic requisites of an essay, the features which must distinguish this peculiar species of composition. There are again what Professor Minto has called the *Elements of Style*, the principles underlying the proper use of words, by themselves, in sentences, in paragraphs and in figures of speech. Vocabulary is apparently, only a command over a large stock of words, but a clear perception of their peculiar characteristics of all types would seem to be a task of imperative necessity. One of the most important elements of success in composition is the structure of the sentence and the paragraph, and it is a subject that deserves on the part of the student an elaborate examination, which will be a powerful aid to him in his practical work. The use of figures of speech deserves some attention especially in a country where there is an irrepressible tendency to deviate into

over-ornate extravagance. No great purpose will however be served by an examination of the *Qualities and Elegancies of Style*—we are adopting Professor Minto's nomenclature—as they belong to the regions of 'genius' and are largely the 'incommunicable elements of intellectual work.' An effort must however be made to appreciate their value and discern, as far as possible, the means underlying such exhibition. Reference must also be made to the requisites of peculiar kinds of composition, the special qualities on which demands are made in the arts of description, narration, exposition and persuasion. The treatment of the subject from the educational point of view cannot be said to be by any means complete, without a discussion of practical questions bearing on the teaching—the correction of exercises, their nature, scope and the like, and all other details which teachers have to confront in the course of their work. It is hoped that the following articles will in some measure serve to point out the large amount of usefulness which is found to result from instruction in these aspects of literary composition.

P. SESHADRI.

(To be continued.)

A PLEA FOR ELEMENTARY ASTRONOMY.

THE passage at arms in the British Islands between humanists and realists has ended finally in practical victory for the latter, and the institution of the School-Leaving Certificate in our midst may be regarded as one of the distant offshoots of this struggle across the seas. Realism, or in other words, the recognition of the principle of naturalism is the accepted principle of the hour. The furor for examinations is on the wane and more insistence is naturally laid

upon the quality and spirit of work turned out than upon the quantity. Every school is not only an unit in the mighty educational organism but it is also to be regarded as an individual with a destiny of its own. Teachers though forming important wheels in the educational machinery are not lifeless automata. They are not waged galley-slaves hired for the exposition of the set lessons but are vital and vivifying agencies for initiative and exploitation in the educational field.

The trilateral aspect of the School-Leaving Certificate is, one would suppose, mainly intended to foster this spirit of individuality in schools and schoolmasters. While Group A comprises the compulsory subjects which no youth can do well without, and Group C provides room for specialisation, it is Group B that offers scope to schoolmasters in the way of striking into independent lines, though it is at present regarded as a cinderella in certain quarters. While it is true that, in the absence of close vigilance on the part of the inspecting agency, this side of the new scheme is likely to be ill-done if not woefully neglected, it is equally patent that in the hands of enthusiastic teachers full of 'go' it is bound to go a long way towards the realisation of a more intelligent and comprehensive syllabus.

Elementary Science is one of these and many schools have already forged ahead in liberalising the programme. Rudiments of Botany and Hygiene are brought within the purview of the Syllabus. Physiology is attempted and Geology may come into favour.

The present contribution is a plea for the introduction of Elementary Astronomy, and at the very outset it would do well to consider whether the Syllabus is not over-

burdened already and whether room can be found for all manner of subjects. "The poor High School student is already done up," goes the hue and cry, "and who are these false prophets that would ask 'for more.' Science under the old regime was a bogey hideous enough to scare children with." It would be out of place to enquire here into the causes that have led to this scare, but suffice to say that teachers and examiners have both made a mess of it, in which unholy alliance school-managers have in many instances joined. But fortunately or unfortunately Elementary Science is not a subject brought up for public examination. The examinational sword of Damocles does not hang over the scholar when he is doing his lessons in Elementary Science.

Special science should be clearly demarcated from Elementary. The former contemplates a course of instruction that is to lead up to an intensive culture along the same line at the University; whereas the latter has a more limited scope and utility. In his more humble sphere, the teacher in charge of Elementary Science aims merely at laying the foundation of scientific curiosity. If the student has cultivated the habit of observational enquiry attended with a capacity for inductive generalisation the goal has been reached. It is not essential that the study should be confined to a time-honoured and orthodox subject like Hydrostatics or the Chemistry of the Elements. Rather it is better that the investigation, without being cribbed is made comprehensive so that the student may develop a many-sided curiosity. Thus Elementary Science by forming the mind and storing it with useful lore would serve a double purpose. If there is

one difference more conspicuous than another between educational ideals of the past and the present, it is certainly due to the large body of scientific facts whose knowledge forms an indispensable part of the repertory of every cultured man of to-day. It is this aspect that Professor Armstrong strongly advocates in the following extract:—

"In my opinion, no single branch of Natural Science should be selected to be taught as part of the ordinary school course but the instruction should comprise the elements of what I have already spoken of as the science of daily life and should include Astronomy, Botany, Chemistry, Geology, Mechanics, Physics, Physiology and Zoology—the *olla podrida* comprehended by Huxley under Physiography but which is perhaps more happily expressed in the German word *Naturkunde* in so far as is essential to the understanding of the ordinary operations and objects of nature, the teaching from beginning to end being of as practical a character as possible and of such a kind as to cultivate the intelligence and develop the faculties of observing, comparing and reasoning from observation."

Astronomy, though it stands first in the list suggested by Prof. Armstrong has not received from us that attention which it deserves. The story of the heavens is a veritable Arabian Nights. The celestial lamps are indeed more wonderful than Aladdin's. It is the element of mystery and wonder so well expressed by Watt in his lines,

"Twinkle, twinkle little star.

How I wonder what you are," etc.,

that constitutes its chief attraction for the young. Astronomy spans the gulf that separates science from the humanities for it is the most humanistic of realistic studies. The student may feel in the initial stages a sort of artificial and remote interest in conducting, say, a research of chalk, for what is chalk to a child but one of those interminable obstacles

placed in its path in the examinational hurdle race? But astronomical pursuits are likely to create a more lively interest. The diurnal procession of the sun and moon, the slow and majestic journey of the planetary wanderers, the fixed illuminations of the star-sown vault, the pyrotechnic displays of meteoric showers and the weird visitations of comets are certainly phenomena which to young and old possess a more human interest than the principle of Archimedes or the gravimetric composition of water.

Observation and inference which form the most prominent features of what has been called the modern side, undergo a slight modification in the case of Astronomy. If in Physics or Botany the student handles the very objects whose properties are observed and classified, in Astronomy he scrutinises objects millions of miles away whose very existence may be lost sight of but for the beams of light that speed with the velocity of lightning across the giddy depths that separate them from us. The inferences of Astronomy are more of the nature of speculation and theorisation, and do not certainly admit of the exactitude of the results obtained by the examination of objects near at hand. A study, therefore, of the celestial orbs carried on under such imperfections may prove a corrective element in the education of the student of science, and tend to set right the jaunty spirit and cock-sure confidence that are likely to crop up otherwise; for even the best of scientific laws are but generalisations which are certainties only relatively.

It is not urged here, for it would then be advocating an extravagant programme, that Astronomy should be taught as a regular science. Few schools and colleges are so lucky as to possess even the ghost of a tele-

scope. Mathematical, telescopic, or spectroscopic Astronomy is certainly out of the question, whether one considers the costliness of the instruments or the aptitude and calibre of the school-going student. But the story of Astronomy should be related and an enthusiastic teacher would certainly follow the method and order of discovery. What gigantic leaps have been taken by the human intellect, one would realise, if one should ponder how the Iberian philosophers who thought that the setting sun was carried in a golden chalice under the earth, that he may reappear again in the east the following morning were superseded by Ptolemy who discovered that this planet of ours limited in space and dimension had the whole universe to pay homage. What a glorious leap again from Ptolemy to Copernicus whereby the real centre of the solar scheme was shifted from the earth to the sun; again from Copernicus to Galileo who invented an Argus-eye for man; and from Galileo to the elder Herschel who showed that the sun is but an insignificant member of the mighty sidereal scheme. The history of discovery, therefore, by connecting discovery with discoverers would add a human element to the scientific abstractions. It is indeed true in Astronomy that truth is stranger than fiction. There are no more absorbing pages than those that narrate Galileo's discovery of Saturn's rings, or Halley's discovery of his celebrated comet.

It may be set down against Astronomy that it is not an experimental science for those in whose interests it is advocated. It is not experimental inasmuch as the objects cannot be fingered. We cannot tamper with planets and arrange them in our own way as we do with flasks and retorts. But there are models. A tellurian is not an impossible

school adjunct. An orrery may be purchased or constructed by the enthusiastic teacher himself. Failing these, a few hollow balls having knitting-needles passing through them for axes, and loaded in different parts for the due equatorial inclination, and floated upon a basin of water may not be very difficult to make, but would form a very efficient apparatus for teaching the elementary principles of stellar science. The secrets of terrestrial rotation and revolution, eclipses, the procession of seasons, the constellations of the Zodiac that stand up in the blue empyrean like milestones pointing to the way our planet travels, the phenomena of transits and occultation, of cometic perturbation in the neighbourhood of planetary giants like Jupiter are a few among the many that could be unravelled with such models as the one suggested.

The teacher may even go a step further. In the course of a class on the lunar gibbous, he may mention the similar appearances of Venus and Saturn's rings. The permanence of the features on the lunar disc may lead to the exposition of libration. The absence of air and water on the moon may be a topic from which the teacher may conveniently digress to a discussion of the criteria for the existence of terrestrial forms of life in other planets. The impossibility of such beings in the moon and Jupiter, and the probability of the same in Mars may be touched upon in passing. In a thousand ways, therefore, the few simple lessons in Astronomy may be used as nuclei round which much additional knowledge may crystallise.

Though it is true that the study of Astronomy is its own reward, it may be observed here that it has many links with other branches of study, for instance, with Geography, or, as

it is coming to be at present, Physiography in its relation to man. It is an antidote to many a superstition that not only ranges wild in country and hamlet but larks in towns and cities. We might have got rid of the terrors of the eclipse but there are amongst us those that still shudder at the vision of a comet's tail. As Proctor finely observes, "the chief interest of Astronomy with many does not reside in the wonders revealed to us by the science but in the lore and legends connected with its history, the strange fancies with which in old times, it has been associated, the half-forgotten myths to which it has given birth." Astronomy would also help the learner to give Astrology its dues whatever they may be.

Modern European Literature has drawn its inspiration at the undefiled well of Grecian and Roman classics. The latter would lose half their magic and charm but for the Mythology imbedded in them, and Mythology has close affinities to primitive Astronomy. A knowledge therefore of the principal star-groups and the beautiful legends which prehistoric man has woven round them is essential not only to the student of ancient classics but of English literature likewise.

It is a trite observation that Astronomy is the noblest of sciences. The contemplation of the infinitudes of size, space, and distance which characterise the heavenly bodies is calculated to expand the mind and ennoble the heart as nothing else does. The recognition that man is but a speck inhabiting a mote that floats in the depths of illimitable space, swaying and swayed, cannot but be productive of the highest and noblest morality. If the mind of the student has learnt to lose itself in that Immensity

"Without bound
Without dimensions, where length, breadth and
And time and place are lost," [height]

in which the stars twinkle and roll, no surer foundation could the teacher—the educator and moulder of the juvenile mind—have laid for the grandest, the loveliest and with all the sanest and most catholic conception of the Being who is unto us even as a father.

N. THIAGARAJAN.

THE MORNING HOUR IN THE INFANT CLASS.

II.

(Continued from page 20).

ONE Tuesday morning the teacher and his infant pupils sat down on the floor to a morning feast of talk, where the principal delight was the contribution of the latest interesting news for the benefit of everyone else. First the teacher produced his item: he had come that morning by a newly-opened road which had brought into public view two hitherto snug little villages. The little village-folks came running out to greet him with a happy "Good Morning, Sir," and he had arrived at school five minutes earlier than usual. The children then told their tales. One little fellow's mother had taught him a song, a pretty fragment of infant lore, which he sang for the teacher that morning. Another produced an elder brother's gorgeous tale of a snake and cakes, which was gently softened by the teacher as it proceeded. A few arm-twirling exercises—named laughing-exercises—directed by a third little boy brought this introduction to the day to a close.

The school compound is averagely big, and has become by degrees very well-known to the pupils. They are on good terms with its small inhabitants, and have a speaking

acquaintance with most of its parts. They and the compound belong to each other. There is a thickly-sanded part at the infant-room door. Outside the gate is an old banyan tree. One grassy part is quite the right kind of place for playing at "Hindus and Muhammadans," and there are several delightful places for juvenile cricket and rounders. On this morning the teacher saw against the clean white compound-wall an earth-heap, and forthwith began the serious work of the day by leading an expedition with his pupils to discover the reason for it. It was an ant-heap whose mysterious empty passages and dark caverns provided enough interest for nearly a quarter of an hour. Possibly there were snakes inside, a little boy suggested; or perhaps a great army of ants might still come running out and would run over the feet of the expedition party. How clever these little ants were! In one night they had built a castle thousands of times bigger than themselves, and then had run away without leaving even a letter to say where they had gone. There were a few old weary retainers still in some of the caverns, but they seemed to be half blind, and could tell nothing of the merry army that had marched off before sunrise like a very big Fourth Standard doing drill. "We shall march back to school as the ants marched off. One, Two, One, Two;" and off they marched.

The march back led through the sand, and there the orderly ranks broke up, for this sand is historic. The old wooden charger, with one wheel left to him as proof of the battles he had seen, was yesterday buried here with due merry making. His last act was brilliant. He had tried to bear on his uncomplaining back three little warriors at once; but his head had come off in the

trying, and he was temporarily—for sand is fickle—buried by his quondam riders with all the haste proper to the occasion. A little consultation however had showed that the burying was premature, and the noble horse was again disinterred, and is now flourishing with an adjustable head. Here too again this morning they chased certain little mysterious friends whom they had yesterday discovered for the first time; very persistent friends whom they had likewise attempted to bury, but friends who, unlike the patient horse, showed spirit enough to refuse to be so peremptorily disposed of.

The Monday morning on which the new friends had been discovered was unusually gay. The teacher had chanced upon "I have a little shadow" in the 'Child's Garden of Verse,' and had promptly turned it into the story of a mysterious friend who never would leave him by day, who always did exactly what he did, who even jumped before him when he jumped into his bed. The children saw the funny qualities of the story but assured the teacher that they had no such adherents. They went therefore all together out to the sand where the teacher said each could find one for himself. After much searching and a good deal of explanations from the teacher indicating the friends' whereabouts, with a shriek one boy lit upon his own shadow, tossed his cap in the air, and in a few minutes the play-ground was alive with shouts of discovery. This "lesson" did not end even on Wednesday, for when on that morning the pupils were down in the river catching fish for their aquarium, the jumping broken little shadows were watched with a new earnestness, and were later described to the less fortunate people who had

not been down to see for themselves. There may not be much evident science, but there is something very valuable to those infants, something quite satisfying to their lives, in trying to bury their own shadows in the sand, and in watching with gleeful bewilderment their new mysterious character in the river.

On Thursday the teacher related the further exploits of his own particular shadow-friend:

"One morning very early before the sun was up
I rose to see the shining dew on every butter-cup
But my lazy little shadow like an arrant sleepy head
Had stayed at home behind me and was fast asleep in bed."

The clever way in which the teacher had run off, leaving the naughty little shadow fast asleep in bed, was received with clapping of hands. The pupils then beating time with their hands, and their heads if they liked, learned the following Shadow Song:

எழுந்தேன் எழுந்தேன் காலைப்பொழுதில்
விழுந்தேன் விழுந்தேன் பனியிருள்போ
கண்டேன் கண்டேன் பனித்துளி தன்னை
கொண்டேன் கொண்டேன் துளியிதழ்ப் பூவை
காணேன் காணேன் என்னரு நிழலை
வினேன் வினேன் பின்னரவிட்டேன்.

For the especial pleasure of two ambitious little boys who had been rapidly learning to read, the stanza was written on the black-board, and used then and there as a reading lesson. These two of course were the first and perhaps the only two to read it through independently that day. The smallest boy meanwhile rode the headless wooden horse. The next lesson was a ten minutes' sleep on the floor.

On Friday morning the class went to visit the banyan tree, passing the deserted ants' XVII

castle on the way. It was only an old tree half withered, with nothing of any particular interest to the children except a rather fine peep-hole between two parts of the great trunk. They did not see much fun in prospect that morning; yet the teacher had said that the old tree was one of the kindest, friendliest, to be found anywhere, that it had more friends visiting it than they could count, and that they should find it much cleverer than the gardeners belonging to the big bungalows, for it kept several gardens and did all the work itself. A search was instituted, and in a minute the teacher had found in the bark of the old trunk a little fairy garden growing one flower. Grown-up people might call it a weed, but the children knew it was a fairy garden; that the seed had been carried in the pocket of the wind, and laid to sleep here quietly far far from its old home, perhaps in the country of the castle-building ants; that some days ago it had opened its eyes to find the great old mother-banyan smiling kindly at it; that yesterday it had listened to the strange foreign music of their Shadow Song, and that to-day it was happy in its heart to have a personal visit from the little singers. Various insects were found in snug little fairy grottoes almost hidden in the trunk; birds came and cried down "Good morning, friends," and an old crow, an intimate of the banyan since many days, who used the top storey of his house for himself and his family, called down "How do you do?" in a queer gruff voice. But it was the squirrels and the lizards that knew the banyan best. They had sleeping-rooms and eating-rooms and visitors' rooms, and store-rooms, and kindergartens in ever so many places, and knew all

the best hide-and-seek holes. The lizards would play hide-and-seek with little boys in the evenings; they were pleasant sociable little fellows. But the squirrels were most unfair. They always hid where nobody could catch them.

So the old banyan, after twenty or twenty-five minutes had become a thing of lasting interest. Each child appropriated a part as his own special property, and would find it more than delighting for days to come. The tree had, by the fairy wand of research, been turned into a kingdom of palaces, and gardens, and fairies, and myriad living lovable things; and each new discovery, however minute, even the discovery of a worm's head peeping out through a hole, added to its lovableness, and to the unconscious drawing out of the hearts of the little children in that pure and holy joy of feeling at one with the universe.

III.

At whatever stage or age the necessity for reading first arises, a good many pupils would be little experts in reading of a certain kind, before the first formal lesson were given. In the case quoted above, where the children's minds were quite ready for a period of real reading, a good many things have been taken for granted, as an acquaintance with certain written words depending on the history of the infant-room, and a knowledge that their Shadow Song could be represented in this particular way. These previously known words would have been introduced at earlier stages in the same incidental way as the song was introduced later, the words being chosen, not because of their easiness, but because

they were for the moment supremely interesting. If instead of a word a whole sentence had been casually introduced it would have been equally right for a beginning. The following might be the history of one of these earlier lessons:—

(1) Thiru's mother has gone to her villages and Thiru has expressed a desire to tell her of his day at the river.

(2) Possibly if he drew a picture it might be sufficient; but how should his mother know the little boy to be Thiru?

(3) A suggestion is made that 'மீன் பிடித் தேன்' sent to her some how would be satisfactory.

(4) The pupils find the phrase, when said slowly, to consist of மீன் + பி + டித் + தேன், and the teacher shows it to consist of மீ + ன் + பி + டி + த் + தே + ன்.

(5) If we draw this picture (writing a large மீன்) it will do for the sound மீன். (Which part must be the sound மீ, and which part the sound ன்?)

(6) Giving the children each a piece of brown paper, let them begin the writing of their letters.

(7) When பிடித்தேன் has been similarly treated, the pupils may finish their letter-writing.

(8) The teacher must address and post Thiru's for him. The others will take their letters home.

The teacher could with advantage borrow from Miss Dale's colour convention making

his long vowel-signs red as மீன், and his short signs green, as பி. Each new vowel-sound, or sometimes, as below, each group of two sounds, that occurred should have a space provided for itself on a kind of wall-chart made like a folding album. In the children's "books"—of brown paper—a page would be reserved for each vowel-group. As each new word occurred, it would take its place under the word already written having a similar vowel. [In words of several vowel-sounds, all of which have been learned, it might add to the interest to discover the various spaces in which these words might appear, the pupils being allowed to choose all or any of these.] A series of lessons might be arranged thus:

1st Lesson Simple consonants. 2nd Lesson The ஆ and உ sounds.

சம்பளம்	காது
மணல்	ஆறு
தகரம்	அண்ணா
நயம்	வண்ணம்
வலபக்கம்	மாடு
பழம்	புற
வனம்	நல்லவன
பிஞ்சம்	தமரை
பறகக்ல்	பண்ணா
	முகம்
	உழு
	பஞ்சு
	தரை

3rd Lesson The ஐ sound.

ஐந்து
கதை
அணை

4th Lesson The இ sound.

இரத்திரி
வாகி
கடிக்கும்

3rd Lesson The ஊ sound.

மலை
வழி
அறை
பனை
கிளை

5th Lesson The ஔ sound.

ஔ
ஔடிஔம்
கண்டைம்
கண்டாறு
வருகிறேன்
பாடு

7th Lesson The ஓ sound.

ஓ
கொம்பு
ஒன்றொன்று
பொன்னெட்டியாணம்

9th Lesson The ஈ sound.

ஈ
கரை
கீழை
நீர்
தேன்
விடு

4th Lesson The ஐ sound.

அணில்
நின்றான்
எலி
பனி
கொழி

6th Lesson The ஏ sound.

ஏ
ஏள்
செவகன்
பெச்சு
மேனை
ஆடுகம்
சிறுகிதன்
சொல்லுகிறேன்

8th Lesson The எ sound.

எ
செய்
தெரியும்

10th Lesson The ஊ sound.

ஊ
ஊடு
சூரியன்
துக்கு
சூறு
மூடு
சூபாய்

NOTE.—The Tamil verse, and lists of words in the above, have been provided by the courtesy of various Tamil gentlemen.

R. McLEOD.

(To be continued).

GEOGRAPHY TEACHING IN
SECONDARY SCHOOLS.

(Continued from page 5).

iii. *Educational Value of Geography.*

IN sections (i) and (ii) of this series, I tried to show what Geography was and how it stood between the purely humanistic and the purely scientific studies. In this section will be explained its special educational value.

Geography teaching, in the lower stages specially, is based on observation. As teachers, we seek to lead the children from the commencement of their school-career through the realms of Nature. Our aim in teaching in this stage is to cultivate their powers of observation and develop their faculty of imagination, in reference to these realms of Nature. Out of this Nature Study will slowly develop Geographical knowledge and the children will be helped towards a fuller enjoyment of the infinite variety, order and beauty of the world. Archibald Geikie is emphatically of the opinion that no other subject can for a moment be compared with Geography in the matter of offering a cure for what he considers a radical defect in present-day educational methods, namely, a want of an effective discipline in the habits of observation. He says, "Geography may be begun in the very threshold of school-life and may be pursued in ever-increasing fullness of detail and breadth of view up to the end of that time."

In the higher forms we specially apply ourselves in connection with Geography to the more difficult task of enabling our students to appreciate the connection between the various phenomena of Nature. We constantly drill them in the art of intelligent

reasoning, to look behind isolated facts, search for principles that connect them and thus work out a series of problems. All this is mental discipline of no mean character.

Again Geography is very prolific in opportunities for varied forms of expression and herein lay its special value for purposes of correlation. The end and aim of all teaching is impression and expression. In the Geography classes countless opportunities present themselves before the teacher for the cultivation of the language, both oral and written. Drawing and modelling are also powerful instruments in the hands of a Geography teacher. A teacher who loses no opportunity to correlate his Geography lessons with the language, drawing and modelling lessons does the greatest service to the children who are struggling to give expression to impressions received in their minds in the course of their observation and study. Arithmetic and Practical Geometry are also fit subjects for correlation with Geography. In the lower classes we constantly call upon the children in connection with our subject to mentally measure areas and distances. Infants are incapable of exact ideas of long distances and vast areas. Continuous exercise of numbering power alone will enable them to approximately conceive them. Training in the standards of measure should therefore form a permanent element in school instruction.

School excursions, if rightly conducted, are of great help to a proper understanding of Geography. These will afford splendid opportunities to the teachers for interesting the children before instructing them. Seeing must specially to children go before knowing. They will be introduced to "the world of eye and ear" of Wordsworth. Any knowledge

will be profitable which can be given in close connexion with facts which the pupil has been taught to observe for himself and reflect on for himself. Such is the special educational value of this subject.

But far more than in this, its special importance lay in the training it affords to the future citizens of the country. In the language of Professor Lawrie "Geography can embrace all that is essential for a cultivated man to know of the world of Nature. It gives life to history and lays the sure foundation for commercial, industrial, and political knowledge.....There is probably no other subject so prolific of facts for independent thought and judgment on the affairs of life, destiny and duty of man." This is not the language of a faddist. The truth of this statement is beyond dispute. The lack of Geographical knowledge in statesmen and diplomatists has led to serious political complications in the past. Such international disputes that occur frequently as that concerning the Alaskan boundary or of the boundary between Argentine and Chile point to the danger of neglecting Geographical study. The late Lord Salisbury thought it fit to recommend the use of largest maps available in the study of international politics. To the nations owing colonies abroad Geographical study is of first-rate importance.* More than to the statesmen, to merchants seeking new outlets for their commercial activities, new markets for their goods and new sources of supply for their raw products, Geographical knowledge is of supreme importance. We in India are far behind other nations in respect of industrial and commercial

* The reader is requested to refer to Scot Keltie's "Applied Geography" where this statement is exemplified.

activity. A comparison of Indian conditions with those of other civilized countries, viz., the United States, the United Kingdom, Germany and Japan is sure to generate in the minds of our future citizens an anxious desire to improve our lot, and to advance on right lines which a good knowledge of subject alone is capable of indicating. If we but know what teachers in the other countries do with a view to rouse in the minds of the younger generation a zeal and enthusiasm for success in the race of commercial and industrial advancement, we would almost blush with shame that we are doing so little in this directions in this country. Let us fully recognise the utilitarian importance of Geography. Speaking of the practical value of Geography, Professor H. R. Mill says: "It is often supposed that while Geography is very useful to sailor, the soldier, the missionary, the traveller, who have to go from place to place or to the merchant who has trading interests in distant lands, it has little concern with the life of the stay-at-home citizen. This is quite a mistake. Many of the interests of the present day are largely Geographical and the daily paper acquires a fresh and fuller interest when it is read in this light. Even to know where the places one reads are, what their climate is and how they are peopled is something; but taking the wider view of Geography as the science which aims at explaining the adjustment of people to land, there is scarcely a problem of the past history or of present politics and economies in any country which cannot be elucidated by the application of its principles." One is tempted to ask "Have you not reasons then to be proud of our subject? Should we not grow enthusiastic in the teaching of it?"

The nations of America and Europe have

displayed their enthusiasm in a variety of ways. In every one of their countries Geography is studied on scientific lines. Every University has made provision in it for a Geography chair. Far more than to the Universities it is to the Geographical societies that the world is deeply indebted for the spread of Geographical knowledge. These societies, with the financial aid of the Government and the Universities, train parties of explorers and fit them out to the unknown regions of the world. We, in India, cannot conceive of the gigantic work of these parties. These start out, some to the Arctic, some to the Antarctic regions, some to the Himalayas, some to the Andes and some to Lake Chad regions, etc. Their one object is to add to the sum of human knowledge. Death stares them in their face and yet they shrink not. It may not be given to all of us to participate in the gigantic undertakings of these parties, but we can all admire their singleness of aim and their tenacity of purpose. The reports of the explorers together with maps and photographic views of the regions explored are printed in the Geographical journals run by those societies. In addition to exploration work these Geographical societies arrange for Geographical congresses and conferences at which papers are read on varied subjects of Geographical interest. The British Association has a separate section for Geography and when it met in Winnipeg in 1909 over 4500 persons interested in Geography teaching attended its meetings. Special papers were read on such subjects as "The Hudson Bay Route in its present aspects, its facilities and importance;" "The development of wheat cultivation in North America;" "The Agricultural development of Canada;" There was also a paper read on "The

Teaching of Geography in 'Secondary Schools' and both in the paper and in the discussion that followed, great stress was laid on the fact that in the teachings of the subject every opportunity should be taken to indicate and emphasize the influence directly or indirectly exerted on man by Geographical phenomena. These are in many places Geographical associations of teachers which wield a tremendous influence in securing for Geography a fuller recognition of its just claims by the Universities and schools.

In India we have no such societies. Our contribution to Geographical literature is practically nil, if we leave out of our consideration the monumental works of such illustrious Anglo-Indians as Blandford, Chisholm, and Holdich. The prospect of instituting Geography chairs or the affording of facilities for research work in connection with our Universities is distant. In the meanwhile it is open to us as teachers to utilize to the best of our advantage the results of the researches of other people. The science of Geography is a growing one. We will soon run out of date and become fossils if we do not keep ourselves thoroughly informed of what is going on round us in the world. How many of our teachers continue to speak as plateau of Tibet though it is now some years since it was established to be not a plateau! and what is the reason? The reports of the Board of Scientific Advice to the Government of India occasionally contain contributions from eminent men on such subjects of purely Geographical interest as "The source of the Brahmaputra," "The mapping of the route from Sikkim to Tibet." The reports issued by the different departments of the Government of India are rich store-houses of information valuable in connection with

Indian Geography. Means must be found by which we can utilize all these materials. The History-Geography Section of the Madras Teachers' Guild once had in contemplation to issue occasional bulletins containing useful information on such subjects for the benefit of the teachers in the different parts of the Presidency. This remains still a dream and the explanation is not far to seek. If the members of the section and Geography teachers throughout the Presidency give up their present indifference, the Teachers' Guild might develop into a power in the land to advance the study and teaching on scientific lines of Geography so full of possibilities for the advancement of the country.

K. A. VIRARAGHAVA CHARI.

(To be continued.)

SACRED BOOKS OF THE EAST EDITED BY F. MAXMULLER. VOL. L, GENERAL INDEX.

THE service which the late Professor Maxmuller rendered to bring the East and the West closer together can never be well repaid. To-day we speak of misconceptions of our aims. We complain of misrepresentations. We must not forget that fifty years ago, we were regarded as typical of a barbarous community who were inhuman in their practices, whose habits were unspeakably bad, whose religion was grossly superstitious and whose life differed little from that of the animal world. It was only yesterday that England was told that Indian anarchism had its root in the Saktaic worship of the Brahmins. The tale has not ended. It is not likely. We are not altogether irresponsible for such a state of things. We are an exclusive

people. We are not communicative. We must, therefore, be prepared to be misjudged and misquoted. Persons who spent the best portion of their lives in this country do not know us. The fault may not altogether be theirs although there is no justification for their generalisation from incorrect data. The truth is those that care to understand us have no knowledge of the mainsprings of our national ideals. You cannot appreciate a people, if you do not know their past. It is to this great work of unravelling the East that Maxmuller devoted a life-time. The great philologist in his "German Workshop" did gather real chips about India. They interested him and encouraged him to go on. The appetite grew with what it was fed on. He finally made up his mind to give to the world a true glimpse of the Orient. The sacred books of the East astounded Europeans. The profundity of the wisdom which the Upanishads and the Gita contained set people athinking. The philosophy of Sankara was expounded to be followed up at a very late stage by Ramanuja's commentary, on the Sutras. Manu and other law-givers were translated. Buddhism, Confucianism, Jainism, Zoroastrianism and Mahomedanism were made to exhibit their treasures. He must be a bold man who will assert that these publications have not affected Western ideas. The new theology of Campbell may not acknowledge its indebtedness to India and Western writers on mental philosophy may not quote chapter and verse from our theological disquisitions. They may even ignore Schopenhauer and Dunsen. But no one can deny that the influence of the East has slowly crept in, imperceptibly it may be, but undeniably. I do not pause here to speculate upon the exact nature of the impress which has been left upon

Western thought by Maxmüller's Sacred Books of the East. Their effect as eye-openers of our being a highly civilised nation, proud of our past, proud of our wisdom, and proud of our advancement in all the departments of learning, has been immense.

Professor Maxmüller did not live to give the finishing touch to his labours. One can imagine what a preface he would have written to the 50th volume of the series which goes by the very unattractive title of "General Index." It is not an index in the sense in which it is generally understood. It is in the language of its compiler "A Manual of the History of Eastern Religions." It does not simply point to information in other volumes. It contains all that a busy man of life who has not the time nor is anxious to devote himself to a critical study of the East need acquaint himself with about Asia, her traditions, her folklore and her ideals. Professor Macdonell rightly enough says that "If I were asked to select any one of the fifty volumes of the Sacred Books of the East, I should certainly choose the last." The information given upon a given subject is complete in every detail. *Agni* is treated in the Index volume under 24 heads (a to x) and occupies 15 pages of small type. *Krishna*, *Rudra* and *Sacrifices* are referred to in equal detail. Original quotations about the subjects dealt with are copiously given and every possible detail is scrupulously supplied. It is no wonder that the compilation occupied five years of Professor Winternitz's time. We are leading a strenuous life. We want the essence of everything for us. We want them for our bodily nourishment no less for our mental equipment. Things move in such a bewildering haste, that there is no time to study a subject for oneself and to go to the sources of information. Nothing more reliable than what is contained in the fiftieth

volume of the Sacred Books can be placed before those who are not unwilling to know something of this great land. This book ought to appeal to the people of the West with great force.

But what shall I say of my own countrymen? I wish I could say that as they know more of their own religion they ought to go to the fountain head and should not rest content with a mere compilation of this nature. I am afraid they are not entitled to this compliment. They stand in need of a *vade mecum* to their own past. Sanskrit and all that is imbedded in its wonderful literature is a sealed book to many a Hindu. It is not a language, acquaintance with which, pays in these days. Students who take it up seldom have the time or the opportunity to probe deep. The place assigned to it by the recent changes in the curriculum of studies is calculated to give a set-back to Sanskrit learning. We are not therefore in any decidedly more advantageous position than foreigners in this matter. I would earnestly appeal to my countrymen to make a thorough study of all that is contained in this wonderful volume. They will arise from its perusal wiser, if not happier. Professor Winternitz has earned the thanks of European scholars by his monumental work. India's indebtedness to him is very great. He has given the finest finishing stroke to the great work of Professor Maxmüller.

T. V. SESHAGIRI IYER.

THREE BOOKS BY PROF. WYLD.

THREE good books which I should like to bring to the notice of the teachers of our High Schools (and I am almost tempted to add irreverently, of the Lectures in Colleges on English and the Vernaculars of S. India) are: (1) *The Teaching of Reading*; (2) *The Place of the Mother-Tongue in National Education*, and (3) *Elementary Lessons in English Grammar*—all by Prof. H. C. Wyld of the University of Liverpool. The last book is published at the Clarendon Press and the two former by Murray. Prof. Wyld is refreshingly modern in his views, and does not, like the average man, evolve his views of language from his inner consciousness, as the spider pulls his thread out of his inside. The science of language has, now like other progressive sciences definitely passed over from a static view to a dynamic view of language. Most teachers of languages in this country and even those whose business it is to assess annually the work of teachers will realize from a perusal of Prof. Wyld's books that the ability to construe texts does not alone entitle a man to answer satisfactorily such questions as the relations between literary and spoken dialects, the nature and functions of grammar, etc. The following extracts from one of Prof. Wyld's books, will, I hope, persuade teachers that language-teaching should be something more than construing texts (including text-books of grammar) and induce them to read all his books.

WHAT IS LIVING SPEECH?

[The following extracts from Henry Cecil Wyld's *Elementary Lessons in English Grammar* (Clarendon Press, Oxford) are printed in the hope that they may help students to arrive at proper estimates of the value of the spoken tongue and

of the true function of grammar. The italics are generally ours.]

"You will not learn to speak correctly from a book on grammar, but by speaking with those who themselves speak well and 'correctly.' You might master all the so-called 'rules of grammar'and I do not suppose they would have any effect upon the way you would speak—at least not after you left the school-room. You would continue to speak as you were accustomed to do before, and as those people speak with whom you chiefly associate. *This may or may not be a good thing, but it is a fact.*

Men who write grammars do not suppose that they can set up a model of English speech, however much they may wish to do so. Hardly any one as a matter of fact, alters his way of speaking because a grammar tells him that his way is wrong, or that another way is right. This would be indeed *putting the cart before the horse*. A grammar does not attempt to teach people how they ought to speak, but, on the contrary, *unless it is a very bad or a very old work*, it merely states how, as a matter of fact, certain people do speak at the time at which it is written.

The study of English Grammar is really a preparation for the careful and intelligent study of language. We, as English people, can best approach the question of what is called the structure of language, through English, because we are familiar with it from infancy, and because, since we already know the language, the meanings of the words, the inflexions, the way in which words are arranged so as to make a sentence, we can more easily understand the why and wherefore of what occurs in English speech. *There are certain facts which are true of all languages.* We can readily observe them in our own language, and understand the reason of them when it is explained to us. If we have a clear notion of these things in English, we shall not be puzzled when we come across similar occurrences in Latin, or Greek, or French, or German. The grammar of English we already know in a practical way, since we can speak English; all we have to do is

to learn to think more clearly and carefully about it. In this way we shall get an idea of what grammar really is, which will be of the greatest use to us when we learn languages other than our own.

When we say every language has a history, we mean that every language has grown or developed. Now growth or development implies change in that which grows. The boy grows into the man by undergoing innumerable changes, and so the English language has grown to be what it is at the present day, by passing through countless changes which have been going on for many centuries, and which will go on for as many more, if our people continue to exist so long, as English people, with a language of their own.

Do you realize that you and all those around you, your parents, your school-fellows, your school-masters, every living Englishman in fact, is always, continuously, slowly indeed, but surely, changing his language? Do you know that when you are—say fifty—the English which you speak will not be precisely the same as that which you speak to-day? But this is nevertheless a fact. If you made a phonographic record which contained a specimen of the speech of a child of ten, and if when this child were grown to be a middle-aged person of fifty, you were to compare his pronunciation with that of the record which he made when he was ten, you would notice a perfectly well-marked difference between the two. The speech of each individual undergoes a slow but constant process of change during his lifetime, and the longer he lives, the greater will be the amount of change.

Now if a single individual changes in this way, will there not be a still greater difference between the speech of one generation and another? Certainly there will. If you could compare minutely the English spoken by a boy of fifteen with that of a man—say of sixty or so—you would find a great many differences. You would observe slight differences of pronunciation, and you

would find that many words and expressions which the boy habitually used in ordinary life would be quite strange to the man. Even if he understood them, he would never use them himself; some he would not fully understand, others he would think vulgar or foolish. The boy, on the other hand, would never dream of using many words and expressions which the man would naturally employ—he would think them old-fashioned, stiff, stilted. Some people might tell you that the man of sixty was right, and that the boy was a silly, slangy rascal who ought to take the speech of the old gentleman as his model. Such people might be right to some extent, but they would be wholly wrong if they asserted that the boy ought to banish from his speech all expressions, words and uses of words which the man of sixty objected to. They would be wrong because they would be shutting their eyes to the fact that language changes from generation to generation, and that if a boy of fifteen were to model his speech entirely upon that of a person forty-five years older than himself, he would find that his language would not be that of his own contemporaries.

We sometimes think and speak of language as if it were something having a real existence of its own, outside, and apart from those living beings who speak it. This is a very wrong and unfortunate view of the subject. Language, as we said quite early in this book, is the expression by living, thinking human beings, of their thoughts and feelings, by means of certain sounds which they make with their tongue, lips, and other organs of speech. If there were no human beings, there could be no thoughts and feelings, no utterance of them, no speech sounds, and consequently no language. *Language does not exist in books, but in the minds and on the lips of living men and women.* Here is its life, and here that life develops and changes. Language changes by being spoken. The written word cannot change, indeed it has no reality unless it be re-translated into the living sounds for which its symbols stand.

A dead language is one which has ceased to change, for the reason that people have ceased to speak it.

• By a *dialect* we mean simply a variety of speech. The more important varieties of speech, those which are the medium of culture, which are widely spoken, and which develop a standard of elegance and correctness, and which become the vehicles of literature, are dignified by the title of languages. Standard English is as much a dialect of English as is the form of speech in vogue in Ducklington, or Goosey, or Poggs, or Cogges.

It would be a great mistake to suppose that the regional dialects of English are in their nature and origin less noble, less 'correct' or expressive, than standard English. Standard English is merely a form of our language which has had good luck in being used and cultivated by writers and *speakers*, and brought up to a pitch of elegance and refinement which none of the other dialects now possess. Above all, do not imagine that standard English is the only 'real' language, and the local dialects are 'corruptions' of it, or bad attempts at it.

The first thing is to realize that in itself a provincial or regional dialect is just as respectable, and historically, quite as interesting, as standard English. The next thing is to realize that if you wish to speak good standard English, pronunciations which belong typically to a provincial dialect, are out of place. It is probably wise and useful to get rid of these provincialisms since they attract attention, and often ridicule, in polite circles. The best thing to do, if you have a native provincial dialect, is to stick to it, and speak it in its proper place, but to learn also standard English.

When a word passes from one language into another, if it comes straight from a living tongue which the borrower himself knows and speaks it retains at first a form as closely resembling

the form which it had in the language from which it came, as the habits of pronunciation of the language into which it passes will permit. When it is once thoroughly naturalized, that is, pronounced with the native sounds of the language which has borrowed it, the word is no longer distinguishable from the other native words in that language. Henceforth it undergoes exactly the same sound changes as other words in the language which contain the sounds which it contains.

You see, that if we are of opinion that every new departure in language, whether in pronunciation or vocabulary, be a sin against good taste and correctness, we are in a very awkward position indeed. The whole history of human speech, from the beginning till now, has been an uninterrupted series of new departures. If we object to the novelties of a generation younger than ourselves, how can we justify those of which we ourselves have been guilty? Is our generation alone the one which has attained perfection of language? If not, are we to go back to some former period of excellence? But to which period? Where are we to stop? The only logical conclusion of such a line of thought is to reconstruct the language of King Alfred. But you may say, why stop there? Why not go back to Primitive Aryan?

The simple fact is, that the future of English speech is in the hands, or rather in the mouths of the majority of English speakers. If one thing is more certain than another, it is that the majority of English speakers care not one straw what Grammarians say about the English language—they do not even read their books. Such speakers who have a standard of speech, or at any rate the vast majority of them, all those in fact whose standard is a sound one, are quite unmoved by anything said in books as to how they *ought* to speak. The majority of 'good' speakers have never thought about the matter at all, and never will. If you ask them why they pronounce as they do, why they use such

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and such expressions and words, they would tell you that they have always spoken in such and such a way because that is the kind of English they have always heard—that in fact everybody they have known has always spoken in that way. They would certainly not say that they had read in a book that such was the right way to speak.

Literary style is after all a combination of literary tradition, and the living spoken language of the time. There are fewer hindrances to the influence of one literature upon another, than there are to that of one spoken dialect upon another. The starting point for English style was once Wessex, then Oxford and London, then it passed beyond the bounds of Province and became National. That stage is passing too, and English literature is becoming the literature of a World Empire.

P. T. SRINIVAS IYENGAR.

A SOUTH INDIAN STATESMAN— MR. THAMBOO CHETTI, C.I.E.*

THE latter half of the 19th century—when the British administration of the country was gradually settling itself—brought into prominence a band of Indians who distinguished themselves in every field of work whether as administrators, judges or lawyers or educationists and whose brilliant eminence is not approached in any degree by many of the present race. They were a set of striking individuals who would have made their mark in any country and in any age and who extorted genuine respect and esteem from their English compeers and superiors, while the men of this generation are most of them a set of mediocres pushed on by action

* A brief sketch of the life of Raja Dharma Mavina T. R. A. Thamboo Chetti, C.I.E. by T. Rajuloo Chetti, Bangalore.

of prosaic seniority to high places and Dewan Bahadurships and tolerated therein by those in authority as helps in political expediency and wisdom.

Mr. Thamboo Chetty, who died less than four years ago and a sketch of whose life his son has compiled was pre-eminently one of the former class. The greatness he achieved in Mysore is enhanced by the fact of his Christian birth—his family had been Catholic Christians for some centuries—not preventing him from accomplishing his life-work in a Hindu State, a testimony alike as to the enlightenment and wisdom of the Hindu ruler and the fidelity and earnestness of work on the part of the non-Hindu servant. Another fact is at once worth noting, that Mr. Thamboo Chetti was in actual harness of office for the long space of forty-five years—not as our modern types, in defiance of rules of retirement and to the prejudice perhaps of better people in the lower rungs of the official ladder, but after pressing requests on at least three occasions, from those in authority over him, that the State may have the benefit of his wisdom and experience.

Mr. Thamboo Chetti was born in April 1837 of more than middle class parents who made ample provision for his education—chill penury did not “repress his rage.” After a brilliant career at school and after short service in one or two offices he became the first Manager to the first Legislative Secretary, Mr. J. D. Mayne. Early in life and while yet in school even, he gave a sufficient index of his future varied interest in the problems of life and it is recorded that he contributed frequently to the newspapers of the day. Later on his interest in the diverse aspects of life was so marked that he had not the dread of retirement of most modern officials who (with a few notable exceptions

for some years) have to engage themselves with inanity when the red tape is snatched away from them. While under Mr. Mayne he studied law, and got through the law examinations with distinction in 1865, and in 1866 he was appointed a Munsiff in the Bellary District. The very next year he was selected for the post of Sheristadar to the Judicial Commissioner of Mysore and simultaneously came the ‘Rendition of Mysore’ followed by a desire to hand over as much of the administration as possible to the natives of the country. Mr. Thamboo Chetti distinguished himself greatly in connection with the reconstitution of the Courts in Coorg and drafted the Coorg Courts’ Act. After holding various grades of judgeships he was appointed Head Sheristadar, which place combined in the instance of Mr. Thamboo Chetti as a special case, the duties also of Assistant Secretary to the Chief Commissioner in the General Department and he was besides placed in immediate charge of some departments. In the great famine of 1876-77 again, he did good service and about this period he took the B. A. degree of the Madras University with Sanskrit for his second language. Mr. Thamboo Chetti was then appointed District and Sessions Judge and his son records “he was the first Indian in Southern India who was empowered to exercise the power to sentence a criminal to death,” and was called in occasionally, to sit with the Judicial Commissioner, under certain rules, which afforded him an opportunity of distinguishing himself further. He was in 1881 appointed ex-officio Senior Member of the Maharaja’s Council while Mr. Rangacharlu was Dewan. The latter however soon died and was succeeded by Mr. Seshadri Iyer and for sometime Mr. Thamboo Chetti combined in himself the functions both of Chief Judge and Councillor

of State and was full-time Councillor from 1895. He was connected with the Judicial Department for more than quarter of a century and besides also being Councillor he performed the duties of Inspector-General of Prisons, President of the Board of Examiners, President of the Mysore Insurance Committee, etc. He more than once acted as Dewan, the first time in 1887, when he gave universal satisfaction.

It will be of special interest to readers of this *Review* to know of his great interest in education. So early as 1868 he delivered in connection with the association now called “The Bowring Institute” a remarkable speech on “Popular Education” in which he pointed out that “if the same facilities now available for studying English were afforded as regards the vernaculars, the reproach to which Hindus were now subjected for not educating their females would be removed.” Pointing out how the fact of the English-educated numbers being very small in proportion to those ignorant of English, leads to “an estrangement or separation between the English-knowing class and the majority of Hindus who were uneducated, tending to destroy those friendly socialities which would otherwise subsist amongst them,” he rightly drew attention to the defect in the present system of education that “those who received a sound and liberal education did not make themselves useful in promoting the vernacular education of the masses.” It is pleasant to note that Mr. Thamboo Chetti urged the appointment of a qualified native officer in the Mysore Service as the Director of Public Instruction. In one chapter (XI) the biographer recounts the several private and public institutions with which he was connected, several of which are educational,

Mr. Thamboo Chetti was President or Trustee of the Arcot Narainasami Mudaliar's Charities for 1873—the charities pertaining mainly to educational institutions of one class or other. He was President of the "Devaraj Bahadur Charity Fund" devoted to the improvement of Sanskrit and vernacular literature, and to the education of widows. He co-operated a great deal in the founding and furthering of the Mysore Maharani's Girls' School (now College). As Councillor in charge of the Education Portfolio, Mr. Thamboo Chetti took part in several public meetings and distributions of prizes, and some of his public utterances, we can well agree with his son, "were remarkable for good sense and reflexion." It is also noteworthy that he had a hand in the founding of hostels connected with the Bangalore Central College in 1894. Mr. Thamboo Chetti interested himself a great deal in the work of the Mysore Oriental Library and the publication of old Sanskrit books. When he retired he had spent all his time in matters connected with public welfare. In the course of a funeral oration at his grave-side, the Under-Secretary to the Mysore Government bore eloquent testimony to his greatness when he said: "of very few public men can it be said that they had fewer enemies, and this he owed entirely to the confidence which he inspired in every one by the highest integrity and unflinching devotion to duty." This is no mean testimony especially when it could be said of one whose work lay in a Native State. This brief sketch of the life of this great man may be read, we have no doubt, with great usefulness. We have very few sketches of the lives of our own great men and this volume is therefore all the more to be welcomed.

P. R. C.

THE STUDY OF THE VERNACULARS.

The following is the full text of the lecture delivered by Mr. Anavartavinayakam Pillai, M.A., L.T., Lecturer in Tamil and Superintendent of Vernacular Studies, Madras Christian College, at the Pachaiyappa's College Literary Union on 24th March 1911:—

The subject is not one of my choice, but was suggested to me by the young friend who requested me to speak here this evening. When I heard the subject mentioned, I hesitated a little to think if I could speak on any other subject before I gave him my answer. No other subject was so familiar to me, and no other, perhaps, would meet with the wishes of my hearers.

Besides, when so many changes are taking place in the province of the vernaculars, in the study of the vernaculars, and in the teaching of the vernaculars, any one who proposes to speak on the subject, presumptuous though he may be, must command good hearing. I hope I shall not be understood to propose to deal with any of the so-called problems that present themselves to every serious thinker, problems concerning the future of the vernaculars. My object is a much humbler one. I mean to tell you what these changes that have come about signify to us, what things you can do to help them stay or vanish.

Perhaps, it were wiser to have chosen as my subject the study of Tamil than the study of the vernaculars. For I am hardly more than a smatterer in respect to languages other than Tamil. But the close affinity that exists among the languages emboldens me in generalizing what I find true in regard to Tamil. All the vernaculars, or rather almost all the vernaculars—for I must exclude Urdu and similar languages foreign to South India—form sister-languages and generally go under the name of Dravidian languages. They have many things in common, vocabulary, peculiarities of grammar and idiom, and even literature as in the case of the great *Itihasas*. A stronger reason for choosing this subject is that I expected to find among my audience young men, whose vernaculars are likely to be neither Tamil alone, nor Telugu, but all the Dravidian languages. I thought I should do scant justice to a good number of them were I to choose as my subject the study of Tamil. I do not, however, mean to go into the details, and tell you what has been done, or ought to be done, in the case of each language, but my remarks I shall so present as to enable you to apply them yourself to each individual case.

Those who have been teaching the vernaculars for some years would have realised by this time that a change has come about in the study of these languages, that the curricula of studies have been materially altered. Those who studied the vernaculars in schools and colleges some years ago would find, if they take the trouble to go and see what their successors are learning now, that the existing system was not the one under which they studied. Why, even those in the School Final Class this year would have found they had to study the vernaculars under a new method. If the system of teaching and studying has not been altered anywhere, it only means that that institution is behind the times or has not adapted itself to its environments.

What is the change that has come about? The vernaculars have been made optional not only in the higher examinations of the University, but in the School Final Course as well. Under the Old Regulations, every student had to study some text-books (classical literature mostly) throughout his College course. When the name of a Bachelor of Arts was mentioned, there was the guarantee, except in the case of Sanskrit graduates, that he had passed an examination in a vernacular, that he was supposed to be conversant with some standard works in the vernacular literature and that he could translate from and into the vernacular. But now it is within the region of possibility that one can take the B.A. degree without either of these qualifications.

And in the school, under the new University Regulations, one has to study a vernacular as a compulsory subject for the Matriculation Examination. But the Matriculation Examination is a thing of the past. The School Final Regulations have done away with the need for such study. Thus both in school and college, the change, so far as the vernaculars are concerned, has been marked enough to justify, in a manner, the cry of the lovers of vernacular literatures that the vernaculars have been pulled down from the eminence which they once occupied. The cry is perhaps a cry in the wilderness and will be answered only by an echo. I said the change has been marked enough to justify in a manner this cry. For, does the change mean that the vernaculars have gone to the wall? If the School Final Scheme has overthrown the old system, and has made a study of the vernaculars optional, it has done a real service to them by making composition in them and translation into them compulsory. In the University Regulations also provision is made for the study of vernacular

composition in the Intermediate Classes. And the Government of Madras in passing the new Regulations made some remarks which are worth quoting: "The neglect of these languages by the ordinary University graduate of the present day is notorious. It appears to the Government that if those who have secured a University education are to do the best for the country with the education they have received, it is imperative that they should preserve a sound knowledge of the vernaculars. With this in view and in order that a student may not be led to put aside the study of his mother-tongue, a Regulation has been introduced providing as a compulsory subject in the Intermediate Examination for the B.A. degree, composition in a vernacular." Since this order was passed, the Regulation has been altered so as to admit translation from Sanskrit or any other classical language as an alternative. The Government were actuated by the best of intentions no doubt when they introduced this new Regulation. They have clearly explained their view. They have also added that they had received several influentially-signed memorials from different parts of the Presidency, advocating strongly the retention of the study of the vernaculars. But what effect has this Regulation had on the study of the vernaculars these two years of its existence, and what effect has the School Final Regulation had on the study of the vernaculars in the school?

The Government in their remarks said "the neglect of these languages by the ordinary University graduate of the present day is notorious." They levelled this remark, mind you, against the products of the University under the old Regulations, against men who had to study text-books in their University course, who had to translate and who had to compose as well. If this remark will apply with any force to the old graduates of the University, one would think it will apply with greater force to the new graduates. The vernaculars do not hamper them after they have entered their B.A. course, and in the Intermediate classes they have to learn how to compose Tamil prose. Essay-writing only is required of them. All the same, that single subject is a source of some anxiety to students; there is a separate minimum for that. Add to this the difficulty in the matter of fixing the style that will be approved by the examiner. Students are very often heard to say this is "unnecessary fuss." Those who can be regarded as authorities on the question hold that the intention of the Government in introducing vernacular composition as a compulsory subject is not that the study of the vernaculars should be pursued in the manner

hitherto in vogue, but that modern methods should be applied to the study and teaching of these languages. In order to that the old style Pandit must be replaced by men who have combined in themselves vernacular learning and Western culture. Where are they to be found? Not all the colleges and schools can have such ideal teachers. Some would prefer to the Pandit, graduates who have potentiality in them for becoming such ideal teachers, graduates whose neglect of the vernaculars has been characterised as "notorious." True the Pandit independent of his conservative methods and notions has been doing precious little for the cause of the vernaculars. He has been found incapable of keeping classes under discipline. Very often has he been found to live a life without principles. But there are exceptions, and the exceptions, I am glad to say, have been multiplying day by day. As the old race is dying out, the younger survivors readily adapt themselves to the environments and imbibe with eagerness modern methods and principles. Therein also consists their security. Will it be too much to expect the Government to make provision for the training of Tamil pandits and teachers in the Training Schools and Colleges, if they cannot found a separate college for them? But if graduate teachers would cultivate a knowledge of their vernaculars, the possibilities are immense for them, and for the pupils. In point of excellence, the Pandit teaching cannot certainly bear comparison with theirs.

The circumstance that makes this change of the kind of teachers easy is the introduction of the vernacular composition and translation in the School Final Curriculum. Had the old order continued, and had the teaching of text-books adapted to the standard remained a necessity, this change would have been impossible. Graduate teachers would not so readily accept the honour offered to them. But the old order has changed, and the study of text-books is now optional. The graduate teachers are already found to have taken the places once occupied by pandits. And the pupils have doubtless profited by this change in their teachers of the vernaculars. They learn something now, learn to compose, and learn to translate. There is system in the teaching, and system in the learning. The progress they have made in the brief space of time that has elapsed is, indeed remarkable.

The pupils are not learning now how to construe intricate passages in the classical literature and are not learning the subtleties of grammar. But for lack of these they do not lose much. After all, grammar subtleties avail nothing, intricate

passages avail little. They are more the province of the antiquarian, they may also be within the scope of the dilettante. But all pupils do not qualify to become these. And there are always facilities for those who are so inclined. All pupils should qualify to become writers of their vernaculars. They should learn how to write a faultless, simple, lucid style. It is a shame if they are not capable of that. But thanks to the new Regulations, we shall not be able to find in our midst hereafter many whose boast it is that, while they can discourse fluently and write forcibly and elegantly in English, they cannot speak their mother-tongue, without mixing up English words and even phrases along with the vernacular ones, and cannot write correctly in their vernacular an intelligible paragraph of ten lines. Every ordinary pupil will have learned to speak and write his vernacular with a certain degree of accuracy and elegance, provided satisfactory arrangements are made for vernacular teaching in the schools.

But in taking up the work in earnest, every good teacher is likely to be handicapped for want of suitable books. The vernaculars had not much of refined literature in the olden days, and they have not much even now. But strenuous efforts have been made for a number of years to enrich our literature in all possible ways. Our literature wants popular science books, biographies, historical books, and books in criticism. Even the philosophical books that are the glory of our literature have to be revised and recast before they can appeal to the people. It is books of this kind that should be placed before pupils as models. In this connection, I may point out that vernacular composition, if attempted to be taught without model text-books, is bound to be a failure. I would object to placing before the pupils as models either the *Itihāsas* or the *Purāṇas*. But they should have certainly some models before them, some books written in a style I recommended and dealing with subjects really useful to them. That model book should be read, learnt, and inwardly digested.

While the need of a model book to be thus used has been realized in the school and met also, to some extent, in the college things are yet vague and indefinite. One would think that the University must come to the rescue in this matter. The University should say what sort of style is expected of the student, and what sort of standard the students are expected to reach. As far as I am aware, there is no standard in Tamil or any other vernacular, and no style that could be voted for by all scholars unanimously. It is reported the

University has appointed a Committee to investigate the question, but the proceedings of the Committee are yet to see the light of day. Let us hope that when they are published our doubts will be set at rest. A more useful thing the University can do is to prescribe some good modern books—say from three to five vernacular books—for study in the Intermediate classes and to rule that a subject for composition should be chosen from them. Unless such pressure is brought to bear upon the students, they are not likely to take to the study of the vernaculars with any degree of earnestness, and in course of time the test in vernacular composition may prove to be a sham. No doubt such a regulation is not an absolute necessity, the colleges might arrange to prescribe the books themselves; but there could be no unanimity. The books may differ as widely as the tastes of individual teachers. Thus the results aimed at may not be obtained, or at any rate may be considerably delayed. But if the University take upon itself the responsibility of prescribing the books, there is an additional advantage. The question of style will settle itself.

The pandits have been unfairly accused, I think, of encouraging a pedantic style of writing both by preaching and example. Some of them, it is a well-known fact, are not capable of writing at all, I mean good prose-writing. But they all have a regard for grammatical rules and for language purity which has been misunderstood. Such regard is, indeed, a desirable one, especially when every smatterer wishes to set up as an author. Notwithstanding this check on the side of the pandits, the vernacular literature has been filled with trashy books. Evidently their voice is feeble and their influence is not felt. There must be an Academy to exercise control over such matters, an Academy composed of men of Western culture and Oriental learning. The work of the Academy should be to fix in general terms the style of writing to be adopted by modern writers, to examine books published from time to time and declare its approval or disapproval of them, in other words, to stand between the authors and the readers and direct them both, to publish itself books written by its members and promote in all possible ways the growth of a healthy vernacular literature. The Madura Tamil Sangham is supposed to do this service for Tamil, but it is very slow, and its activities are often misdirected. There are certain organizations in the Telugu world, but their influence is not felt. I should like to see a robust powerful active Academy for the vernaculars. There is no

need of special Academies for each language, but they may all have a common one which is bound to do more useful work than special ones.

The Dravidian Board of Studies attached to the University of Madras can very well be the Academy that is so much needed; only the constitution will have to be remodelled a bit. But the present policy of the University may not, I am afraid, allow of any extension of the scope and functions of the Board. Properly speaking it is the University of a country that must guard the interests of its mother-tongue or tongues, if they happen to be more than one; it is the University that must encourage vernacular studies, and patronise efforts calculated to enrich vernacular literature. Our University has practically banished the higher study of the vernaculars from the colleges by so arranging things as to make it an inconvenience for a candidate to take up a vernacular for study. The introduction of vernacular composition for the Intermediate Examination by the Government and their insistence on it, when the University wanted to do away with it, is a sad reminder to us that the University failing to discharge its proper function, the Government had to interfere to set matters right as best they could.

But Academies and Regulations, you probably think, are not the subjects you wish to hear about. I also feel I have somewhat led you away from what I wanted to speak to you about. Still these things I have mentioned are not altogether useless to you, nor are they without bearing on what immediately concerns you. True you are pupils to-day; some years hence you may have to guide the destinies of the vernacular literature.

Well, what is it now that immediately concerns you? Let alone the teachers, they will mind their own work. What have you as pupils to do for the proper study of the vernaculars? I do not imagine for a moment that any of you would ask, what need is there for a proper study of the vernaculars? The question has been already answered. And I cannot put it more emphatically than the Government did when they said, "if those who have secured a University education are to do the best for the country with the education they have received it is imperative that they should preserve a sound knowledge of the vernaculars." Be they University men, or School Final men, they owe a duty to the country which gave them birth, they ought to pass on the best treasures they have received through Western culture to their less

fortunate countrymen. This they can do only through the medium of the vernacular. Unless they have a decent knowledge of the vernacular, their efforts to accomplish this end will be in vain. A stronger reason for the study of the vernaculars cannot be urged and need not be urged too.

Having thus established that there is a real need for the proper study of the vernaculars, let us now see how best to make a study of them. To those who have chosen the vernaculars as optional subjects I have not any advice to offer here. I would, however, congratulate them on their choice. For, in the long run, they would find this study a source of great help to them in their college career as well as in their school career. But it is only a small minority that have made this choice I am afraid. At any rate my experience of some other schools warrants me in making this remark. To those who are expected to attain a degree of proficiency in vernacular composition, and who are engaged in the study of the vernacular calculated to give them that proficiency I would address a few words of advice. These may be of help to the class of pupils I referred to already as well, but if I were to speak to them exclusively I would mention several other things.

First of all, have your aim steadily before you, imprint it in your mind in letters of gold if you please. That will keep you from wandering or going astray. I tell you this so that you may not acquire false or morbid taste for any special kind of literature which may be productive of a deal of evil.

Then, if you have to study a text-book in your class, study it thoroughly, master it, make select passages your own. As for other books, whatever book you may lay your hands upon, read it but with judgment. Consult your teacher about the book before you begin to read it. If it is positively harmful, your teacher will warn you against it. Get your teacher to recommend a number of books to read as extra-reading books. Always be guided by your teacher. Most of the books published now-a-days abound in errors, grammatical and idiomatical. When your teacher speaks about errors in your class, mark them well. Have a note-book wherein you keep a record of these. When you meet with the same in books, you can correct them, but consult your teacher nevertheless; let him confirm they are errors indeed. And when you meet with passages difficult to construe or passages of doubtful grammar, take them to your teacher. Reading done without a plan and purpose is worse than

useless. Start, therefore, with a definite plan and a definite purpose.

Next to reading, writing must be practised with diligence and care. Exercises done in the class are hardly sufficient if you aim at skill in writing. Home exercises must play a prominent part. You must write a good deal at home and have the exercises corrected by some one who knows better than you if your teacher cannot help you, or by your class-mate. Mutual correction has been found to work well in the case of pupils in the higher forms. It does not matter if all your exercises are not corrected. Your errors will correct themselves in course of time. Only persist in writing.

Writing may take the form of original essay, of a summary of lesson read, or of translation. All these are of equal importance. You are likely to underrate the importance of translation. There is no exercise in writing so easy as translation when done methodically, and none so useful. There is matter ready for you, you have not to rack your brains nor to turn up books to get the matter you need. And the passage you may translate may be a very good piece of English prose. Translation improves your knowledge of English as well as your knowledge of your vernacular. And this is the kind of exercise one can continue through life with profit and pleasure to himself and to others.

Reading and writing should go together hand in hand. Before beginning to write, read a good book, it might inspire you and put you in a mood to write a good piece of composition; and after finishing your work, read again, it might help you to see how far you have succeeded in approaching your model. Systematic reading and systematic writing are the things needed to make any satisfactory progress in your work.

A knowledge of Sanskrit—of the rudiments of Sanskrit grammar—I would regard a useful accomplishment for every serious student of the vernacular. To say that without a satisfactory knowledge of Sanskrit, the study of the vernaculars will be fruitless, and to run them both together, may be absurd. But since all the Dravidian languages are more or less indebted to Sanskrit for their vocabulary, a fair acquaintance with the rudiments of Sanskrit grammar and Sanskrit vocabulary must be of great use to those who care to use words correctly and appropriately. Sanskrit bears the same relation to our vernaculars that Latin and Greek bear to English. It is the classical language of India. Whenever you have an opportunity, either in school or out

of it, of picking up a knowledge of Sanskrit, do not neglect it.

A little while ago I referred to a group of men whose boast it is that they did not know their vernaculars. Well, there is the possibility of a class whose boast may be that they do not know English. In both cases you should understand the significance of "know." They did not take the trouble to learn the languages as they ought to be learnt. The latter class of men are those who have a false sense of patriotism and who therefore pursue their study of the vernacular at the expense of English. If these men have to appear for an examination, their notions will be soon dispelled. But if they are private individuals, they are likely to go unchecked for a considerable time. And we have not much to do with them here. But it should be borne in mind that a good knowledge of English is a *sine qua non* of every would-be author of vernacular books. For some years to come we shall have to get our ideas of literature and science, our ideas of book-making, our ideas of style from that source only. There are a good many noble thoughts in English which if rendered will be an ornament to our vernacular literature. To imbibe ideas and to render with accuracy is possible only for those who have a satisfactory knowledge of English. So study English well, and study it with a view to benefit your vernacular literature.

Gentlemen, I have done. I have told you what changes have come about in the study of the vernaculars, what they mean to us and to them, what possibilities there are for these languages and what you can do yourselves to help their realization. If these words of mine have to any degree kindled the love in you for your vernaculars, and would help you to pursue your studies in them with hopefulness and fervour, I shall deem myself more than compensated for the trouble I have taken on your behalf to prepare this paper and present it to you this evening.

OUR ENGLISH LETTER.

LIVERPOOL, April 1911.

A storm has been raging in educational circles here. One of the Opposition members had come into the possession of a circular sent out from the Board of Education relative to the appointment of inspectors. Mr. Ranciman pointed out that it was a private and confidential communication, and the member in possession of it was a receiver of stolen goods: but he was

not allowed to ride off so easily as that. Mr. Hoare, the member in question, proceeded to inform the House of the contents of the circular. It contained statements and expressions of opinion that were most depreciatory of the elementary teacher. This, for instance: 'Apart from the fact that elementary teachers are, as a rule, uncultured and imperfectly educated, and that many, if not most of them, are creatures of tradition and routine, there are special reasons why the bulk of local inspectors in this country should be unequal to the discharge of their responsible duties.' The moral of the circular is that the inspector appointments should be reserved for men of education and culture, and that means 'only Oxford and Cambridge men need apply.'

How comes it that such a circular is sent out from Whitehall under the auspices of a government which is supposedly democratic. Mr. Ranciman's moral indignation failed to impress the House, and his subsequent explanation has failed to satisfy the country. It seems he knew nothing of the circular. This may be in a way a satisfactory excuse, and exonerates him from responsibility for the sentiments it expresses, but it throws a lurid light on the way in which Government departmental officials go on their own sweet way in sublime disregard of whoever happens for the moment to be at their head, and presumably to be dictating the policy of the department. Sir Robert Morant who saw the circular before it was sent out is thus proved to be what he is called the Permanent Secretary. The author of the circular, Mr. Holmes, has already retired, so no further steps can be taken against him. He is understood to be devoting himself to foreign travel and the making of poetry, and to these devices he must be left. Sir Robert Morant is still in possession: a man of undoubted ability, a strong, hardworking official, but it is not certain that he will remain to exercise his talent at the Education Office. This administrative failure, following upon the successive failures to secure new legislation, makes it likely that he will be transferred to some other department.

This revelation does not affect the Education Office only. It is a glimpse of the bureaucracy with which we are burdened. It is a sign of the caste system which is only slowly breaking up, and whose dissolution will be hastened by this incident. The tone of the comments throughout the country is most satisfactory. Ministers have been made aware that they will have the enthusiastic support of the public in shaking

themselves free from official tyranny, and acting in accordance with their principles and their pledges to the electorate. The poor in a lump are not bad, neither are they brainless, and they must have their opportunity. The *Times* publishes a letter from the Headmaster of Bradford Grammar School, in which he informs us that at his school there are 550 boys, of whom between 160 and 170 come from the public elementary schools. Though they form but a third of the school, they obtain a clear majority of the prizes and scholarships which the school gains. This is a fact worth knowing. Few schools do better than Bradford and Manchester whose conditions are similar. Bradford has gained this last year ten scholarships at Oxford and Cambridge, and we now know where the boys come from to whom the success is due.

But as to the elementary teachers, are the strictures justifiable? For our own part we would endorse every word of the tribute which we quote: "We believe there is no more deserving class in the country, and none that more needs to be encouraged and supported, than the elementary school teachers. Their work is vital, if any work is. As has been said, they come nearer to the hearts of the nation than any politicians can. Their work is done patiently and faithfully, often in obscure and depressing circumstances, and with little hope of amelioration. The State will be wise which opens a career for those men and women, which recognizes and honours them, which shelters them from the contempt of those who have been privileged for so long. We hope the teachers will act, and act with decision. They perhaps have feared too much an alliance with the democracy, but it is in such an alliance that their prosperity will be found. They are entitled at the very least to demand that no one shall inspect the work of elementary school teachers who has not himself been first an elementary school teacher."

Another incident which occurred this week shows how democratic regulations can be avoided. In 1907 new regulations were issued with regard to secondary schools. One of the conditions of the increased grants which were offered was that 25 % of the new admissions every year should be kept free for scholars from elementary schools. Some schools have tried the system and now have decided to refuse the grant, University College School, London, for instance. Against such straightforward action we have nothing to say. But it is well-known that a great many schools accepted both the grant and

the conditions, and have ever since been trying to get rid of the conditions while keeping the grant—to take the money, but not the children. On Tuesday last we were informed how this is done. A speaker at the annual meeting of the Secondary Schools Association argued that the regulation did not say they must receive 25 % of free-placers, but must offer 25 % of their places free. (As a fact, the word is 'open.') Then he went on to explain that in the school he represented the places were always offered and accepted, but if they thought the boys who applied were not such as should have the benefits of secondary education, they did not feel obliged to keep them. It is obvious that such an interpretation if generally followed, would nullify much of the benefit supposed to be secured by the regulations. It is beginning to be time that we had a comprehensive inquiry into the whole system and the way in which public advantages are reserved for special classes.

Why was it that University College School found the experiment a failure? Dr. Bourne Benson, a distinguished member of the School Council, writes thus in explanation:—"The primary cause of the failure is the scale on which the experiment has been tried. The London County Council have not picked their scholars with sufficient discrimination. They have radically changed the environment of a much larger number of boys than were fit to profit by the change, and they have not ensured the conditions essential to success. They have, in effect, sought to endow purity apart from capacity, and under the guise of a maintenance grant, to assist the family of a scholar instead of equipping the scholar himself with the food, clothing, and means of taking part in the life of the school, without which even a capable boy cannot take full advantage of his new and unaccustomed surroundings." It is for us to judge whether this explanation rebuts the charge of snobbery which has been made against the governing body on account of their action in this matter.

Dr. Rendall of Charterhouse has announced that he will vacate his position at the end of the present school year. It hardly seems fourteen years since he succeeded Dr. Haig Brown, but so it is. When he went to Charterhouse from Liverpool University—strange that a man should leave the headship of a University for the headship of a school!—475 boys out of 560 were on the classical side, now there are only 250 out of 600. This is a straw which shows us the way the tide is flowing. But Dr. Rendall has not thrown over Greek: "My fourteen years ex-

perience has confirmed my belief that Greek is a vital constituent of a classical education. More than any other method of training it brings out the intelligence of boys, and upon the literary side I see no substitute. But, as to the scientific side, I have consistently been among those who have objected to the enforcement of compulsory Greek for admission to the Universities. Before the end of the public-school curriculum is reached, education, I think, must become either dominantly humanist or scientific."

On March 22, at the evening meeting of the College of Preceptors, Mr. Cloudesley Brereton introduced the question of 'Vocational Education.' A most interesting discussion followed, in which Professor Adams who was in the chair took part. There is an excellent report in this month's *Educational Times* which we beg leave to commend to you.

Reviews and Notices.

ELEMENTARY CHEMICAL THEORY, BY J. M. WADMORE, M. A. (OXON.) METHUEN & Co. LTD., 36, ESSEX STREET, W. C. LONDON.

The author has attempted to supply a cheap and suitable elementary book on Theoretical Chemistry, and as his book has grown from a series of lecture notes it may be regarded as having undergone the test of practice. We agree with the author in thinking that, though the growing tendency of treating each point of theory as it crops up in the course of a study of Inorganic Chemistry has much to commend in it, the elementary student in any such method fails to grasp the connection between different theoretical questions. For this reason it is better to treat these theoretical questions separately so as to bring out their bearing upon each other.

The book before us contains twenty-one chapters in which every question connected with Theoretical Chemistry finds an elementary treatment from a modern point of view. The author's reasons for adhering to the old hydrogen standard in preference to the new oxygen standard are not convincing. The book, on the whole, is very readable and has much in it which is commendable. It can be used with advantage by students preparing for the B.A. or B.Sc. Examinations of Indian Universities.

A COURSE OF ELEMENTARY SCIENCE—PRACTICAL AND DESCRIPTIVE, BY JOHN THORNTON, M. A. LONGMANS, GREEN AND Co.

This book contains a course in Elementary Physics suitable to students in High Schools. It

is both practical and descriptive, and will therefore be found serviceable in the lecture-room as well as in the practical laboratory. There are clear directions for the performance of a number of experiments, which are preceded or followed by an exposition and discussion. In many cases numerical exercises are worked out to bring out clearly the quantitative side of the science of physics. Questions capable of stimulating observation and thought are added at the end of the book, which might with greater advantage be appended to each chapter. The book, although not covering the Elementary Science of the High School course, may still be found useful by the teachers and pupils of our High Schools.

PESTALOZZI AND ELEMENTARY EDUCATION, BY GABRIEL COMPAYRÉ—TRANSLATED BY R. P. JAGO. GEORGE G. HARRAP AND COMPANY, LONDON. 1908.

This is the third volume of a series of monographs on the great educators prepared by Professor Gabriel Compayré and published under the general title of "Pioneers of Education."

Pestalozzi may be regarded as the continuator of the work outlined by Rousseau in his *Emile*. He wielded an extraordinary influence upon the education of his day so much so that the Society of Teachers of Berlin declared in 1861: "We are convinced that the happy results of the present time in our schools, obtained despite the official red-tape, are due in large measure to the corps of teachers who have been grounded in the principles of Pestalozzi." His special domain is elementary education, that which concerns itself with the first instruction of the child in letters and morals. He has asserted "that which takes chief place in my aspirations is the first impulse of my youth for the people and for childhood." Pestalozzi devoted and sacrificed his life for the sake of others, but it is a happy fact that posterity has kindly dealt with him.

In the book before us Professor Compayré, who is no mean authority on the history of Pedagogy, has placed in clear light the various aspects of the life and work of Pestalozzi.

HERBERT AND EDUCATION BY INSTRUCTION—BY GABRIEL COMPAYRÉ—TRANSLATED BY MARIA E. FINDLAY, B. A. GEORGE G. HARRAP AND COMPANY, LONDON. 1908.

This is the fourth volume of Professor Gabriel Compayré's "Pioneers of Education." Rousseau wrote a romance on education; Herbert Spencer gave to the world a brilliant essay on education;

Pestalozzi dreamed of the universal school, the school free alike to rich and poor, and laboured to realise his dream; but it was Herbart who founded a scientific pedagogy with psychology as its basis. How modern Herbart's ideas are, is indicated by the following words: "The interest which we take in education is one of the forms of interest which we take in human beings. Our hopes find refuge in the hearts of the young in the expectation that men, when they are more carefully educated, will attain to things yet beyond our view." Herbart's *General Pedagogy*, published in 1806, answers, as Gabriel Compayré points out in the book under review, perhaps better to the needs and aspirations of the hour than any other. Herbart's theory of education is not infrequently obscure and always complicated, but we are glad to say that Professor Compayré has succeeded in making the somewhat muddy stream clearer.

A SCHOOL COURSE OF HEAT, BY R. H. SCARLETT, B. SC. (LOND.) LONGMANS, GREEN & CO. NEW YORK, BOMBAY AND CALCUTTA. 1910.

This book contains forty-two lessons in heat intended for the use of students who have gone through a simple course of general physics. The first part of the book, called the "preliminary survey," forms an easy introduction to the subject. The book is throughout experimental and can be used in the practical laboratory. The apparatus used are always simple, and the author supposes that the whole class is working at the same experiment in pairs. Each lesson contains full details of the laboratory experiments involved and ends with a worked example, which is in almost every case an actual result obtained by a student. Though the book is developed along the line of practical work, the book contains all the matter usually found in elementary text-books. Graphic methods are largely employed. The book can be recommended for consultation to the students of Physics in the Intermediate classes of our colleges.

SELECTIONS FROM THE 'SPECTATOR,' EDITED WITH INTRODUCTION AND NOTES, BY J. H. LOBBAN, M.A. CAMBRIDGE UNIVERSITY PRESS. 1s. 6d.

Selections from the *Spectator* we have in any number, but Mr. Lobban's volume published some time ago seems to be among the best. The selections have evidently been made with the aim of illustrating the varied aspects of Addison's success in the journal which is probably among the proudest triumphs of the eighteenth century. The comprehensive nature of the volume is demon-

strated by the fact, that Addison is shown in the capacity of a painter of manners, a master of humour, an arbiter of taste, a social reformer and a literary critic. It is a satisfaction to see that there are included some of his essays on *Wit, Tragedy* and *Milton's Paradise Lost*. Mr. Lobban has not forgotten the special claims of the two essays on *The Ballad of Chevy Chase*. The notes, though brief are specially valuable and we have no hesitation in recommending the book for use in our colleges.

THE LIFE-STORY OF A TIGER, BY LIEUT.-COL. A. F. MOCKLER-FERRYMAN, F.R.G.S., F.Z.S. ADAM AND CHARLES BLACK. 3s. 6d.

The hearty love of sport which has always been characteristic of the English nation is an aspect of life which must command wide appreciation in this country. There cannot be a better corrective to the sedentary and peaceful pursuits of the Indian school-boy than literature of sport, delineating life in the wilderness and in the open air. Ferryman's book gives a remarkably vivid account of the habits of tigers, and their activity in hunting life. He has been successful in the wonderful task of talking in the person of a tiger, narrating the life-story as if it were by the tiger itself. The sympathy and knowledge of the author must be thorough to an astonishing degree judging from the success achieved by him. He has lifted the veil surrounding the mysterious habits and strange haunts of the Lord of Stripes. We are led to a greater appreciation of Blake's lines:

Tiger, tiger, burning bright
In the forests of the night,
What immortal hand or eye,
Dare frame thy fearful symmetry?

THE ENGLISH PURITANS, BY JOHN BROWN, D.D. CAMBRIDGE UNIVERSITY PRESS. 1s. net.

One of the most momentous revolutions in the History of England has been the Puritan movement and it is no exaggeration to say that its effects are seen to pervade English Society even at the present day. Bohemians like Burns might condemn the 'unco guid' and Sir Andrews and Sir Tobys might make fools of Malvolios, but there is no denying the fact that the Puritans have enriched the British race with a number of virtues which have played not a little part in advancing their national progress. The student of History had till now various sources for a study of this interesting class—especially the brilliant pages of Macaulay and Green—but a handy volume on the subject has been a long-felt want. The Cambridge University Press has removed it by this book,

written by an English divine. The movement has received a very adequate treatment in its religious as well as historical side and the book must prove very useful to all interested in the subject. To the layman, there is probably some disappointment in the want of graphic presentation of Puritan characteristics, but it is meant to be a manual for serious students and we are not therefore anxious to press this criticism.

THE "INDIAN SHORTHAND JOURNAL."

We have been favoured with some numbers of the Indian Shorthand Journal edited by Mr. P. G. Subramania Iyer, B.A., Kumbakonam, S. India. The number to hand is a distinct improvement on its predecessors both in the treatment of matter and get-up, and the editor and the printers are to be congratulated on this unique venture. Considering the important part Shorthand plays in the present work-a-day world as a labour-saving expedient, the appearance of a journal like the present devoted to its interests is most opportune. We are glad to observe that the bulk of the matter appearing in the Journal is treated in Isaac Pitman's System pure and simple which we believe is the most popular system obtaining in the British Empire, and consequently its usefulness to students and practitioners of the art can hardly be over-rated. The special features of the Journal are the "Helps for Advanced Students" the page devoted to "Legal Reporting" in the Advanced Reporting Style (with key) in the interests of experts and the "Legal Phrases" contrived to suit Indian Legal Terminology. Questions set at the Government Technical Examinations are answered for the benefit of students; light reading is provided in the shape of entertaining stories and notes on topical events abroad; important aspects of Shorthand are discussed and weighty articles from the pen of educationists also appear besides interesting editorial notes and reviews. Altogether the latest number to hand is a highly interesting one and we trust phonographers will come forward to help to make it a success. The subscription fixed, namely, Rs. 5 for students and Rs. 5-8-0 for others, appears to us to be quite moderate.

Indian Educational Notes.

MADRAS.

Departmental Notifications.—Mr. C. W. Moss, Headmaster, Government Madras-i-Azam, has leave on medical certificate for one year with effect from 1st April 1911.

Mr. M. Stuart, Assistant Superintendent, Geological Survey of India, is to be Professor of Geology, Presidency College, Madras, with effect from the 25th February 1911.

Mr. C. L. T. Griffith, Engineer, Corporation of Madras, is to be Professor of Civil Engineering, College of Engineering, Madras, with effect from the 14th August 1910.

Mr. S. N. Venkataramayya, Sub-Assistant Inspector of Schools, Tirupati range, has privilege leave for one month and twenty-one days from the 9th January 1911, and leave on medical certificate for ten months and seven days in continuation thereof.

Mr. A. Viswanatha Aiyar, Sub-Assistant Inspector of Schools, Chittoor range, will act with effect from 13th February 1911 in the Tirupati range, during the absence of Mr. S. N. Venkataramayya on leave or until further orders.

Mr. K. Alwar Chetty will be considered to have acted as Sub-Assistant Inspector of Schools, Tirupati range, in the probationary class from 9th January to 12th February 1911, in addition to his own duties as *sub pro tem*. Supervisor of Elementary Schools, Kalahasti.

The leave on medical certificate already granted to Mr. M. D. Jacobs, Sub-Assistant Inspector of Schools, Tiruppattur range, is extended by three months.

Mr. M. Subramaniam Aiyar, *sub pro tem*. Supervisor of Elementary Schools, Karur, and Acting Sub-Assistant Inspector, Coimbatore range, is appointed to act as Sub-Assistant Inspector of Schools, Tiruppattur range, in the probationary class, during the absence of Mr. M. D. Jacobs on leave or until further orders—to join expeditiously on relief from the Coimbatore range.

The Acting Director is pleased to appoint Mr. A. V. J. Vas, Assistant Professor, Presidency College, and Acting Assistant Inspector of Schools, Madura district, to be Assistant Inspector of Schools, Cuddapah district, in the second class of Sub-Assistants with effect from the 22nd instant, *vice* Mr. C. Kodandarama Nayudu, permitted to retire, but to continue to act in the first class in his present appointment at Madura.

Mr. V. R. Venkatarama Aiyar, Assistant Inspector of Schools, Coimbatore district, has combined privilege leave and furlough for eight months and twenty-six days from or after the 10th April 1911.

Mr. S. V. Daivanayagam, Sub-Assistant Inspector of Schools, Tinnevely range, on transit to the Salem

range, has privilege leave for three months from the 5th instant, and T. K. Duraiswami Aiyar, Temporary Assistant, Teachers' College, Saidapet, is to act as Sub-Assistant Inspector of Schools, Salem range, in the probationary class, during the absence of Mr. S.V. Daivanayagam on leave or until further orders. To join forthwith.

Mr. V. N. Ramaswami Sastri, Sub-Assistant Inspector of Schools, Ambasamudram range, has privilege leave for one month from the date of his availing himself of it, and Mr. V. K. Anantachari, Supervisor of Elementary Schools, Ambasamudram, is to act for him in the probationary class during his absence on leave or until further orders.

Mr. P. Mangesha Rau, Sub-Assistant Inspector of Schools, Kasargod range, has privilege leave for one month, from or after the 13th instant, and Mr. U. Mangesha Rau, *sub pro tem.* Supervisor of Elementary Schools, Mangalore, is to act for him in the probationary class during his absence on leave or until further orders.

Mr. D. A. Hobday, Assistant Inspector of Schools, Chingleput district, to act as Headmaster, Government Madrasa-i-Azam, during the absence of Mr. C. W. Moss on leave or until further orders.

Mr. K. C. S. Anantanarayana Aiyar, Sub-Assistant Inspector of Schools, Triplicane range, to act as Assistant Inspector of Schools, Chingleput district, in the Subordinate Educational Service, during the employment of Mr. D. A. Hobday on other duty or until further orders.

Mr. C. Amrita Rau, Temporary Assistant, Teachers' College, Saidapet, to act as Sub-Assistant Inspector of Schools, Triplicane range, in the probationary class, *vice* Mr. K. C. S. Anantanarayana Aiyar.

Mr. K. Nanaswami Rau, Assistant Master, Pittapur Raja's College, Cocanada, to act as Sub-Assistant Inspector of Schools, Jammalamadugu range, in the probationary class during the employment of Mr. R. Narayana Rau on other duty or until further orders. To join forthwith.

Mr. S. Lakshmana Aiyar, Fourth Assistant, Teachers' College, Saidapet, to act as Sub-Assistant Inspector of Schools, Erode range, to act as Assistant Inspector of Schools, Coimbatore district, in the second class of the Subordinate Service (Sub-Assistant Inspectorate) during the absence of Mr. V. R. Venkatarama Aiyar on leave or until further orders.

Mr. M. Subrahmanya Aiyar, *sub pro tem.* Supervisor of Elementary Schools, Karur, and Acting Sub-Assistant Inspector of Schools, Coimbatore range, to act as Sub-Assistant Inspector of Schools, Erode range, in the probationary class during the employment of Mr. Rangaswami Aiyangar on other duty or until further orders. To join expeditiously on relief from the Coimbatore range.

Mr. C. S. Vijendra Rau, Supervisor of Elementary Schools, Krishnagiri, to act as Sub-Assistant

Inspector of Schools, Tirupattur range, in the probationary class, during the absence of Mr. M. D. Jacobs on leave or until further orders—to join forthwith.

The Government of Madras has informed the Syndicate of the Madras University that the Government of India have raised the age-limit of candidates for the Government of India Scholarship referred to in the Home Department Resolution No. 9/269-281, dated the 23rd August 1886, to 25 years in the case of medical graduates of the Madras University and to 23 years in the case of persons holding other degrees, namely, those of M.A., B.L., M.L., and B.E.

Berhampore Graduates' Association.—Rao Bahadur W. L. Venkataramiah delivered the inaugural address of the Association on the 1st instant. In dealing with University education, which he chose as his theme, he started by forcibly refusing the idea current in high circles and which found support even at the hands of Lord Morley and Mr. Valentine Chirol, that higher education in India has been a failure. He pointed out that the partially unsatisfactory progress of higher education was due to two causes, the difficulties that Western culture had to contend against in overcoming traditional ideas based on an ancient civilisation. Two results were however, achieved (1) the growth of an educated community, a fifth caste, in the country who enjoyed more of wealth and influence than their forefathers, and (2) the creation of a cultured class which supplied brilliant men for the public services and the service of the country. The speaker here referred to a few notable products of University education and said that Messrs. Ranade, Mookerjee and Gokhale could give points to the best *alumni* of any of the Western Universities. Proceeding to the main part of his subject, he said, that the aim of University education should be to create, in those who bear its hall mark, a desire for 'a higher life.' He sub-divided this branch of his lecture into four parts. He said that education was in vain if it did not create a larger view of life far beyond the ken of the peasant whose ideas were circumscribed by his village and the morrow. He said that education should create a truer perspective and a juster vision of life than is held by the ordinary mind. He pleaded that education should make life purposeful and referred to the ideal recommended by Dr. Miller recently to his pupils. He said that education should carry our lives to a higher plane. The address was eloquent, edifying and instructive. The President of the evening, Mr. Sadasiva Iyer, then brought the proceedings to a close with a few suggestive remarks.

S. P. G. High School, Vepery.—The seventy-third Anniversary of the S. P. G. High School, Vepery,

was celebrated recently at the Museum Theatre, with the Hon'ble Mr. J. N. Atkinson in the chair.

The proceedings commenced with the singing of a hymn. This was followed by prayer. An interesting programme of gymnastic display, action song and recitation was also gone through. There was then the performance of a Tamil episode adapted from Tennyson's *Dora* by the school Pandit, Mr. Namasivaya Mudaliar. The adaptation was excellent and very well appreciated by those present. The report for the past year and the first term of this year was then read by the Headmaster. Mrs. Atkinson distributed the prizes. The Chairman in his remarks said that he would not detain them long. The first thing he should do was to congratulate the prize-winners. He hoped that it was the commencement of the winning of many more prizes in the career of life. From a perusal of the papers connected with the school kindly sent to him by Mr. Potts, he concluded that the school had greatly developed after a good deal of ups and downs, until it reached a position which corresponded to what was called in England a Public School. In reading the report he noticed that in some respects there were resemblances to and in other respects there were differences from an English public school. In the hostel attached to the S. P. G. School, Vepery, a portion of the boys lived. Their success was due in some measure to their corporate life and to the *esprit de corps* engendered by their living in a hostel. That was one respect in which the English public school life exercised a general influence for good. When a new fellow was sent amongst the hostel boys, their influence was brought to bear upon him and would keep him going, and thus they could do a great deal more for the true needs of education than the staff. They could fall back upon one another and see that the general tone of the school was good and healthy. At school they were having the best chance for forming their future. If they made use of the opportunities afforded in school they were sure to succeed in life. He would close his remarks with the best hopes for their future success in life. With a vote of thanks to the Hon'ble Mr. and Mrs. Atkinson, the meeting terminated.

A Prize-distribution at Coimbatore.—The annual distribution of prizes to the pupils of the Stanes' High School, Coimbatore, came off recently. A programme with thirteen items of interest including recitations, vocal and instrumental music, was gone through. Mrs. Gadsden distributed the prizes and certificates. Mr. E. E. Berry, M.A. (Cantab), Principal, read the report of the school for the year preceding. It stated that owing to grown-up children leaving the school and also owing to transfer of parents of some of the children the strength fell from 150 to 138. In addition to the usual subjects taught domestic economy with a few other useful subjects are taught. Mr. R. Stanes, the founder of the school, spoke highly of the efficiency of the institution. Mr. E. H. Gadsden who presided

remarked in appreciative terms on the day's events and the proceedings then concluded.

Ongole Teachers' Association.—The Anniversary meeting of the Ongole Teachers' Association was celebrated on the 24th March in the local American Baptist Mission College Hall under the presidency of Mr. J. V. Subbarayulu Sastry, B.A., Inspector of Schools, II Circle. In the morning there was sports competition and the meeting programme commenced in the evening with the introduction to the audience by the Sub-Assistant Inspector of Schools. After the reading of the reports of the Secretaries of the various Associations in the neighbourhood of Ongole, two very interesting papers were read in Telugu, one by Mr. A. T. Palmer, B.A., L.T., a Professor in the local College on "Drawing," and the other on "The Development of the Senses" by Mr. S. Krishnamachari, B.A., Sub-Assistant Inspector of Schools. Then followed the enacting of a Telugu drama and the reading of verses and afterwards the prizes were distributed by the President. The President in concluding the proceedings spoke as to the conduct of these Associations and exhorted the teachers to follow the advice of the Sub-Assistant Inspector of Schools.

Pachaiyappa's Charities.—Mr. C. P. Ramaswami Iyer, Vakil, High Court, has subscribed Rs. 15,000, Mr. Justice P. R. Sundara Aiyar Rs. 5,000 and the Hon. Mr. V. Krishnaswami Iyer Rs. 5,000, in aid of the funds of Pachaiyappa's College, Madras. A strong Committee has been appointed to realise subscriptions with the first-named gentleman as Secretary.

Government Training School, Trichinopoly.—A correspondent writes:—The pupil teachers of the above institution went on an excursion tour to Mandapam, halting at Madurai on the way. While at Madurai the pupil teachers were shown round the Government Technical Institute. The Superintendent, Mr. Dunhill, was kind enough to depute one of his Assistants to explain to the students the mechanism and working of the several departments of the Institute. The party then made a visit of observation to the A. M. Training School, Pasumalai, where the Headmaster was kind enough to arrange for a model and a criticism lesson for the benefit of the students visiting. The party after observing the natural chalky beds of the Pasumalai Quarry proceeded to the old historic hillock of Thirupprankundram, halting at the District Sessional School on their way. Next morning the students, after observing the working of the Municipal Yadhana First Grade Elementary School, saw the grand Minakshi shrine and the grander Naick's palace. The party arrived at Mandapam the same evening, where geographical truths were practically demonstrated and several specimens for the School Museum were collected. After a short boating excursion to the holy island of Ramaswaram and the surrounding islands the party returned to Trichinopoly. On the

return way they visited the Madura Cotton Mill, whose proprietor was kind enough to explain to the students the several stages which raw cotton undergoes before being spun into thread and woven into cloths. The pupil teachers owe their deep debt of gratitude to their benigo Government who have been kind enough to institute such school excursions.

The Madras Christian College.—The annual report of the Madras Christian College on its working for the year 1910 shows that there were exceptionally few changes in the European staff of the College during the year. On Mr. Russell's return from furlough in February, it was at its full strength, and thereafter there was no change till December, when Mr. Moffat left on furlough for one year. Mr. F. W. Henderson continued on the staff as a temporary Professor.

While the First and Second College classes are now being conducted according to the new Regulations, the Third and Fourth classes are still studying under the old system, according to which a second language, that is, a language additional to English, is a compulsory subject for the B.A. degree examination. Under the new Regulations, this is no longer the case, second languages having been constituted into an optional group of subjects for the degree. As the Council has decided not to apply for affiliation in that group in the meantime, the result will be that when the new Regulations come into operation throughout the entire College, second languages will be taught only in the Intermediate Classes, where they continue to be a compulsory subject either in the form of composition in a vernacular language, or of translation into English from a classical language.

The average number on the roll of the College for the year 1910, was 851 as compared with 821 in 1909. In October, the College was inspected by the University Commission for the inspection of Colleges. About the same time the College was inspected by Special Commissioners with a view to its affiliation in certain branches of the Honours' Courses, namely, Branch II-A (Physical Science), Branch III (Natural Science), Branch IV (Philosophy), Branch V (History), and Branch VII (English Language). The reports were, on the whole, favourable, and at its meeting, held on the 3rd February 1911, the Senate of the University recorded its opinion in favour of the affiliation of the College in all the Branches mentioned. This has still to receive the sanction of Government.

The fees in the College amounted to Rs. 63,040-8-0. The Grant from the Home Church and Missionary Societies realised Rs. 29,777-14-9. The Natural Science Laboratory for the B.A. course, though not yet fully furnished, was so far advanced by the end of the year that in January of the present year Dr. Henderson was able to conduct his classes in it. The College is indebted to the Indian Museum, Calcutta, for the gift, through N. Annandale, Esq., D.S.C., of a large number of valuable specimens for

the Zoological Museum of the College. The furnishing of the Chemistry and B.A. Physics laboratories will take some time longer, but it is hoped that the work of both furnishing and equipping them will be so far advanced that they may be ready for occupation in July.

The Victoria College, Palghat.—We are glad to note the Municipal Council of Palghat by a majority cancelled the Chairman's proceedings and restored Mr. Ramanujachariar with arrears of pay.

BOMBAY.

School Rules in Bombay.—The following Press Note has been issued by the Government of Bombay:—

In Government Resolution No. 2895 of 30th September 1908, Government promulgated rules of discipline applicable to pupils in all Secondary Schools and Colleges, whether Government or aided. In revising the Grant-in-aid Code applicable to aided institutions other than Municipal and Local Board Primary Schools the opportunity has been taken to embody the conditions laid down in paragraph 10 of that resolution. It has also been prescribed that on first admitting a pupil to the school, the manager or headmaster shall hand to the parent or guardian a paper stating these conditions, and also pointing out that parents have no right to dictate to managers, but that the managers of a school have a right to say on what conditions they will admit or retain a pupil in their school. The rules, indeed, merely express clearly what is implied in the contract between the school authorities on the one hand and parents and guardians on the other.

2. The Governor-in-Council has now considered how far these rules should be applied to Municipal and Local Board Primary Schools, and he desires that, as modified in the accompanying draft, they should be adopted in these institutions.

3. His Excellency in Council has accordingly directed that steps should be taken to introduce them in all Local Board Schools, each Local Board being informed at the same time that this has been done.

4. All Collectors, including the Collectors and Deputy Commissioners in Sind, have been requested to bring the rules to the notice of Municipalities with the view of their early introduction in Municipal Schools.

Rules referred to in paragraph 2 of the Press Note.

His Excellency the Governor-in-Council is pleased to approve the following rules of discipline for Local Board and Municipal Schools:—

General rules of discipline for Local Board and Municipal Schools

[N.B.—A copy of these rules is to be given to the parent or guardian of each pupil on his or her first admission to the school.]

1. Parents or guardians, who send their boys or girls to Local Board or Municipal Schools, must understand that by so doing they agree to delegate to the headmaster and the educational authorities full control over such boys or girls in all matters connected with such schools and that in all questions of school discipline, both inside and outside the schools, the decision of those authorities is final.

2. The school fee must be paid monthly in advance on the day fixed for that purpose. If a boy wishes to leave the school, his parent must give notice of his intention before the end of the month; else the fee for the following month will have to be paid.

3. The headmaster will exercise his discretion in admitting a pupil or retaining him or her in the school, subject to the rules in the Vernacular Master's Code, and to the orders of the Deputy Educational Inspector or the Municipal School Committee, as the case may be. For breach of the school rules a pupil may be punished at the discretion of the headmaster.

4. Pupils are required to be regular and punctual in attendance. Pupils, who are habitually irregular or unpunctual, will after warning be refused admission.

5. Parents or guardians will be held responsible for any damage done by pupils to any part of the school property.

6. Pupils are required to be clean and tidy, orderly and respectful, both in class and in public. Rude, disorderly or other objectionable conduct out of school will be punished.

7. Pupils are required to provide themselves with the necessary books, slates, etc. They are not to bring into the school any books not sanctioned by the Department, nor any newspapers.

8. Without the express permission of the headmaster, no pupil is to attend or take part in the organization or conduct of any public meeting of any kind, or in the collection of any fund.

The Davar's College of Commerce.—The Annual Prize and Certificate Distribution of the Davar's College of Commerce, Bombay, was held on the 12th instant, when the Hon'ble Mr. Manmohandas Ramji presided and there was a large gathering of past and present students and their parents. Prof. S. R. Davar, the Principal of the College, read the report during the course of which he said that of late years the public at large have showed great appreciation for the Commercial Education. From the report it appears that the strong efforts of Prof. Davar to spread Commercial Education in our country have had their effect for, the Indian Ruling Princes such as His Highness the Maharaja of Mysore, H. H. The Maharaja Gaekwar of Baroda, H. H. The Maharaja of Scindia, Her Highness the Begum Sahiba of Bhopal passed resolutions granting Scholarships to those desiring to take their Commercial training in this College and the Government of India did Prof.

XVII

Davar the great honour of appointing him a Member of the Text-Book Committee on the recommendation of the Director of Public Instruction of the Bombay Presidency.

The Hon'ble Mr. Manmohandas Ramji in his presidential speech applauded Prof. S. R. Davar's endeavours and said:—"Prof. Davar has done much to further the cause of this education in this city and I am not mistaken if I say that he is one of the foremost to take up this question and to solve it to a great extent. Prof. Davar and his fellow-workers deserve not a little of thanks for directing the attention of the public to Commercial Education."

Mr. Fox-Pitt on Moral Education.—Mr. Fox-Pitt gave a demonstration of his moral education lessons to a class of twenty young students at the Elphinstone High School recently. A strange Western teacher and a large audience gathered together to witness his lessons, are conditions which would interest a class of children in any lesson apart from its intrinsic power to arrest their attention. The children would know that they were expected to be interested, and under certain circumstances there are no more artful courtiers than little children. Almost every one who spoke after the demonstration, it was reported in the Press, spoke favourably of Mr. Fox-Pitt's method, but the one significant exception was Mr. J. Nelson-Fraser, Principal of the Training College, who may be presumed to know at least as much as Mr. Enthoven, I.C.S., what the pedagogic value of a given method is. Mr. Fox-Pitt professes to base his method on the ideas of the late Professor William James but, though we cannot claim to more than a very superficial acquaintance with the writings of that distinguished psychologist, we wonder how it can be made to fit in with some of his most pronounced views. Then again, Mr. Fox-Pitt, we see, makes somewhat frequent use of the words *karma* and *dharma*. These words to the Indian mind have no meaning except in association with certain metaphysical doctrines such as reincarnation, transmigration and so on. Are we to understand that these doctrines are to be taught in Government schools to Mahomedan and Parsi and Christian students as well as to Hindus?—*Indian Social Reformer*.

Central Science College and Jehangir Hall.
Foundation-laying Ceremony by Sir G. Clarke.

His Excellency the Governor has inaugurated two important Bombay schemes recently by laying the foundation-stones of the new Central Science College and Sir Cowasji Jehangir Hall. The provision for science has been made possible by the munificence of Sir Jacob Sassoon, Sir Currimbhoy Ebrahim, Bart, and others. There are three separate units comprised in the buildings, of which he laid the foundation-stone—the Science Institute, Sir Cowasji Jehangir Hall and Examination Halls, the plans of which have been prepared

by Mr. Gwillet, Consulting Architect to Government. The gathering was a large and distinguished one. After His Excellency arrived Sir Cowasji Jehangir, on behalf of Sir Jacob Sassoon, Sir Currimbhoy Ebrahim and himself, requested him to lay the foundation-stone of the Science Institute, to which Sir George replied in a lengthy speech, in which he explained how Sir Cowasji led the way with a generous gift of four lakhs and was followed by Sir Jacob Sassoon with ten lakhs and Sir Currimbhoy Ebrahim with four and a half lakhs. 'In addition to the sums mentioned,' said His Excellency, 'the Government propose to give five lakhs to this Institute; so that with the provision of four lakhs for the public hall, half lakh of which Government hope to receive from the Senate, and some accumulated interest, a total sum of more than 29 lakhs will be available for the buildings, equipment, endowment and the scholarships for Mahomedans which Sir Currimbhoy's donation will establish.' His Excellency said that there was still a want to be supplied, and it would complete the co-operation of the great communities if a Hindu name or names could be permanently embodied in the noble pile of buildings.

CALCUTTA.

Bethune College—Annual Prize day.—The pleasant function of the distribution of prizes to the girls of the Bethune College came off recently. The College premises were tastefully decorated with flowers, foliage, etc.

The Hon. Mr. Justice Ashu Tosh Mukerjee presided and Her Excellency Lady Hardinge gave away the prizes. There was a fair gathering of Indian and European ladies and gentlemen.

The programme was varied and interesting. The annual report showed that the total number of pupils of the Institution on the 31st December last was 179, as compared with 180 on the corresponding date in the previous year. Of these 45 were in the College Department, and 134 in the School Department, as against 38 in the College Department and 142 in the School Department in the preceding year. Of the pupils on the rolls of the Institution on the 31st December last, 91 were Hindus, 72 were Brahmos, and 16 Christians, as against 92 Hindus, 73 Brahmos, and 15 Christians on the rolls on the corresponding date in the previous year. Of the total number of pupils, 138 were day-scholars and 41 boarders. Of the boarders, one was a Hindu, 36 were Brahmos, and 4 Christians. The lower forms in the School Department are full, and the pupils are mostly Hindus. The College has suffered a severe loss by the sad and sudden death of Babu Sarat Chandra Chakravarti, M.A., Lecturer on Sanskrit. The results of the University Examination were satisfactory.

Scientific and Industrial Association—Grant by Government.—At the annual meeting of the Scien-

tific and Industrial Association of Calcutta recently, the Secretary in his report announced that Government has approved of the scheme for starting a technical college and made an yearly grant of five thousand rupees to the Association. Thirty-nine students leave for the West under its auspices this year.

PUNJAB

Education in the Punjab.—In the course of his speech during the Budget debate, the Lieutenant-Governor pointed out that although it was complained that not enough money was spent upon education, there were few, if any, constructive proposals as to how fresh money could be spent.

He referred to the poor results of the examinations, and laid down the definite policy of the Government on education. Their chief concern was to see an improvement in the efficiency of the existing schools and colleges before adding to their numbers.

The Hon'ble Mr. Porter also alluded to the present unfairness of recruiting for the Education Department, and said he did not think the Government ought to wait until the more favoured professions had recruited, and then to recruit their professors from the residuum.

Munificent gift to the University.—Professor H. M. Percival of the Presidency College, Calcutta, has made a gift of his Library of six thousand volumes to the Punjab University.

Mrs Porter's Girls' School.—Before a fairly large gathering of ladies and gentlemen which included Mr. Chamber, Judicial Commissioner and Mr. Saunders, Commissioner of Lucknow, the Hon'ble Pandit Madan Mohan Malaviya, Rai Sri Ram Bihadur and others, Mrs. Porter opened recently Mrs Porter's Hindu Pardahnashin Ladies' School started in September 1908. On arrival Mrs. Porter was received by Munshi Isvari Dayal, Manager of the Institution, and was conducted to a handsome seat on the dais. The Munshi read an address which stated that the number of scholars at present was 50 and its recurring expenditure was met from a grant-in-aid of Rs. 50 per month given by the Educational Department. The Lucknow Municipal Board was moved to give help but without success. Mrs. Porter in reply thanked them for associating her name with the school. She fully sympathised with the objects of the institution and urged those interested in it to try to make it, if not self-supporting, at least independent of Government aid. She wished the school a long and prosperous career. Afterwards she inspected the school and was garlanded by the students.

Honorary degree from the University.—The Chancellor on behalf of the Senate and with the assistance of the Vice-Chancellor and the Registrar, conferred the degree of Doctor of Literature upon

His Excellency the Viceroy in the following words:—"In accordance with the resolution of the Senate just read, and by virtue of the authority vested in me as Chancellor of this University, I admit your Excellency to the degree of Doctor of Literature, and in token thereof I present to you this diploma, and authorise you to wear the robes ordained as the insignia of this degree."

ALLAHABAD.

Hindu University Scheme.—Subscriptions to the Hindu University scheme now amount to over nine and a half lakhs, the principal subscribers being "an old well-wisher" three lakhs, and Babu Motichand Gokul Chand of Benares, Tinkur Surajbaks Singh, Maharaja of Kassimbazar, Babu B. K. Roy Chodhury of Gouripur, Seth Dely Chand of Calcutta, one lakh each. It is stated that about forty lakhs will be required for the scheme.

COCHIN.

Education in Cochin.—The Dewan of Cochin has now issued a Blue Book, being a G. O. on the Education Policy of that State and passing the Education Code. This is the outcome of the work of the Educational Reform inaugurated three years ago. This G. O. now records the orders of the Durbar on all pending educational questions under consideration during the past three years. Every sentence of this speaks of the thoroughness with which this important subject has been dealt with, and of the mature consideration bestowed on it by the Maharajah, the Dewan, as well as the special Educational officer. The Code itself treats of the usual subjects, viz., recognition of schools, standards of examination, discipline, management, fees, examinations and grants-in-aid. The special features are, that vernacular education has been made free; the status of teachers of grant-in-aid schools has been improved; a system of licensing teachers has been introduced; the hostel system has been made compulsory; night schools have been opened for the use of the working classes, and arrangements have been made to form Teachers' Associations and Conferences. Among the rules for grant-in-aid, provisions have been made to pay salary grant to fully trained teachers. Even indigenous schools, that have their own curriculum and are teaching Sanskrit or any other oriental language or vernacular, are made eligible for grant. A liberal system of scholarships has been provided for. Above all, special provision has been made for recognizing almost wholly the results of the Education Code in Travancore, so that students and teachers may find it convenient to continue their studies in the schools of these two sister States as if they formed a particular unit for educational purposes. School-leaving certificates, text-books, licenses of teachers and examinations approved and recognised by the Travancore Government are approved of in Cochin

also. For the first time in the history of these two States, they have begun to work in consonance after mutual deliberation and discussion of matters, and for this result credit is due more especially to Dr. Mitchell and Mr. Pope.

Free Education in Cochin.—Following in the wake of the sister State of Baroda, the Cochin Durbar has decided to introduce a general policy of free elementary education in the State. It would appear that three years ago elementary education was declared free for what are known as 'backward classes' for girls. The concession made in the cases of children who help their parents in earning their livelihood was that they were allowed to be half-timers or be admitted to the night schools. The result of three years' working of the system being very encouraging, the Durbar has decided to extend free education to all classes irrespective of caste or creed, to be imparted through the medium of the vernacular. The Durbar realises its supreme duty in respect of the education of the masses and has accordingly taken the necessary preliminary steps in respect of text-books and grant of bonuses. The curriculum for all elementary schools has been revised and one reads with pleasure that vernacular text-books have been provided for, while object lessons, and kindergarten, hygienic and agriculture have been introduced. The Durbar hopes, that the step will materially contribute to the development of the State.

A series of Scholarships.—Two years ago, the Cochin Government proposed to award a series of scholarships tenable both in India and abroad, with the object of advancing the arts and industries of the State, preference being given to electrical engineering, mining, mineralogy, mechanical engineering, agriculture, training in economical industry, such as the tanning industry, rubber-planting, manufacture of lemon grass oil, fish manure, wood pulp industry, and soft wood industries, such as the manufacture of matches, pencils, etc. There were also proposals for the award of scholarships to women and girls, obviously in view to promoting the cause of female education in the State. Since formulating his scheme two years ago, Mr. Banerji, the Dewan, has done a great deal by way of giving effect to it. The most important scholarship awarded has been that of £200 per annum, since increased to £250 granted to Mr. K. Govinda Menon, B.A., D.D., Assistant Conservator of Forests, for training in Forestry at Oxford and in Germany.

BARODA.

Compulsory Education.—At the ceremony of laying the foundation-stone for the Male Training College at Baroda, on the 29th March, H. H. the Gackwar made the following speech:—

Our system of compulsory education, which we have initiated in Baroda with such great hope,

depends for its ultimate perfection on the way in which all who are concerned with it work together to that end.

That there will be mistakes is certain. We must not fear them, but face them with boldness; unhesitatingly confessing them; not glossing over our faults, but courageously endeavouring to correct them. Amongst the most important factors in the supply of properly trained masters who will be teachers and educators in the just sense of the word.

Together with its work in training teachers for our Elementary Schools, I hope we may see the beginnings, in the Training College, of some high education in the vernacular, by which the truths of the universe may be taught to the people in their mother-tongue.

We are met together to-day to dedicate an institution that represents one of the most important works that a State can undertake. A State must protect its citizens from aggression, from the aggression of individuals as well as from that of masses; it must insure its objects the peaceful pursuit of their various desires; the peaceful enjoyment of their daily lives; but beyond that—far beyond—lies its duty to its people, like unto the duty a father owes to his son; to make him better than those of the preceding generation; better physically, better intellectually, better morally; to put him in tune with the music of the stars to which the whole universe is marching; with that orderly progression which we see all round us, in the vegetable world, in the animal world, in the world of men; that steady and majestic tide from the crude toward the perfect, from ignorance towards knowledge, from darkness to light, we see it in the little child as he grows to manhood; in the human race as it sweeps from savagery to enlightenment; in all the world in its strong, rythmical march from the protoplasm of the pass to what is waiting for us below the horizon of the distant future.

To that great cause of education we dedicate this building. Aye! to that great cause of education we dedicate ourselves, and our children and children's children to that great movement that teaches each one of you how to make the world better, how to make yourselves better; that teaches you to—

So, live, that when thy summons comes to join that innumerable caravan;
That moves to those mysterious realms, where each
Shall take his chamber in the silent halls of death;
Go thou! not like the galley-slave at night,
scourged to his dungeon,
But, sustained and soothed by an unfaltering trust,
approach thine end
Like one who wraps the drapery of his couch about him,
And lies down to pleasant dreams.

Foreign Notes.

GREAT BRITAIN.

Religious Education.—Mr. Lloyd George, the Chancellor of the Exchequer in England, in a speech he recently delivered made the following remarks which are not without value upon the present controversy in this country regarding religious education. He said: "I would appeal not merely to Non-conformists, but to any fair-minded Churchman: What defence has he got or answer for the position in the villages of England and Wales? Eight thousand villages! One, one school, only one school possible. If you duplicate the schools, you destroy education, and of course you double the burden on the community whilst at the same time you diminish that portion of the efficiency of education. You might have imagined that in a case of that kind every Christian community would be prepared to make some sacrifice: to give something up to you in a brotherly, kindly, charitable tolerant spirit—men of older faith—and arrange to have a common school where all the children could go. We really don't think they would be contaminated. They might very well, at any rate in the villages manage to pull together. What happens? In these parishes the school is entirely in the hands of one church; practically managed by that church the teachers all belonging to that church, avenue of promotion for teacherships rigidly closed against every Non-conformist child, however bright he may be. I have been in a school of that kind myself. I was there ten years, and was very well treated by the clergyman of the parish, who kindly offered to make me a pupil teacher on condition that I should leave the Baptist Community and join the Church of England. It was offered me in a kindly spirit, and if I had only accepted it, I might have been a Curate now! That is not religious education. It is the very worst education. I cannot conceive a more irreligious education. It is more degrading than a pagan philosophy to come to a child and say, 'I will offer you'—what is after all, the only avenue to the profession for a poor child, 'I will offer you an honourable position in life if you will only sell the faith of your fathers.'"

A Conference on Domestic Science Teaching in Secondary Schools, convened by the Gloucestershire Education Committee and attended by representatives of governing bodies, the Headmistresses' Association, and Training College, University, and Local Education Authorities, was held in Gloucester (February 18). Miss Florence Gadesden, Headmistress of Black Heath High School for Girls, presided, and said that this was the first time in the history of girls' education that a Conference had been convened by an education authority to discuss the teaching and training of girls in all the duties and occupations of the home. Miss Beatrice Thomas, Gerton College Cambridge, urged the

importance of training in housecraft rather than in courses of what people were pleased to call domestic science.

The annual meeting of the Moral Education League was held on February 10th, and was preceded by a demonstrative moral lesson by the League's demonstrator, Mr. F. J. Gould. The annual report recorded that Mr. Gould had during the past year, given demonstrative moral lessons before important audiences, including the staffs and students of twelve training colleges, denominational and undenominational, and under the auspices of a number of education authorities. The League had opened up during the last two years an important field of work in India. Messrs. Longmans are shortly publishing for the League "Youth's Noble Path," a book of sixty-two moral lessons for use in India. The originality of the book largely lies in the fact that the illustrations for the lessons are largely drawn from Eastern sources. The League is exerting an influence abroad, and has local secretaries in many countries.

AMERICA.

Gift of Andrew Carnegie.—Andrew Carnegie has recently announced an additional gift of \$10,000,000 to the Carnegie Institute at Washington. This brings Mr. Carnegie's gifts to the institution up to a total of \$25,000,000. Mr. Carnegie is much elated over the successes that the institution has already scored and believes that the institution will repay ten-fold the amount expended on it and through it in the value of its research work to the world. The work that the institution yachts, the Carnegie, is doing in making a new chart of the seas is of far-reaching significance. The Carnegie is going over all the seas year after year, putting the world right. That one service will give ample

dividends upon the whole twenty-five millions of dollars is Mr. Carnegie's opinion.

A Training School for Teachers of Backward Children.—The training school at Vineland, N. J. is doing excellent work in the line of training teachers of backward children. This is not a State institution; the training school is owned and controlled by an association of philanthropic citizens of the United States. This training school has for many years taken the stand that a public institution must do more than to merely house and feed those in its care. Its managers have, therefore, made this institution a laboratory for the study and solution of such social and scientific problems as come within the scope of their activities, and have for the past eight years conducted a summer course, the object of which has been to give professional training to teachers for the special classes of the public schools.

The Seventh Annual Report of the State Education Department for the school year ending July 31, 1910, was transmitted to the legislature on January 30, 1911, by Dr. Andrew S. Draper, Commissioner of Education. The statistical summaries for the school year as compared with the previous year show a total increase of 25,251 in the attendance at all of the schools of the State, including the higher institutions. The total number of students in attendance during the past year was 1,866,160. There were 52,075 teachers employed during the past year, being an increase of 1,287. Of this number, 23 were in the trade schools. The number of graduates increased to 1,188. The net value of property increased \$15,475,110. The total expenditure for the year were \$74,423,825.14, showing a decrease of \$2,272,392.24 over the preceding year. The value of the property of trade schools is given as \$1,043,538.

MATRICULATION HISTORY OF ENGLAND for 1911 (adapted to the Madras University Syllabus containing the Pre-Norman, Norman and Early Plantagenet Periods) by S. N. GHOSH, B.A. Price—8 Annas.

A HANDBOOK OF HISTORY OF ENGLAND. By the same Author. Price—Re. 1.

A HANDBOOK OF HISTORY OF GREECE based on Bury and Smith. By the same Author. Price—12 Annas.

SRINIVASA VARADACHARI & Co., TRIPPLICANE AND ESPLANADE, MADRAS.

The Educational Review.

The papers relating to the Educational Conference, which sat last February at Allahabad under Mr. H. Butler, the Member for Education in the Viceroy's Executive Council, have now been published. Besides a brief and readable summary of the proceedings we find also an appendix of notes handed by the various members. The subjects discussed at the Conference were primary education, technical and industrial education, moral and religious instruction and the differentiation of curricula in secondary schools. A day was given to the consideration of each of these important questions.

A number of points received attention in connection with primary education. The Conference agreed that central and well-equipped schools should be established; that a start should be made by a large expansion of elementary schools of the lower primary type so as to develop them in time into upper primary schools; that at present the "three R's" should form the ordinary curriculum, though where qualified teachers were available the new methods of instruction, observation lessons, nature study, etc., might be introduced; that one teacher should be employed to teach a class of thirty to forty pupils for four hours daily; that teachers should be trained as near as possible to their work; that Board schools should be increased in number, as they were ordinarily better than aided schools; that a rate of Rs. 12 should be adopted as a minimum for trained teachers in Board schools, who should be placed in a graded service and given either pensions or a provident fund; that substantial but simple buildings should be built, avoiding

the too expensive Public Works Agency for this purpose; that the Department should have complete control in all technical matters and over the inspecting staff.

The principal recommendations made in regard to industrial and technical education were the following: For railway engineers college training should be of a general nature but a railway course, such as that given at Roorkee, was desirable. Specialised college courses in railway engineering were not needed. When secondary education had been improved, especially in the direction of manual training, students should be taken at an earlier age into engineering colleges. Efforts should be made with the railways for giving a trial to students of technical colleges. The Indian Marine and Steamship Companies should be sought to provide a certain number of posts for Indians as uncertificated engineers in order that they might get the practical training necessary. A mining course should be established at Sibpur, corresponding to the standard of a University degree of mining engineering and mining chemistry. The Indian Institute of Science at Bangalore should be developed as far as possible into a complete faculty of pure and applied science.

The discussion on moral and religious instruction was long, and we are not surprised that no general consensus of opinion was arrived except as regards Mahomedans whose representatives in the Conference agreed that no moral instruction was practicable without religion and that no religious instruction was desirable except that of the orthodox Mahomedan faith.

In discussing the differentiation of curricula in secondary schools the newly introduced school final course was considered to be on the right lines but it was also observed that

full benefit could not be obtained from this course without further improving the staffs of schools and that for this purpose liberal support from Government was essential.

* Now that the deliberations of the Conference are before the public, the latter will be eagerly awaiting to see some practical results following therefrom.

It is a sign of the times that Indians are adopting measures to start universities independent of the Government. The existing Indian Universities are all controlled by the Government and are subject to the Indian Universities Act of 1904. It is good to have universities under private management with a royal charter to confer degrees. Even this charter may not be necessary, if once people have become inspired with confidence in the proper conduct of the university. Many of the universities of the United States have no special charters, and many of them, like Johns Hopkins University at Baltimore, the University of Chicago, Leland Sanford Junior University, are of recent growth and the products of private benefactions. So we see no *a priori* grounds for objecting to the establishment of the proposed Mahomedan University at Aligarh or the proposed Hindu University at Benares. We welcome such universities and we wish them every success. We wish that it were possible to have as many teaching universities in India as there are important vernaculars. In this presidency we ought to have a Telugu university for the Telugu districts and a Tamil university for the Tamil districts, and so on. One Hindu university is not likely to satisfy the demands of all India.

The objects of the proposed Hindu University of Benares are to establish a residential

and teaching university to promote the Hindu shastras and Sanskrit literature, to promote learning and research generally, to advance and diffuse scientific, technical and professional knowledge, to promote the building-up of character of youth by religion and ethics, an integral part of education, and to affiliate, maintain and establish colleges, schools, etc. The medium of instruction will be generally English, though vernaculars may be used when practicable. The University will comprise the following colleges as funds permit:—Sanskrit college with a theological department, colleges of literature, science and technology, agriculture, commerce and administration, medicine, music and fine arts. Religious education shall be compulsory in the case of all Hindu students. Government will be by a senate to be organised according to the rules to be framed by the trustees.

We wish that the originators of this scheme would learn from other countries what exactly a true university system should be. The chief characteristics of a true university are, as the Germans say, *Lehr-freiheit und Lern-freiheit*, the freedom to teach and the freedom to learn. It is not buildings nor funds that constitute a university, but it is the men. A university may have ancient associations, large funds, but its prestige has to be maintained by the men connected with it. Students go to Berlin, Paris, Cambridge, Harvard, not because of their buildings or wealth, but because of men like Helmholtz, Emile Fisher, Berthollet, Poincare, J. J. Thomson, William James and so forth. The success of the proposed University of Benares will depend wholly upon the Indian professors who man it and create knowledge in it. We do not believe in the prestige of an indigenous

Indian University being raised by foreign professors who may be connected with it. This fact must stand prominently before the eyes of the originators of this proposal. If this fact is ignored, we might as well have no Hindu University. It may be that the Indian professors of the proposed university have received their training in foreign countries; all the same, there is a glory in having Indians doing all the work of an Indian university, which claims to be wholly indigenous.

Though completely agreeable to the proposed scheme of establishing an indigenous university, yet we feel bound to give a warning. We fear that in the attempt to collect funds for this larger institution the welfare of existing smaller institutions may be lost sight of. There are many private colleges and schools all over India, which are suffering from lack of public support. Charity begins at home, they say. Is it not the duty of each one of us to help institutions which are in our own provinces before we think of helping institutions which have not yet seen the light of day?

The crumbling down of old orthodoxies by their contact with the stream of modern thought has misled people to suppose that the lost ground could be recovered by the introduction of moral instruction into schools. Though it is thought that the difficulties confronting Government are insuperable as regards the introduction of moral instruction upon a religious basis, yet attempts are being made in several quarters to introduce into all Government schools a scheme of secular moral instruction, modelled upon the work of the Moral Educa-

tion League. If mere teaching of stories could teach virtue, the whole world ought to be virtuous. Whether we will or no, there are educative forces other than the school and home and church. Can we ignore street and shop, theatre and dance-hall, politics, small and great, and the vast powers of the press? We therefore hold that mere moral instruction cannot be productive of much benefit.

On psychological grounds we feel inclined to agree with the advocates of religious instruction that rules or precepts or even illustrative stories cannot in themselves have any persuasive or efficacious virtue. Moral teaching can at best be nothing more than theoretical and analytical. It supposes that the mere knowledge of moral rules, knowledge as exact and detailed as possible, is sufficient for man to conform his conduct to these rules. But the psychology of action demands that for morality to be efficacious certain conditions should be satisfied. Religious dogmas and their metaphysical substitutes discharge in this direction certain valuable functions, for which the advocate of secular moral instruction should find suitable naturalistic substitutes. Religious experience has a basis in human nature but it finds false interpretation in legend, myth and superstition. If we should have moral instruction in our schools, a naturalistic transposition of religious experience is necessary. We must replace the communication of the soul with a transcendent being by the communication of the mind with a reality which is one with objective nature. The unity of being, the community of ends and universality must form the convictions on which must be based the naturalistic trans-

position* of the varieties of religious experience. To induce and confirm these convictions we must have recourse to tendencies, emotions and facts and not to the arduous ways of the metaphysicians and the supernaturalists. Among such tendencies we may take as the most important the following. In the young child there is very slight distinction between subject and object. Imitation is almost identification. Hence the environment is all in all during this period of life. With growth comes more and more into prominence the vital instinct. Even the pessimist does not desire to die. In adolescence the individual and universal aspects of life are frequently so interrelated that youth is unable to differentiate between them. The claims of the reproductive instinct are so imperious that it has no regard for the narrow considerations of individual interests and often breaks through the resistance of one's conscious reason. The tendencies which subordinate the individual to various social groups play a dominant part at a later stage. Lastly comes the feeling of oneness with nature as revealed through art and science. As pointed out by a recent writer, "painting or sculpture is neither a reproduction of an imagined objective nature nor the phantasy of an imagined individual mind, but a new form of being, the fruit of the union of a mind and the object it rejoins." As for science who knows not that it is continually breaking down barriers, establishing relations between all things and revealing a unity not dreamt of before? It is by recourse to these that we can develop the deep-seated and universal instincts for life, brotherhood and perfection. But in the name of truth we cannot teach the false

dogmas of traditional religions, however efficacious these may have been in the past in serving as foundations for a moral edifice.

A meeting of the well-wishers and sympathisers of the Pachaiyappa's College. Pachaiyappa's Charities was held on the 7th instant at

Pachaiyappa's Hall for concerting measures to appeal for funds to the rich and the poor of this Presidency to aid the educational institutions under these charities. The history of the origin and development of these institutions has been so often told and so well-known to our readers that we shall not weary them by repetition. Of all these institutions the Pachaiyappa's College is the most important. This college has been deservedly called the National College of South India, and it must be made therefore sufficiently worthy of the nation it represents. The financial condition of the college must be made perfectly stable. For this purpose we need a permanent endowment of three lakhs in addition to what the charities are able to give to it. A strenuous attempt must be made to collect this sum, and we feel confident that this sum can be raised from the people of this Presidency. All that is wanted is proper organisation, by which we can invoke into action that spirit of charity which often shows itself in other directions. We are glad to note that a good beginning has been made. One of the trustees, Mr. C. P. Ramaswamy Iyer, B.A., B.L., has given a donation of Rs. 15,000 to start with. We are sure that each of the other trustees is contemplating to contribute his mite. The sum promised already amounts to Rs. 30,000, but this would just meet the needs of the new laboratories of the college. We hope

the originators of this movement for collecting funds will not rest content till they have secured a permanent endowment of the extent we have mentioned above.

In an interesting paper on University Education in Bengal, the Rev. **Examinations.** W. H. G. Holmes, M.A., head of the Oxford University Mission Hostel in Calcutta, makes some very thoughtful remarks on examinations, which deserve to be pondered over by all who are concerned with education in this country. He says: "It is, however, necessary to go on to say that after all in the last resort it is the examiners who rule the roost; they finally control the methods of instruction: they finally determine what kind of lecture shall be delivered. However good a lecturer may be, however resolved he may be to forswear the methods of the crammer, and to use his lectures to teach students to think and read and learn for themselves instead of loading them with ready-made answers to hypothetical examination questions, eventually he will be compelled to meet the needs of examination or to vacate his lecturer's chair. He who examines is the real director of education. If I may venture on an opinion, it is in the examinations that we find the fatal spot from the educational point of view. I am in the habit of scrutinizing papers year by year, and I yearly congratulate myself with devout thankfulness that it has never been my unhappy lot to fall into the hands of the examiners of this University, with the exception of those who officiate at the Matriculation. At the same time it is fair to say that the evil has been recognized, and that the expressed policy of the University is now to discourage what is called in this country 'by-hearting,'

and the different forms of cramming notes and text-books. There has not been time enough yet perhaps for the new policy to show much result. Certainly students seem as busy as ever in industriously committing to memory the very words of the books they study. A reform of this kind necessarily takes time.

"So far the papers set under the new system have been a disappointment; they still appear to aim at finding out what a student does not know rather than what he does; they still are of such monstrous length that the test is one of physical endurance and of speed in writing as well as of intellectual capacity. They still have the pernicious customs of printing by the side of the question the number of marks which may be obtained by what is supposed to be a correct answer to the question; that may be all right in mathematics, in which I suppose two and two can make nothing else than four—but here I speak out of my ignorance—but in literary or historical or philosophical examinations the custom is pernicious. I will not dwell further on this subject of examinations except to remark on the extraordinary number of them in colleges, and to give one illustration of what I mean by the examiners' habits of trying to pose the unfortunate examinee instead of finding out what are the signs of his industry, intelligence and knowledge. In the examination for the degree of Master of Arts in English last year, there were certain unseen passages of English poetry set for explanation. An examinee brought them to me that I might expound their meaning to him. I candidly own that some of them would have been as unintelligible to me if they had been written in Tamil or Telugu. Of course I realized that that might have been my own

stupidity; so I took them to another Englishman, a graduate of the University of Oxford, in honours both in Moderations and Greats, one who is really a student of English poetry; I asked him to explain them. He simply gasped and gave in. Well now these puzzles we set as unseen English to young Indian students of about 20 years of age, and they

were too difficult when removed from their context for an English graduate in honours to explain. This one fact goes some way in supporting my contention that examinations in this University are not yet ideal tests." These remarks are as applicable to the University of Madras as they are to the University of Calcutta.

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THE TEACHING OF ENGLISH COMPOSITION—III.

THE ESSAY.

(Continued from page 143).

ONE of the most neglected features in the teaching of composition is the treatment of the essay as a whole. Very little recognition is shown to its artistic requirements as a unit by itself, though success in composition, depends not merely on the perfection of details relating to grammar and idiom but also on the order, arrangement and analysis on which the parts of the essay are based. An appreciation of its distinctive qualities as an artistic form, is necessary for any success in composition and as at is but a matter relating to *technique* there is no reason why the student should not be asked to satisfy its demands. If a comparison might be drawn from another branch of literary art, it will be ventured that just as it is necessary for a poet to study the essentials of the sonnet-form to be able to achieve any success as a sonneteer, the essayist cannot enter upon an exercise of his art without an adequate realisation of the principles guiding the construction of the essay, and that they are clear and marked enough will be patent in the course of this paper.

XVII

The slovenliness and incoherence of the student's essay cannot be expected to receive any effective check from those who have no instinctive perception of the essay as an artistic unit. And this failing is probably due to the nebulous form of the efforts of the earlier essayists in the history of English literature. Even the example of the later essayists is not very much in favour of the principles of sober order, as the qualities of genius have always set at naught such restraints. What is a daring stroke of genius in the eminent writer, is a dangerous precedent for the novice in the art.

The essay has come to receive quite a new significance since the first attempts of Bacon and Addison. And however much the masters are exponents of good style, they are not good teachers of the *form* of the essay. 'It is a dispersed meditation' says Bacon 'and the thing is ancient though the name is late.' Bacon has in this definition characterised the species of composition full of thought and condensed expression, with which we are familiar in his small volume of *Essays*. They are all happy efforts, full of suggestive thought indeed, but absolutely devoid of internal arrangement and evolution. Thought comes after thought, observation follows observation, suggestion succeeds suggestion without any

connecting link of ordered progress other than mere psychological association. The example of Addison's delightful papers in the *Tatler* and the *Spectator* is no improvement at least as far as this aspect of the essay is concerned. The student of literature can have no objection to subscribe to Dr. Johnson's declaration that 'whoever wishes to attain an English style, familiar but not coarse, and elegant but not ostentatious, must give his days and nights to the volumes of Addison,' but even the masterpieces of Addison can afford no instructive study in the artistic form of the essay. The *Spectator* was yet after the easy manner of Montaigne, he was the philosopher in the easy chair, rattling familiarly round a theme of popular interest. There is neither comprehensiveness nor adequacy in his happiest efforts. These are probably qualities which must have made them less interesting to the gay readers of the clubs and coffee-houses of England in the time of Queen Anne, but they must exist in a college essay of this century. Addison himself has acknowledged this weakness—it was no weakness according to the critical canons of his age—by his definition of the essay. He refers without any shock to his artistic sense, to 'the wildness of those compositions which go by the name of essays.' The famous definition of Dr. Johnson goes only to encourage this intellectual temperament, which is as easy in its freedom from artistic convention, as it is no doubt conducive to the stimulation of genius. It is 'a loose sally of the mind' according to the judgment of that literary dictator, 'an irregular, indigested piece, not a regular and orderly composition.' His own example was in conformity to this definition of the essay. But the ideal of this century

and the ideal which must be held up before the student, is rather the finished perfection of Saint-Beuve's productions, the essay which is a unity in itself and has all the features of the frame-work of an epic poem or dramatic piece, guided by definite, artistic principles of construction.

The essay, if one might be excused for indulging in an antiquated commonplace of literary criticism, must have a beginning, a middle and an end. There must be a comprehensiveness as well as a unity about the treatment of the subject. The parts must be subordinated to the whole, and the spirit of the whole must dominate each part. Beginning with a preliminary survey of the subject, the student is expected to proceed to a treatment of all its phases and to conclude with a retrospect of what has been said in the body of the essay. Considerations of time are bound to affect the length of the essay, but in the shortest, it is only the details that must be lacking. There must be no injury done to the completeness and harmony of the whole design or to the proper perspective offered by the subject. The outlines must be preserved in perfect clearness, whatever might be the extent of details relating to the subject, presented before the reader. It must be interesting to see what a difference, an observance of these principles makes in the merits of an essay. It is hoped that then at least, the essay will receive adequate attention from this standpoint.

The idea of a plan, to be drawn up by the student, before proceeding to the composition of the essay is wholesome indeed, but it will not be able to subserve any great use without the ability in him of appreciating these principles. These must be kept in mind in drafting the design and even this exercise can

arrive at a stage of usefulness only after repeated attentions to the subject of what might be called these structural essentials.

• We might now proceed to a consideration of some of the virtues that ought to dominate the *spirit* of the essay, as the mere mastering of *technique* is but a small part, though an essential part, of the work before the student of composition. At the outset, attention may be drawn to the academic and scholarly spirit that ought to characterise the essay of a student at the University. While every encouragement must be offered to the expression of energetic and independent thought, care must be taken to see that it does not lapse into violence, displaying the undesirable features of a polemic controversy. It must be divested of partiality, unseemly denunciation, and political rignarole. It must be on a lofty platform, one far higher than the world of newspaper controversy. There must be an element of moderation and sobriety in the statement of opinions, as any indulgence in the dictatorial manner is grotesque and amusing in a person who is probably yet in his teens and cannot certainly claim to write with authority on even the most circumscribed branch of human knowledge. With the absence of correct information and want of special intellectual equipment in the subject, which is the usual case, the dangers of error are great indeed and they are only enhanced by any attempt to air before the reader *obiter dicta* of an offensive violence.

A common weakness of the young mind in essay-writing is a lamentable want of intellectual balance and a prosaic reproduction of the commonplace. The suggestion of a subject for treatment in writing seems to serve as a circumstance grave enough to upset the

student's sense of proportion and make him indulge in the most grotesque exaggeration. The present writer has come across several amusing instances of such intellectual failings, which must however be pardoned as they are inevitably associated with the immature mind. A student of the F.A. class when asked to write an essay on the advantages of Literary Societies put forward the astounding proposition that the one question which has formed 'the theme of controversy and thought among sages and philosophers of all ages' was the advantages of literary societies! While a student of the B.A. class could not think of a more profound observation, to stand at the beginning of an essay on Female Education than the statement that 'Mankind is divided into two sexes—male and female.' It is such deficiencies in the spirit of the essay that bring it down to a level of painful dullness, and the teacher of composition must concern himself as much with this as with the purely literary aspect of the exercise.

It is probably necessary to put in a plea for the acquirement of useful knowledge by the student, by special preparation wherever possible, in the writing of an essay. To the person engaged in the examination of essays, nothing is more painful than the work of wading through numerous pages of written matter which have however nothing to inform or enlighten the reader with. The absence of any valuable ideas, anything fresh, suggestive or instructive in the information presented before the reader is a grave disqualification and there ought to be no hesitation in condemning it in the strongest terms. All the education imparted to the student of composition, in the manner of writing an essay is of very little avail indeed, if there ought to

be nothing useful and instructive in his mind seeking expression in writing. It is probably no flattering testimony to the work of the teacher of composition, but we must confess that Goethe gives utterance to an invaluable truth in the lines :

Sound sense finds utterance for itself
Without the critic's rule.

P. SESHADRI.

(To be continued).

DICTATION OF NOTES.

'Notes-giving'—a system :

IN many of the Secondary Schools, dictation of Notes has come to be a regular and recognised system. From the sixth form down to the third class, notes are dictated in the class-room. Almost every subject in the curriculum of the school is assigned a definite part of the class note-book. While in the higher forms, notes are sometimes drawn up by the pupils themselves, in the lower forms and in the classes, notes are generally copied from the black-board, or taken down as dictated. As a rule, notes taken down in the class-room, are copied at home by the pupils in what are called fair note-books.

Of late years, pupils' note-books have assumed prodigious proportions. A cursory glance over the note-books of a few pupils cannot fail to create an impression that class notes have grown to an abnormal size, especially in the lower forms. The figures given below show the approximate number of pages (quarto) of class notes taken up by each subject in the several forms :

	Forms	I.	II.	III.	IV.	V.	VI.
1. English	...	100	100	120	150	150	200
2. Elementary Mathematics	...	100	100	120	150	150	200
3. Elementary Science	...	50	50	60	75	75	75
4. Indian History	...	80	80	100	100	100	100
5. Geography	...	80	80	100	100	100	100

It deserves notice that while the time assigned to Elementary Science, Indian History or Geography in the school timetable is generally one-fifth of the time allowed the English lessons, the number of pages in class notes taken up by any one of them is a higher fraction of the number of pages of class notes of English ; and the lower the form, the greater the disproportion.

Dictation of notes produces many evils, particularly in the lower forms—

(1) *Bad writing*: When notes are taken down at a quick pace, little attention can be paid to the formation of letters. If pupils under fourteen years, whose hand-writing has not yet settled, be obliged to write to dictation in haste, two or three pages in fifteen minutes, their hand-writing is neglected and shows no improvement.

(2) *Wrong spelling*: Correctness is acquired by looking at well-printed books. In taking down notes, pupils commit spelling mistakes, e.g., contry, grammer, Brittish, french ; as it is practically impossible for a teacher to examine the class notes of all pupils closely, these errors live long in the notebooks and in the minds of the readers.

(3) *Defective eyesight*: The most mischievous result of the practice of 'notes-giving' in the lower forms is the injury done to the eye. In making out the notes taken in class, the pupil strains his eyes and the result is defective eyesight.

(4) *Facility for cramming*: Since notes are 'ready-made' answers of probable

questions, the pupils below the average of the class, manage to 'mug up' the matter ; thus cramming is encouraged by the practice of giving notes.

If the practice of 'notes-giving' is productive of the abovementioned evils, why is it in vogue ? In the higher forms, notes may be drawn up by the pupils themselves and the teacher should do no more than give one or two models.

1. Often teachers are obliged to give notes for want of suitable text-books. In recent years, reforms in the plan and the methods of instruction have advanced so rapidly that text-books cannot quite keep pace with the reforms. Great difficulty is felt in adapting existing text-books to the concentric plan, the regional treatment of Geography, the topical treatment of History and the study of Elementary Science by experiments.

2. The importance attached to the class notes by the Inspecting officers who find it easy to judge a year's work of the teacher by just looking over the pages of the class notes, has raised them to a position far higher than that which is theirs in a sound system of education.

3. Besides the two abovementioned causes, many teachers are tempted to 'give notes' to furnish the pupils with 'ready-made' answers for which demand is probable, if not certain, in the examination hall. In the lower forms

the temptation to 'give notes' on a subject which is prescribed to be taught by oral lessons, is doubly strong, because the work is easier and the chances of the pupils' success in a written test are greater. It is needless to observe that these methods fail to serve the true purpose of education.

With a view to minimise the evils of 'notes-giving,' the following suggestions are put forward for the consideration of the noble workers in the field of education :—

i. Pupils of the higher forms should be required to draw up their own notes on the model of the specimen notes given by the teacher on a few select topics.

ii. The lower the form, the less should be the quantity of notes. Notes when necessary should be copied from the black-board.

iii. The pupils should be allowed time to copy the notes carefully and correctly ; and the copy should be examined by the teacher.

iv. Where no suitable text-book is available, a detailed syllabus should be printed and a printed copy should be supplied to each pupil.

v. There should be no written tests on subjects which are prescribed to be taught by oral lessons.

vi. The library of the school should provide the pupils as well as teachers with a good number of reference books and companions to text-books.

G. SRINIVAS AIYAR.

MAIN HEADS.	DETAILS.	BOOKS FOR REFERENCE AND OTHER HINTS.
<i>Introduction.</i> 1. Nature.	Electricity is a kind of invisible "something" which pervades all bodies. It is something whose nature cannot be understood so well as its effects. It is generally spoken of as flowing through a conductor. A body also is sometimes said to be charged with it. So long as a body has its proper or normal share of it, no electrical manifestation is noticed. A body having more than normal electrification has + ve. If less, it has — ve. electrification. Always electricity flows from + ve. to — ve. bodies. Bodies with + ve. electrification are at a higher potential than — ve. bodies. Potential of Earth is Zero. From higher to lower potential. Bodies that allow flow easily are conductors. Those that resist are non-conductors or insulators.	Vide Perren Maycock. Do. Do. Analogy of rich and poor, higher and lower level, and higher and lower temperature. Analogy of the flow of water. Vide for list—Perren Maycock.
2. Theory.		
3. Positive and Negative Electrification.		
4. Potential.		
5. Flow.		
6. Conductors and Non-conductors or Insulators.		
1. Cause of Electrification.	CHAPTER I. ELECTRIC CURRENT. Contact of unlike surfaces is the cause ; + ve. on one and negative on another. Sometimes it needs rubbing, to produce good effect. Contact through a liquid which could act on one of the surfaces, produces the most clearly perceptible effect. Action of dilute sulphuric acid on commercial zinc. Practically no action when pure zinc is acted upon by dil. sulphuric acid. Chemical action when a pure zinc-plate and copper-plate connected outside are placed in dil. sulphuric acid. Evolved hydrogen appears on copper but not on zinc-plate. Copper-plate is at + potential; zinc-plate is at — potential. If the two are connected electricity flows through them as a 'current.'	Aldous. Galvani's and Volta's experiments. Static Electricity. Sanderson, Gregory and Simmons Gregory and Hadley.
2. Voltaic Cell.		

3. Current.	Is measured in 'amperes.' There must be somewhere a pump-like action forcing electricity thro' the cell to one plate and down the other. This force tending to move electricity is called Electromotive Force. In all cells, zinc is used along with another metal or carbon. Zinc carries the—pole. The source of E.M.F. is : i. The contact of two different surfaces ; ii. (but primarily) the chemical action of the exciting fluid on zinc. E. M. F. is measured in 'volts.' Deflection of a magnetic needle when the electric current in a wire is held parallel to it. Change in the direction of the current changes the direction of deflection. Direction of deflection clearly known by—i. Ampere's Rule ; ii. Fleming's Rule ; iii. Cork-screw Rule : If a common cork-screw encircling a current-wire be twisted or untwisted to travel along the wire in the direction of the current, the direction in which the point of the screw is urged is the way in which N. pole is urged. This deflection is because of a circular magnetic field round the wire, which tends to bring the needle in a line with its lines of force. The field is increased if the current is made to flow on the four sides of the needle. If the No. of turns is increased the deflection is increased. ∴ Strength of current is measured by the deflection. A long coil of wire inserted in a circuit diminishes the deflection i.e., the current. Bodies offer a passive <i>Resistance</i> to the flow of currents. Resistance resembles friction which resists the motion of <i>matter</i>. In a coil it increases with the length of the wire and the thinness of the wire. Resistance depends on <i>the material</i>. External and Internal (in the battery). Closed and open. External and Internal resistance. (a) i. Series ; ii. Parallel : i. Series. The—plate of one is connected to the + of the next and so on so as to leave one of the— and + poles free. ii. Parallel. All the—plates are connected to form one — plate. All the + plates are connected to form one + plate.	Gregory and Simmons. <i>Watson's Fr. Physics.</i> Perren Maycock.
4. Oersted's Experiment or Electro-magnetism. Introductory)		Aldous.
5. Simple Galvanometer.		
6. Resistance. (Ohms)		
7. Specific Resistance. Circuits.		
9. Arrangement of Cells.		

For Electro-motive force = $\frac{ne}{R + nr}$
n is the no. of cells. e, E. M. F. of one cell. R external resistance. r internal resistance of one cell.
For E. M. F. = $\frac{e}{R + \frac{r}{n}}$
(notation as above)
Aldous.
Maycock.
[Note.] This makes us understand that metals are not indispensable.

Maycock.

Explain the chemical action.
Hydrogen being oxidised polarisation is prevented.

(b) *Advantages.*
i. Series arrangement is useful where external resistance is very large, since the multiplication of the internal resistance does not add a great deal to the already great external resistance but E. M. F. is increased.
ii. Parallel arrangement is advantageous where external resistance is small, since in this case internal resistance is decreased very much, much more than E.M.F. is.
Hydrogen deposited on the copper-plate, in the cell, weakens the current: i. Hydrogen being a bad-conductor increases the internal resistance of the cell; ii. Hydrogen forming a gas-plate acquires a Back E. M. F. for the cell.
Local action (explained later on).

CHAPTER II.
CELLS.

Polarisation is prevented by surrounding the second plate with a substance to absorb the hydrogen bubbles. (Depolarising fluid)

A single fluid (solution of $K_2Cr_2O_7$ in dilute sulphuric acid) excites and depolarises. Zinc and carbon are the elements. Zinc should be kept outside when the Cell is not used. Batteries of these cells are useful for experimental work. Bottle forms with two carbon plates on either side of the zinc-plate to decrease internal resistance.

Two compartments divided by a porous partition; in one a zinc-plate in dilute sulph. acid, and in the other a copper-plate in a sat. solution of copper sulphate. Zinc and Platinum are used, zinc in dil. sulph. acid and platinum in str. nitric acid, both the liquids separated by a porous partition. The objections to this cell are: i. its high cost because of platinum; ii. the offensive odour of nitric acid evolving nitrous fumes. iii. In the laboratory it has another disadvantage, viz., its low internal resistance and high E.M.F.

Modification of Grove Cell. Carbon plate is used instead of platinum.

10. Polarisation of the Cell.

1. Two-fluid Cells
(to prevent polarisation.)

Chief ones.
2. Bichromate Cell.

3. Daniell Cell.

4. Grove Cell.

5. Bunsen Cell.

6. Leclanché Cell.

7 Dry Cells.

E. C. C. Cell.

Zamboni Cell.

8. Local action.

9. Amalgamation.

1. Chemical action.

2. Electrolysis.

3. Decomposition of Water.

4. Do. of Copper Sulphate.

A carbon plate is used along with the zinc-plate. The exciter is a solution of salammoniac in water. Zinc is placed in it. Carbon is placed in a porous pot surrounded by a mixture of carbon and manganese dioxide. Prevention of polarisation by the absorption of hydrogen by carbon, hydrogen is oxidised by manganese dioxide during 'open circuit.' No action on zinc during open circuit.

This cell shows that E.M.F. is mainly due to contact, but is accelerated by chemical action. Chemical action is the effect of the current.

These are the modification of the Leclanché Cell. There are various makes. But on one principle.

The carbon plate is in a paste of MnO_2 and carbon powder in a solution of ammonium chloride and zinc chloride. This is surrounded by a zinc-plate. The whole is sealed up with melted pitch.

(Dises piled one over another).

The presence of a current when two metals are connected thro' an exciter, accounts for it.

Impure zinc has impurities of iron, etc., in it. Hence currents even within the zinc-plate of any cell.

This is prevented by rubbing the surface with mercury. Solution of zinc in mercury as a thick paste. Impurities are removed away from contact with the exciter.

Maycock.

Ganot.

CHAPTER III.

PROPERTIES OF THE CURRENT.

Vide § 6 Chap. II.

The liquid which transmits the current is decomposed if it is not mercury, an element.

This process of decomposing a liquid is *Electrolysis*.

The liquid is then an *electrolyte*. The metallic plate leading the current into the liquid is the *anode*; the one which leads it from the liquid is the *cathode*. Both are are electrodes, Voltameter.

Oxygen appears at the anode and Hydrogen at the cathode.

Pure water conducts badly

Copper on the cathode; oxygen at the anode. Liquid near anode loses blue colour, due to the formation of sulphuric acid. Pt. electrodes should be used.

§ 105 Maycock, p. 90. Sanderson.

§ 106, Maycock.

Aldous.

5. Uses of Electrolysis of Salts.

6. Laws of Electrolysis.

1. Heating Effects.

2. Incandescent L. Lamps.

3. Joule's Law.

4. Safety Fuse.

i. Electro-typing; ii Electro-plating :
i. Electrolysis of copper sulphate is utilised. The coin forms the cathode. The metal is deposited on the coin.
ii. Electro-silvering and Electro-gilding. The salts used are the cyanides of silver and gold, dissolved in a solution of potassium cyanide in water. The object forms the cathode.
(a) Faraday's Law : The amount of chemical action effected by the passage of a current through an electrolyte is directly proportional to the strength of the current, and to the time of the flow (in seconds).
(b) Another Law : The quantity of an element (or group of elements) liberated at an electrode is equal to the "electro-chemical equivalent" of it multiplied by the current-strength and the time (sec.) it flows.

CHAPTER IV.

EFFECTS OF THE CURRENT.

A small thin iron wire through which a current from a strong battery passes becomes red-hot and white hot and even melts.
With the same current, thick wires become less heated than fine ones. Materials of high Sp. resistance become more heated than others. Platinum has the greatest Sp. resistance of all metals and hence used in lamps.
A Pt. wire made red-hot by an electric-current is used in glow lamps.
Carbon has more specific resistance than platinum. Hence the use of carbon in lamps. Fine threads called 'filaments' are used.
The preparation of the filament.
The filament is used in vacuums created by Sprengel's air-pump.
A current C flowing through a resistance R for a time t produces an amount of heat equal to $C^2 R t$ ergs of work.
In carbon filament lamps too great a current will volatilise the carbon and break it at its weakest point.
It is prevented by the fuse. An alloy of tin and lead of such a magnitude as the dangerous current will melt it. The fuse is in the circuit.

Cook's old edition. Maycock, § 109. Story of Electricity, 1s., pp. 82—84.

i.e., Quantity of electricity $Q = ti$ (= amperes.)

Mention Edison and Swan.

Aldous.

C. and R. measured in C. G. S. units. If measured in amperes and ohms. $10^7 C^2 R t$.

5. Explosive Fuse.

6. The Electric Arc.

7. Arc Lamps.

1. Cork-screw Rule.
2. Lines of Force due to a current.
3. Current round a loop.

4. Solenoid.

5. Electro-magnet.

6. Electric Bell.

7. Bell Push.

8. Arrangement for Bells.

A short length of fine Pt. wire in the gunpowder ignites it when a current is passed thro' the wire.
Two carbon rods connected to the terminals of a strong battery, when once brought in contact and removed, conduct the current in the form of an arc.
The arc is so hot that the carbon ends are white-hot. Hence used as furnaces to melt refractory metals, and as light.
i. Automatic lamps.
ii. The hand regulator.

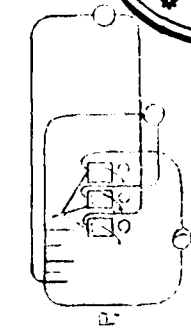
CHAPTER V.

ELECTRO-MAGNETISM.

Vide § 4, Chap. I
An electric wire bent over the edge of a cup with a current flowing up turns a floating magnetic needle.
A current round a wire loop is equivalent to a flat magnetised disc of the size of the loop, its north pole being on that face round which the current seems to flow anti-clockwise.
In a spiral conducting the current there are a number of such loops.
Hence the spiral or solenoid is a magnet with the N. pole at the extremity where the current leaves it.
A soft iron rod placed in a solenoid becomes a magnet. Hence both form a greater magnet than the solenoid. Short circuit is when the rod touches the wire without insulation.
An Electro-magnet, in the bell, attracts a hammer of soft iron attached to a spring and touching a screw which conducts the current. There is make and break of current which causes continuous ringing.
The bell rings only when desired, by means of the push. Consists of a push which brings in contact two metal pieces which close a circuit, which before was open.
One battery will serve to ring a number of bells. Branches from one of the poles of the battery are connected to the bells. Branches from the other pole are connected through the various pushes to the bells.

Lines of force are concentric, the centre is the wire.

Mention Floating Battery.



CHAPTER VI.

TELEPHONE.

1. The Instrument.

2. Bell's Telephone.

3. Modern Form.

4. Hughes' Microphone.

5. Working of the Modern Telephone.

It is used to transmit and receive spoken sound. The electric telephone is an improvement upon the sound telephone.

S. P. Thompson.

Aldous.

The transmitter and the receiver are one and the same. In an ebonite hollow cylinder there is a cylindrical magnet. Its pole near the wide end of the cylinder has round it a bobbin with a long coil of electric wire. Opposite to this, there is a small disc of ferrotype iron kept apart by a sensitive diaphragm. The ends of the coil are connected at the other end of the cylinder to the poles of a battery by means of binding screws.

The use of the above both as transmitter and receiver depends on 'induced currents.'

In the modern form of the telephone, the transmitter is Hughes' Microphone, and Bell's is only receiver.

Its use depends on the principle that a current is changed with change of resistance. Carbon rods are used, for carbon has its resistance changed with change of pressure.

It consists of two sets of carbon rods very sensitive to revolve round carbon pivots, when sound vibrations affect them. The two sets carry the two poles of the battery. It is kept inside a box, and spoken on with a mouth trumpet.

Sound vibrations affecting the microphone agitate the carbon rods. Thus the pressure with which they are in position, is changed. Hence resistance is changed, and so the current. The receiver and the transmitter being in the same circuit, the changing current makes the pole near the disc have a changing strength. The disc is oscillated. The vibrations correspond to the changing current which agrees with the sound vibrations causing it. Hence the same sound is received.

CHAPTER VII.

ELECTRIC MEASUREMENTS.

i. Current Strength; ii. Resistance; iii. Electromotive Force.

The units are derived from units of magnetic measurements.

2. C. G. S. Magnetic Units.

3. C. G. S. Electric Units.

4. Galvanometers.

The Mirror Galvanometer.

5. The Tangent Galvanometer.

(1) The Unit Pole will act on another pole like it when kept apart by 1 cm. with a force of one dyne.

The other system used not be known.

$$F \propto \frac{mm'}{d^2}. \text{ According to the definition } F = \frac{mm'}{d^2}.$$

(2) The intensity of the magnetic field at any point is measured by the force acting on a unit pole when placed at that point.

(1) The unit current causes a magnetic field at the centre of a circle 1 cm. radius, when it flows through an arc of it 1 cm. long, which acts on unit mag. pole with a dyne force.

Ampere = $\frac{1}{10}$ the C. G. S. unit.

(2) The Unit Resistance requires one erg of work each second to allow the flow of unit current.

Ohm = 10^9 C. G. S. units.

Unit E. M. F. is required to drive a unit current through unit resistance.

$\therefore$ Volt = 10^8 C. G. S. units.

There are two kinds—

i. for detecting currents

ii. for measuring current strength.

i. The astatic system of magnetic needles used to nullify the effect of the earth's field.

Its sensitive deflection in a solenoid of small diameter. The use of the mirror to magnify the deflection on a scale.

A thin long coil of large radius, set in mag. meridian. A mag. needle (small) set horizontally on a platform at the centre.

The horizontal component of earth's field tends to keep it in the magnetic meridian.

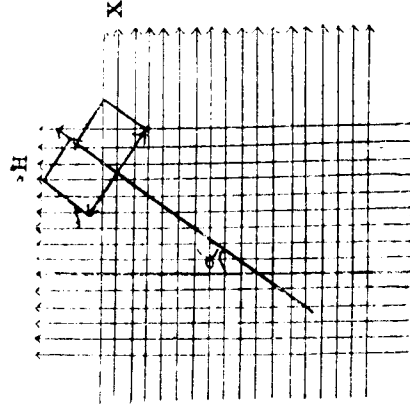
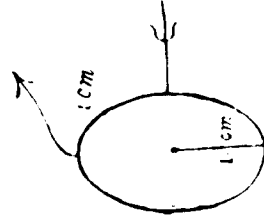
A circular scale over which the hor. pointer set $\perp$ to the needle moves. Lines of force due to current in the coil produces a uniform field at the centre, and run $\perp$ to the magnetic meridian, the galvanometer being set in that meridian.

Under the action of these two forces the needle stands in equilibrium in an intermediate position.

Components of these two forces at rt. $\angle$ s to the length of the needle are equal.

One is $H \sin \alpha$, the other is $X \cos \alpha$.

$\therefore X = H \tan \alpha$. X is proportional to the current.



Hence the caution not to have iron bodies in the laboratory.

Lines of Force.

The attraction of iron and steel bodies by magnets can act even through any solid media.
The cause for (5) should be because magnetism is spread in the vicinity of magnets all around.

The above is proved by pouring iron filings on a plate placed above a magnet, when they arrange themselves along particular lines, widening circularly from the poles.
A Convention.

A magnetic line of Force always leaves a N. pole and enters a S. pole.

Acquisition of magnetism by a steel or iron rod when brought near a magnet. This is because of the influence of the magnetic field.

Magnetically considered iron is of two kinds: i. Soft; ii. Hard. Soft iron does not retain much of its induced magnetism. Hard iron retains its induced magnetism.

i. The interaction of the poles on one another (depending on the length.)

ii. In soft iron magnets the ends effectively diffuse magnetism.

The percentage of residual magnetism to magnetic induction coercive force is the demagnetising force necessary to destroy the residual magnetism of a magnet.

The phenomenon of iron rods or pieces becoming magnets themselves when placed near or in contact with the pole of a magnet. If near a South Pole the bar is held, its near end gets N. magnetism and the other end S. This phenomenon accounts for the peculiar dark clusters formed when poles are dipped in iron filings.

i. By rubbing.

ii. By hammering

i. The end which is to become a N. pole is marked and is rubbed against a magnet from N to S in the same direction several times.

ii. N on N and S on S is the rule for placing before hammering. The poles of an electro-magnet will produce a good effect.

A Magnet is magnetised throughout for if it is broken into pieces, each independently behaves as a magnet.

Hence a magnet is built of a number of particles each having N and S pole and arranged so as all the intermediate N and S poles are bound by one another and the collection of N poles and S poles are free at each end.

S. P. Thompson.

§ 7.

Each particle becomes a magnet.

This is facilitated by rubbing the other end alternately from S to N.

5. Attraction through Bodies.

6. Magnetic Field and Lines of Force.

7. Induction.

8. Two Kinds of Iron.

9. Causes for the Loss of Induced Magnetism.

10. Coercive Power or Retentivity.

11. Induction of Polarity in Steel and Iron Rods.

12. How to make Magnets.

13. Theory of Magnets.

14. Methods of preserving Magnets.

XVII

Since magnets lose their magnetism owing to interaction, they ought to be kept without interaction. Armatures are used.

i. For bar magnets, two are kept together, and with opposite poles side by side, and separated by a wooden piece and with two soft iron pieces as armatures or keepers.

ii. For horse-shoe magnets a soft iron armature attracted by both the poles at the same time will serve the purpose.

CHAPTER II.

TERRESTRIAL MAGNETISM.

§ 1. Chap. I.

When the magnetic needle stands freely at rest when suspended freely it is in the magnetic meridian.

It is the vertical plane passing through the magnetic N and South poles of the earth. The geographical North and South meridian is the vertical plane passing through the geo. N. and S.

The angle at any place between the geographical and the magnetic meridian. This angle varies from place to place and may be to the E. or W.

A steel needle unmagnetised is supported horizontally at its centre of gravity. If it is magnetised and supported horizontally at the same point one end dips. In the Northern hemisphere the N end dips. In the Southern hemisphere the South end dips. The angle which the needle makes with the horizon at any place is the *dip* at that place.

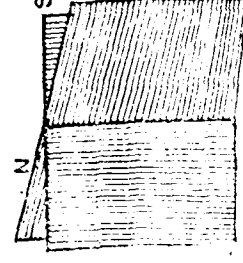
(1) Needles show N and S when freely suspended, being attracted by the Earth's poles.

(2) N. pole dips in the North hemisphere and S. pole in the Southern hemisphere.

(3) Dip is greater near the poles than near the equator.

(4) Earth can induce magnetism in iron placed in the magnetic meridian (much sooner when hammered and more in the case of rods pointing downwards in the direction of dip.)

§ 2, chap. I.



S. SUNDARESAN.

TEACHING OF HISTORY IN
HIGH SCHOOLS.

IT is a well-known fact that a great deal of cramming is carried on in the teaching not only of History but of many other subjects in our High Schools. Perhaps the fault is due to the requirements of the University examinations where success in many cases depends upon a hard cram of facts and figures. But the teacher should have a higher view of his task than that of merely securing a large number of passes in his school and should so adjust his teaching that in addition to the success in the examination the students might gain some of the higher objects of historical instruction.

The first thing necessary in the teaching of History—in fact in any subject—is to create an *interest* in the subject itself. No doubt education—I mean, University education—is regarded by many Indian students as the way to earn their bread and soon after they get an appointment they will throw away their books into a corner and busy themselves with their household affairs. But there will be some students who will take a deep interest in the subject provided the teaching is imparted in a proper manner. Then comes the question, how to create an abiding interest in the minds of the student and how to develop his imagination.

We must so arrange our class-rooms that the place where classes meet should in some way suggest the subject. A shelf full of historical books, a few maps hung on the walls but more important than all, a number of photographs or cheap prints will certainly not fail to arouse some interest in the subject. There should be a few of the world's greatest faces, Gladstone, Pitt, Queen Elizabeth, Akbar, Sivaji, Wellington, etc., each selected

from the heroes of a particular period so that the whole collection will lead back the mind over the long roads of human achievement. This may seem to be very costly but ordinary photographs which are sold so cheaply and pictures cut out of illustrated magazines will serve the purpose quite as well. If possible magic lantern slides and stereoscopic views should be employed with the same object. A collection of ancient coins, manuscripts written on palm leaves, small images will also be useful in the teaching of History but in many schools the cost may be prohibitive.

But all this equipment cannot produce an *abiding interest* unless the system of teaching is improved. There is no use of setting so many pages for the next lesson and making the students learn them by heart. Nor can the lecture system although it provides a delightful recreation for the students—aye, and enables a few to have a good dose of sleep—be expected to develop the reasoning faculty of the pupils. The method of oral presentation and reproduction by the pupils seems to be the only way of handling the subject in the right manner. The text-book should be used as a pivot on which to centre our teaching rather than the all in all of instruction. It is very useful to introduce the concentric series of text-books where the outline is given first and more and more of details will be introduced later on. But even if this is not possible the subject should be divided into topics and only such topics should be chosen for instruction which appeal strongly to the interest and understanding of the children taught and are educative in the true sense of the term. In the Fourth Form considerable attention should be given to stories of war and adventure and biographies of great heroes and all the important events

of a period should centre around some great men like Alfred, Canute, etc. In the Fifth Form the development of institutions, social, political and religious and lives of great statesmen like Pitt, Gladstone, etc., should be emphasised. In the Sixth Form it is better to study a period or two in detail but if this is not possible a careful revision of the whole history should be attempted. When a text-book is introduced it is not necessary that all the facts given there should be learnt by heart nor always in the order given there, though it is usually convenient for the teacher to follow the text-book.

Having settled the question of what facts he should present before the class the teacher should next consider how to make his teaching interesting and instructive. "He should cast the story into a series of unities or topics each of which has a nucleus or centre with a body of related facts which find their cause and explanation in this centre"—(McMurry) The descriptions given by the teacher should be animated, picturesque, colloquial, adapting themselves to the faces, moods and varied thoughts and suggestions of the pupils. The previous knowledge of children, their home experiences, as well as facts remembered from books must be called out in elucidation of the topic under discussion without at the same time allowing either the teacher or the pupils to be drawn aside from the main topic. The intelligent judgment and self-activity of the students should be exercised at every turn in the story by a running fire of questions as to facts, causes, probable sequence, reasons. When teaching English or Indian History in higher classes frequent references should be made to the present social, religious, and economic (but not to political) conditions of India. Comparisons should be made between

different periods of history and between the characters of important historical personages. Current events in the newspapers and journals should be largely used to illustrate the teaching of History. Whenever possible, the source material should be employed as a special means of giving greater intensity and insight into historical events. This is easy with regard to English History as of late it has been carefully collected and brought within the reach of teachers and school libraries. The students might also be referred to bigger histories for more detailed accounts. In this case the teacher should specify the pages to be studied and if possible he should read some portions in the class.

Where Geography is involved maps and sketches should be drawn on the blackboard so as to make the situations and the difficulties clear to the minds of the students. Where persons and scenes are presented, pictures might be employed to heighten the effect of teaching. Similarly coins, images, stereoscopic views and magic lantern exhibitions are all useful aids to History teaching.

When the teacher has clearly and forcibly impressed the historical facts in a lesson upon the minds of his pupils he should try to make them reproduce the ideas already presented. He should not help the student too much nor put questions which only require a Yes or No as answer. The pupil must be made to cultivate the power of narration and all that are necessary on the part of the teacher are the briefest possible questions, or corrections or checks or signs of approval. Faulty words and phrases should be corrected quietly by the teacher without seriously interrupting the pupil's course of thought. This will secure to some extent the use of good English but our chief aim, however, should be the culture

that lies in History. The topic must generally be reproduced more than once in the class, at first by a smart pupil and then by two or three others. The misconceptions shown by the answers must be corrected by other pupils or preferably by the teacher who at the close of the answer may give still further explanations. As each topic is reproduced by the students, a brief outline may be kept on the board, of the topics discussed and this outline should be copied by the boys in their History note-book where they might also enter any additional information given by the teacher but not found in their text-books as also the passages that interest them most in their reading of general historical literature. Occasionally the teacher might give questions in History whose answers are also to be written in the same note-book and he must correct the answers and at the same time see what progress the students have made in their work.

It should also be the aim of the History teachers to present their facts in such a way before the pupils as to emphasise the importance of pure moral character. No subject is better calculated to teach morals to the students in a concrete way than History. The great virtues of courage, self-sacrifice, love of fellowmen, acting true to one's convictions, indomitable perseverance should be illustrated in an interesting manner to the children by historical examples. Patriotism should also be one of the virtues to be inculcated by the teacher, but it should be the real love of the country and the desire to help one's own fellowmen rather than the contempt and hatred shown towards the foreign nations. A sincere love for the ruling nation of India should be inculcated

while the great statesmen, generals and authors of Britain should be held as examples to follow and emulate. The students must be shown that their duty is to study, and not to enter the field of politics.

The teaching of History should be correlated to other branches of study, *e.g.*, Literature, Geography and Natural Science. Without a proper understanding of History the development of literature cannot be understood. Great facilities should be given to the students to study historical novels in connection with either the English or Indian History.

All this of course requires much time and the teachers are advised to have longer though fewer periods of History lesson in a week. A great deal of preparation is necessary in connection with the oral instruction if it is to be efficiently conducted. The work of each course for the whole term should be mapped out in advance while a definite and more detailed scheme of work for each lesson is to be thought out just previous to the lesson. But when once the teacher has been successful in teaching according to the lines suggested in this article, and written down in a note-book the detailed plan of his work it will not be difficult for him to work out the plan in the years that follow. The pains that he takes in connection with his teaching work will not go without proper reward for he will have the satisfaction of having done his best to create a strong interest in the problems of History and to enable his students to have a clear understanding and appreciation of the historical facts and to some extent of the social, religious and political institutions of the country.

R. RANYAD.

THOUGHTS REGARDING THE EDUCATIONAL PROBLEM.

The Educational Code of Travancore and Cochin requires the employment of only such, as teachers who have the teaching capacity in them, the will to make teaching their life-work and the spirit to make self-sacrifice.

Teachers are poorly paid. The profession is not honoured as it should be. Those who take up the poorly paid and poorly esteemed profession of teaching, sacrifice themselves to the services of their country.

Whatever may be the Educational qualifications and general attainments of Schoolmasters, and whatever may be the extent of good done by them directly or indirectly to the country in general, they form a class of ill-paid men living mostly from hand to mouth or feeding their intellect more than their body.

The position which a person enjoys in the estimation of his fellow citizens depends to a considerable extent on the salary he draws.

Government pay good salaries to officers in the Judicial, Revenue, Police, Excise and other departments but not to those who have to mould and shape the habits of future Judges, Peishcars, Superintendents and Commissioners.

Better work needs better hands, better hands need better pay.

A large number of talented young men do not take to teaching now a days.

Unsatisfactory work on the part of many a teacher is due to his being paid unreasonably low.

Many teachers regret the mistake they once made in choosing the teacher's profession.

The ultimate cause of disappointment, dissatisfaction and regret on the part of teachers is their inability to stand on their own legs when old age or ill-health compels them to take leave of the department after many years of faithful and honest service.

The pay of the primary teacher is ridiculously low; the same observation may be extended to the Indian teachers employed in our High Schools and Colleges.

A primary teacher does not receive enough to keep himself decently clothed and fed, to say nothing of his family. What work can be more important than the training of the rising generation? How can such training be given as should be, by men or women of a class willing to accept pay less than that of a groom? Can we trust such to teach morals and manners and right conduct or even personal cleanliness?

The more we consider the problem of Primary education the more convinced we are that their solution depends almost entirely upon a superior class of teachers and no superior class will accept an inferior class of pay.

If a man has meat and clothes what does it matter if he purchases them with Rupees 30 or 300. Yes. But how can one, in these days, provide himself and the members of his family with meat and clothes with Rupees 8.

These are very hard times and it costs a great deal to live. It can be no encouragement to any teacher to be able to keep body and soul together.

What sort of a Schoolmaster can you get for 4 or 5 as. a day? Many Corporations and Town Improvement Committees cannot get scavengers for this pay. Butlers and Coachmen of Europeans or Americans demand more than this.

It is strange in a country in which the Gurn is regarded with the greatest reverence that the teacher of knowledge on new and scientific methods should be so little esteemed.

All true men have a work to be done irrespective of fee or even at any cost or for quite the contrary of fee.

With all noble minds the stipend is regarded as a due and necessary adjunct only and not as the great object of life.

The education of the rising generation is the chiefest among duties. Teachers cannot remain ill-esteemed. They must be had in greater honour as knowledge advances.

There are to-day few better educated people in the world than the Irish peasantry. This has been brought about by the Irish Christian Brothers who are celibates, living in community, whose whole and sole purpose in life has been to instruct and train the alert intelligence of the Irish youth of the agricultural and industrial classes. These brothers are now to be found all over the world wherever there are Irish lads or descendants from Irishmen to be taught. It is absolutely necessary to organise among us similar brotherhoods and sisterhoods both Christian and non-Christian.

A. J. JOHN.

OUR ENGLISH LETTER.

LIVERPOOL, May 1911.

The storm raised by the Holmes Circular has not altogether abated yet. The Circular was considered, criticized, condemned, and cursed at the Aberystwyth meeting of the National Union of Teachers. It appears that this Circular is known officially as Memorandum 21, and teachers are wondering what its twenty predecessors have been like. Denunciations of No. 21, at any rate, left nothing unsaid. There was no voice raised

in defence of the Circular or of the Board. Strangely enough it was the man who wrote the words who was treated most lightly. Mr. Holmes' general courtesy and real services to the cause of the teachers during his inspectorate were not forgotten, but Mr. Runciman was rigorously condemned, now for shielding the Permanent Secretary, and again for sheltering behind him: his ignorance of the Circular was regarded as a sign of incompetence for his post. But every one was united in wrath against Sir Robert Morant who was pictured as a fearsome being, Macchiavellian in his stealthy, working out of schemes for the entrenchment of the sons of privilege against the sons of the toilers. The battle is now joined, and it can only end in one way ultimately.

But as a matter of fact, was Mr. Holmes entirely in the wrong? Is there nothing to be said for his position. Some of his critics are certainly entirely mistaken in their view of Oxford and Cambridge and the class of men who have come thence to the work of the inspectorate. Oxford and Cambridge are not the playground of the wealthy as the training ground of the picked youth of the country. The bulk of the Oxford men who have become inspectors have had the advantage of University training not because their parents have showered money on them, but because they have dowered them with brains. They are youths who have won scholarships, who have made their opportunity and also taken it. And the older Universities surely ought to be able to impart the breadth of view and the sanity of judgment which are so essential for the work of school-inspection. We must not forget this. Oxford and Cambridge are the happy hunting-ground of the sons of clergymen, doctors, and professional men: the sons of the idle rich do not aspire to educational posts. And when all is said and done, the University men have no monopoly of this work. More than half of the inspectors have risen from the ranks of the elementary teachers.

What is secondary education? It would be

difficult to define. Dr. Gow has raised the ire of some by saying it is the task of the elementary school to impart the knowledge of facts, while in the secondary schools the aim is to train the understanding. However this may be, his picture of what secondary education ought to achieve deserves more than a passing glance. Its object is to train the boys' intellect and character so that they may be fitted for the discharge of their daily tasks, and also to create tastes which will afford an innocent and rational occupation for leisure time. To begin technical education too soon—to teach boys nothing that will not pay—is to spoil them for true citizenship. England is suffering to-day both from men's mad haste to be rich, and their recourse to senseless amusements which are necessitated by the lack of other occupations sensible, rational, and profitable, to which a man may turn to get the rest and recuperation that come from change of work. A wholesome system of secondary education, directed to ultimate rather than immediate issues, is a preservative of all that is best in the national life.

The National Union of Teachers has now for the first time a lady president. Miss Cleghorn acquitted herself with every credit at the Aberystwyth Conference, alike in her conduct in the chair and the excellent presidential address that she delivered, although it was beyond her power to secure order during the discussion of the woman's suffrage question, which many thought to be an extraneous matter that should never have been introduced. She lays great stress on the educational possibilities of work among the infants, and deplores the way in which children of six are thrust up into the upper school. She is of opinion that two years is the minimum period that a child ought to spend in the infant department. The child has everything to gain from the milder methods and shorter hours that obtain there. The easier curriculum and the greater opportunities for physical activity which are the marks of an infant department, are all to the child's good. Nothing is to be gained from

forcing. We detect, or rather gladly note, the woman in her plea that the child is not brain merely: he has muscles to be developed, senses to be sharpened, and physical frame, intricate and complex, to be strengthened. These, and not the brain, have the first claim on the teacher's attention. And the difference between the methods in the infant department and the ordinary school should not be so sharply and immediately accentuated. The child should be gradually broken in, and not have his instinct for enjoying the process of learning crushed by the imposition of too difficult and laborious tasks.

Miss Cleghorn was stern in her denunciation of the half-time system which is still a blot upon the manufacturing towns of Lancashire and Yorkshire. Schooling is a farce, and a shameful farce, when the child is too tired to learn. It was interesting to read that in some manufacturing districts the girls often went to sleep at the evening continuation classes. "We do not waken them" was the comment, which illustrates at once the humanness of the teacher and the folly of a system under which the wise instructor has to tolerate such a state of things.

An interesting experiment on the lines of the Danish system is being tried at Fircroft, on Oadbury's Bournville estates. It is called a "People's High School," and gives an opportunity to the working men to be lifted on to a higher level of thinking and to learn the secret of a true sympathy with others' work and ideals. Those who desire to make use of the schools are welcomed for any length of time they may find it possible to stay. Among the residents already there have been small-holders, shoemakers, bakers, clerks, bricklayers, and farm-labourers: it is obvious they are being drawn from a wide, and from the right, area. Two railway servants have had their expenses paid for thirteen weeks by their employers. None have as yet had to forfeit a situation in order to come. The experiment is only on a small scale, but it seems to be justifying itself. The right man is at the head, which is half the

battle. In time other centres may be established, and may begin to rival the excellent institutions which have done so much for Denmark. In this connection we may mention that in February the Lord Mayor of London, who is adding lustre to his important office, presided at the meeting at which the National Industrial Education League was founded.

Undoubtedly we are making great strides in industrial and technical education. We propose to give some account in next month's letter of an interview we have had with the Northern Counties' Inspector of Manual Training Work, and also to write of the results being achieved at the Day Technical School established three or four years ago in Liverpool. It will not be long before a system of industrial training worked in conjunction with the ordinary elementary and secondary schools will be elaborated, so that every scholar will have an opportunity of such teaching as will reveal and develop his capacity in this direction. Instruction for girls in domestic science is also beginning to be recognized as an imperative necessity, and will soon be given in a more sensible and efficient manner than is possible under present conditions. In fact, this last month a bill has been introduced into Parliament by Dr. Addison enforcing the teaching of domestic hygiene to girls. The fact of its introduction and its enthusiastic reception by all parties is bound to act as a spur to the Board of Education, and we may look for rapid developments.

The new Encyclopædia Britannica has had a remarkable sale. It is now published by the Cambridge University Press, and such advertisements have surely never issued from a publishing house so severely academic and conservative. The hand is the hand of Cambridge, but the voice is the voice of America. The boon is a sign of what hustling methods can effect. But we are concerned with the book rather than its sale. It is good to note as witnessing to the growth of

interest in education that instead of the ten and a half pages devoted to the subject in the Ninth Edition there are thirty-eight in the Eleventh. There is one serious defect. There is no adequate discussion of the theory of education. We have, of course, an historical statement which brings us down from Sparta through the Roman schools to early developments in the Christian era and the movements connected with the Renaissance, the Reformation, and more modern epochs. We are told much of Plato and Aristotle, Rousseau and Locke. But in the present state of the study of education this is not enough. The time has come when education may claim to be, if not a science, in the strict sense of that technical term, at least a body of organized knowledge that may be presented in other than historical form. Education has enough material of its own to stand on its own merits. It is no longer impossible to speak of the Principles of Education. There is quite a literature of the present day dealing not with what previous writers have written or done, but with what we ought to do here and now in the matter of education. These works represent a body of knowledge of which account should be taken.

But apart from this, the articles are excellent, well-planned and well-written. Co-education is treated adequately and sympathetically by Professor Sadler. Universities receive their full share of attention, and in small compass we have an excellent account of the progress of University education in America. And National systems of education are treated in an article which counters most of our ideas about German education.

Reviews and Notices.

GUIDE TO THE STUDY AND COMPOSITION OF ENGLISH,
BY J. C. NESFIELD, M.A. (MACMILLAN & CO., LTD.)

Mr. Nesfield has made one more successful attempt to present the principles of the English language in a manner suited to the capacities of the Indian students. The volume under notice begins with a clear exposition of the foundations of English speech and treats of the various elements that contribute to the formation of a sentence. The second part is devoted to studies and exercises subsidiary to composition—a branch as essential as it is valuable to the student beginning to study English. It is a good idea of Mr. Nesfield's to enter into composition in its several stages: the sentence, the paragraph and the essay. The third part also includes instruction about the very difficult arts of paraphrasing and precis-writing. In the fourth, the writer takes us to exercises in phrase-construction and vocabulary. The last section is at first sight not quite connected with the subject but who can deny that it is necessary for every student of English to know something of Figures of Speech, Prosody, Poetic Diction and kindred subjects. Two appendices, one on the expansions of outlines of essays given in the body of the book, and the other consisting of explanation of Technical terms relating to composition enhance the value of the book. We have great pleasure in recommending the book for use in our schools and colleges.

HEALTH READER III—LIFE AND HEALTH WITH
CHAPTERS ON FIRST AID AND HOME NURSING,
BY C. E. SHELLY AND E. STENHOUSE. MAC-
MILLAN & CO., LTD. 1911.

The Board of Education has frequently laid stress on the importance of the teaching of hygiene and temperance in elementary schools. In its Code for 1909 it is stated that the instruction in hygiene and physical training should consist of lessons in the elementary rules of personal health, particularly in respect of food, drink (including alcohol), clothing, cleanliness, and fresh air. This book, and the companion volumes already published, have been prepared to meet the requirements of the Code. The scheme and scope of the books are largely dependent upon the courses of work issued by the Committee of the Medical Profession formed

for the furtherance of the teaching of hygiene and temperance in elementary schools.

The book before us is the third in the series and consists of two parts. The first part is devoted to physiology and hygiene, while the second part deals with the first aid and home nursing. The book is written in simple language and the information, so far as we have examined it, is accurate.

HIGHROADS OF GEOGRAPHY—BOOK I, SUNSHINE
AND SHOWER; BOOK II, SCOUTING AT HOME.
THOMAS NELSON AND SONS, LONDON. 1910.

These form companion volumes to the highroads of History published by the same enterprising firm of publishers. They are written in very simple style and form very good introductions to the study of Physical Geography. They are got up in the finest style, and many of the illustrations are coloured. We have much pleasure in recommending them both to teachers and pupils.

JUNIOR EXPERIMENTAL SCIENCE, BY W. M. HOOTON,
M.A., M.Sc. W. B. CLIVE. UNIVERSITY TUTO-
RIAL PRESS, LTD., LONDON. 1910.

This book has been prepared by a teacher who felt that much time was lost in dictating notes in the course of his lessons. The value of a good class-book consists in its saving of mechanical labour on the part of students and serving as a help for revision. The book contains nearly all that is required by the syllabuses in Experimental Science of the Oxford and Cambridge Junior Local Examinations. It covers all that is needed in the first two years of a study of science, and includes both laboratory and classroom work. The details necessary for carrying out the experiments successfully are given and questions are introduced to rouse the curiosity of the student. It consists of two parts; the first part deals with simple measurements, hydrostatics, mechanics and heat; and the second part contains lessons in elementary chemistry.

A CLASS-BOOK OF CHEMISTRY, BY G. C. DONING-
TON, M.A. MACMILLAN & CO., LTD. 1911.

This book aims at providing a practical course, combined with the necessary theoretical and descriptive text, suited to Matriculation examinations, such as those of London and the Northern Universities of England. It attempts to avoid

the difficulties of the heuristic method by combining the modern experimental method with the older practice of using a descriptive text-book. The book contains twenty-nine chapters, each of which deals with some particular chemical subject and ends with questions and practical problems. There are also ten graduated examination papers and some copies of recent papers set in the Matriculation Examination of the University of London. The book may be consulted with advantage by students preparing for the Science groups of the Intermediate Examinations of Indian Universities.

THE HISTORY OF THE ENGLISH BIBLE, BY JOHN BROWN, D.D. CAMBRIDGE UNIVERSITY PRESS, 1911.

This little book has been brought out to inform the English-speaking people of the story of the English translation of the Bible in 670 and the various versions of it that have appeared since. It forms one of "The Cambridge Manuals of Science and Literature" and will be found useful by those that are interested in the history of what is regarded by some as the greatest English book.

Indian Educational Notes.

MADRAS.

Departmental Notifications.—Mr. T. M. Satagopachari, Sub Assistant Inspector of Schools, Tuticorin Range, now in transit to join the Tindivanam Range, has privilege leave for one month with effect from the date of his relief from the former range. Mr. A. Rama Aiyar, Sub Assistant Inspector of Schools, Villupuram Range, is to be in charge of the Tindivanam Range also in addition to his own duties during the absence of Mr. T. M. Satagopachari on leave or until further orders.

Mr. N. Swaminatha Aiyar, Sub Assistant Inspector of Schools, Georgetown Range, has privilege leave for one month with effect from the 1st May 1911, or from the date of his availing himself of it; the Sub Assistant Inspector of Schools, Triplicane Range, is to be in charge of the Georgetown Range in addition to his own duties during the absence of Mr. N. Swaminatha Aiyar on leave or until further orders.

Mr. D. A. Hobday, Assistant Inspector of Schools, Chingleput District, and acting Headmaster, Madras-i-Azam, is to be in charge of the office of Inspector of Schools, Fourth Circle, in addition to his own duties during the absence of Mr. A. C. Pranatathihara Aiyar on leave or until further orders.

Model High Schools in Madras.—The following Note appears in the current *Christian College Magazine*:—

The Financial Statement of the Government of Madras for 1911-12, presented at a recent meeting of the Legislative Council, contains a statement which has not received the attention it deserves. Among the allotments detailed in the Budget estimate is the following:—120 lakhs for the establishment of Government Model High Schools—a scheme estimated to involve an extra recurring cost of 4.43 per annum.

We are grateful to the Government for this frank arrival at the cost of this new experiment. The country has no right now to say that it was led in ignorance blindly to accept the new policy. We now know that the Model High School Scheme will cost the Presidency close on Rs. 4½ lakhs per annum and why? Not because aided education has proved a failure in the Madras Presidency, but because the Government of India has so ordained.

In Bengal, where Secondary education has been admittedly unsuccessful, there is, if we mistake not, a Government High School in every District. In Madras where Secondary education has exerted a healthy and loyal influence, there has been practically no Government High School. Yet it is proposed at a cost of Rs. 4½ lakhs per annum to introduce into Madras the system that has prevailed in Bengal. The persistence of the Government in this action in spite of protest is beyond comprehension. It is true that a certain number of teachers approve of the scheme. They frankly declare that their approval is due to the fact that they will receive higher salaries. Apart from that small minority we have failed to discover anything that can be regarded as support throughout the Presidency. On the other hand, the more the full meaning of the new policy is apprehended the more insistent becomes the opposition.

Boys' Own Association, Shiyali.—The 5th anniversary of the 'Boys' Own Association' of S. M. Hindu High School was celebrated with much *ecstacy* in the High School premises on Friday the 28th April last with Mr. K. Chidambaramudaliar in the chair. The *élite* of the town honoured the occasion with their presence. The proceedings began at 7 p.m. with a prayer in Sanskrit and Tamil sung by a pupil of the 6th Form. The Chairman then called upon the Secretary to read his report which showed good work done during the year. Next the students enacted Act III from Shakespeare's "Julius Caesar" being furnished with all the stage requisites. The Chairman in his short but interesting speech congratulated the boys on their satisfactory performance expressed that meetings of the kind were necessary even to grown-up men to relieve the monotony of life in a small place like Shiyali. Mr. M. Krishnasamy Aiyar, B.A., L.T., Headmaster of the High School proposed a hearty vote of thanks to the Chairman.

Teachers' Conference, Vizagapatam.—The Conference of the Secondary Teachers in the 1st Circle was held in the local College Hall. The acting Inspector of Schools opened the proceedings with a brief speech in which he referred to some of the more burning questions of the day. He regretted the absence of Mr. Yates to whom the Conference owed its existence and vigorous activity for three years. The following were some of the speakers:—

Mr. Bashyacharya, the enthusiastic Drawing-master of the local College, gave very useful instruction as to how drawing should be taught.

Mr. K. S. Ramamurthy Pantulu, B.A., Headmaster, Rajah's High School, Tanj., made an extempore speech for above forty-five minutes which was listened to with rapt attention by all present. He explained his own original and exceedingly simple and intelligible methods of teaching Drawing, making it highly interesting to laymen and drawing-masters alike. He exclaimed at some length that it was essential to appreciate the charms of nature to appreciate the spirit of great poets who interpreted the nature.

Mr. Pattabhiramayya, B.A., Biology lecturer in the local College, spoke on the need of a knowledge of Physics and Chemistry to study Botany, Biology and other Sciences. He spoke on Botany amply demonstrating his lecture. He made a very lucid exposition of the subject, making it very interesting to all.

Mr. M. Kameswararao Pantulu, B.A., Assistant Inspector of Schools, Godavery, spoke clearly explaining the nature and scope of nature-study in Elementary Schools.

The Madras Teachers' Guild.—The annual meeting was held recently in the upper storey of the Muthalpet High School, Thambu Chetty Street, North Georgetown. The chair was taken by Mr. P. L. Narasu, B.A., one of the Vice-Presidents. The business of the meeting opened with the reading of the Report for 1910-1911 by Mr. P. Subrahmanya Iyer, B.A., L.T., one of the Secretaries. The following extracts are taken from the Report:—

There has been no marked rise or decline in the numerical strength of the Guild during the year under review. As against 151 on the rolls at the beginning of the year, we have at present 148 on the rolls. There were 22 withdrawals during the year, which have been balanced by 29 new admissions. The strength of the Guild has practically remained unaffected. The South Indian Teachers' Union held its third Conference in Madras under the auspices of the Guild. The Conference had three sittings (on the 22nd, 23rd and 24th Dec.) It was a very successful and lively session, the members of the Guild having taken an active part in its deliberations. Mr. S. Vasudeva Chariar represents the Guild on the Executive Board of the Union. The usual reports of the work done in connection with the sections of the Guild was

presented at a session of the Conference by Mr. P. Subrahmanya Aiyar. The sectional Conferences that were held under the presidency of Messrs. Pranathathihara Iyer, A. S. Vydianatha Iyer, and K. B. Ramanatha Iyer served a useful purpose, inasmuch as they brought the Guild into close touch with the body of teachers engaged in similar work in the metropolis. The library has not been used to any extent worth mentioning. There are well over 3,000 volumes in the library. The authorities of the Wesley College with their uniform solicitude for the Guild continue to house the library, and Messrs. Macmillan and Company have generously presented some of their latest publications to the Guild Library. As regards the Provident Fund, it is a matter for considerable regret that the Government in their G.O. No. 18 (dated 18th July 1910), have expressed their inability to work the scheme formulated and recommended by the Hon'ble Mr. J. H. Stone. The Guild feels, however, that it should not abate its efforts in pushing on its agitation for this much-needed reform. The History and Geography Section did some good work during the year. (App. III.) Five meetings were held, two were accompanied by practical demonstrations. At the History Section Conference, the Section was called upon to address itself to the task of (1) drafting a syllabus for the teaching of Civics for Secondary Schools; (2) making lists of books of reference on sources in Indian and English History and collecting materials for conducting a comparative study of Indian and English History. Mr. K. A. Veeraraghava Chariar has had charge of this Section and repeats his appeal for more active support in the working of his Section. In the proposed Business Section, owing to some difficult issues involved in it, the scheme was shelved for some time, but has now been taken up by the Council again. Legal opinion on the point is encouraging. The Committee are firmly of opinion that it is upon the successful realization of this scheme that the financial prosperity of the Guild depends. At a meeting of the Guild held on the 4th November 1910, a system of popular lectures in the Vernaculars for the enlightenment of elementary teachers was organized. The President of the Guild formally inaugurated the lectures on the 6th of February 1911. The working of this scheme has been entrusted to a Committee of eight members of the Guild who met five times since November last. To the inspiring guidance of Mr. A. C. Pranathathihara Iyer and to the energetic work of Mr. N. Swaminathan, the Secretary of the Section, we owe what measure of success we have been able to achieve. The lectures are being delivered in five centres and are attended by 220 teachers. Three lectures on Physics and three on Chemistry have already been delivered. As the lectures throw an additional strain on the finances of the Guild, the Council have appealed to the Director of Public Instruction as well as to the Corporation of Madras for a grant-in-aid of this work undertaken by the Guild for the benefit

of the teaching profession. The financial condition of the Guild gives great room for anxiety. The costly establishment, the annual contribution to the S. I. T. U., the running of the popular lectures, and the cost of journals account for the present financial depression. The Council are trying to face the situation by devising suitable measures.

The Report, on being seconded and carried unanimously, was duly adopted, after which it was proposed by the Chairman and carried *nem con*, "That the Hon'ble Mr. J. H. Stone, M.A., be re-elected as President of the Guild."

It was next proposed by Mr. K. A. Veeraraghava Chari, B.A., "that the following gentlemen be re-elected as Vice-Presidents:—Rev. C. Pollard, M.A., Rev. W. Meston, M.A., B.D., Messrs. M. Rangacharya, M.A., and P. L. Narasu, B.A. In place of Mr. E. F. C. Drew, M.A., Mr. A. C. Pranatharbhara Iyer was elected.

The Secretary then read a letter from Miss P. F. Parsons, B.A., L.T., resigning her Secretaryship of the Guild, owing to failing health, and while regretting her inability to be present at the meeting, she wished greater success to the Guild.

The meeting accepted Miss Parson's resignation with great regret.

It was proposed by Mr. Subramania Iyer, seconded and carried, "that Mr. S. Vasudeva Chari continue as Treasurer."

The election of office-bearers for the ensuing year was then proposed and carried by ballot.

The subject that followed was with regard to contribution to the South India Teachers' Union. Mr. K. B. Ramanathan, M.A., L.T., another Secretary of the Guild, in the course of his remarks said that to consolidate the Union with the Guild was an indispensable thing, as it had been brought into existence by the efforts of the latter, and having fostered it, to make no contribution would not be desirable. There was a charge brought to the doors of the Guild that it was exclusively a Madras institution, and it did not represent the views of the teachers out of Madras. The Government, he said, finds a difficulty when it is approached on the question of helping the finance of the South India Teachers' Union, and do not give an encouraging answer. Individually, though the Guild is unable to augment the financing of the S. I. T. Union, the Guild is at a personal sacrifice to affiliate the Union with the Teachers' Guild, and the combination of these two would surely give additional strength to it.

The Chairman supported the views of the speaker, and he asked the members present whether there was any objection to the grant of Rs. 50 and odd to the S. I. T. Union.

The majority of the meeting was in favour.

The last business of the members was the alteration in the Rules. It was proposed, seconded and carried:—"That in Sub-Division C, after the word 'between,' 'betterment' of the teaching profession as a whole' be added."

At the termination of the meeting the Muthialpet High School Teachers' Association were "At Home" to the members of the Guild in the large hall of the building, where a Sanskrit drama entitled "Chandrasekhara" was admirably enacted in English.

CALCUTTA.

Scientific and Industrial Association—The eighth annual meeting of the Association for the Advancement of Scientific and Industrial Education of Indians was held recently in the Town Hall. Rai Norendra Nath Sen Bahadur, President of the Association, occupying the chair. There was a good attendance of members, representatives from the different District Committees of the Association, in different parts of Bengal, and others interested in its welfare.

Babu Jogendra Chandra Ghose, the Secretary of the Association, presented the annual report and the following resolutions were passed:—

That the Government be requested to carry into effect at an early date the following proposal which was adopted by a Commission appointed by it at the instance of the Association in 1907 and which has, it is understood, received the approval of the Secretary of State:—That graduate classes be opened in connection with the Shibpore Engineering College, in mechanical engineering, electrical engineering, mining engineering, and industrial chemistry, giving instruction on a par with similar classes in European Technical Colleges.

That every District Committee be asked to raise at least Rs. 50,000 for starting industries.

That the Indian manufacturers and traders be asked to form Co-operative Banks on proper business lines.

That Indian manufacturers be asked to form Guilds among themselves and co-operate with one another and not to enter into ruinous competition with one another.

That the Executive Committee be requested to take steps to ensure the refund of money advanced to our scholars, on their return to India and when they begin to earn, by easy instalments.

OFFICE BEARERS.

The officers of the Association were re-elected as follows:—

President.—Rai Norendra Nath Sen Bahadur.

Vice-Presidents.—Dr. Rash Behary Ghose, Babu Surendranath Banerjee, Nawab Muza Sujaat Ali Khan Bahadur, Raja Peary Mohan Mukherji.

Treasurer.—Mr. A. Choudhuri, M.A., LL.B.

Secretary.—Mr. Jogendra Chandra Ghose.

Asst. Secretary.—Hon. Moulvie Syed Shamsul Huda and Mr. A. C. Banerji.

With the customary compliments to the Chairman, the proceedings terminated.

Proposed amalgamation of the Calcutta Historical Society with the Asiatic Society—At the annual meeting of the Calcutta Historical Society held recently, Mr. Watson, I.C.S., [the acting Honorary Secretary, placed before the meeting the recommendation of the Council that as the editor of *Bengal Past and Present* and the permanent Honorary Secretary had both left India and no successors could be had to take their places, it was desirable that the Asiatic Society should be approached with a view to amalgamation of the Society therewith. After some discussion it was unanimously resolved that a Sub-Committee consisting of Mr. Justice Stephen, Messrs. Watson and Mitchell, (Treasurer) be deputed to conduct negotiations with the Asiatic Society on as favourable terms as possible, subject to the confirmation by the general body of the members. Meanwhile, arrangements will be made to issue the next numbers of *Bengal Past and Present*. The membership which in 1907 was 200 has risen last year to 339, an increase of 76 over the preceding year. The total receipts amounted to about Rs. 9,400 against Rs. 6,600 in 1909, the total payments exceeding Rs. 10,000. The total amount of subscriptions was about Rs. 6,800 against two thousand less in the previous year. The cash position at the commencement of the year showed a deficit of over Rs. 1,000, and deducting this from the surplus in hand last year, the cash balance showed a deficit of Rs. 800. The present financial condition of the Society is far from satisfactory.

ALLAHABAD.

Recent Educational Conference at Allahabad—Papers published.—Papers relating to the Educational Conference which sat at Allahabad under the presidency of the Hon'ble Mr. Harcourt Butler last February have now been published. They consist of a brief and readable summary of the proceedings and an appendix of the Notes handed in by various members. The proceedings being informal no resolutions were recorded, but in cases where anything like a consensus opinion was arrived, this has been recorded along with the views expressed by the individual members.

ELEMENTARY EDUCATION.

The first day was devoted to Primary Education and in this connection a number of points were discussed regarding a preliminary survey. The Conference generally agreed that the principal object of a survey would be to find central villages where central well-equipped schools could be established which would be fed by simpler forms of schools. It was thought that the campaign against illiteracy should be started by a large expansion of Elementary Schools of the Lower Primary type which would in time develop into Upper Primary Schools where conditions were favourable. It was felt, however, that the line of advance would differ considerably in different provinces and parts of provinces. Touching the standard of instruction it

was generally agreed that the new methods of instruction—observation-lessons, nature-study, etc.—were suitable where qualified teachers were available. At present the three R's, drawing, and the village map would form the ordinary curriculum. The present curriculum in certain provinces existed largely on paper only. They could be retained as something to work up to in time as qualified teachers became available.

Regarding Urban and Rural Schools the general feeling was against any distinction of curricula. In connection with hours, the number of children per teacher and the number of classes, the sense of the Conference was in favour of a daily period of four hours, from thirty to forty pupils to be allotted to each teacher who should where possible confine his attention to a single class, and there to be one class for each year of the course.

Regarding the training of teachers the general sense of the meeting was in favour of an expansion of smaller training schools in the first instance, provided that there were a sufficient number of them. It was thought desirable to train the teachers as near as possible to their work.

Regarding the relative merits of Board Schools and Aided Schools, the general sense of the meeting was that Board Schools were ordinarily better than Aided Schools and should it possible be increased in number, but where this was financially impossible then Aided Schools under recognised management should be increased but not private venture schools.

Regarding salaries of teachers the opinion of the Conference was that a rate of Rs. 12 should be adopted as the minimum for trained teachers in Board Schools and that these teachers should be placed in a graded service and given either pensions or provident fund.

It was undesirable to fix a minimum for an untrained teacher as possibly operating to check the flow of teachers to training schools.

As regards school buildings the sense of the meeting was that it possible buildings should at least in the first instance be hired, but if this be impossible or the permanent need for a school was established substantial but simple buildings must be erected. It was felt generally that the practice of combining teachers' quarters with school buildings was not desirable. It was also felt that the Public Works Agency was too expensive for this class of buildings and that the maintenance of a special Consulting Engineer in the Education Department of each larger province would be justified.

Regarding control the sense of the meeting was that the Department should have complete control over the inspecting staff and in all technical matters but that the appointment of teachers might rest with Boards and School Managers.

TECHNICAL AND INDUSTRIAL EDUCATION.

The second day was devoted to Technical and Industrial education.

Here the principal recommendations agreed to were:—(1) Regarding Railway engineering, College training should be of a general nature, but that a Railway course such as that given at Roorkee was desirable. (2) Regarding apprenticeship for Indians, there was considerable discussion, Mr. Gokhale, Mr. Mudholkar and others pointing out that Indians had not readily found employment, and other members giving particulars of schemes that had proved successful for apprenticeship in other countries. The general sense of the Conference was that the existing Engineering Colleges were generally on the right lines, that the standards were rising, that specialised College courses in Railway Engineering were not needed, that it would be desirable to take students at an earlier age into Engineering Colleges when Secondary Education had been improved, especially in the direction of manual training, and that efforts should be made to arrange with the Railways for giving the students of Technical College a trial. (3) Regarding Marine Engineering, it was the opinion of the Conference that the Indian Marine and the Steamship Companies should be approached with a view to providing if possible a certain number of posts for Indians as uncertificated engineers in order that they might get the practical training necessary. (4) As regards Ship-building and Navigation the Conference thought that there was sufficient opportunity for employment already. (5) Regarding Mining Engineering the Conference favoured a mining course at Sibpur corresponding to the standard of the University degree of Engineering. Mining Chemistry should be regarded as a branch of Applied Chemistry. (6) As regards Industrial Chemistry, the Conference agreed that the Indian Institute of Science at Bangalore should be developed as far as possible on the lines suggested by Dr. Travers and should be fully developed as a complete Faculty of Pure and Applied Science, but the Conference was unanimously and strongly of opinion that this institution even when fully developed would not meet the requirements of India even at the present time and that there was urgent need for local institutions to deal with local industries.

The Conference went on to discuss teaching in Metallurgy, Mechanical and Electrical Engineering and Textile Engineering, and they placed it on record in this connection that although the discussion was restricted to Mr. Mudholkar's resolution in the Imperial Council and to points arising out of it they recognised the vast importance of other branches of technical instruction. In particular they did not wish to prejudice by omission schemes which they understood were under consideration but had not been placed before them.

MORAL AND RELIGIOUS INSTRUCTION.

The third day was devoted to a long and interesting discussion on moral and religious instruction, in which a large number of members took part. Here, however, no general consensus of opinion was arrived at, except as regards the Mahomedans where the representative agreed that no moral instruction

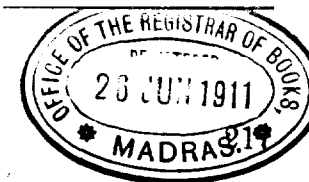
was practicable without religion and that no religious instruction was desirable except that of the orthodox Mahomedan faith.

SECONDARY SCHOOLS.

The Conference devoted the fourth day to a discussion of the differentiation of curricula in Secondary Schools. As regards the existing School Final Course, the view taken was that this was on the right lines but that further improvement in the staff of schools was necessary and that liberal support from Government was essential to this end.

The Medal Day in the Government High School, Meerut.—A meeting of the respectable citizens of Meerut, invited by Mr. Ferrier, M.A., I. E. S., Headmaster, Government High School, Meerut, to witness the distribution of the medals and prizes to the successful scholars and players of the school for general proficiency and games, was held recently in the premises of the Government High School. Mr. J. R. Pearson, I.C.S., the popular Collector of Meerut, presided, and gave away the prizes. Besides the members of the services, a large number of *râtes* and men of independent professions as well as the guardians of the boys also attended the meeting. Some European ladies too graced the meeting with their presence.

The proceedings commenced with prayers by the Rev. J. A. F. Warren of the Church Mission Society in English, by the school Pandit in Sanskrit, and by the Moulvi in Arabic. This was the most pleasing feature of the whole ceremony, as all present joined fervently in all the three prayers, showing thereby that a fervent outpouring of the soul expressed in any language reaches the throne of the Almighty. The Headmaster then read the report dwelling particularly on the progress made by the school during the year, and in this report he specially referred to the services of Mr. J. R. Pearson, I.C.S., the present Collector of Meerut, in forming an Educational Committee (under Government Orders) of the leading residents of the town. The President then delivered a short speech in which he particularly dwelt upon the advantages which have lately accrued to the United Provinces in the matter of education by the establishment of a Medical College at Lucknow and an Agricultural College at Cawnpore. He referred to the newly-formed Committee of Education and invited the co-operation of all right-minded persons. He also praised the organisation of the school and its present work by the Headmaster and his Assistant masters. Then followed recitations in English, Arabic, Hindi, Persian and Urdu by some boys of the school, which were very much appreciated by the gentlemen present. The prizes were given away to the boys of the school, and the more juvenile among them, with a row of medals on their chests, were very much cheered by the gentlemen present. A change is evidently coming on in the physical condition of the country which will surely bring in a proportionate development in the moral and mental conditions.



Before the meeting dissolved Mr. N. A. Rust, the Inspector of Schools, thanked all present in very suitable terms for the interest taken in education. He particularly brought to notice the encouraging effect on those concerned directly in the matter of education, of the great interest in educational matters taken by the Collector of the District.

After the dissolution of the meeting the visitors were entertained with a show of the drill exercise and figure marching which were very amusing. All present enjoyed the ceremonies very much. Sweetmeats were then distributed among the boys.

MYSORE.

The Indian Sanskrit Institute at Bangalore.—On the 3rd instant the important event of installing the students in the local "Indian Sanskrit Institute" opened by His Holiness the Sringeri Guru for the prosecution of advanced studies in the various departments of Sanskrit learning and philosophy took place. All the leading gentlemen were at the new Institute early in the morning to take part in the ceremony. Prominent among them were Sir P. N. Krishna Murthi, K.C.I.E., and Mr. V. P. Madhava Rao, C.I.E. There was also a large number of other leading Brahmin gentlemen.

H. H. THE JAGAT GURU'S SPEECH.

On behalf of His Holiness the Jagat Guru of Sringeri, Brahmasri Krishna Sastriar delivered a very inspiring address. It was in February last that the splendid structure where they were assembled was opened by His Holiness the Sringeri Guru in the presence of His Highness the Maharajah of Mysore and other leading gentlemen. What was required at the present stage of Indian Hindu Society was to take such steps as will enable our Society to regain its old enviable position among the nations of the world. The Hindus were famous for their religion and philosophy and it is that religion and philosophy that stood in need of revival. If the boast of the Hindus should be maintained and justified that they were a great nation of thinkers and philosophers, the members of the Hindu Society should fully realize the magnitude of the work that lay before them. Their ambition ought to be to bring about the complete restoration of their past reputation. It was with that view that the Sanskrit Institute had been started. His Holiness well knew that they were all ready to do what they can to uplift themselves and their brethren. It was only when they regained their original hold of their ancient religion and philosophy that they could endeavour to be masters of the situation. The idea was that the students trained in the Institute were to go out and influence others less educated than their own. What was required was their earnest help and hearty co-operation. Every member of the Hindu Society ought to feel that he had a distinct duty to perform towards the great seat of Sanskrit learning which they had all assembled to start.

The students were then formally installed.

SIR KRISHNA MURTHI'S SPEECH.

This being over, Sir P. N. Krishna Murthi rose and said that he was tempted to make a few remarks in spite of the fact that his health was very poor and he himself could not stand for some time. It was a great and noble task they had assembled to witness. The Institute was bound to become a centre of learning and influence in this great Bharatavarsha. To attempt at expressing the gratitude of the Hindu community was neither proper nor necessary. For, it was well-known that the Sanskrit Institute was the voluntary gift of the Jagat Guru of Sringeri. They never asked for it for this reason that they did not know that their Society was in such a dilapidated condition. After their eyes had been opened to that fact every one recognized it and endorsed it. It was unfortunate and strange that they were not fully aware of it. Still their preceptor was far-seeing enough to discover the flaw—the great flaw—and find remedy for their afflicted condition. That was a feature which would by itself bind them to the holy seat at Sringeri by the rope of gratitude. One remarkable point to which he would draw the attention of his hearers was that the Sanskrit Institute was intended for all sects of Hindus without distinction of *Dwaitam*, *Advaitam* or *Vishishtadvaitam*. That showed the cosmopolitan character of the Institute. So they would see that it was started for the benefit of the Hindu Society as a whole and was entitled to the support of every one who calls himself a Hindu. In conclusion he appealed to every one to do what he could to fulfil the object of the Institute and trusted that ready response would be made to his appeal.

Seven students—four for Vedanta and three for Purva Mimamsa—were installed and all are housed in quarters which are the generous gifts of private gentlemen. Mr. V. P. Madhava Rao, C.I.E., has constructed seven houses, while Mr. Nagar Subba Rao, has made a good gift of money for the construction of one or two houses.

COCHIN.

The Santa Cruz High School.—The distribution of prizes at the Santa Cruz High School came off recently with Mr. P. Braithwaite, B.A., Inspector of Schools, in the chair. There were many who responded to the kind invites sent out by Rev. Father Gonsalves, the Headmaster. As the prize-books that were ordered from England had not arrived, no prizes were given, but the usual report was read. Some amusement was also provided for the invited guests. The programme began with a chorus "The Fairest Day," next came a solo "I am a fine boy" to be followed by a drama in four acts. The acting and singing were good. The proceedings were brought to a close by the singing of "God save the King."

TRAVANCORE.

The Training College.—A recent Government Gazette contains a G. O. regarding the Training College to be newly opened at Trivandram. The building for the College is ready and orders have been issued to the Chief Engineer to submit estimates urgently for the Out-houses, the building for the Science Laboratory and Manual Training and the Principal's quarters. Separate orders will be issued for the construction of a hostel. A sum of Rs. 4,750 is sanctioned by Government for initial equipment:—such as Teaching appliances, Rs. 1,500; Chemicals and Apparatus, Rs. 1,600; Library, Rs. 1,650.

The following is the sanctioned staff for the College:—One Principal, Br., Rs. 400—50—750; one Vice-Principal, Rs. 200—20—300; two Lecturers, each Rs. 150—10—200; two Lecturers each Rs. 100—10—150; one Special Lecturer in Natural Study, Rs. 500 per annum (Honorarium); one Instructor in Manual Training, Rs. 375; one Assistant in Manual Training, Rs. 50—100; one Drawing Master, Rs. 50—75; one Drill and Gymnastic Instructor, Rs. 50—100; one Head Clerk, Rs. 35—50; one Assistant Clerk, Rs. 20—25; one Librarian, Rs. 30—40; one Museum Attendant, Rs. 20 and a few peons.

The appointment of Vice-Principal and Lecturers should be held only by trained L. T.'s and the men should also have ordinarily the M. A. or a first class B. A. degree.

The Model School attached to the College will consist of the Elementary and Secondary departments. The Model School will have a Headmaster on Rs. 150 rising to Rs. 200 and a staff of trained teachers, 41 in number, besides the Drill and Drawing Masters. The rates of fees that will be levied are:—graduates Rs. 150 per annum; non-graduates Rs. 60 per annum. The fees in the Model School will be governed by the Educational Code of Travancore. The number of students that will be trained annually is, graduates, 24; non-graduates (1st year), 24; non-graduates (2nd year), 24. The College will be opened on Monday the 19th June 1911.

KASHMIR.

Kashmir State Schools.—Introduction of Religious Education.—Rai Bahadur Dr. A. Mitra, the Minister of Education, Kashmir State, in the course of his address at the Prize-distribution of the State High School, Jammu held recently, made the following announcement:—

The object of true education is to draw out and develop all the capabilities or powers which are latent in man so as to enable him to fulfil the duties which he owes to God and to his fellow-creatures, and to fully participate in the privileges with which he is blessed by the Supreme Creator. There are three sides of human nature which are developed by education, the mental, the physical, and the spiritual. They are like three legs in a tripod—one cannot be lengthened or stretched at the expense of

the others without disturbing the balance of the whole. Education which only aims at the training of the intellect without any thought to the formation of character is not only valueless but may prove to be a source of peril. Character cannot be formed without moral precept and example both at home and in the school. Moral principles cannot be effectively taught without a basis of religion. The basis of utility or of conscience is neither durable nor strong. You tell a boy—'Don't tell a lie.' He argues 'well if I tell one, I find I shall gain.' The spirit of utility prevails. Conscience again needs a great deal of training before it can be a true monitor. History shows that very conscientious men were misguided. But fear of God is a never-changing element. The accountability of our action before the Highest Tribunal is the surest bedrock of morality. To attain an object, however desirable it may appear, through unrighteous methods is a sin. This idea can only be ingrained through religious principles.

I must here confess that I started with a bias against Religious Education, but after a very careful consideration of the subject my present conviction is that religion is the only sure foundation on which character and morals can be built.

The arguments against religious teaching are:—

1. It cannot be taught except by teachers who are religious themselves. It is the personality, and the life of the teacher himself that can produce any impression and influence on the minds of the boys. It is difficult to get such teachers, and if the test is applied, very few will stand it. Selection will be difficult and limited.

2. There are various religious sects and communities and therefore there are difficulties in imparting Religious Education suitable to each. Pantheism and Monotheism have all their exponents and yet they come under one class of Hinduism. Then there are Aryas, Brahmos, Sikhs, &c.

There are difficulties no doubt, but if the principle is recognized that a religious education is a necessity, an attempt may be made to overcome them as far as possible.

I have to-day the pleasure to say that His Highness the Maharaja Sahib has approved the introduction of Religious Education in his Schools and Colleges. I am confident that the happiest results will follow, and the education in this State will soon be an atmosphere, a discipline, and a life. This idea will be given effect to in the following manner:—

(1) In all educational institutions the morning work will begin by congregating the boys in one place, but in separate rooms for Hindus, Mohammedans and Christians, when a teacher of each religion, Hindu for Hindus, Mohammedan for Mohammedans will preside and a Hymn to the Universal God will be chanted. The teacher will explain its meaning. The boys will, in prayerful attitude and with due reverence bow their head in the usual manner according to the custom of each

religion. All teachers of each religion must join in this congregational prayer in their special rooms.

Can anybody object to such prayers.

"Thou art the Father of all things animate and inanimate; Thou art the Great Sage and Teacher of Universe and worthy to be adored by all. Wherefore I prostrate before Thee, with humble supplication, and implore Thee. O! Adorable Being, for Thy mercy. O! Lord bear with me, even as a father with his son, a friend with his friend and a lover with his beloved."

OR SAY:—

"From the Unreal lead me to the Real,
From darkness lead me to light,
From death lead me to immortality."

Brihadaranyak Purana.

I. 3. 28.

OR SAY:—

"I beseech Thee, O! merciful God to grant me, as long as I live, a sound body, a sufficiency of wordly means and an earnest desire to love and to worship Thee. I have always been and shall ever be Thy servant and Thou hast been and ever wilt be my Lord."

Purana.

In the Upanishads there are prayers which are acceptable to all.

For Mohammedans the Koran will be used and the Bible for Christians.

(2) For half an hour in each class a selected moral text-book will be taught.

(3) Teachers, who by their example and precept, are best able to inculcate religious and moral principles will be rewarded and promoted.

(4) Special prizes and scholarships will be given to pupils who by their conduct show a good moral life.

(5) A register will be kept in the schools in which a record will be kept daily about the moral conduct of the boys.

These will be our beginnings and we shall add more unto our programme as time proceeds and circumstances justify.

His Highness the Maharaja Sahib in his address said that he fully believed that religious and moral training in one's own faith will be a great blessing and as he wished his subjects to be educated in the fullest sense of the word and to bear a high moral character, he hoped that Moral and Religious Education will be extended to all Schools and Colleges from the lowest to the highest. He exhorted all his people to inculcate moral principles at home, so that young children may live in a pure and healthy moral atmosphere from their earliest life.

GWALIOR.

His Highness The Maharaja Scindia on education
—His Highness the Maharaja Scindia of Gwalior, in
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speaking on the subject of education at a recent public function in his State, gave what he considered to be the ultimate end of education and the lines on which it should, in future, be conducted. "I would merely say," said His Highness, "that I am a confirmed utilitarian in matters of education." He has intended the institutions to promote that end and they have been organised to train officers for the service of the State. His views on the subject of rural education are praiseworthy. He said: "in regard to rural education, my endeavour is to render our villagers capable of managing their own affairs efficiently but at the same time to impart to them a modicum of useful and indispensable knowledge which will broaden their outlook and make them peaceful, contented and useful members of the community." His Highness would define the object of education in India as being to afford facilities for "a peaceful pursuit of honest avocations, embracing the development of industries to provide occupation of the masses, accumulation of wealth for the supply of the general wants of the community and requirements of the highest culture and knowledge for the good government of the country." The Maharajah's characterisation of the present-day teaching is marked by freshness and candour. He said:—

"Teaching at the present-day is too mechanical and effete. It neither goes down to the heart nor does it inspire the brain. I hope I am not arrogating to myself the authority which belongs to men of the highest intellect and erudition in saying that, the lifelessness of the teaching is illustrated by the fact that the knowledge of the sciences studied in College remains a dead mass in the brain of our graduates. How few of them can apply in practical life the maxims of Political Economy or the deductions of History: how many of them can import into their reasonings the quick perception of fallacies which Logic is intended to confer? So far from that, how often are not the arguments of the 'Professors of Logic' brilliant examples of sophistry and paralogism?"

INDIA (GENERAL.)

The Hindu University.—In the C. H. C. Magazine for the current month Mrs. Besant writes as follows:—

Our readers are familiar with the University scheme published sometime ago in our columns, and widely approved in the country. We print as a supplement the original petition, as now before the Crown, together with a statement of the changed conditions which have led to the amalgamation of this and of the well-conceived scheme of the Hon. Pandit Madan Mohan Malaviya, and the modification agreed on. The charter asked for by the powerful group of representative men who are working with me includes all the powers needed for carrying out the Hon. Pandit's noble idea. His co-operation will render possible the immediate foundation of a residential University,

the crying educational need of the time, and a Theological Faculty will be instituted, controlled by carefully selected representatives of the Sanatana Dharma. H. H. the Maharajah of Benares, before his recent elevation, promised as much land as was needed for the carrying out of the scheme, and we feel sure that he will keep his promise, and thus ally his name for ever with the first Hindu University. It seems probable that, if the leaders of the Hindu and Moslem Universities join in the prayer, that H. M. the King-Emperor might graciously consent to give one day to Aligarh and one to Benares, on his way to Calcutta, to lay the foundation-stones of the two Universities. The occasion is unique—the founding of the first two Universities in his Indian Empire by voluntary effort, and His Majesty, so sympathetic and so gracious, may well think it desirable to bind yet more closely to him the hearts of his Hindu and Mussalman subjects, by associating himself with Universities which will add an imperishable glory to his reign and be landmarks in Indian history. As the first Emperor crowned both in Westminster and in Delhi, such an act of Imperial grace would be most fitting, and would ring throughout India, awaking passionate gratitude in the hearts of millions.

The modifications in the scheme have been laid before the original signatories and we shall not, I hope, lose any of them by the changes. While I look after the interests of the scheme in England, the Hon. Pandit will, in India, enlist the sympathies of the Ruling Princes, rouse popular enthusiasm, and collect the necessary funds. The Pandit's fine eloquence and transparent sincerity make him a worthy leader in this noble cause, and he will live in history with the University of Benares.

It ought not to be forgotten by Hindus, that the successful carrying on of the C. H. C. for the last thirteen years has been the indispensable preliminary for the establishment of a Hindu University on a broad and liberal basis, as the success of Aligarh has made possible that of a Muslim. Nor should Hindus forget that this carrying on of the C. H. C. has been chiefly due to the self-sacrifice of Hindu and English members of the Theosophical Society. If they realised this, they would surely put a stop to the irresponsible attacks on the Society made by a few of the less self-respecting Hindu journals, for if these succeed in their thoughtless design of turning Hindu feeling against Theosophy, India will have to wait long for a Hindu University. Even the better-class journals which have inserted criticisms, would do well to close up the ranks for the sake of realising this great aim. Many of the best educated Indians are in the T. S., but the majority of them are not rich. The non-English-knowing wealthy merchant class must be appealed to for funds, and if they are prejudiced against Theosophy they will hang back. All patriotic Indians will, of course, take advantage of the Theosophical help which is necessary for the success of the University, but they should restrain the anonymous unpatriotic

scribblers who have lately been talking at random against us. Needless to say that, in the University, as in the C.H.C., the Sanatana Dharma will have its rightful place, and will be taught by the orthodox, but the Theosophical school of thought among Hindus must also be recognised as having a claim to courtesy and respect. Theosophists are much nearer to Vaidika Hinduism than are many of the modern orthodox sects.

Foreign Notes.

GREAT BRITAIN.

An Imperial Conference of Teachers.—An Imperial Conference of Teachers is to be held in London. The scheme is a natural outcome of the recent affiliations in Canada, Australia, South Africa and other British countries to the League of the Empire. The League has found it impossible to arrange the Conference for this year, as was hoped at first, but representatives of some of the Associations are coming to England shortly and will have preliminary consultations with the League's executive. The Conference will almost certainly take place in 1912. The National Union of Teachers will co-operate, and its President and Vice-President have become members of the League's Council. The standard work on the British Empire, issued by the League under Professor Pollard's editorship, has been re-written in a much shorter form for Secondary Schools, by Mr. E. G. Hawke, also for Elementary Schools and the junior forms of Secondary Schools in a still smaller volume by Mr. Gerald Hankin.

A Scholarship for Sanskrit Study.—Professor K. Ramunni Menon of the Presidency College, Madras, formerly a scholar of Christ's College, Cambridge, has given £100 for the encouragement of the study of Sanskrit at Cambridge by the foundation of a prize named after the Rajah of Cochin to be awarded to members of Christ's College, of not more than three years' standing from the completion of their first degree in connection with the examination for the Oriental Languages Tripos, or such other examinations as the College may in any year substitute.

GERMANY.

The Training of Teachers—Germany as a pioneer in education.—Speaking at Lancaster, Mr. Runciman is reported to have said that he was rather tired of being told that England should take Germany as a model. In his opinion, it would be well for Germany to take England as a model in Elementary School matters. An historical anecdote records that an Athenian voter of old justified his vote for the ostracism of Aristides on the ground that he was tired of hearing that eminent public man styled *The Just*. If Mr. Runciman is in the same way growing tired of the praises of Germany, we trust that in future he will put control upon his impatience. For Prussia was the first of modern States to recognise the duty of a Government to provide education for its people; and, consequently, if for no other reason, we owe a deep debt to Prussia and to the Germany which Prussia

has made. If, however, Mr. Runciman only meant that people in their usual pessimism shut their eyes to what is being done at home, and exaggerate, largely through want of full knowledge, what has been done in Germany, he is not without justification. Much as Prussia and Germany have done, they have not done everything that a great people can do in forwarding education, and the announcement which the President of the Board of Education was able to make at Lancaster shows that he, at all events, is endeavouring to compete with even the greatest of Educational Administrations abroad, for he told his hearers that it is intended to provide the means in future for men and women while training for teachers to spend three years at the expense of the State at a University. The announcement is welcome news to every true educationist, and both Mr. Runciman and the Government of which he is a member are to be congratulated upon a decision the importance of which it is impossible to overrate. Everybody will recognise at once that teachers ought to be very highly educated. The man or the woman who makes a life work of developing, strengthening, and guiding the faculties of children cannot know too much.

MERITS OF THE NEW POLICY.

We doubt if there is any profession in existence that demands greater qualities than the teaching of youth. And, therefore, we are profoundly convinced of the absolute need there is for the highest possible education being given to our teachers, both male and female. Mere school teaching, even if in the word 'school' is included

every teaching institution, from the very lowest to the very highest, though indispensable to qualify the real teacher, yet is not enough. A man or a woman may have learned everything that Schools and Universities can teach, and yet be unfit for themselves teaching the young. There are qualities like sympathy, patience, good temper, and the like which are even more indispensable than wide, varied, and deep knowledge. But for all that it is beyond dispute that the highest education in the narrow sense of the word is requisite, and the Government, therefore, earns the gratitude of the British people, of the present and of the future, by the decision now announced. We hope, however, that the teachers will not be sent to either Oxford or Cambridge, at all events until these two Universities are completely remodelled, or else until a new College is admitted into each purposely designed for the training of teachers. For Oxford and Cambridge are too literary, too classical, too little of real educational institutions, to put the matter quite briefly and quite plainly. They lay themselves out to attract the sons of the rich, not to give a real education, and it is a real education that is required for those who are to teach the young. Besides, both Oxford and Cambridge are too sectarian. They were founded for the training of priests, and they have never shaken off ecclesiasticism. Children attending Elementary schools require to be fitted for the work they will have to do in a very hard, practical world. And they cannot be so fitted unless the teachers of those schools are trained for the task which they are expected to perform. Therefore, they ought to be sent to the Universities which are modern in spirit as well as modern in their aims.—*The Statist*.

MATRICULATION HISTORY OF ENGLAND for 1911 (adapted to the Madras University Syllabus containing the Pre-Norman, Norman and Early Plantagenet Periods) by S. N. GHOSH, B.A. Price—8 Annas.

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The attention of all the graduates is invited to the following Circular :—

UNIVERSITY OF MADRAS.

NOTIFICATION.

UNIVERSITY CALENDAR.

The Calendar of the University for 1912 is now under preparation. That portion of Volume II of the Calendar relating to the alphabetical list of graduates is carefully revised from year to year by the University Office. It is, however, presumed that the list contains the names of many deceased graduates, and that the column "occupation" sometimes gives incorrect and insufficient information. The Registrar will be obliged to graduates and others for information in the following form, to enable the office to correct the list and bring it up to date.

The Registrar will be glad to receive intimation from time to time of the changes in the occupation of graduates and of the names if any of the deceased graduates. Such information when given should be as complete as possible so as to enable the office to amend the list correctly.

Name under which diploma was granted.	Name of the Degree.	Year of Convocation at which the Degree was conferred.	If a B.A., Second Language.	If a B.A., Optional Branch.	Class in which placed.

Senate House, 1st May 1911.

(Sd.) F. DEWSBURY, B.A., LL.B.,
Registrar.

The Educational Review.

The common method of teaching history consists in the instructor meeting the class and covering a selected period of history by means of recitations, quizzes, text-book and collateral readings and essays. The laboratory in connection with the teaching of history is a novelty. We find in our college time-tables certain hours set apart for work in the library. These hours are commonly spent in the library with no special purpose. If these hours are to be changed into a kind of laboratory work, the instructor must supervise individual reading of current periodicals, in order to explain present-day problems with special reference to history. To conduct laboratory work in history a room must be set aside and equipped with chairs and tables, with necessary reference books, such as dictionaries, general histories of the nineteenth century, descriptions of the various countries, *Statesman's year-book*, *Annual register*, *Who's who*, etc., with atlases and wall-maps, and with complete files of several of the most important English and Indian newspapers, and a few of the best English and Indian reviews. Facilities must be provided for filing and preserving clippings on political matters from the Indian newspapers. Arrangements must also be made for borrowing from the general college library whatever books may be required that are not permanently in the laboratory. The work of such a laboratory is likely to lead to several possibilities in the future. In the first place, it is capable of providing an excellent means of co-ordinating many elements in our complex college curriculum. The

readings in contemporary periodicals suggest the subject-matter which underlies economics, politics and the social sciences. Newspapers play a most important role in modern public life, and should therefore form a subject of special study in colleges. The newspaper clippings and abstracts made in the laboratory should form the materials of history. The daily criticisms of these materials, by effecting comparisons between various accounts of the same event in different newspapers and searching for biased motives of presentation, would make it possible for the student to read the newspaper intelligently. Such a course of training would act as a corrective to unintelligent comment upon current events.

At a recent Conference of the Private Inspection of Schools' Association held at Birmingham the subject of inspection of private schools received prominent attention. The Rev. J. H. Moore, who spoke on this subject, pointed out that freedom, variety and elasticity, which form the three essentials of a sound system of education, ought not to be permitted to be tampered with in any way by inspecting officers. The duties which the State has to discharge through its inspecting officers can be related only to sanitation, healthy surroundings, regularity of attendance, efficient discipline, observance of the laws of the State by the parents, the number of pupils in each class, the qualifications of teachers, and not with the internal working of schools, such for example as the arrangement of time-tables, the methods of teaching, etc. Any interference on the part of inspecting officers to control the individual work of teachers or to impress their superiority over teachers will

prove more harmful than beneficial. Rightly does Mr. Moore emphasise that such interference from inspecting officers should be resisted. This does not mean that the teacher should not welcome criticism from properly-equipped and experienced officers, when it is made in a spirit of sympathy and helpfulness. As the Rev. J. H. Moore says, the teacher ought to receive criticisms from inspecting officers in the spirit of one taking counsel with a fellow-worker but not in the spirit of a subordinate taking orders from a superior officer. So far as our experience goes the inspecting officers in this part of the country generally endeavour to impress their superiority on teachers and often pose as authorities on subjects, with which they are inadequately acquainted. The poor Indian teacher is too slavish to offer any resistance to the *bahadurism* of the officers of the Department. Had there been more *esprit de corps* and self-respect among teachers, any undue interference with their work on the part of inspectors would not have been possible.

In a very interesting and instructive lecture delivered to the members of the Free Students' Association at Berlin, Dr. Wilhelm Ostwald has made the following remarks about the relation of students to politics:—"According to my experience among ten men with well-developed intellect there is at the most one with a well-developed will. This is due to a fundamental perversity of our school education, on which I shall not here dwell; it is also connected with a theoretical (though happily not put into practice) view of Government pertaining to the past, which sees in individuals not citizens but slaves, and therefore evinces no interest in the free development of

the will. I shall not here waste time in complaints about the present and the past; I shall emphasise only this fact that for your self-education the development of the will is at least as important as that of the intellect.

"For this development an early acquaintance with that sphere of volitional activity of our time, which is generally included under the term politics, is indispensable. The opinion that the student should not concern himself with politics is a vestige of a past ideal of student life. If we consider for a moment that in his professional life the student has always to influence and lead other men, we shall have to ask ourselves: When and where then shall the student learn that? It is unbecoming of the young man, who has prepared himself to become an intelligent guide of his people, to enter without study and examination upon the achievement of the object he has set before himself. Rather must he examine his purpose in all aspects and strengthen himself by working with the full devotion of his mind. Otherwise how could he with a pure conscience act as a guide?

"It is a great pleasure to me to find that discussions have taken place in your society on the same question with the same trend of opinion as mine. I know that there are anxious minds, who would keep the young student aloof from all politics; they are like the people who will not go into water before they have learned to swim. But, my friends, you must afterwards any how get into water. It seems not proper for a nation, which has taken its destiny into its own hands, to artificially keep that portion of its rising generation, which is expected to wield the greatest influence, aloof from the acquisition of an independent political judgment. And it only proves a want of confidence in the sound-

ness and vitality of their own principles, when any political party seeks anxiously to hinder those who have been specially trained for doing serious work from practically exercising their function."

Though we have extracted only the remarks of Dr. W. Ostwald in so far as they bear on the relation of students to politics, the lecture as a whole deserves the attention of teachers, as it deals in general with the Universities of the future and the future of Universities.

Miss Isabel Cleghorn is the first lady president of the National Teachers' Union. The power and authority of the National Union of Teachers in Great Britain has, owing to its earnestness and sincerity, become such as to command national attention, and it is no small honour for a lady to be elected its president. The subject of her Presidential Address was the Educational Ladder. We extract here her remarks upon continuation work:

"Secondary schools or classes of varying types, to meet the demands of the localities, should be organised to fulfil the essential duties of Secondary schools—that is, to add to the education given in the Primary schools, but in a more specialised manner. Why should the Secondary education be only of a nature literary or theoretically technical or commercial? "Labour is prayer." Why should we by our school system cater only, or mainly, for those who are to be clerks or teachers, engineers or electricians? Why should we educate for the Civil Service or the Post Office, and omit to educate for the farm or the garden? Why not supply the education necessary for the plumber, the painter, the bootmaker, the dressmaker, or the domestic servant? All are equally utili-

tarian, according to the way we look at them and try to take our thoughts out of the groove of present practice.

"Education should be an effective preparation for life. Life is many-sided; why prepare for one side and omit the preparation for all others? Is it because the men who frame our codes and syllabuses can look back only to their own method of education and where it led them? Is it because they fail to realise just as much as their education prepared them for the University, the Government Office, or the House of Commons, so there should be the right kind of education provided for other paths of life where not only the head but the hands also, may receive necessary preparation? It may be utilitarian, but so is all education in one way or another. Do let us rid ourselves of the idea that any kind of useful work is derogatory. We have as much right to prepare the lad whose future work will probably be in the mine with some knowledge of mining lore, safety lamps, fire-damp; to give the children in our villages some form of education related to life on the land, as to prepare the prospective merchant prince in German and French, the prospective clergyman in Greek and Latin, the prospective scientist in Mathematics and Chemistry. But we don't do it. It is also quite as necessary, if not more so, to educate our girls for the duties of the home. The future wife, the future mother, the future servant or mistress—all have an undeniable right to obtain the best form of education to fit them for these high and sacred duties."

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MANUAL TRAINING AND MANUAL TRAINING SCHOOLS.

II. COURSES OF WORK:—

(a) CARDBOARD MODELLING.

BEFORE considering the question of the provision of a room or workshop suitable for Manual work, the teacher responsible for such work must decide what course is to be followed, what branches of work are to be taken up. Almost any industry can be made to provide a series of models, capable of the requisite systematisation and which can be so chosen, arranged and developed as to offer a sufficiently graduated series of exercises. Clay-modelling, basket work, strip wood-work and the like, all find strong advocates and much can be said in favour of the introduction of any or all of these—for it is evident that they are not mutually exclusive; in fact, it is of the greatest importance that as many different materials as possible be employed. "The larger the number of media by which the ideas are expressed, the more complete the control of the idea." The worst conceivable way of introducing "motor" training—and one, unfortunately, only too often adopted—is to take up one special form of handwork—such as clay-modelling or formal wood-work—carefully separate it

XVII

from all other branches of the curriculum and keep the two aspects of school-work—the mental and the physical—rigidly isolated.

Without presuming to lay down any definite order, it can at least be argued that handwork should develop along some such lines as the following:—

(i) The mathematical and other scientific subjects must be put on a thoroughly practical footing, full advantage being taken of the manual work as affording legitimate and adequate grounds for commencing any investigation. In other words, the utilitarian aspect must be kept clearly in view until there has been aroused sufficient interest for the appeal for logical treatment and systematic study to be really felt.

(ii) Art subjects must be so amplified as to include brush-work and clay-modelling. These are most valuable in developing "manual" dexterity as well as a sense of form. A foundation for the cultivation of artistic taste is also laid.

(iii) Paper-modelling, plaiting and the like, must be introduced in the very lowest forms—Kindergarten.

(iv) For boys from 9 to 10 years of age, a series of models in carton or cardboard should be arranged.

(v) Next comes a course in strip wood-

30

work, or, perhaps preferably, a rough carpentry course.

(vi) A formal course in wood-work follows.

(vii) Finally, where boys stay long enough at school, there comes a course in metal-work.

It may be convenient to group stages (vi) & (vii) together and re-arrange them so that elementary wood-work is followed by elementary metal-work, and at the age of 15 the boy is allowed to specialise in either wood or metal-work as the resources of the school permit or as the boy wishes. In every case it must be borne in mind that the training sought is of a really "practical" nature; the work done, consequently, should not confine itself to exercises in method, but should be directed concurrently and practically from the very first towards the production of real things.

The limitations of space forbid amplification of the first three stages in our list, so we may commence by drawing up a course in carton work. But it must be remembered that rigid adherence to one formal sequence of exercises is inadvisable. Any teacher will do better work if he is himself an investigator than if he is merely repeating stock models and, once the sequence of exercises is stereotyped in the teacher's mind, there is a danger that he will make too many "short cuts" for the scholar to reap full benefit from the course. Further, there would be a tendency to direct attention to superficial details and this leads to intellectual confusion. It is the broad principles which are of importance and these are more like to receive attention if the teacher is directing a new series of models or exercises. Another axiom to be borne in mind is that

exercises which soon become automatic are of very limited value as no intellectual advantage arises from the mere repetition of a muscular trick once it is fully mastered.

The advantages of carton work as introductory to more systematic courses in wood or metal, may be summarised as follows:—

(i) The material is soft and easily worked. Its manipulation consequently does not require that degree of physical strength necessary for much of the work to be undertaken in formal wood or metal-work. It is therefore particularly valuable for young boys and is useful as a medium intermediate between those employed in the Kindergarten and the tougher materials worked later.

(ii) A well-graduated series of models can readily be devised: exercises which are progressively more complex, which require more and more skill in manipulation of both tools and materials, and which form a convenient logical basis for much formal arithmetic and geometry. At the same time there is plenty of scope for originality of treatment, both in the design and adaptation of models as well as from the artistic standpoint.

(iii) The cost of equipment and maintenance are low, as very few special tools are required and the necessary materials are cheap.

(iv) The correct methods of using the few necessary tools are rapidly mastered. The most important tool is the knife and facility in its use is valuable as introductory to the use of marking knife and carving tools in wood-work as well as to scribe and scraper in metal-work.

(v) Neatness, cleanliness and accuracy are soon found to be essential and the training in these habits acquired in a course of carton work is invaluable.

Somewhat full details are given of the first one or two models in the accompanying typical list, but the discussion is by no means exhaustive, while the teacher will find it of the utmost advantage to be prepared with ideas or suggestions for one or more "voluntary" additional models, which could be attempted by the best boys—who complete the routine models very rapidly—in order to employ them during time otherwise wasted in waiting for the rest of the class. With regard to this difficulty of keeping a class together, the following generalisations may be useful. The average class may roughly be grouped into (i) brilliant boys, one or two in number: (ii) the bulk of the class, "average" boys: (iii) "duffers." If then each model or exercise is triple in its nature, i.e., arranged in three modified forms, or in three degrees of difficulty, it is possible for the teacher to omit much repetition, discussion, re-demonstration otherwise unavoidable. Thus, there would be the "normal" routine model for the average boy and the "simplified" model for the duffer, while the brilliant exception would be allowed to modify the normal model in the direction of additional refinement, or of increased complexity and given full scope for his inventiveness and originality in the "voluntary" exercises he attempted while waiting for the bulk of the class. Of course, it is not always feasible to devise exercises which would allow this treatment, particularly in the models attempted at first, but the difficulties the scheme is devised to overcome do not press at the beginning of a course. The "duffers" would find it necessary, perhaps, to omit one or more of the routine models in order to keep pace with the rest of the class.

The following models are suitable for a first course in cardboard-work:—

- | | |
|-------------------------------|-------------------------|
| (1) Chess-board. | (6) Napkin-ring. |
| (2) String-box. | (7) Collar-box. |
| (3) Instrument-box. | (8) Wall-corner pocket. |
| (4) Egg-box. | (9) Pocket-book. |
| (5) Square or hexagonal tray. | (10) Letter-holder. |

Among models suitable for "voluntary" exercises, or for addition to the routine list, may be suggested:—

- | | |
|-------------------------------|-------------------------|
| (1) Album case. | (5) Stationery case. |
| (2) Casket. | (6) Bound portfolio. |
| (3) Photo frame. | (7) Geometrical models. |
| (4) Square or hexagonal vase. | |

For this series of models, mill-board or wood-pulp boards should be used. Mill-board is put up in bundles weighing approximately $\frac{1}{2}$ cwt. each and it costs about 14/ per cwt. in London. It is stocked in various series, but the size usually supplied is 19" x 24". Its thickness is denoted by a "substance number." For most of the models suggested, mill-board of substance 6d. or 7d. is suitable, but for the chess-board, or for any other model which should be made of stouter material, it is advisable to provide mill-board of substance 8 x or 8 x x. Wood-pulp boards, measuring 22" x 32", are put in bales of 125 kilos each and cost 12/6 per 50 kilos. The thickness runs from that denoted by 80s, which serves for heavy work, to that devoted by 300s, which is very thin. For most models, board of substance 100s or 120s is serviceable.

Coloured papers of various designs and stiffness are available for covering models and prices vary very much, but good "leatherette"—which may be obtained in various shades—costs 42/6 per ream (Double

Crown), while gummed binder's cloth ready for use costs about 1/6 per square yard. A good stock of gummed paper strips, or, better, gummed tapes of various colours, is also necessary, but the price varies so much that it is advisable to obtain special quotations for supply in bulk. For the pocket-book, the portfolio, and similar models, "leatherine," a substitute for leather, may be employed: it costs about 3/- per square yard.

T. S. USHERWOOD.

(To be continued).

THE PRIMARY SCHOOL.

READING.

III.

(Continued from page 151.)

WHEN a beginning in reading has thus been made, based primarily not on any fancied easy order but on the interest certain words have for the little ones, the teacher has till the end of the second year of his pupils' school-life many ways, interesting to himself as to his pupils, of making reading a subject with a meaning and an end found in itself and to be realised in every lesson. That is to say the reading of the first standard will not be definitely preparatory to the second, but will be a means used by the teacher to give the children all-round exercise, and to give them the pleasure of discovery, specific new things in language, new values in words and signs, new possibilities in new words because these can be written. If the teacher be tempted to say that this after all is preparatory, he must remember that if indirectly it be so, yet his absorption in the present actual daily value of the lesson must be such as to throw this thought into remote sub-consciousness.

In the upper first class an ordinary class reader soon becomes necessary or at least useful, but it must here have a second place. The place of first importance is to be taken, as in the earliest stage by those things, in print, which have held the children's best attention. The following are one or two illustrative suggestions for making the reading lesson a living one. The little English poem 'Excelsior' translated into simple Tamil, stripped of every attempt to read a moral into it, or dig any meaning out of it except the pictorial one found at once by the pupils, may appear as a story two or three times in a term and be welcomed equally each time. Early in the same term the fourth class might be provided with note-books ruled faintly on the right-hand pages, and at some of the writing lessons would print the story according to a given plan. The lines and the words must be well separated. During hand-work lessons the third class could prepare covers for these note-books to be designed as each pupil chose, either class finally filling in a largely printed title on the front page. The third class should sew on the covers. In these "readers" the left-hand pages will be left blank. When the books thus made are presented to the first class pupils they must be left for a little while quite free to investigate. If any of the children discover that the book in their hands contains their own particular story the discovery will be worth any number of stereotyped text-book lessons. Then when the real reading begins the teacher may make what use he pleases of the blank pages. He may for instance invite the pupils to illustrate; he may use them for any word-exercises that may be necessary; or let the teacher himself draw and cyclostyle or lithograph little pictures

illustrating such parts of the story as may be easily shown, the boy with his banner and its motto "இன்னும் மேலே," the old man speaking with the boy on the mountain side, the sky, the "lifeless but beautiful" scene. The children will fix these on to their blank pages at the proper places, each picture receiving from them a title. Any number of such hand-printed tales may be prepared during the year with as many variations as the teacher wishes. And this kind of reader does not need to be confined to the younger classes. The primary teachers may co-operate with teachers of upper forms, and so may provide every class in the primary school with these little readers which may be used, for instance, in the third class, as unseen reading exercises. If the stories so printed are thoroughly good their value in many ways is great, and pending the appearance of attractive and good primary school vernacular class-readers the teacher may use such very effectively.

In conjunction with these any ordinary class readers may be used in the first class once or twice a week. It is quite a useful plan to make this second reader the basis of very short home preparation lessons, and of conversation lessons between pupils and parents. [Pupils might for instance be invited to bring any little stories or additional facts known to their parents, grown-up brothers, or sisters about any particular subject in the reader; or they might bring orally half a dozen descriptive words, words having a similar root, etc.]

One suggestion is here made to all teachers of reading. By far the greater part of the speaking and reading of a class should be done by the pupils, not by the teacher. The lesson ought to begin with the children's questions to the teacher. His pattern read-

ing is a medicine to be used only in extreme cases and then very sparingly. The lesson may finish with the teacher's reading of any passage, not as pattern, but for the pleasure it will give to the listening pupils. Occasionally the whole reading lesson may be a perfect reading by the teacher of a worthy tale written out previously in vernacular by himself if he cannot find one already in vernacular literature to suit him. For instance he can give a treat to his first class by reading to them "The Cat that Walked by Himself," or "Toomai of the Elephants" from Kipling's stories; to a third class just beginning English Kipling's "How the First Letter was Written." The second class would enjoy the "Giant Despair" story in the Pilgrim's Progress, and the fourth class any exciting deed from history. Teachers often ask for a good book of stories, forgetting that the world's literature teems with stories from which each must select those he most enjoys. This story reading to a class is as legitimate as story-telling, provided the teacher knows how to read well. It is best if these can be procured written by a scholar in the language of children, but in Tamil child-literature is still to be made, and a Tamil Stevenson and Kipling have still to appear.

IV.

LANGUAGE-COMPOSITION.

Reading covers so much of school work that there are few lessons which do not in some way depend upon it. When we give our infants a primitive picture and hear them exclaim over its incidents we are appealing to the primitive reading faculties. When we so question them that a definite form of answer based on inspection of the picture is required, we are at the beginning of litera-

ture; we are asking the child to formulate his own idea in definite language. When we teach them rhymes we are providing them with a formal language. For about the first two years we can do little more than this. The child's language must come spontaneously and our only way to direct his language is to surround him with forms that will give him rhythmic pleasure, and to let him describe his own thoughts as brokenly as he will. A very young class must not be asked to repeat a story, a lesson, in formal language. The pupils are possibly all anxious to tell what they know, and they must be allowed to tell it in their own language and in their own order. The reproduction should be largely a series of eager little exclamations, not a composition. Further if the teacher allows the idea of testing what the pupils know to come into this lesson he can notice a stiffness immediately creeping over the spirit of his class. It must be a reproduction they enjoy giving, not a mere response to the teacher's request. In the second class attention will be paid to correct form of language, but here also the teacher must not sacrifice naturalness to the exigencies of composition exercises. It is quite unnatural for a boy to answer to the question "What have you in your pocket?" "I have a knife in my pocket," and such faulty formality must not be insisted on. In this class too the old-fashioned way of asking pupils to construct or reconstruct a story piece by piece is good, and if the teacher carries it through rapidly is excellent. Short exercises on the same lines, written on the blackboard may also be given. These may frequently give place to very short written original paragraphs based on the previous nature lesson or in fact on any of the lessons the pupils collectively choose.

The following is an illustration of the kind of vernacular composition that might be done in the third class. The third class boys had all heard about Mysore and knew that between Mysore and Madras lay roads, forests, jungles, capable of yielding much adventure to boy adventurers. The whole class started an imaginary journey to Mysore in jutkas or bullock bandies, the teacher going with them, and each day week by week built up the story of the journey. They fitted themselves with provisions and guns, shot a tiger, rescued distressed people on the way, were watched by curious crowds, were attacked by robbers, had narrow escapes, finally receiving a noble welcome in the Rajah's palace. Because the adventures were exciting, and because each boy's renown depended on his own power to imagine and describe, a very passable tale was ultimately produced true to life in many ways that the boys had not intended.

Such a language exercise is best done both orally and in writing, the continuous written tale being kept in a note-book with blank left-hand pages for any illustrations desired. The teacher's corrections should be entered neatly on the margin in red ink so that the boys may take pleasure in their work when it is finished.

One illustrative note on the much abused correlation of studies may be added here. In the above third class composition exercise, the tale itself was based on accurate geographical information from the teacher. A map was procured, a plan of the way drawn, and a series of geographical lessons accompanied the making of the tale, while the pupils were permitted to design their own jutkas or bullock bandies in pasteboard, draw and cut out their horses or bullocks, and to design

and arrange their *ਸ਼ਾਮਲ*.—One boy desiring an uncommon adventure harnessed his bandy to a bear—This, with the addition of the shot tiger and other fruits of their adventure, occupied the hand-work lessons for several weeks, the composition itself being done during the same week.

The fourth class hears of great people in history, of stirring deeds, of interesting contemporary happenings. It is quite interesting to them to keep either a diary relating shortly, accurately, and in their best language their own adventures which they may however find difficult, or the diary of a person called X into whose life they may fit any of the daring deeds and wonderful adventures they have heard about. If the teacher chooses the former exercise for his class he must be careful to show the common incidents of common life in their most commonplace form, lest he be met too frequently with the words, "nothing interesting happened this week." This is the kind of phrase however that may be turned to good account by an able teacher.

R. McLEOD.

(To be continued.)

EXAMINATIONS AND SCHOOL-LEAVING CERTIFICATE.

THE history of Secondary Education with reference to Public Examinations during the past half a century may be roughly divided into three epochs of which the special feature of the first was that education and examinations were somewhat identical in interests, the latter not being considered to be a great evil. The special feature of the second epoch was the subordination of edu-

cation to examinations to which it was practically sacrificed. The third epoch is the present transitional period when examination is discouraged in unmistakable terms as an end in education. The transition from epoch to epoch being slow, gradual and interlapping like seasons, it is difficult to say when exactly the one epoch or the other commenced or ended. Making a rough division of the past 50 years from the point of view of the recognition by the educational authorities of the effects of public examinations on education, the first epoch may be said to end with the Education Commission of 1884 and the second with the Resolution of the Government of India on Indian Educational Policy in 1904.

The old Matriculates of the seventies of the first epoch tell us that they read several of the standard works in English prior to their passing the Matriculation, that they loved reading for its own sake, that they did not possess 'Cram' books or 'Made Easies,' that they relied for intellectual development more on themselves than on their teachers who knew what to teach and what to be left to the student for self-study, and that the question papers set at the University Examinations were all original and tested the genuine capacity of students. The remarkable point of the second epoch was that, without recognizing the evils of examinations, Primary and Lower Secondary Examinations were introduced only to be abolished later on. During this epoch the students were hastened through an education which had, as its object, the examination alone, the students, teachers and annotators "concentrating their energies not so much upon genuine study as upon the questions likely to be set by the examiners." Question papers, being more or less imitations in certain respects of those of the previous

epoch, became more a memory-test than a capacity-test and hence encouraged students in the art of 'cramming' and certainly examinations of this nature cannot be a test of educational proficiency. The remarks of 'a distinguished Civilian' about 'the graduate as an official,' the details of which are given in the *Indian Journal of Education* of November 1894, voiced the public opinion of the times that the Indian student regarded his studies from a purely commercial point of view. The 'distinguished Civilian' said of the graduate that he was like the man in the poem,

"Whose only occupation
Was senseless imitation."

The general unfavourable opinion of the 'passed men' and the large slaughters annually at the Matriculation of the candidates who were all found competent by the different schools that sent them up, made the educational authorities realize the inherent faults of selecting men for the public service or the University by a mere public examination. The Government therefore by their Resolution in the Indian Educational Policy of 1904 have recognized that "School and College Certificates of proficiency should, as far as possible, be recognized as full evidence of educational qualifications and due weight should be attached to the recorded opinions of collegiate and school authorities regarding proficiency and conduct of students during their period of tuition." Now that the Government have practically left to the school authorities to devise means to find out the talented among their students and send them out to the world equipped with Leaving Certificates, the teachers in Secondary Schools have a great responsibility; since the public in future

relies for a great part on the services of persons holding the Leaving Certificate and their failures in the after-career cannot be compensated by the teachers afterwards. The teachers, therefore, should make use of all their resources to discover the genuine talent and weakness in each individual student before they enter marks in his Leaving Certificate. The test must therefore reveal to them, the growth and development of the various mental faculties such as the power of observation, memory, thinking-ability, judgment, and execution. On no account should judgment regarding the capacity of students be based upon mere written-examinations, the evils of which seem not to be fully recognized by the teaching profession; for, a written-examination cannot test all the mental faculties and would therefore delude the teacher into a false conception of the student's capacity. The teacher should be warned against forming a good impression basing it merely on the student's regular and systematic preparation of class-work, and the marks based on such impressions will never admit of arranging students in the order of merit; for impressions in this case are vague and an approximately correct demarcation cannot be drawn. The teachers should therefore make it a point to observe the growth and development of the various mental faculties with a view to the formation of impressions and a normal change in each of these should be noted and a mark assigned. The student must be made to clearly understand that a parrot-study of class-lessons will not fetch him good marks, but that the teachers attach due importance to the quality and improvement of the various mental faculties.

I am, of course, alive to the difficulties that one may experience in discovering the degree of growth of the mental faculties and in assigning marks accordingly. I do not also ignore that discrepancies are liable to occur in such assignments. But I venture to think that the marks assigned on a general plan which I give below would be more reliable as regards intellectual efficiency than the impression marks assigned on mere chances in oral and written-examinations periodically held, or on the general impression formed without any system or plan.

Pestalozzi thinks that it is important to exercise the *attention, observation and memory* first so as to strengthen these faculties before calling into play the art of *judging and reasoning*, and this in his opinion "is the best way to avoid turning out that sort of superficial and presumptuous talker whose false judgment, are often more fatal to the happiness and progress of humanity than the ignorance of simple people of good sense." Guided by these principles let us give more importance to the faculties of observation and memory in the lower classes, but in the higher classes all the faculties should receive equal attention.

Allow me to deal with the faculties in the order which I have mentioned above. Taking *observation* first the teacher can train as well as test it in science, drawing and geography to a far greater degree than in the other school-subjects. Composition exercises are another means ready at the hands of the teacher for training and testing the same faculty. Let the pupils be asked to observe and study once a week a *given thing* and to reproduce their observations on it in the composition work. The given thing may be, for instance, the

characteristics of a dog on seeing its master returning home or the instincts of a calf when liberated from its shed to go to its milking mother and a host of other things which the pupils might have seen but not have cared to note their details or to draw inferences. A lesson of this nature once a week enables the student to learn in course of time what to observe and how to observe. In assigning marks the teacher should be guided by the quantity and quality of observations. Another point to be noted here is that a large stock of ideas in a pupil is a guarantee of the thinking-ability latent in him. The general arrangement of ideas and the structure of the language come under the heading of *execution*. *Memory* stands a test far more accurately than observation. Give at a time a dozen or more questions requiring word answers and assign marks in proportion to the number of correct answers. All school subjects allow of this test equally well and the marks obtained in a series of examinations in the course of a year will enable you to form a correct estimate of the retentive and reproductive powers of the pupils. The marks against memory and observation will also help you to gauge the quality of *intelligence and thinking-ability*. An intelligent pupil "has in the first place a great stock of ideas such a stock of ideas or experience he can only have if his power of observation and memory is in perfect condition." (Otto Lipman, D. Phil.) Mathematics is the main subject in which a teacher can form an unerring opinion of the intelligence and reasoning powers of students. Mathematics being an exact science marks may be given more or less in proportion to the development of this faculty. All other school-subjects also will amply supply you with points whereby

the intelligence can be tested. In a history lesson, for instance, a teacher will see a number of facts and events, political, social or religious measures where reasons are not pointedly given in the text-book, but, all the while, the teacher can very well test the intelligence of his pupils by asking the why and the wherefore of each of them and by making his pupils trace the causes and effects. Coming to the *judgment*, the teacher can perhaps test it in no other subject better than in History. Collecting a number of facts pointing to a special feature of a reign or character of a king, the pupils may be asked to form judgment as to this special feature or character. Let them be asked from facts of a historical period to form an opinion as to the social and general conditions of the people. The training of the various mental faculties of a pupil may not be a certain guarantee of his success in his future career of life if he cannot properly execute his conclusions. Therefore readiness in answering, neatness in work, quick perception, good writing, rapidity of work, common sense and other practical work should be put under a general classification of *execution* and noticed for purposes of marking.

In conclusion, every subject should have in its mark-book four or five columns under the head of observation, memory, reason, judgment and execution and under the first two comparative marks can be given so as to admit of the order of merit but in the case of the other three, wherein standard of proficiency may vary with the different teachers, the best method would be to classify the pupils under such headings as excellent (60 %) good (50 %) fair (40 %) middling (35 %) poor (30 %) bad (20 %). The total of marks in any subject will, I think, be more

or less proportionate to the general capacity of the pupils and when the students are well aware of the plan—of course only the students of the higher classes can well understand and appreciate it—on which marks are assigned, there need be no apprehension that education will be sacrificed to examinations.

P. M. ANANDAN.

FLASHES OF THOUGHT REGARDING THE EDUCATIONAL PROBLEM.

II.

Truth, like a torch, the more it's shook it shines.

Up to a point, education is learning to use our brains; beyond that it is learning to use the brains of those who come before us.

The office of school-master—opener of youthful minds, quickener and enricher of tender age—is of first rank and merits the highest emoluments of comfort and position that a nation can give.

The teacher's work has a subtle attraction for the authority it gives and for the joy of communication of superior wisdom and information.

These are make-weights cast by chance into the scale pan of bare livelihood. Sentiment governs men but little but not so the monthly pile be that big or little.

The school-master though respectable like the Church-mouse of tradition, is like it very thin.

The reward to teachers should put them above the necessity of spending their spare time otherwise than in fitting themselves for their life-work.

Pessimism is the prevailing philosophy of the ordinary school-master.

A good educational service run by experienced men and experts is costly but it is worth the cost to any people.

We do not argue for as fancy prices given to museum specimens.

None can deny the value of professional training nor the futility of a system that offers to men qualified to teach in Elementary and Secondary Schools a lower rate of remuneration than they could obtain in other employments with less training and at a smaller cost to themselves.

Fifty per cent. of the pupils now attending our Secondary Schools and Colleges should not have taken up a literary course—they are square men in round holes.

Vocational aims, social aims, and culture aims underlie all educational activities in the Secondary School.

A department of education that is almost wholly neglected by us is travel. The benefits of travel have been confined to essays written by school boys and to debating societies. To some pupils and students railway train is as much a mystery as an elephant or rhinoceros to a man in the planet Mars.

There is little doubt that the main defect in our present system is that it aims at imparting knowledge rather than training capacity and forming character. The pupils must leave school with quickened interest rather than with a store of facts in their memories.

The Industrial classes regard education as their enemy, because they fear it will draw away their sons from their hereditary calling.

Educational work of all kinds conducted by several European men and women is far from being so good as it might be because they are almost ignorant of Indian life. The future European heads of schools would do well to live long enough among the people, to know intimately the life for which they will be preparing those to be committed to their charge.

It is still a firmly rooted idea among most people that a girl who goes to school is spoilt for home as a boy is for agricultural or commercial work.

There is a widespread belief that the general education of women means a social revolution the extent of which cannot be foreseen nor its nature foretold.

Every city and town in 'the celestial empire' is obliged to maintain one high and one normal school while each provincial capital must support a normal school of the first grade. In another decade it is expected that 25 per cent. instead of the present 1 per cent. of the population will be literate.

No village in the land should harbour an ignorant family, no family contain an ignorant member, has been the educational ideal in the land of "the Rising Sun."

The wide world over, an educated person is a radiant point of enlightenment, possessing mainly self-respect and grateful loyalty to the Government.

A. J. JOHN.

(To be continued.)

We are requested to publish the following circular:—

INDIAN MORAL EDUCATION SOCIETY.

BASIS.

(In dealing with the problems of Moral Education the Society will have respectful regard to all forms of experience and conviction.)

DEAR SIR,

We have the pleasure of inviting your co-operation in the formation of propagandist Society to promote the cause of Moral Education in India on the basis of the International Congress, which held its first meeting at the University of London in the year 1908. The second meeting of this Congress is now being organised to take place at the Hague in the autumn of 1912. Mr. Fox Pitt has been officially requested by the Netherland Executive Committee to form an Indian Committee to appoint delegates to represent Indian views at the Hague deliberations. It is proposed, therefore, that this purpose should be one of the functions of the Society. The leading purpose of the Society, however, will be the introduction of systematic moral instruction into Indian schools. The object of Moral Education, briefly stated, is that the formation of high character should become the recognised and supreme aim of all educational efforts. It is not, of course, suggested thereby that education as a means to practical self-advancement, or as a means of gaining a livelihood, should be neglected or ignored; but only that all such purposes should be carefully subordinated to the higher aim of endeavouring to develop in each individual pupil those qualities of heart and mind which will conduce to his leading a blameless and noble life. Thus, while advocating the introduction of systematic moral instruction into all schools, the Society will at the same time urge that the whole curriculum should be co-ordinated with the higher aim always in view. It is hoped

that the Society will help to find, and give practical expression to, a common moral basis of character-training acceptable to all schools of religious and philosophic thought that are to be met with in India.

It is believed that the Society would be able to represent accurately to Government the wishes of the community in this matter, and thus assist them in their own efforts to deal with the problem.

All who are interested in the subject and who desire to further the objects of the Society will be welcomed as members. The subscription has been fixed at the nominal amount of Re. 1 per annum, but any further contribution to the funds of the Society will be gratefully acknowledged.

We are Dear Sir,

Yours faithfully,

R. G. BHANDARKAR, *President.*

N. G. CHANDAYARKAR, *Chairman of Committee.*

ST. G. L. FOX PITT, *Hon. Secretary (pro tem.).*

MEMBER'S FORM.

To

ST. G. L. FOX PITT,

Hon. Secy. (pro tem.).

YACHT CLUB CHAMBERS,

BOMBAY.

Sir,

I request you to enrol me as a member of the INDIAN MORAL EDUCATION SOCIETY and I enclose herewith Rs. as subscription, or donation to the funds of the Society.

Name (in full with titles)

Address.....

MORAL AND RELIGIOUS EDUCATION.

THE ALLAHABAD CONFERENCE.

As the subject of moral and religious education is now receiving wide attention we give below the replies of the various Directors of Public Instruction given in answer to a note from the Hon'ble Mr. H. W. Orange, Director-General of Education, regarding the trend of public opinion in their respective provinces in the matter of direct moral instruction, "the extent to which there is a desire for it either among the parents or among the teachers or among the public generally; whether this desire is felt by one class or creed more than another; whether there is any divergence of views based on creed as to the introduction of systematic moral instruction into the schools or as to the conduct of such instruction. In those provinces where there has been an important Conference, e.g., in Bombay, the Directors will oblige by furnishing, if they can, some account of the questions discussed at the Conference, of the different points of view from which representative speakers approached the subject, and of any conclusion upon which there appeared to be general agreement."

THE HON'BLE W. H. SHARP, DIRECTOR OF PUBLIC INSTRUCTION, BOMBAY.

There is a pretty general demand for direct moral instruction, but in most cases it is associated with the idea of religious instruction, and in some cases people mean by "moral instruction" only instruction in their own religious dogmas. People are also rather vague as to what comes under the head of religion or morality. I remember a Brahmin student telling me once that he had been devoting much attention to religion, which proved to mean "breathing exercises."

A Conference on the subject of moral instruction was held in Bombay last April. In his opening address His Excellency the Governor expressed the opinion that it was impossible to arrange for religious teaching in Government schools in India; but that a teacher who had the necessary gifts and enthusiasm for moral teaching might be assisted by laying down definite lines for his guidance, and by providing time in school hours for the purpose; that the former object might be achieved by providing books of moral lessons, which the atmosphere, colouring, and forms of expression should be Indian; and that even a heaven of moral training imparted during

the school period would in time work with increasing effect upon home life, since the children of to-day are the parents of to-morrow. The Bishop of Bombay urged that religion is the basis of morality, and illustrated how a Christian teacher would base his moral teaching on his religion. Mr. Tribhuvandas Nathubhoy took a similar line with regard to Hindu teaching and Hindu religion. Lady Muir Mackerzie, however, wished to base all moral teaching on the education of the heart, on the desire to love and serve one's fellows; whilst Principal Paranjpe of the Fergusson College argued for a secular basis for moral teaching, on the ground that in making morality depend upon religion we run the grave risk of loosening the moral ties if the religious sanction comes to be no longer regarded as binding. "In times like ours where landmarks that were but yesterday regarded as perennial are being removed to-day and are likely to be forgotten to-morrow, it is best not to cling to too many rocks. The one solid rock on which we can rest is our own reason. If eating pork is a heinous sin with one set of people, beef with another, and any meat at all with a third, how can the alleged basis of morality be regarded as absolute? Especially when as in India there are various religions, each religion divided into innumerable sects, and each sect divided into many separate sections; when the feeling aroused by any religious question is of a pitch which can hardly be conceived in Western countries; when the respectability of a man is in inverse ratio to the number of people he is able to associate with without coming into conflict with the prevailing religious ideas; it will be seen that the less we have to do with religion in moulding the character of young children the better for our national being. Let boys be taught to see that there are some principles which they can all believe irrespective of the fact that they belong to one religion or several. It is only in this way that our various races can be brought closer together." The Reverend A. Seither, S. J., quoted the example of France to show that the secularist solution was contradictory in principle and inefficacious in action.

Passing from the basis of moral teaching the need for definite moral instruction was emphasised by Mr. H. J. Bhabha, who quoted from the example of Mysore where he was lately Director of Public Instruction. Mr. M. K. Patel, a Bombay teacher, was of opinion that moral text-books prove exceedingly dull and monotonous, that moral teaching should centre round great and attractive personal types, and

that the system of indirect instruction, by means of ordinary lessons on ordinary subjects, was the only one recommended by experience "despite the rantings of inexperienced enthusiasts." The Reverend E. L. King of the Mission High School, Belgaum, also thought that far more moral meaning could be brought into our curricula by an understanding of moral significance of each and every study than would result from a regular study from a set text-book. Mr. Wren of the Secondary Training College dwelt on the all-importance of the teacher. "You can only get at the boy through the teacher and why consider the ammunition if the gun is inaccurate?" Mr. D. G. Dalvi, M.A., LL.B., was of opinion that moral education must be secular in basis and indirect in method, at least in the secondary and higher grades; but also recommended the collection of moral verses and stories from Sanskrit and Vernacular literature. Finally Mr. D. G. Padhye of the Gokaldas Tejpal High School, in which Hindu religious teaching is systematically given, stated that such instruction alone was not found sufficient to mould the characters of the boys, and that therefore systematic ethical instruction was necessary also; that the direct method with special text-books was indispensable in view of the low calibre of many Indian teachers who are not equal to utilising the indirect method solely.

G. W. KUCHLER, ESQ., DIRECTOR OF PUBLIC INSTRUCTION, BENGAL.

The trend of public opinion is undoubtedly towards the revival of some form of moral teaching. The almost universal opinion, however, is that this teaching should have a religious sanction. There is a strong feeling amongst parents and teachers of whatever creed or caste that the divorce of education and religion, contrary as it is to the whole of Indian tradition, whether Hindu or Muhammadan, has not been for the good of the youth of the country and has resulted in a large measure of moral degeneration. There is no doubt that the solution most acceptable to the various classes of the community would be that boys should receive moral teaching on the religious basis from teachers of their own creed, in other words, that Hindus should be taught by Hindus and Muhammadans by Muhammadans. At the same time, though the public mind in Bengal is not ripe for the idea of moral instruction totally severed from religion, and in fact can hardly be said to have grasped the meaning of such a system, I am not sure that, with the strong antipathy that

exists against the purely secular education now given in schools, a scheme of direct moral instruction, even though it were unconnected with religion, would not be welcome as a great improvement on the existing practice. The conclusions stated above have been arrived at after a full consideration of the views of the educated community as elicited by extended enquiries from representative members, and as indicated by public expressions of opinion in the press or in representation to Government on the subject.

THE HON'BLE C. F. DE LA FOSSE, DIRECTOR OF PUBLIC INSTRUCTION, U. P.

As to the value which moral lessons in readers 'are thought to have' in the United Provinces I cannot generalize with certainty, but I must confess myself to be sceptic. I doubt very much from what I have seen and heard whether the lessons in the readers of a moral tendency or with a direct moral purpose are read otherwise than as reading lessons. All depends upon the teacher, and as is well-known the men employed in primary classes are poorly paid and poorly educated. It would be too much to expect such men to exert a strong moral force, and as a matter of fact with scarcely an exception they do not. Their conception of the teacher's functions does not as a rule include the teaching of morality. The school day is spent in ordinary secular instruction and when it is over, their scholars disperse to their homes and they dismiss them, if they can, from their minds. In the higher classes the pressure of examinations usually banishes all thought of moral teaching. Mission schools make a half-hearted effort to impart it daily during the brief period of religious instruction, but very little result is probably produced. I can of course only speak from my own experience, and others—especially newspaper writers—hold, I know, quite opposite views. Despite the hugeness of the output lately of report, essays and addresses on moral instructions, I remain of opinion that the best moral influence in schools is the steady and continuous exaction of careful work from scholars by a conscientious teacher. Frankly, I don't believe in moral lessons as such, though I do believe that a fine thought well-expressed may sink into the mind as a maximum of life, if the scholar is made to study its meaning closely under a capable and high-minded teacher. Indirectly there is much moral instruction proceeding in this way, but it is the result of the scholar's own unconscious effort directed mainly to another end.

There is never likely to be agreement as to the value of moral instruction, and it is quite impossible for any one but the teacher to estimate its effect, and for him even it is very difficult. What value it is thought to have in the United Provinces seems small, for parents are generally indifferent on the subject. Perhaps they find it hard to envisage a school as a sort of moral dispensary.

J. G. COVERNION, ESQ., DIRECTOR OF PUBLIC INSTRUCTION, BURMA.

Trend of public feeling in the matter of direct moral instruction.—The subject has been handled to a certain extent in provincial Annual Reports, e.g., that of 1908-09, pages 24, 34, 35. Except among the most highly educated members of the various European and Asiatic communities represented in the province, there appears to be but little enthusiasm for "moral instruction" as such, i.e., apart from religious instruction. At best teaching in this kind would be accepted as a *pis aller*, its obvious and inherent defect in the eyes of most persons being the lack of efficient "sanctions" intelligible to the pupils concerned. Whether such instruction should be "direct" or "indirect" is in these circumstances of comparatively slight importance. A common sense view is that the direct method is preferable since obviously it would not exclude "indirect" moral influences and the one would thus reinforce the other. Moreover religious instruction is not to penetrate into schools managed by public authorities, and so long as among Burmese and Indians parental guidance and control and the influences of the home and the community remain what they are, it becomes an absolute necessity that the teacher should not only exercise upon the taught a general stimulus to moral progress but should also furnish him with the elementary data of practical ethics. The scholar must be told what Right is and as plainly as possible, and the telling must be supported by counsel and direction appropriate to his surroundings and his needs. On the other hand now that Government has sanctioned the admission of religious teaching into schools under public management in Burma and since Buddhist societies and the Muhammadan and Hindu communities are awakening to the desirability of the teaching of their respective tenets in those aided schools with the management of which they are directly concerned, and as Missionary bodies supervise or control those schools which do not fall within the categories indicated, a discussion of the comparative values of direct and indirect moral instruction becomes for this province at any rate

almost irrelevant. Ninety per cent. of scholars in Burma are (nominally at least) Buddhists. As a faith Buddhism has the good fortune to possess an ethical system at once lofty and enlightened yet in its elements reducible to simple principles unencumbered by theological subtleties or metaphysical refinements and capable of practical application—witness the Book of the 38 Beatitudes (the Mingalathok or Mingalasutta), the five Commandments, the Duties of Children and the Precepts of the Eightfold Way. Further it is bound up with all that is best and most stimulating in the history and traditions of the country and of Burmese society. Thus ethical instruction based upon Buddhism appeals not merely to the power of Reason (often a broken reed in dealing with children and semi-barbaric people) but to the more potent instincts of Patriotism and Religion. Hitherto its main defect has been a lack of dynamic force in the moral sphere but the re-awakening that is evident among the better classes of both the laity and the monks should afford a remedy. To substitute for a natural and national lever of this kind the pale abstractions of 'direct moral teaching with its colourless sanctions, unintelligible ideals and artificial handbooks (to which no more reverence would attach than to any other 'Reader') would be to sacrifice in the most wanton way the materials and instruments which Time and Nature have provided to our hand. Only when the moral pabulum of the country has been tried and failed or when circumstances contra-indicate its employment should recourse be had to artificial forms of nourishment more highly peptonized and concentrated.

On the assumption, however, that religious instruction is maintained and extended, few Burmans or Indians in Burma would object to the introduction of direct moral teaching as a complement provided that it did not conflict with the principles of the religious teaching and especially if it supplemented the latter in certain directions, e.g., on details concerning sexual morality, the conduct of business and affairs, 'civics' and such other departments of practical life as religious instruction does not ordinarily deal with or, if it does, handles from a different standpoint. But all agree in laying stress upon the character and personality of the teacher. Usually he would be a layman and as such he would lack the adventitious reverence that his 'robe' or 'cloth' inspires. To compensate for this defect his personal influence and prestige, his life and experience must be such as to command special respect: unsupported by these attributes in the teacher the teaching may prove worse than futile.

THE HON'BLE MR. H. SHARP, DIRECTOR OF PUBLIC INSTRUCTION, EASTERN BENGAL AND ASSAM.

Public feeling on the subject.—Inspectors generally report that parents would be glad if moral instruction were given in schools. The opposite view is forcibly expressed by one headmaster:—"I do not know a single gentleman who ever took the pipe out of his mouth to ask me a single question as to the conduct of his boy, whom he takes for a model of virtue till the boy gets into a scrape. The guardian is then at once on the alert and will move heaven and earth to convince the teacher that there must be a mistake somewhere." It may be a fact that many parents send their children to school merely to pass examinations, are callous as to their conduct and would complain if the time of "serious" study were curtailed by the moral instruction. But, if this is so, the exceptions are numerous. The Inspector of Rajshahi says:—"The public in general have no such complaint as to the absence of moral teaching in schools, but the intelligent section of the public, who are acquainted with the system of education in the schools do complain of the total neglect of direct moral training along with intellectual and physical training." And my personal view founded on conversation with parents is that this attitude is commoner than is supposed. Direct moral teaching is appreciated; and its want is felt.

I have heard this view expressed more freely among Muhammadans than among Hindus. This is largely due to the intense orthodoxy of the Muhammadans, who regard with disfavour a system of instruction devoid of religion and calculated to impair the ties of discipline and obedience. Hence the popularity of *madrassas* and *maktabs*. At the same time the desire for secular education has grown enormously in recent years in this section of the community; and has led to the formation of such hybrid institution as middle *madrassas*, which combine the middle English course with the work of a junior *madrassa*, the pressure of practical need grafting the subjects which may be of use in ordinary life on to the traditional course which is prescribed by complete orthodoxy. This movement has gone further; and a committee on *madrassa* reform which sat recently at Dacca has proposed a scheme for the inclusion of many subjects of the ordinary Arts course. As long as schools for general education remain, as they must do, open to members of both the Hindu and Muhammadan communities any introduction of lessons on orthodox morality, i.e., morality

based on doctrine, is impossible. And to a large section of the population the separation of the two is more repugnant than it is even to supporters of voluntary schools in England.

Subject to what has just been said, there is admittedly no reason why the common ground-work of morality should not be taught in schools, which contain pupils of diverse creeds. I have noticed that the Hindu element ordinarily sets store upon general moral training; the Muhammadans always couple conduct with religion, and are solicitous that a mosque should be in the vicinity of the school or attached to a hostel.

A. L. WRIGHT, ESQ., DIRECTOR OF PUBLIC INSTRUCTION, CENTRAL PROVINCES.

The desire for moral instruction is not general and, such as it is confined to the upper and the educated classes. The older man in these, in some instances, are shocked at the spirit of the age as they see it developing in the younger generation. They see growing a tendency to materialism, irreverence, and revolt. Unable, or disinclined to face it themselves, and having become accustomed in latter years to leave the education of their sons to strangers, they are anxious to place the task of combating the evil on the teacher. "Moral teaching in schools" has become a shibboleth to them. In frequent talks with such men I have endeavoured to ascertain their views as to the form that the teaching they desire should take but, with rare exceptions, have found that they had none, and were entirely dependent on the sound of the "blessed word." There are a few of course of exceptional intelligence who hold that the teaching of morality must be based on religion. These, as a rule, would advocate the teaching of a religion, or rather a combination of religious truths that all men could agree on, and found the teaching of morality on these.

I have had a somewhat wide experience of the teaching of Arabic both in elementary and higher schools of the indigenous type. While the literature studied is of a religious nature, there is no moral instruction in the strict sense of the word. But in many cases the teacher is a man of well-known sanctity of life who attracts pupils through this as much as by the learning he can bestow. The moral instruction given by such a man, based on and backed by obvious goodness in heart and life, has the strongest effect and not debt in this respect to the Mulla under whom they

EDUCATION IN INDIA.

THE NEED FOR FURTHER REFORM.

When considering the advance made under the British Government in India in the various branches of the administration, it is too often the practice to take it for granted that our responsibilities date back to the latter end of the 18th century, and that, therefore, the destinies of five or six generations of Indians have been under our control. In no department of public life is such an assumption more unfair than in the case of education. In the first place British India, as we now know it, hardly came into existence as an organic whole until the time of Lord Dalhousie, and, secondly, it was only a few years before the expiration of the Company's Charter, and the direct assumption of the Government of India by the Crown, that our responsibilities in the matter of education were susceptible of realization. It would, indeed, be fairer to say, rather, that it was only in the year 1839 that the British in India deliberately decided to go beyond the limits of their obvious responsibilities by undertaking a task which has no parallel in history. M. Chailley in his admirable "Administrative Problems of British India," says, indeed, that "All colonizing nations are sooner or later faced with the problem of the education of the natives. It is a grave, a difficult, one may say a distressing, problem which cannot be evaded, and which involves a conflict between interest and conscience." And he goes on to claim that "it is to the credit of the civilized peoples that in this conflict between interest and duty none of them has long remained deaf to the voice of honour."

A COMPLEX PROBLEM.

In the case of India, however, it may be doubted whether M. Chailley was in a position to realize to the full the difficulties of the problem. There was hardly the antithesis of civilized *versus* uncivilized peoples, which existed in the majority of the other countries he no doubt had in mind. This complexity of the problem as it confronted the East India Company was enormously increased by the existence in India not only of a very old civilization resting upon some of the highest philosophic teaching with which the world is as yet acquainted, but also of institutions of very long standing devoted to Oriental learning. It is true that nothing in the nature of general education had ever been organised, or indeed thought desirable, by the Governments in

India which preceded ours; nay, education was, under the Hindu system, regarded as the close preserve of some of the higher castes, by no means to be invaded by those of the baser sort. But this fact, of course, added to the difficulties of initiating any scheme based on Western, and more democratic, ideas, while it also gave pause to those desirous of establishing an educational system on a broader basis, inasmuch as it appeared that any such innovation would tend to an infringement of the customs and traditions of the people.

THE BEGINNINGS.

In such circumstances it is not strange to find that the earliest attempts in India to establish schools for general education were made by missionaries, a fact which in itself not improbably retarded action by the Company one of whose principles, emphasized on the assumption of the Government of India by the Crown in 1858, was the observance of a strict neutrality in regard to the religions of India. Apart from missionary institutions, such colleges as were established in the 18th century were for the promotion of Oriental learning; and the Charter Act of 1813, which required the expenditure of a lakh of rupees annually on education, may be said to be the first overt recognition by the rulers of the Company's territories of their responsibilities in this matter. With a growing demand for Indian clerical subordinates, literary attainments obtained a commercial value, while a knowledge of English ensured employment by the rulers of the country. The interests of the Company, it now began to be realized, also demanded the systematizing of education; and in 1823 a Committee of Public Instruction was established for Bengal to organize matters on a proper footing. Similar arrangements followed for Madras, and, later, for Bombay, but before the organization of the educational machine had reached this stage a most important decision was reached by the Government of Lord Auckland in 1839.

THE INFLUENCE OF MACAULAY.

Until 1835 the Company's Government had halted between two opinions, and their hesitation and the delay in the expansion of education which it involved are an illustration of the wide difference between India and other conquered and colonized countries in relation to this problem. Had India been, in M. Chailley's phrase, uncivilized, there could have been no difficulty in deciding upon the nature of the educational system. We should have had a *tabula rasa* upon which to work, and the introduction of a Western

system need have occasioned no hesitation. In view of Indian conditions, however, there was a strong body of opinion in favour of establishing a system of education based upon the methods we found in operation there, since it was held that these were more in conformity with the genius of the Hindu and would be less subversive of the social customs and traditions of the people. It was the strong personality of Lord Macaulay, at that time a member of the Governor-General's Council, which carried the day against the Orientalist and in favour of conferring upon India an education based upon English ideas. It is not necessary, indeed with our present knowledge it would be impossible, to agree with him in his low estimate of the value of Oriental learning and the ancient Hindu literature; but there can be little doubt to-day that, in all essentials, the decision to which he led the Government of his day was the wise one.

THE PRESENT SYSTEM.

Education on Western lines came, then, gradually to be organized in all provinces, and considerable progress in organization had been made by local Governments in India when in 1854, Sir Charles Wood addressed to the Government of India the celebrated despatch which outlined and directed the adoption of the measures for improving the educational system which continue, in substance, in force to the present time.

The chief specific directions conveyed in this despatch, with a view to securing a much wider extension of English and vernacular education, included the establishment in each province of a separate department for the purpose; the institution of Universities at the three Presidency towns; the establishment of training schools for teachers; the maintenance and further extension of colleges and high schools; and increased attention to elementary education in the vernacular schools. Finally, Sir Charles Wood urged upon the Indian authorities the introduction of a system of grants-in-aid, anticipating (as results have proved, with too great confidence) that this would ultimately lead to the discontinuance of the need for a general system of education entirely provided by the State.

In the light of what has been said as to the traditions of the Hindus in respect of their social system and of education it will not be a surprise that the Indian community failed to respond to Sir C. Wood's expectations in the matter of primary education. Efforts at securing local support to the project tended to make the

whole educational scheme unpopular, and it became clear that a policy which aimed at imparting primary instruction broadcast was not likely to secure the unqualified support of the higher castes. The suggestion was accordingly made, in conformity with the general plan which had been in operation for some time, that it would be more expedient to impose a special rate on land to defray the cost of elementary education, and this is the system now in force.

THE COMMISSION OF 1882.

The arrangements inaugurated in pursuance of the scheme outlined in the Despatch of 1854, approved and supplemented by the Secretary of State for India in 1859 resulted in a very large expansion of education; and the results have come under observation and special inquiry in 1882 and again in 1901-4, during Lord Curzon's Viceroyalty. It became evident that elementary education was not receiving that share of State or local support to which it was entitled; and it was found necessary to lay down rules of a stringent character requiring local boards and municipalities to devote a fixed proportion of their educational expenditure to primary schools. The Commission of 1882 further urged the gradual transfer to local management, wherever possible without loss of efficiency, of secondary schools as well as primary.

ATTITUDE OF THE HIGHER CASTES.

It will be realized that the community into which we introduced the system culminating in the directions given in 1854 was one differing both in its social customs, its past traditions, and its domestic organization from any other in Asia, and as far asunder from the Western communities as it is possible to conceive. On the one hand, in the hereditary priestly and clerical castes of the highest degree of intelligence, in some cases highly educated, there existed, at the summit of the social organism, material which was ready to adapt itself to our requirements with almost marvellous promptitude. Accustomed, by hereditary right, to direct the domestic affairs of the lower castes, and frequently to exercise a preponderating influence in public affairs, this class suddenly found that their road to influence and affluence lay in adapting themselves to an Occidental system of tuition. Full and prompt advantage was taken of the opening afforded. On the other hand, the submerged millions made a lamentably slow response to our invitation. The social fabric had never contemplated the education of the masses, nor had these ever experienced the need of it. The agriculturist

and artisan classes had been accustomed from time immemorial to rely for such literary and mathematical skill as was occasionally needed in the pursuit of their callings upon a special class of the community. In a country where labour was not only meticulously sub-divided, but where the sub-division formed exclusive social groups circumscribed and hedged about by marriage and other restrictive ordinances, it naturally took a long time for the new ideas to filter downwards. And meanwhile the aristocratic castes were profiting.

THE BRAHMANS AND THE WRITERS.

Two results ensued. In the first place, by the promptitude with which the Brahman and Writer classes fell in with the new order of things they succeeded, to a large extent, in perpetuating to themselves a practical monopoly of the proffered educational advantages; and, in the second place, the practice grew up of looking upon these as the means to an assured and—viz., employment by Government. In other words, the scheme of a Western education, designed to raise the masses of India from the depths of the ignorance in which they had remained content for ages, came to be an instrument in the perpetuation of the traditional social system of the Hindus. This was not, of course, a policy consciously pursued. It is merely an interesting instance of the persistence of an inbred characteristic. Unconsciously the special feature of the social system of the past two thousand years over-rode the superficial tendencies of an imported scheme; and this fact explains to a considerable extent the failures to achieve desired results which successive investigations have brought to notice. The degree of our failure should not, however, be exaggerated.

In 1871 there were 19,646 primary and secondary schools in India, giving instruction to some 700,000 scholars. In 1908-9, the last year for which complete figures are accessible, the total number of scholars appears to have reached nearly six millions, the cost of educating them amounting approximately to £4,500,000. Having regard to the tendencies adverse to the spread of general education already noted, these statistics cannot fairly be regarded as giving cause for despondency.

LORD CURZON'S INQUIRIES.

Lord Curzon, after he had been three years in India, and had thus obtained ample knowledge of the practical working of the educational methods pursued, was persuaded that the time

had arrived to make a searching investigation into their defects, and to this end convened a strong and representative Conference, over which he himself occasionally presided, whose deliberations covered practically every branch of the system. The first result to take shape was the appointment of a Director-General of Education, whose function was to be advisory, not only in relation to the central Government, but also to the provincial Administrations.

The second, and perhaps the most important, result was the appointment of the Universities Commission in 1902. It had long been not felt only that the Indian Universities, up till then purely examining bodies, had failed to influence general education in the right manner, but also that their constitution required amendment before improvement could be expected. The standard of qualification for the Senate of the Indian Universities was low, and the unlimited tenure of Fellowships tended to swell the body of Fellows without securing vigour to the administration. Again, the regulations governing the affiliation of colleges to the University were found to be faulty and to need revision. These and other matters formed the subject of specific recommendations for change by the Universities Commission, of whom five members were distinguished Indian educationists, and they were eventually embodied, in 1904, in a new Universities Act. The subjects of technical and European education in India were dealt with at considerable length by the Conference of 1901, as were also questions relating to the improvement of normal schools and training colleges, the extension of primary and female education, the inculcation of moral training, &c.; and not the least significant of the remaining subjects were the discussions of the Conference on the subject of the abolition of competitive tests for Government employment.

The Conference deprecated a system which encouraged the idea that all educational tests were to be regarded as qualifications, more or less analogous to bills payable on demand, for Government service.

THE PRESENT POSITION.

It is, unfortunately, open to question whether, in India as a whole, the policy of reform, of which the foundations were thus laid, has lately been prosecuted with the same vigour and determination. It may, indeed, be doubted whether the reforms in regard to the Universities were themselves sufficiently drastic. Endeavours made recently in Bombay to induce the University to

modify its tests and to expand its curriculum so as to include technical subjects have hitherto failed to produce results, and the Bombay Government have been compelled to rule out the lowest University test as a qualification for Government employment. Such conflicts seem to indicate that the ambition for complete self-government in matters of higher education has come into being prematurely, and while this idea has doubtless developed as the outcome of past policy, dating from the establishment of the three Presidency towns Universities in 1857, and from the hopes expressed in the Despatch of 1854, it is clearly desirable, if progress is to be made on the right lines, that reforms, even if they should bear an outward semblance of being retrograde, should be enforced where necessary.

And it would be idle to contend that all is well in matters educational in India. As early as 1901, before overt symptoms of unrest had made themselves apparent, the Government of Lord Curzon in reviewing educational progress, had to take cognizance of certain tendencies "unfavourable to discipline," which criticism had attributed to the extension to India, without modification of a system of education modelled upon that of the West; and the Government orders proceeded—correctly enough, so far as they went—to rule that the remedy for such tendencies must be sought not so much in any formal methods of teaching conduct by means of moral text-book or primers of personal ethics as in the influence of carefully selected and trained teachers. The provision of proper persons as teachers is, of course, one of the most important—and in India, under present conditions, one of the most difficult—requisites as a condition precedent to the attainment of satisfactory results, and until the general condition of the subordinate educational staff is raised much above its present level it will be unreasonable to hope for material improvement.

FREE PRIMARY EDUCATION.

It is most important that this, perhaps the most urgent need of all, should be borne steadily in view, especially at a time when the facile cry of free and compulsory primary education is being raised. The unreality of such a cry can best be appreciated when two facts are realized. First, four villages out of five (taking India as a whole) are without a school building or school-staff, and it would therefore be impossible to make compulsory education a reality. In the second place, every province has a free list, and the free list is never full. It is the fact that not

a single boy whose parents wish to have him educated is debarred from gratifying their desire by the existence of the very small fee which is levied. But even if the demand for abolition of all fees were a reality, there can be no question whatever where, the financial resources of Government are limited, between the relative importance of the unlimited provision of inadequately-staffed primary schools and of placing existing schools upon a satisfactory footing. When assistant masters in village schools receive, as they did till quite recently in some provinces, pittance of Rs. 3 or Rs. 4 per month, it is idle to talk of an unlimited expansion of primary education. Even now the lowest paid assistants receive not more than Rs. 8, except in Bombay, where the minimum salary has just been raised to Rs. 9.

But it is not only in the primary schools—nor even in the secondary schools—that the qualifications of the staff of the educational department are deficient. When a competent observer like M. Chailley remarks that the teaching staff in Indian Colleges is far too small he is criticizing the University which permits affiliation by an institution which is inadequately equipped, and, through the University, the Government, from whom the authority is derived; and when he proceeds:—"Nor does the quality of the teachers compensate for their numerical feebleness. On the contrary, defective quality is the weakest point in the college teaching," he, in effect, condemns the inadequacy of the Government control throughout.

RELIGIOUS AND MORAL TRAINING.

A great deal of discussion has recently taken place regarding the secularization of Indian education, and there seems to be a growing conviction, among Indians and English alike that the complete divorce of all religious and moral training from the curriculum has been an error which is in no small measure responsible for the recent unrest in India. It may be accepted as inevitable that the Government of India will endeavour to modify past policy in this respect in so far as modification is possible with a strict regard to the observance of religious neutrality; but in no aspect of the education of youth is the provision of properly trained and qualified teachers more desirable than in that of ethics.

THE NEED FOR INSPECTION.

Local autonomy in educational matters, as in many other departments of Indian administra-

tion, is a most desirable goal to have in view, and, with certain rigorous safeguards, the policy, advocated in 1854 and 1882 and since reiterated, of leaving the management of primary and secondary schools to the control of local boards and municipalities, is the one most likely to achieve permanent success. Absolute uniformity in educational matters in a continent like India, with its wide diversities of race and language, would be most undesirable even if it were possible. But there must be the safeguard of respectability. If in England there is such necessity for inspection by the Board of Education officials, how much more urgent is the need in India. And it is precisely in this department of the Government's past educational policy that there is need for criticism.

A hopeful sign is the renewed attention which is being accorded to the subject of education, and although the reforms which Lord Curzon initiated have perhaps not as yet been brought to complete fruition, and although the unrest in India may have diverted the attention of the authorities from the subject, it is to be hoped that it is realized what a close connection exists between the two. If one cause, more than any other, can be said to account for the unrest it is the inherent defects in the stupendous scheme of giving a Western education to an Eastern people. It was inevitable that mistakes should be made; and it has been characteristic of us to shut our eyes to possible dangers. That the authorities in India are determined to grapple with the difficulties, and endeavour to find means of improvement, is evidenced by the recent creation of a Department of Education in separate charge of a member of the Viceroy's Council. That appointment, it is true, raises an apprehension that a most undesirable process of centralization may be pursued; but, provided that this tendency is rigorously resisted, there is ground for hoping that a persistent and logical effort will be made to see that the reforms advocated are gradually brought into being.

THE REFORMS REQUIRED.

The vitalizing and strengthening of the Universities, which should be the inspiring main-spring of the system, must be carried into effect. The methods upon which the Indian Educational Service is recruited in England and organized in India should be carefully investigated and revised; and the strength of that service, both in the professorial and inspectorial branches, strengthened. The pay of the lower grades of the educational service should be revised throughout

India so as to render it reasonable to expect that competent assistant masters will come forward to join the department; and the tests qualifying for admission should be so arranged as to afford some guarantee of their moral and educational fitness for their work. The curriculum should include such moral or religious teaching as may be desired in each province or locality; and the whole system throughout should be subjected to a more rigorous and real inspectorial control than is possible with the inadequate staff which is at present made to suffice.

Reforms such as these will cost a great deal of money, but they will achieve real results, and when the public instruction organized by the State upon Western lines has thus been revitalized, it will be time to consider the question of the further extension of the system by the adoption of free and compulsory elementary education. It has been impossible to deal at length with the important development of industrial and technical education; but the success of these depends in large measure upon the adoption of the progressive and enlightened attitude by the Universities which should follow upon what has been advocated. The germs of all these improvements are to be found in the resolutions of the Conferences of 1882 and 1901, and in the orders of the Government of Lord Curzon in 1904; and it is now for the Government of India to falsify the apprehensions of those who feared that the reforms then initiated would remain a dead letter.—*The Times*.

Reviews and Notices.

"YOUTH'S NOBLE PATH" is a book of moral instruction designed, as it professes to be, 'for the use of children, parents and teachers,' and published by Mr. F. J. Gould under the auspices of the Moral Education League. It seems to have been prepared with special care to suit Indian boys, and the illustrations are taken mainly from Indian and Persian literature and the sacred books of the Hindus, Muhammadans, Buddhists and Christians. The plan of the book and the method which it suggests are admirably suited for the conveying of moral truths and impressing them upon the minds of the young. It is intended for the use of the teachers of children from 10 to 14 years of age, and presupposes that the teachers are intelligent and take a real interest in the moral progress of the pupils entrusted to their charge. The usefulness of the book, therefore, will depend much upon the kind of

teachers who will undertake the work. But so far as we are aware, the conditions prevailing in this country do not appear to be favourable to the successful carrying out of the work of moral instruction and training, at least in the case of the majority of the schools. The teachers in the lower classes are mostly men of inferior qualifications and incapable of grasping the true spirit of the lessons intended to be conveyed by the book, not to say, of understanding the English of it. Where the teachers are capable men they have not their heart in the work, because they are insufficiently paid and do not feel quite secure in their position or are discontented with it. The work of moral instruction such as is contemplated by the book can be done with any degree of efficiency only by specially-trained graduates of intelligence who are themselves of high moral character and actuated by high moral principles. Mr. Gould's book may therefore with advantage be adopted in training colleges, and we commend it to the notice of the Director of Public Instruction for introduction into them with a view to training the would-be-teachers in giving moral lessons.

To such gentlemen as think that moral instruction should be based on the religions the book may not commend itself, because the author has studiously avoided the subject of religion, and has taken his illustrations impartially from the sacred books of all religions.—Hindu, Muhammadan, Buddhist and Christian—without offending the religious susceptibilities of any class or creed and has taken them merely for what they are worth. But so far from considering this a defect we think it constitutes the greatest excellence of the book. We do not agree with those who think that moral instruction cannot be given apart from religious. The advocates of religious instruction in schools have not yet made clear what such instruction means if it is anything more than the teaching of dogmas, ceremonials, and caste-rules. We take it that the actuating spirit of religion is not what leads to controversy and debate, but character in the highest sense, social service and willingness to surrender life for our fellowmen. We believe that it is possible to inspire young minds with this spirit as well as with the virtues of courage, courtesy, honour and loyalty without dangling before them the hope of a heaven, or holding out threats of an everlasting hell-fire, and without teaching them the articles of a creed, or the mysteries of religious rites and ceremonials. Some of the lessons in the book are highly inspiring such as those on patriotism, greatness of

heart, industry, co-operation, &c., and if properly brought home to the minds of Indian children, will go some way to cure some of the defects of Indian character. We have therefore no hesitation in commending the book to the teachers and others who consider that special moral instruction should form part of the school curriculum.

SHORT LESSONS ON RELIGION, BY M. VENKATARATHNAM.

This book has been on our table for some time. It is evidently intended to serve as a text-book of religious instruction in schools. We have already expressed ourselves against the giving of any positive religious instruction in schools, and this book is not calculated to make us change our view. The author himself acknowledges that "opinion is so divided that no statement regarding religion can be made, the truth of which is not likely to be challenged by some one or other among us" (the italics are ours) and yet he goes on giving a number of statements which he says are common to all religions, but which to our mind are by no means such as would receive the assent of all. Take for instance the meaning which he attaches to the term 'religion' itself in the very first Lesson. He says that religion means "a body of opinion and belief on the origin of the world and of man." No man who has any real faith in any religion will, we think, accept this definition. Religion is to him what God has revealed, and as such, is incontrovertible. Mr. Venkatarathnam's definition would make the theory of Evolution a religion. Religion is not a mere matter of intellectual opinion. It is a *sentiment*, which as its derivation suggests, binds man to God.

The book is not free from contradictions. To take only one among many, the author says in Lesson VII that we "really can know nothing about it (the Divine Being)," and yet the very next lesson he devotes to an enumeration of what he calls the "Characteristics of God" and in the lessons following it he attempts to answer the questions: "Is God ever unjust or cruel?" Does God govern the world?" and asserts that God pardons sins, that he answers to our prayers, and so on.

Again the author tries to differentiate between religion and morality and says that "Morality relates to our conduct towards others. Religion acknowledges our dependence on God our Maker, and our love and obedience to him." We are tempted to ask "Why should we acknowledge such dependence and love, and obey God if it is not a

moral obligation?" He bases our obligation to be religious on the same ground as our duty to be virtuous, namely, our desire for happiness. and says "The Laws imposed on us by God for our well-being, (i.e., the precepts of religion) relate to a healthy and full development of our body and mind." Are these laws different from those of morality?

Lastly the author distinguishes between 'the region of speculative Philosophy and that of Practical Religion,' Is 'practical religion'—if there is such a thing—different from ceremonials on the one hand, and moral conduct on the other?

Apart from the objections to the subject-matter of the book we find ourselves unable to approve of even its method. The speculative and controversial matter given therein and the precepts at the end are mere dry bones which are far from attractive to young minds and which by their very dreariness would create in the minds of the students a life-long aversion to the very name of religion.

MACAULAY'S ESSAY ON ADDISON: (LONGMAN'S BRITISH CLASSICS FOR INDIA). EDITED WITH INTRODUCTION AND NOTES, BY W. L. HALLWARD, M.A., OF THE INDIAN EDUCATIONAL SERVICE. Price Re. 1-8-0.

Messrs. Longmans Green & Co. have brought out a useful Indian edition of Macaulay's Essay on Addison which is one of the text-books prescribed for the Intermediate Examination of the Madras University, 1912. There is an appreciable comprehensiveness about the annotation and we have no doubt that the average student is not likely to require any greater help than what is offered by the editor. All aspects of literary study are dealt with thoroughly and Mr. Hallward has displayed extensive scholarship and research in the execution of his work. We have no hesitation in asserting that a number of new features have been introduced into this edition. The appendices are particularly valuable and the illustrations enhance the usefulness of the work.

ENGLISH PATRIOTIC POETRY: SELECTED AND ANNOTATED BY L. GODWIN SALT, M.A. (CAMBRIDGE UNIVERSITY PRESS.)

The student of English literature has always been struck by the display of the patriotic note in English poetry and it is probably among the

earliest features that exhibit themselves in the evolution of the language. Nothing gives us a better insight into the mainsprings of the English race and its spirit of independence in political action than a study of this aspect of its literature. Mr. Godwin Salt has done a real service in tracing the patriotic note in English poetry and compiling an anthology of the poetical pieces relating to this branch. Mr. Salt's task has been of some real difficulty as he has had to present extracts from long poems. The introductory study is weighty and it is distinguished throughout by a lofty academic spirit. Mr. Salt deserves to be specially congratulated on his wisdom in rejecting pieces marked by a narrowness of spirit and insular pride. He has steadily discouraged the note of bigoted imperialism which has been degrading recent English poetry.

MUCH ADO ABOUT NOTHING: EDITED BY S. E. GOGGIN, M.A. (UNIVERSITY TUTORIAL PRESS.)

During its long career of publishing activity, the University Tutorial Press has brought out a number of valuable editions of very great usefulness to schools and colleges. *Much Ado About Nothing* is a recent addition to their extensive list. Mr. Goggin has discharged his task with discrimination and taste. The annotation is probably scanty for Indian students but the editor has been successful in seizing the essential points in Shakespeare's play. There is a long introduction in which he deals with the varied aspects of the play and its allied subjects—a biographical study of Shakespeare, a vivid account of the characters, and a note on the metre. We have great pleasure in recommending this edition for use in Indian colleges.

HANDBOOK OF COMPOSITION: BY EDWIN C. WOOLLEY, PH. D. (D. C. HEATH & Co., BOSTON.)

The book under notice is among the best guides to composition we have had the pleasure of reading in recent years. The distinguishing feature of Mr. Woolley's book is its direct bearing on the actual work of composition. There are no rules to burden the memory of the student and he has wisely eschewed everything that does not give aid to the student in the work of composition. The author has been eminently successful in achieving the object he has had in view: "The aim of the book is not scientific, but practical." His remarkable success in attending to practical details may be judged from

the fact that he has notes even on addressing the envelope under 'letter-writing.' Punctuation receives exhaustive treatment. The glossary of miscellaneous faulty expressions must prove useful to the student as also the numerous exercises in several aspects of composition of which the volume is full. We have been particularly struck by the ability and practical knowledge displayed by the author.

Indian Educational Notes.

MADRAS.

Departmental Notifications.—The Acting Director is pleased to grant privilege leave for one month from the date of his availing himself of it to Mr. T. Nagabhusanam, Sub-Assistant Inspector of Schools, Paddapur Range, and to appoint Mr. P. Venkayya Pantulu, Supervisor of Elementary Schools, Amalapuram, to act for him in the probationary class during his absence on leave or until further orders.

The Acting Director is pleased to make the following appointments:—

Mr. T. S. Kalyanarama Aiyar, Sub-Assistant Inspector of Schools, Kulittalai Range, acting in the Trichinopoly range, to act for the Sub-Assistant Inspector of Girls' Schools, Trichinopoly-Madura Girls' Range, in the second class *vice* Mrs. Matilda Engler on other duty or until further orders. To join on the 26th June after handing over charge to his clerk.

Mr. V. K. Narayanaswami Aiyar, Headmaster, Government Training School, Saidapet, to act as Sub Assistant Inspector of Schools, Trichinopoly Range, in the probationary class, *vice* Mr. S. Swaminatha Aiyar on other duty or until further orders. To join on the 25th June 1911 after handing over charge of the school to the First Assistant.

The above appointments to have effect from 12th April 1911.

The Conjeevaram Hindu Girls' School.—Mr. Myron H. Phelps, has written six letters to the "Hindu" on the subject of the Conjeevaram Hindu Girls' School. His vivid and interesting description of the aims of the school, of the methods of teaching followed for their realisation, of the strikingly novel curriculum adopted and of the enthusiastic public spirit of those that have been managing the institution, have been read widely and with approbation. The Conjeevaram Girls' School imparts education to 220 girls on its rolls free and receives no grant from Government—its elaborate course of study and the comprehensive scope of its work leave little time either for the details required of an aided school or for endeavouring to meet the vagaries of

petty officers of the Department, whose displeasure, however unreasonable, is generally a sufficient cause for a school's condemnation." All the teachers are Hindu ladies. In order to meet the exigencies of the Hindu custom which discountenances girls' education at a school after marriage or after puberty, the necessity has been felt for so framing the curriculum as to secure for girls as wide a range of knowledge as possible within the five or six years for which they are permitted to be in school. For instance, the elements of hygiene, sanitation, house-management, general geography, with the customary three R's are begun even in the infant class, the study of civics being introduced in the first standard and history in the third. The principle followed is that everything should be concentrated at the commencement and as a necessary corollary to this desire "to effect the culture of our women necessary to a realisation of Hindu ideals of womanhood in spite of the rigid time-limitations to which we are subject," the advanced University method of making the pupils take notes of what the teachers say is followed, the teachers taking care to carefully prepare notes of lessons. "Indeed," writes Mr. Phelps, "no one who visits this school and enquires into its work can fail to see that these girls are given a far higher and wider range of thought than is usual for pupils of their age." The aim of the school being to impart moral and spiritual culture, only such subjects are taught which will help on the approach to this ideal; by the end of the fifth year the range of subjects taught includes besides the purely secular ones already mentioned and devotional music, "the basic principles of Hinduism, the ideals of Hindu womanhood and duties of the Hindu wife set forth in Bharya Dharma, the principal episodes of the Ramayana and the Mahabharata, the lives of the chief Tamil saints and those of Northern India, the leading events and stories of the ancient and modern history of India." Particular attention is paid to the observance by girls of *acharam* and cleanliness and the teachers keep themselves informed by visits to their homes and interviews with their parents, of the work the girls do and the sports they indulge in. Periodically, the women of the town are, we are told, invited to the school for social gatherings, so that the work of the school might be widely known and a confidence in the soundness of the instruction imparted in it created. The school, it is further stated, is a harmonising agency, where girls of different castes of the Hindu community mix together, thus promoting a feeling of sisterhood. Thus, in this school, actual precedence is given, as Mr. Phelps says, to the development of character, of power of thought, and of capacity of expression. "Certain I am," says Mr. Phelps, "that among the Indian schools, which I have seen, the Hindu Girls' School of Conjeevaram is almost alone in affording a practical affirmation of the fundamental and necessary character of this triple development."

The Poor Boys' Fund.—Scholarships from the above Fund will again be offered in 1911-12, to boys studying in Colleges in Madras.

2. The scholarship for Intermediate Course is Rs. 7 per mensem, and for Honours Course is Rs. 10 per mensem.

3. The conditions of the tenure of scholarship will be good character and conduct and regular promotion to the senior class or success in the next examination. A report will be obtained from the Principal of the Institution in which a selected pupil undergoes his training every year as regards the satisfactory progress of the student. The scholarship will be limited to Hindus. There will be no restriction as to the particular College in the City of Madras to be selected by the student.

4. Applications for scholarships are invited from poor students satisfying the above conditions. The following information also should be given in the application:—

- (1) Age and date of birth.
- (2) Place of birth or village to which the applicant belongs.
- (3) Caste.
- (4) Whether bachelor or married.
- (5) How he is now supported.
- (6) Relationship and occupation of guardian.
- (7) Whether he has any property; if so, the extent of it.

(8) College and class in which the applicant is now studying.

(9) Rank in order of merit of the applicant in the last College annual examination for promotion; if he passed in any of the last University Examination, his register number should be given.

(10) If he is in receipt of a stipend from any other source the amount should be stated.

(11) Certificates of poverty, character and merit from two or more well-known gentlemen.

All applications should reach the Secretary, Sri Ramakrishna Students' Home, "Palatope," Mylapore, on or before the 10th July 1911.

G. O. No. 265, d/6 5-11, sanctioning certain alterations in the University Regulations.

From the Registrar, University of Madras, to the Secretary to Government, Educational Department.

At the meeting held on the 21st October 1910, the Senate passed the following resolution:—

"That in the interests of scientific study in the B.A. (honours) course, Arabic be treated in the same manner as Sanskrit (Branch II, viii), that is, Arabic Language and Literature should be brought up as a separate subject instead of only in conjunction with another language which would, in all probability, be a member of an entirely different family, e.g., Arabic and Persian, or Arabic and Urdu, except that instead of a candidate being required to possess a sound knowledge of the principles of comparative philology and of the

elements of comparative grammar with special reference to the important Indo Germanic languages, he shall be required to possess a sound knowledge of the principles of comparative philology and of the elements of comparative grammar of the important Semitic languages."

2. In reference to this resolution the accompanying additions to and alterations in the Regulations were drafted by the Board of Studies in Hebrew, Arabic, etc. The Syndicate approved of them and recommended them to the Senate at its meeting held on the 3rd March 1911, and that body having adopted them, I am directed to submit them for the sanction of Government under section 25 (1) of the Indian Universities Act, 1904.

ENCLOSURE.

(1) In Regulation 200—II, add 'ix. Arabic Language and Literature'.

(2) At the end of Regulation 209, add the following:—

IX.—Arabic Language and Literature.

Courses of Study.

1. Every candidate, who presents himself for this branch of the Honours B. A. examination, shall be required to possess a sound knowledge of the principles of comparative philology and of the elements of comparative grammar with special reference to the important Semitic languages.

2. The course of studies shall further consist of one part fitted to equip the student with a general knowledge of the Arabic language and literature, and also of another part fitted to enable him to acquire a special knowledge of any specified branch or branches of that literature as prescribed from time to time.

3. The course in the general part shall comprise—

(1) The history of the language.

(2) The history of the literature in the language.

(3) Grammar, prosody and poetics.

(4) Prescribed text-books in poetry and prose, the selections being fairly representative of the various stages in the life of the Arabic language and literature.

(5) Translation from Arabic into English, and from English into Arabic.

4. The course in the special part shall comprise—

(1). Prescribed text-books selected from any specified branch or branches of Arabic literature.

(2) A critical and comparative inquiry into the contents and value of the specified branch or branches of the literature taken up for study by the candidate.

Examination.

1. There shall be a paper on the principles of comparative philology and the elements of Semitic comparative grammar.

2. In addition to this there shall be in the general part—

(1) One paper on the history of the Arabic language and literature.

(2) One paper on grammar, prosody and poetics.

(3) One paper on the prescribed text-books, in which also there shall be questions on the grammar, structure and idiom of the language.

(4) One paper on translation from as well as into Arabic, the passages given for translation not being taken from any of the prescribed text-books.

and in the special part there shall be—

(1) Three papers on the prescribed text-books.

(2) An essay in English on a subject intimately related to the specified branch or branches of Arabic literature from which the text-books of the special part are prescribed.

(3) Add the following table at the end of Regulation 210 :—

BRANCH IX.

Days.	Hours.	Subjects.	Marks.
First day.	10—1	Comparative Philology and Comparative Grammar.	200
	2—5	History of the Arabic Language and Literature.	150
Second day.	10—1	Prescribed text-books: General	150
	2—5	Grammar, Prosody and Poetics	150
Third day.	10—1	Translation	150
	2—5	Prescribed text books: Special (i)	150
Fourth day.	10—1	Prescribed text-books: Special (ii)	150
	2—5	Prescribed text-books: Special (iii)	150
Fifth day.	10—1	Essay	150
Total			1,400

(4) In Regulation 211, add the following table to the forms of statement to be submitted by the Tabulator in Optional Branches :—

BRANCH IX.

Comparative Philology and Comparative Grammar.	General part.	Special part.	Total.
33	34	35	36
200	600	600	1,400

Under section 25 (1) of the Indian Universities Act, 1904, the Government are pleased to sanction the alterations proposed in Regulations 200 (II) 209, 210 and 211 of the University Regulations.

Shorthand Success—The Rev. L. H. Harmon of St. Patrick's Institution, Adyar, has just been awarded the Speed diploma granted by the Sloan-Duployan Shorthand Society for 120 words per minute. The Rev. Harmon has also been appointed examiner for Sloan-Duployan Shorthand in connection with the Technical examinations under the Madras Government.

Central Sanskrit College, Malabar—A meeting was held at Pallipuram palace (Wallur Covilagam) under the auspices of His Highness The Eralpad Raja of Calicut for adopting measures to open College classes at the Central Sanskrit School, Perumudirur on the 24th instant.

H.H. The Eralpad Raja took the chair at the unanimous request of all the gentlemen assembled. It was resolved that the following gentlemen shall form a Managing Committee (with three members as quorum.)

H.H. The Eralpad Raja of Calicut (President), Messrs M. C. Krishnavarma Raja, Mr. K. C. Manairaman Raja, A. Raman Mocsad, M. Konde Menon, P. A. Krishna Menon, Ponnasseri Nambi (Secretary) and that the President be authorized to strengthen the Committee by enlisting other gentlemen as members if necessary.

That the College class for preparing students for the Vidwat title examination to be held in 1915 be opened in the first week of June 1911.

That steps may be taken to raise funds for providing permanent endowments on behalf of the institution and that Ponnasseri Nambi Nilakanta Sarma be authorized to collect subscriptions from patrons (subscribing not less than Rs. 100) and sympathizers and to do the duties also of the Treasurer.

That a learned Vidwan, proficient in Grammar and Vedantham, be at once appointed as the head Pundit (Vice-Principal) of the institution and to institute separate classes specially for Nambuthiris

wishing to learn Vedanta, Vyskarana, and Mammamsa.

That the President be requested to move His Highness the Zamorin and other philanthropic gentlemen to undertake free boarding of the pupils studying for the Vidwat Title Examination.

That a good library be established as attached to the College.

That the Sanskrit Association called Saraswatha Samajam be revived and that arrangements be made for representing Sanskrit dramas on the stage by the members of the Association.

A separate building be erected for locating the Library and College classes.

That the Secretary be entrusted with the duties of adopting all measures necessary for maintaining the institution in efficient condition, convene meetings of the Managing Committee, whenever necessary, and to publish annual reports on the working of the Sanskrit College with a statement of receipts and expenditure with the Auditor's certificate.

The Guntur Educational Exhibition—List of Awards :—

I. NATURE-STUDY COLLECTIONS.

(1) C. M. S. High School, Ellore, one money-prize for varieties of paddy. (2) A. B. M. Boarding Elementary School, Ongole—one money prize for biological collections.

II. DRAWING, PAINTING, PENCIL AND CHALK-SHADING.

(i) H. Swamy Sastri—Taluq High School, Tenali (Drawing-master)—one medal for oil-painting; (ii) G. Venkateswaralu—Board High School, Bapatla (teacher)—one medal for water-colours; (iii) M. Govinda Rao—Town High School, Guntur (pupil)—one medal for oil-painting; (iv) P. Anjappa—Board High School, Bapatla (pupil)—one medal for water-colours; (v) P. Kumaraswami—Board High School, Tanuku (teacher)—one medal for oil-painting; (vi) P. Ramamurthy—A. E. L. M. College, Guntur (teacher)—one medal for Crayon and Pencil Drawings; (vii) O. Ranga Rajam Iyengar—Town High School, Guntur (teacher)—one medal for design drawing; (viii) C. S. Balasundara Mudali—Taylor High School, Narsapur (pupil)—money-prize for oil-painting; (ix) C. M. S. High School, Bezvada (pupil, name not known) one money-prize for water-colour; (x) Y. Suryaprakasa Rao—Board High School, Bapatla (pupil)—one money-prize for chalk-shading; (xi) C. Nageswara Rao—Elementary School, Jeedigunta—one money-prize for pen and ink drawings; (xii) Moses Ananda Rao—A. E. L. M. Girls' School, Bapatla (teacher)—one money-prize for pen and ink drawing; (xiii) R. Venkatarangayya—Board Sessional School, Bapatla (pupil)—one money-prize for pen and ink drawings.

III. MAP DRAWING.

(1) C. M. S. High School, Ellore (teacher)—one medal. (2) Taluq High School, Tenali (teacher)—one medal. (3) P. Prakasa Rao—Noble College, Masulipatam (pupil)—one medal. (4) B. Sitaramish—Taluq High School, Tenali (pupil)—one money-prize.

IV. APPARATUS, APPLIANCES.

(1) A. Ananda Rao—Town High School, Guntur (pupil)—one medal for relief globe, (2) M. V. Krishniah—Hindu School, Kottapet, Guntur (teacher)—one gold medal for astronomical globe, etc. (3) N. Paranjoti—A. B. M. High School, Nellore (teacher) one gold medal (Sri Chintapally Ranigam's gold medal) for a large number of excellent scientific appliances and drawings, (4) C. M. S. High School, Bezvada (teacher)—one medal for centre of gravity appliance, (5) M. V. Subramaniam—Municipal School, Tenali (teacher)—one money-prize, (6) T. Lakshminarayana—Municipal drawing-master, Guntur—one money-prize, (7) Junnur Board Elementary School (teacher)—one money-prize, (8) Chinna Ganjam Muhammadan School (teacher)—one money-prize, (9) N. P. Seshagiri Rao—Noble College, Masulipatam (pupil)—one money-prize, (10) Venkatarangayya—Noble College, Masulipatam (pupil)—one money-prize.

V. HAND-WORK.

(1) Brahmdevam Board School (teacher)—one medal, (2) Hindu School, Gundimeda (teacher)—one medal. (S. Seshayya), (3) Narsapur range (school not known) (teacher)—one medal for shining cobra, (4) Elementary School, Undi—one medal, (5) A. E. L. M. Training School for Mistresses, Guntur, (dr. teacher.)—one medal, (6) A. E. L. M. Training School for Mistresses (pupil)—one money-prize, (7) Muhammadan Elementary School, Chinna Ganjam—one money-prize, (8) G. Somayya—Municipal Night School, Salipet, Guntur—one money-prize, (9) A. E. L. M. Boarding School, Guntur (pupil)—one money-prize.

VI. LACE-WORK, BEAD-WORK, ETC.

(i) Government Training School for Muhammadan Women, Guntur—one medal—for bead-work and embroidery; (ii) Sharky's Memorial School, Masulipatam, one medal for plain sewing, fancy-work and lace-work; (iii) R. C. M. School, Phirangipuram—one money-prize for lace-work.

Besides the above, there are 59 certificate-holders (certificates of honourable mention.)

BOMBAY.

Davar's College of Commerce—Commercial Education has made rapid strides in Bombay of late years and to-day this city can justly boast of being the most advanced in that branch of education. No little credit is due to the Principal of Davar's College of Commerce of Bombay for the excellent work done by it in this direction and we take pleasure in drawing the attention of our readers to a booklet containing a Report of the Working of this College for the past eleven years and the wonderful and steady progress made by it. It appears that the work of this College has repeatedly been recognised by our Ruling Princes and the Secretary of the London Chamber of Commerce. The Indian Government too has shown all possible

consideration to it and showed its appreciation of the work of Prof. Davar some years ago by appointing him on the Text-book Committee as an expert commercial educationist. When one recalls that Principal Sohrab Davar was the first Indian to pass the Incorporated Accountants' Final and that he is the only Indian who holds the Final Diploma of the Chartered Institute of Secretaries of Public Companies of London and that he has journeyed repeatedly (seven times) to Europe for his education and experience and that he is also a member of the English Bar, one is not surprised that a College under the direction of an expert of his qualifications should have produced such excellent results. The ex-students of Davar's College are scattered all over India holding important positions in the line of their study. The method of imparting practical training in "Commerce" as worked in this College is also very interesting.

The Bombay University.—Committee Report on Arts Studies.—The Committee appointed by the Senate, Bombay University, to revise the existing courses of study in the Arts Curriculum, has submitted a report, which will be considered by the Senate at the next meeting to be held on the 1st July. Among other things in the long report, the Committee says that the reform must be qualitative no less than quantitative. In the case of the previous examination new science which replaces ancient history, has been outlined by science. In English modification of method is suggested. In the Intermediate examination Physics is replaced by Indian History and Administration and slight changes are proposed in English examinations. In B.A. examination important changes have been introduced. A distinction is drawn between Pass Degree and Honours Degree. The Pass examination will in a more effective manner cover a less extensive field while Honours examination will be of the higher and difficult kind. First class B.A. obtains the reward that would naturally fall to Honours graduate. In M.A. examination four courses—Languages, History, Philosophy and Mathematics have been prescribed for two years study. In philosophy emphasis is thrown on the History, Philosophy and knowledge of the greatest authors of Greece and Germany. In History bifurcation is proposed requiring a candidate in second-half of the period to specialise in Economics. A certain element of choice is allowed between the more abstract and more experimental in Philosophy. Indian philosophy is introduced as alternative. The Committee desires to call attention of the Senate to the additional burden to be thrown on colleges by enlarged and specialised teaching required for B.A., M.A., and Honours courses. They recommend that different colleges be encouraged to specialise in different subjects and that inter-collegiate arrangements regarding distribution and sub division of subjects be recognised or sanctioned.

PUNJAB

A Research and Literary Society.—A Research Society has been formed in Lahore with the following objects : (a) for the revival of ancient Sanskrit learning and research into the same ; (b) for spreading the truths contained in them by means of translations and expositions in the vernaculars of the Punjabi, Hindi and Gurmukhi, and (c) for the development of vernacular literature in the Punjab. The Society will work in combination with similar societies already existing or to be formed in other Provinces and will affiliate itself to similar societies in England, Germany and America.

The preliminary meeting of the Society was held on the 31st March and rules were framed. The following gentlemen have enlisted themselves as members of the society and have given a donation of Rs. 50 each towards the fund of the Society :—
Sir P. C. Ghosh, Mr. S. K. Ghosh, Mr. S. N. Ghosh, Mr. S. B. Ghosh, Mr. S. C. Ghosh, Mr. S. D. Ghosh, Mr. S. E. Ghosh, Mr. S. F. Ghosh, Mr. S. G. Ghosh, Mr. S. H. Ghosh, Mr. S. I. Ghosh, Mr. S. J. Ghosh, Mr. S. K. Ghosh, Mr. S. L. Ghosh, Mr. S. M. Ghosh, Mr. S. N. Ghosh, Mr. S. O. Ghosh, Mr. S. P. Ghosh, Mr. S. Q. Ghosh, Mr. S. R. Ghosh, Mr. S. S. Ghosh, Mr. S. T. Ghosh, Mr. S. U. Ghosh, Mr. S. V. Ghosh, Mr. S. W. Ghosh, Mr. S. X. Ghosh, Mr. S. Y. Ghosh, Mr. S. Z. Ghosh.

Sir P. C. Chatterji, the Hon. Rai Bahadur Lala Shadi Lal, Bhagat Ishwar Das, Lala Surjeu Das, Rai Bahadur Lala Sohan Lal, Rai Sabib Lala Sukh Dial, Rai Bahadur Lala Mohan Lal, Mr. Roshan Lal, Pandit Rambhaji Dutt Chowdhri, Lala Karm Chand Puri, Lala Hira Lal, Lala Nand Lal, Rai Bahadur Lala Ram Saran Das, Mr. Nanek Chand, Dr. Lakshmi Narain, Lala Saugam Lal, Messrs. Devi Das and Dewan Chand.

CALCUTTA.

Scholarship for Scientific Researches — The "Wisconsin Journal" says that Mr. Ashutosh Jana, an inhabitant of Birulia, Midnapore and member of the Academy of Arts and Sciences, Wisconsin University, and of some scientific institutions of America, has been awarded by a leading University of U.S.A. a scholarship of the value of 2600 dollars, nearly eight thousand Rupees tenable for four years for investigating higher branches of electrical sciences and the mechano-therapeutical science. He will be required to spend one year in residence work at the University for the Doctor's degree by production of thesis embodying original research. Drs. Jones and Smith of the Pennsylvania and the Chicago Universities have very highly spoken of Mr. Jana's efficiency in those branches of science. Mr. Jana has acquired sufficient knowledge in the various branches of learning as well as practical works and is an intelligent and hardworking young man of steady moral habits. We offer our heartiest congratulations to the recipient of this honour.

MYSORE.

Widows' Education in Mysore.—The scheme of training Hindu widows as teachers seems to have succeeded remarkably well in Mysore. The need for their services was felt when the Mubarani's College was started as a school. At first orthodox Pandits were employed to teach widows in their homes, but gradually they were drifted into the College as regular students by the promise of

scholarships. The State contributes Rs. 230 a month for these scholarships at present, and the Deva Raj Bahadur Fund about Rs. 200; and thus about 140 widows are now under tuition and in receipt of scholarships over the whole State. In the main, especially in the smaller centres, the education of widows is said to have made "no impression" in favour of female education. In Mysore and Bangalore the scheme has yielded satisfactory results. The example of Mysore has been followed in Madras, where the Education Department has instituted a large number of scholarships with "guardian allowances" for the encouragement of widow pupils. In Mysore a Widows' Home has been established, but apparently the scheme of starting such homes in other towns in the State has not succeeded. Rajyakarya Prasanna A. Narasimha Aiyengar, to give him the local title, has, in his last report of the Deva Raja Bahadur Fund, appended a list of the widows helped by the Fund and who have served as teachers, midwives and nurses. Nearly forty out of the forty-seven have been Head or Assistant School-mistresses.

Ancient and Modern Education.—A very impressive lecture on the above subject was delivered recently by Mr. J. Srinivasa Rao in the Shankari Mutt with Mr. V. P. Madhava Rao, C.I.E., in the chair. There was an appreciative gathering. The lecture was in Canarese. He remarked that education was the drawing out the latent genius in man. No new thing was wanted. Everything existed but it had to be brought out. Teachers reminded of those geni in men and cultivated them by discipline. Vices had to be suppressed and virtues had to be cultivated. Mere knowing to read and write was no education. Education was not 3 R's, but it was 4's, namely service, study, simplicity and sacrifice. By service, *tamo gunas* were killed. Admiral Zogo lived a life of service. He said children of great men were stupid, because they were brought up in luxuries. The lecturer said that students in the Central Hindu College were specially taken care of, bathed in the morning and taught all the religious rites of the Hindus. He closed by saying that the past should be an inspiration for the future and not an empty boast. Mr. Madhava Rao in bringing the interesting proceedings to a close, remarked that theosophy was only an English name for oriental learning and it taught oriental greatness in English for the benefit of the English-knowing public. Theosophy, he said, had done much to India. Much more had to be done and was being done by Sri Sankara Chariar.

The Maharani's College, Mysore.

ORIGIN AND EARLY HISTORY.

The beginning of the Maharani's College goes back to December, 1889, when at a meeting of leading local Brahmmins, it was decided to establish a school for high caste girls, under Indian management, and conducted with due consideration for

Indian manners and customs. Prominent among these pious founders was Rai Bahadur A. Narasimha Iyengar, who has acted as Honorary Secretary since 1898. The School was started in a temple in the Mysore Fort, with 28 pupils, but was soon removed to the premises of the Jagannathan Palace, by permission of His Highness the late Maharaja Chamarajendra Wodeyar Bahadur, to whose consistent encouragement and liberal practical support, much of its success is due. Her Highness the Maharani, too, allowed her name to be associated with it; and the institution is also deeply and constantly indebted to His present Highness for his protection and generous encouragement. This Palace patronage, and the visit of His Royal Highness the late Duke of Clarence, Their Excellencies Lord and Lady Dufferin, Lord and Lady Lansdowne, Lord and Lady Elgin, Lords Connemara and Sandhurst, Sir Arthur Havelock and others, have helped to popularize the institution, and with it the cause of female education in Mysore.

THE SCHOOL COURSE—EDUCATION OF WIDOWS.

In five years the roll has increased to 463; and apart from plague conditions, the numbers are generally maintained at well over 400. The subjects taught from the beginning were Kanarese, Arithmetic, Geography, Hygiene, Music, Sewing, and Fancy Work; to these were soon added English and Sanskrit. Later on came History, Drawing, Science and Kindergarten, and this year Moral Instruction has been introduced. The school aims at imparting such education to the girls as shall not only fit the married ones to be good wives and mothers, but also enable the unfortunate child-widow to find in the future through the training here given, an honourable and useful sphere in society, as a teacher or a nurse. This education of widows has always received the most earnest attention on the part of the school authorities. Up to the present, about 140 widows have passed, or are passing, through the school, and over 20 have received Government Educational appointments. By the exertions of Rai Bahadur A. Narasimha lyengar, a considerable fund was some years ago raised, the interest of which is now devoted to the interest of widows. About eight former students are practising, or are qualified, as midwives.

MANAGEMENT AND RESULTS.

In 1888 an English Lady Superintendent was first appointed, and since 1891 the Superintendents have always been English women. In 1891 the institution was taken over by the Government of Mysore, but is still conducted on its former lines, though the standard of education has been raised. In 1895 the Upper Secondary Examination was first passed, and the school became a recognised High School. In 1896 the Matriculation Examination of the Madras University was first passed and in 1899 the First-in-Arts Examination. In recognition of this success the name of the institution was changed from "The Maharani's Caste Girls School" to "The Maharani's College." In January 1901 an in-

formal B. A. Class was opened; in 1902 the Institution was affiliated as a Second-grade College to the Madras University; and now all the three students of the B. A. Class have taken their degrees, two of them receiving Grigg Memorial Medal for English. These are the first orthodox Brahmins in India, it is believed, to graduate. In 1908 a student passed the Mysore Pandit's Examination in Sanskrit, being the first female student to attain that distinction. The school has been opened from the first to the daughters of all respectable caste Hindus, and within the last seven years Europeans, Eurasians, Native Christians, Muhammadans, Jewesses, and Parsees have also been made admissible.

SCHOLARSHIPS.

Widow students receive scholarships ranging from two to seven rupees up to the Lower Secondary standard, and Hindu students, whether widows or not, from eight to twenty rupees after passing the Lower Secondary standard up to, and including the Intermediate Arts (formerly the First-in-Arts) class. There is no College hostel, neither are any arrangements for boarding and lodging provided by Government for students coming from outside Mysore City, and this is their great and crying need. They have, however, every confidence that the Government of His Highness the Maharaja will supply this urgent need when funds allow. There is a Games Club in which Tennis is especially popular, and a Reading Society. A Musical Society is being formed. Miss Park is the present Lady Superintendent, and the staff otherwise number about forty, including ten graduates of the Madras University, three of whom are ladies.

TRAVANCORE.

Educational Inspectorate in Travancore—The Inspecting officers in the Educational Department had hitherto consisted of 2 Inspectors of Boys' Schools, 1 Inspector of Girls' School, 12 Assistant Inspectors of Boys' Schools and 4 Assistant Inspectresses of Girls' Schools. It was reported some time back that the Durbar have sanctioned a European Inspector of Secondary Schools and that they have appointed Mr. James Pryde, M.A., B.Sc., to the post. The Durbar have now by a G.O., dated May 21, 1911 passed orders on the proposals submitted by the Director of Public Instruction, for starting the newly-appointed Inspector on his work. Accordingly Mr. Pryde is, for the present, put in charge only of the Higher Grade Secondary Schools for boys including the one attached to H. H. The Maharajah's College for boys, which had hitherto been under the Principal of the College for purposes of supervision and control. An exception is however made in the case of the Model School attached to the Teachers' College which will be under the control of the Principal of that College, the Inspector's examination of the students of the VI Form for the Secondary Schools Leaving Certificates being alone conducted annually by the Inspector of

Secondary Schools. The present Inspectors of Boys' Schools of the Northern and Southern Ranges will be divested of their supervision and control of the school transferred to the charge of the Inspector of Secondary Schools for boys. This arrangement is, it is stated, to continue for one year at the end of which the Director will report on the further action to be taken. Meanwhile, the services of Mr. F. Ramaswami Iyer, the Southern Range Inspector has been transferred to the Palace, from the Educational Department to take up the post of tutor to M.R. Ry. Sri Velayudham Tampi Ayl, son of H. H. The Maharajah. It is understood that Dr. Mitchell, who was consulted on the question of appointing a competent person to supervise the education of His Highness' son, recommended this Inspector being the best fitted of the subordinates he has ever come across during his career of 23 years in his Highness' Educational Services.

The Teachers' College.—It is understood that the recommendation of Dr. Mitchell for the appointment of lecturers in the new Teachers' College have been sanctioned by the Durbar. The G.O. relating to the organisation and equipment of the College, has laid down the rule that the Vice-Principal and lecturers must be trained L.T. and should ordinarily have the M.A. or a First class B.A. Degree. It is to be observed that among the newly appointed lecturers there is not one who holds the M.A. or a First Class B.A. Degree and it is surprising that Mr. Baadarayana Chari, M.A., L.T., Acting Assistant Professor of Chemistry was not offered one of the places in the Teachers' College. It is still more surprising that Dr. Mitchell with the same dip of pen vetoed the recommendation of the College Council to appoint Mr. A. Gopala Menon, B.A., Professor on the ground that there is a ruling of Government that the Assistant Professor in the College shall be M.A.'s. The Professor of Mathematics and the Acting Professor of Chemistry are only B.A.'s, though the rule with regard to the appointment of Professors, is that ordinarily they should be M.A.'s. As far as we are aware, the Government ruling has been insisted by Dr. Mitchell only in the case of the Assistant Professor of History. —*The Hindu*.

The opening of the Teachers' College, Trivandrum—The opening of the new Teachers' College took place at 10 A.M. on Monday the 19th instant by Dewan Bahadur P. Rajagopalachariar, M.A., B.L., C.I.E., of Travancore. Doctor Mitchell, Director of Public Instruction and Dr. Clarke, Principal of the College received the Dewan and showed him over the lecture rooms. The Dewan, in opening the Institution which was to him an object of loving care for the past three years, delivered a very impressive speech of which the following is the text:—
"Mr. Principal, Mr. Vice-Principal, and members of the staff of the Training College;

I am glad to have the opportunity of saying a few words to you on the occasion of the opening of this Institute after its last reorganisation. You are now in a regular Training College, and the task has been committed to you of training teachers for all grades of Secondary Schools in the State. I heartily wish your College a long and useful career. You are aware that your College has been equipped at considerable expense to the Durbar; more is being done, and more will be done, to fit it up in all directions to meet the demands on it. This College will always remain as a conspicuous mark of Dr. Mitchell's successful administration of the Education Department. Dr. Mitchell has fully justified the action taken by the Durbar, over two years ago, in providing the Education Department with a head and in appointing him to that headship; and not the least service rendered by him to Education in the State will be the organisation of this College.

But, Gentlemen, after all, the success of the College will depend very much more on you and on the work you do and on the spirit in which you do it, than on the Durbar or Dr. Mitchell. We have done our task by giving you a good start, and we sincerely hope that you will take up that task in the true spirit and carry it out successfully. This College will be the backbone of the Education Department. As time goes on, the percentage of trained teachers is bound to rise in all schools, and the percentage of those teachers who have been trained in this College is also bound to rise. On the way you train the teachers here, will depend a great deal of the success of education in the State. In one respect, the work of the Education Department, I am not speaking solely of this College, differs substantially from that of most other departments. Unlike other departments, it falls to the Education Department to train and mould the rising generation; every branch of activity in the State will be affected to a substantial extent by the way in which the teachers all over the State—and particularly the teachers here—do their work. The Durbar has, during the last few years—I mean since Dr. Mitchell took up the headship of the Education Department—done a great deal to improve the position and prospects of the officers in it, and more will yet be done. In point of pay and prospects, the Department now compares less unfavourably, I trust, with other Departments, than it did a few years ago. As I have had myself a share in effecting these changes I say so without any prejudice to the excellent work which Dr. Mitchell has been doing—I trust that I shall not be misunderstood if I mention one or two matters, by way of advice, to the members of the staff generally in this important department. The first thing is the vital necessity lying on each man to keep thoroughly up-to-date. The obligation lies I know, on all departments: it lies however with special emphasis upon professional departments such as yours. Science and knowledge do not stand still; they are always moving forward, and the volume of knowledge which a man has acquired when he starts life as a young teacher is of course quite a

small percentage of the volume he could acquire if he keeps abreast of the progress going on in his branch of work. An obsolete man is inconvenient in any department; he is a positive nuisance in the Educational. Also, I would beg of you to remember that, though the number of the higher appointments open to the Service is larger now than what it was three years ago, promotion in the department will not and cannot always go by seniority. It will be the duty of the Director and of the other controlling officers of the department to keep in touch with the men in service and to pass over those who either through lack of true interest in their work or other cause, have fallen behind. Connected with this, I would mention another circumstance which Dr. Mitchell prominently brought to my notice the other day, viz., that few of you go out of your places during vacation time. Not only will travelling be of help in the matter of health, but it should be of great benefit to the teachers here if they go out and meet teachers elsewhere and see how things are being done in other places and under other conditions. I know that the pay of most teachers is such that does not afford them much chance of travel, but my complaint is that even those who could afford to travel, and travel with advantage fail to do so. I trust that at least those who have obtained promotion in recent years and thereby some increase to their pay will devote a portion of that increase to travelling out of Travancore periodically and widening their mental horizon. I shall now end, Gentlemen, as I have begun, with heartily wishing this College a long and most useful career."

INDIA (GENERAL.)

Oriental Studies in India—a proposed Conference.—A Conference will meet in Simla in July to consider the present state of Oriental studies in India and to discuss practical measures for their encouragement. And the Co-ordination Conference will be presided over by the Honourable Mr. Harcourt Butler, a Member of Council, for the Department of Education.

It is proposed to invite the following scholars to attend the Conference:—

Dr. Thibaut, Dr. Vehis, Dr. D. nison Ross, Col. Phillott, Mr. Woolner, Dr. Vogel, Dr. Spooner, Dr. Borovitz, Dr. R. G. Bhandarkar, C.I.E., Mr. S. R. Bhandarkar, Rai Bahadur Vankaya, Mahamahopadhyaya Hara Prosad Satri, Shams-ul-Ulema Maulavi Shibli Nomani, Shams-ul-Ulema Maulavi Kamal-din Ahmad, Mr. Duroiselle, Sahibzada Abdul Quayum Khan Bahadur, C.I.E., Professor Isahani, and Dr. Ganga Nath Jha.

Among the principal topics which will be taken up by the Conference are the following:—

The promotion of Oriental and Archaeological research, practical measures for the greater co-operation of Oriental learning and Western scholar-

ship, the training of Indians for posts in the Archaeological department, measures that would add to the estimation in which Oriental learning is held in India and the system of language examination.

Foreign Notes.

GREAT BRITAIN.

The National Union of Teachers.—The Board of Education in England has come in for a good deal of strong criticism recently and the agitation over the Holmes Circular has, it would appear, not yet abated. A monster meeting of teachers which took place at Albert Hall has its own lesson to convey to Indian teachers who have not yet shown any desire or capacity to combine for common purposes. Over 6,000 teachers and Civil Servants were present at the meeting which was organised by the National Union of Teachers. Several speakers dwelt on the petty tyrannies which the permanent officials of the Board were perpetrating. It would appear that in the Board, while the principal appointments open to competition had increased only from 82 to 90 since 1902, those appointed by patronage had risen from 56 to 104. Moreover, the Board, it was stated, had brought pressure to bear on the county authorities to try to get them to appoint only Oxford and Cambridge men while before they had been appointing ex-elementary teachers as inspectors. A resolution was passed protesting against "the prevailing practice of restricting appointments and promotions in the higher branches of the administration of the affairs of the Empire to persons who have received their education in the great public schools and old Universities, thereby placing an effective barrier in the way of candidates fully qualified by ability, knowledge, and experience, merely because their preliminary education has been received in the primary and other schools of the country," and "having regard to the opinions expressed in the Holmes-Morant Circular and to the power wielded by highly placed officials who give effect to those opinions," appealing to the Prime Minister to appoint a Select Committee to inquire into the whole question of appointment and promotion in the Inspectorate of the Board of Education and other branches of the Civil Service.

Dr. Wilhelm Ostwald on Students and Politics.—Dr. Wilhelm Ostwald has made very pertinent remarks on the subject of students and politics, in the course of a very interesting and instructive lecture, which he delivered to the members of the Free Students' Association at Berlin. Dr. Ostwald said:—

"I know that there are anxious minds who would keep the young students aloof from all politics: they are like the people who will not go into water, before they have learned to swim. But my friends, you must afterwards anyhow get into water. It seems not proper for a nation, which has taken its

destiny into its own hands, to artificially keep that portion of its rising generation, which is expected to wield the greatest influence, aloof from the acquisition of an independent political judgment. And it only proves a want of confidence in the soundness and vitality of their own principles when any political party seeks anxiously to hinder those who have been specially trained for doing serious work from practically exercising their function."

The extent of the educational work carried on by the London County Council.—The extent of the educational work carried on by the London County Council is well-illustrated by the Council's annual report on the subject. The amount expended yearly for educational purposes is about six millions sterling, five millions of which is devoted to elementary instruction. The total Government grant is less than a million and three-quarters, and as the balance has to be provided by the citizens an education rate of one shilling and ninepence in the pound is levied. There are now in London 545 "provided" or Council schools, accommodating 589,906 children and 364 "non-provided" establishments, formerly called voluntary schools, with accommodation for 158,725 pupils. The report further shows that the teaching staff numbers 20,000, of whom 16,460 are employed permanently in the elementary schools. The aggregate salaries of the elementary teachers amount to over two-and-a-half millions sterling.

National Pension Scheme worked out by the Scotch Education Department.—Teachers in South India, writes the *Christian College Magazine* for May, "who have thus far been struggling ineffectually to secure a pension scheme will be interested in the national pension scheme worked out by the Scotch Education Department. It is given in detail in the *School World* for April. Its leading features are that the pension fund is made up from contributions from the teachers, from School Boards or Managers, and from the Department. Teachers of men, 3½ per cent. of their salaries in the case of men, 3½ per cent. in the case of women; School Boards and Managers contribute 2 per cent. and the Department 3½ per cent. and 3½ per cent. respectively. The retiring allowance is fixed at 1/80th of the teacher's average salary for the last five years of service multiplied by the number of years of service up to forty years. Thus a teacher with a final salary of £400 will be entitled to a pension of 1/80th of £400 x 40 = £200. The normal retiring age is sixty-five. If a teacher dies in service or retires from service he will receive back what he paid into the fund. Certain qualifications are made to meet the case of present teachers, who have already, prior to the commencement of the fund, put in a period of service. The *School World* regards this scheme to be the first in the United Kingdom to be framed on broad and just lines. Undoubtedly it will improve the status of the teacher in Scotland."

A LETTER FROM HIS EXCELLENCY THE GOVERNOR-IN-COUNCIL OF BOMBAY TO THE REGISTRAR OF THE UNIVERSITY OF BOMBAY.

No. 144-P of 1911.

EDUCATIONAL DEPARTMENT:

Poona, 21st June 1911.

Sir,

I am directed by the Governor-in-Council to ask you to be so good as to lay this letter before the Senate of the University with reference to the forthcoming discussion of the Report of the Arts Committee appointed on the 3rd October, 1910 and to Mr. Enthoven's letter No. 308C, dated 18th December 1908.

2. More than two and a half years have passed since Government, with a view to the remedying of certain existing defects, made a series of suggestions to which the consideration of the Senate was invited. The Governor-in-Council welcomes the progress that has since been made, and he is convinced that the reforms now in contemplation will go far to remedy defects and to improve the standard of University Education in this Presidency.

3. In regard to the proposed curriculum for the B.A. degree, however, Government think it is right that they should forcibly lay their views before the Senate in order that there may be no possibility of misunderstanding.

4. The curriculum, as it now stands, contains the following subjects, namely:—

- I. English with Composition.
- II. Classical Language.
- III. History and Political Economy.
- IV. One of six named subjects including History.

In the proposed curriculum, there are only two obligatory subjects, namely:—

- I. English with Composition.
- II. History of England, Political and Constitutional.
- III. One of six named subjects, being optional.

The subject of History, as now treated in the B.A. Examination, is divided into—

XVII

(a) History of England, Political and Constitutional (1 paper).

(b) History of India (1 paper).

(c) Political Economy (1 paper).

Under the operation of the proposed curriculum, "Indian History and Administration" becomes an obligatory subject at the Intermediate Examination and Political Economy is included in an optional History group which embodies also—

History of Greece.

History of Rome.

European History.

5. The Governor-in-Council cannot doubt that the Senate will fully realize the magnitude of the changes thus involved, and will feel with him that they should not be adopted without the most serious consideration. A special and limited branch of History, which now counts as only one-third of one out of three obligatory subjects, would become a subject *per se* and would be one of the only two subjects enforced upon candidates for the B. A. degree.

6. Many objections may be raised to the application of this vital change to an Indian University, and I am to mention those which specially appeal to the Governor-in-Council.

7-A. It appears inevitable that English should remain an obligatory subject. A mastery of the English language is becoming more and more necessary to the Indian student, and an acquaintance with English Literature is an admitted advantage. Thus, in spite of undoubted difficulties in securing in all the many Colleges affiliated to the University the high standard of teaching which is evidently desirable, and in eliminating the element of cramming which is gravely detrimental to sound Education, there can be no question on this point.

B. But, if this view is correct, it becomes all the more necessary, when only two obligatory subjects are prescribed, that the second such subject should not be beset by the difficulties attendant on the first, and should be calculated to play a part in the training of the intellect of the Indian student.

C. It appears to the Governor-in-Council that English History, Political and Constitutional, cannot be regarded in this light. The teaching of history in such a way as to make it, not a means of acquiring book knowledge quickly forgotten, but an instrument of mental training, offers great difficulties even in England and can

be possible only in rare cases in India. The subject is one which would certainly not be made compulsory upon all students for an Arts degree in England, and it is far less suitable for general enforcement upon Indian students. It is most doubtful whether any other Indian University would take such a step as is proposed.

D. It is not too much to say that for the great mass of the B.A. students of the Bombay University, such knowledge as they might acquire from the reading of text-books bearing on a subject, which is, in certain aspects, controversial, would not prove of the smallest practical value in their after lives, and would not tend in any way to fit them for the work which in the great majority of cases must lie before them. The Governor-in-Council, however, does not attach undue value to the utilitarian argument. If a subject has indirect value as an intellectual training or in the formation of character and the qualities which make for success, the direct results of the knowledge acquired may be of minor importance. What impresses him most is that, as experience shows too plainly, the subject in question would be learned from text-books, and the examinations would be tests of memory and not of intellectual strength, of originality, or of powers of independent thought. The deficiencies in these respects of the graduates of the University are widely acknowledged, and Government would be most reluctant to acquiesce in a step which appears certain to increase these deficiencies.

8. In a matter of so great importance to the future of Higher Education in this Presidency,

the Senate will not fail to realize that Government cannot divest themselves of responsibility. The Colleges involve the expenditure of large sums of public money, and Government is an employer on a large scale of the graduates of the University. For these reasons, the Governor-in-Council has deemed it his duty to lay his views before the Senate, feeling assured that they will accord full consideration to them and that they will be amply discussed on their merits only. Amendments will, therefore, be raised in order that such discussion may take place.

9. In conclusion, I am to state that the Governor-in-Council confidently believes that his motives will not be misunderstood. Government regard the study of English History, Political and Constitutional, as necessarily advantageous if time and adequate teaching power are available; but they are impressed with the extreme undesirability of enforcing it on all Arts students for the reasons stated. They are inspired by one wish only, which the Senate will share, and that is to make the training provided by the University of Bombay the best possible in the interests of the students and of the intellectual advancement of the Presidency.

I have the honour to be,
Sir,

Your most obedient servant,
(Sd) L. ROBERTSON,
Secretary to Government.

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The Educational Review.

The professors of philosophy will find enough of perplexing material to reflect upon in the lecture delivered at the International Philosophical Congress at Bologna by Prof. Henri Bergson, who is at the present time the most discussed philosopher in Europe. He emphasised what he regarded as the difference between the method of philosophy and the method of science. In his opinion the method of the former was a kind of intuition, while that of the latter is analysis. "The only future of philosophy lies in a recognition of the fact that it must pursue a different method entirely to that of science. It must give up the attempt to give a complete intellectual representation of the cosmos. There remains the allied question of the place of system in philosophy. Looking at the extraordinary complicated constructions of the great systematic philosophers, they certainly seem to have been animated by the conviction that they were creating a science of the real. But this is only superficial appearance. If you study, say, Spinoza long enough, you will find that the whole elaborate system was merely the language by which he expressed one perfectly simple intuition, a thing which would be stated in one sentence if you yourself had been in a similar state and could at once recognise it. Here comes then the absurdity of explaining a philosopher by his sources—by that method you only catalogue the material by which he expressed himself. The important and central thing in a philosopher is a kind of intuition akin to that of the artist, and different fundamentally from the kind of activity you get in

science." The method of philosophy outlined by Prof. Bergson in his lecture is not the conception that is in vogue among the philosophers at the present time. We may even venture to say that Prof. Bergson's view of the method of philosophy is not the one which philosophy has formulated for itself. At all times it has attempted to use the same method as the science of its day; what the special sciences have done for their particular spheres, philosophy has attempted to do for the whole cosmos. In the view of Prof. Bergson the failure of philosophy is due to its conception as a complete science. If Prof. Bergson's view of philosophy is the right view, surely there must be a revolution effected in the methods of teaching philosophy.

The Times of London discusses in a lengthy article the need for reform in education in India. The writer takes as his guide

the remarks about the present state of education in India contained in M. Chailley's *Administrative Problems of British India*. Every one who has read M. Chailley's book knows that the views presented therein are much more those of the India Bureaucracy than of an impartial liberal-minded critic. To take such a critic as a guide in discussing the reform of education in India is not likely to lead to results of any practical significance. As an argument against free and compulsory education it is contended that "the social fabric had never contemplated the education of the masses, nor had these ever experienced the need of it." This no doubt is true, but those that have raised the cry for free and compulsory education believe that the latter would prove a valuable instrument in the

attempt to shatter the regime of castes. We think that M. Chailley is not correct in saying that the teaching staff in Indian colleges is far too small and that the quality of the teachers does not compensate for their numerical feebleness. We hold no special brief for Indian colleges nor do we regard them as ideal colleges; nevertheless we can not bring ourselves to say with M. Chailley that "defective quality is the weakest point in the college teaching." In the opinion of the writer in the *Times* the reforms most urgently needed are the following: "The vitalizing and strengthening of the Universities, which should be the inspiring main-spring of the system, must be carried into effect. The methods upon which the Indian Educational Service is recruited in England and organized in India should be carefully investigated and revised; and the strength of that service, both in the professional and inspectorial branches, strengthened. The pay of the lower grades of the Educational Service should be revised throughout India so as to render it reasonable to expect that competent assistant-masters will come forward to join the department; and the tests qualifying for admissions should be so arranged as to afford some guarantee of their moral and educational fitness for their work. The curriculum should include such moral or religious teaching as may be desired in each province or locality; and the whole system throughout should be subjected to a more rigorous and real inspectorial control than is possible with the inadequate staff which is at present made to suffice." There can be no doubt these are the reforms that would appear to be urgent to one connected with the bureaucracy, but one who has the people's welfare at heart would certainly side

those who are crying for free and compulsory education. We think that in this direction lies the salvation of India and not in increasing Government control over institutions wherein there is already too much departmental surveillance and interference.

In answer to a note from the Hon'ble Moral and religious education. Mr. H. W. Orange, Director-General of Education, to the Directors of Public Instruction of the several provinces, regarding the trend of public opinion in their respective provinces in the matter of direct moral instruction, replies were sent and these have now been placed before the public. Of all the replies sent we think the opinion of the Hon'ble C. F. De la Fosse, Director of Public Instruction, United Provinces, to be independent, rational and deserving of consideration. He says:—

"As to the value which moral lessons in readers 'are thought to have' in the United Provinces, I cannot generalise with certainty, but I must confess myself to be sceptic. I doubt very much from what I have seen and heard whether the lessons in the readers of a moral tendency or with a direct moral purpose are read otherwise than as reading lessons. All depends upon the teacher, and as is well-known the men employed in primary classes are poorly paid and poorly educated. It would be too much to expect such men to exert a strong moral force, and as a matter of fact with scarcely an exception they do not. Their conception of the teacher's functions does not as a rule include the teaching of morality. The school day is spent in ordinary secular instruction and when it is over, their scholars disperse to their homes and they dismiss them, if they

can, from their minds. In the higher classes the pressure of examinations usually vanishes all thought of moral teaching. Mission schools make a half-hearted effort to impart it daily during the brief period of religious instruction, but very little result is probably produced. I can of course only speak from my own experience, and others—especially newspaper writers—hold, I know, quite opposite views. Despite the hugeness of the output lately of reports, essays and addresses on moral instruction, I remain of opinion that the best moral influence in schools is the steady and continuous exaction of careful work from scholars by a conscientious teacher. Frankly, I don't believe in moral lessons as such, though I believe that a fine thought well-expressed may sink into the mind as a maxim of life, if the scholar is made to study its meaning closely under a capable and high-minded teacher. Indirectly there is much moral instruction proceeding in this way, but it is the result of the scholar's own unconscious effort directed mainly to another end."

We need not say that we have often in these columns laid stress upon the aspects of moral instruction so clearly brought by Mr. De la Fosse in his report.

In spite of the many text-books and treatises on education, we have not had in the English language a modern dictionary and cyclopædia of education. The need of such a work is felt constantly by every student of education, every teacher of education, every teacher of any subject who studies his work from the professional standpoint, and every administrative officer who takes his work seriously. The only works in the English language

which lay claim to an encyclopædic character on educational matters are Kiddle and Schem's *Cyclopædia of Education*, a small work published in America, and Sonnenschein's *Cyclopædia of Education* published in England. Both of these works are too brief to be of any value. In French we have a work in four volumes, entitled *Dictionnaire de Pédagogie et d'Instruction Primaire*, published in 1882; in German we have the great reference work of Professor Rein, entitled *Encyklopädisches Handbuch der Pädagogik*, in eight volumes, published in 1903—8. These works are, however, accessible to very few Indian teachers. In spite of the many books, pamphlets and periodicals appearing on education every year in England and America, there is still a need for a comprehensive reference work containing reliable and scholarly articles of moderate length, to which one may turn for a brief but comprehensive account of any topic in the wide and varied field of modern education. We are therefore glad to note the publication by the Macmillan Company of New York the first volume of *A Cyclopædia of Education* under the editorship of Prof. Paul Munroe of Teachers' College, Columbia University. Dr. Munroe is the foremost authority on the history of education in America and may therefore be regarded as admirably qualified for the task he has undertaken. The work as a whole represents the co-operative effort of hundreds of specialists. The work is comprehensive in scope and supplies all essential information concerning every division of educational theory and practice. Subjects relating to the philosophy and science of education, history of education, educational biography, educational institutions, secondary education, elementary education, the curriculum, administration and

supervision, school systems, educational methods, educational psychology, school hygiene, school architecture, have all received due attention. Simultaneously with this American publication we find the announcement of the appearance of Volume I of the *Teachers' Encyclopædia of the Theory, Method, Practice, History and Development of Education at Home and Abroad*, edited by A. P. Laurie, London, 1911.

At a meeting of the Association of Mathematical Teachers in New England, Professor Arthur Schultze dwelt on the causes of the inefficiency of mathematical teaching. The following is a summary of Professor Schultze's address. In order to remedy the present unsatisfactory condition of mathematical teaching the teachers of mathematics seem to have pinned their faith wholly upon one remedy, namely, the teaching of applied mathematics and the use of laboratory methods. While such applied work undoubtedly increases interest for and understanding of the work, it alone is not likely to accomplish a reform of mathematical teaching. A too close adherence to these ideas may even produce a harmful effect, for the simple reason that elementary algebra and geometry have not a sufficient number of genuine applications. Numerical difficulties distract the attention from the true issue. Such examples as are found in the best books are more likely to be done by rote than examples selected only from the algebraic view-point. When statistical facts are accumulated in large numbers, the interest in them fades away. Though the applications from physics are very valuable, they are mostly too difficult for the beginner. The introduction of too

many practical applications in geometry transforms the work into a system of calculations or mensuration. Though laboratory work is useful, it is not mathematics and cannot replace mathematical reasoning. The poor results of mathematical teaching are not so much due to the subject-matter taught as to the spirit which pervades many schools. Schools are too fond of display, and are therefore run on the spectacular plan to obtain maximum of results with minimum outlay of money. The result is congested courses of study, the undue stress put upon examinations, crowded classes, excessive and mechanical memorizing and utter neglect of the reasoning power. Such an atmosphere is utterly unsuited for the success of mathematical instruction. A great amount of mathematical information is forced into unprepared minds in order to pass examinations. But what is valuable in mathematics is not information but reasoning. It is the "can" and not the "know" that makes the mathematician. These unfavorable conditions should be removed if mathematical instruction is to yield beneficial results. A good portion of the geometry and algebra that students have to learn has only small value. The course in geometry should be one in discovering and inventing. Students should be trained to reason, to discover, not to simply know several hundred demonstrations. We hope teachers of mathematics will give their attention to Professor Schultze's contentions.

The teaching of science in girls' schools is at present receiving a good deal of attention. Mrs. Bryant, writing on this subject in a book of essays, entitled *Public Schools for Girls*, lays down the follow-

ing conditions as necessary to be fulfilled in imparting instruction in science to girls. "The prime condition to be fulfilled in a school scheme of natural science study is that it shall lend itself with certainty and ease to develop in the immature but plastic mind of average ability this *scientific attitude* of alert *individual inquiry*." For this "the subject matter should be at each stage as attractive as possible in the sense of stimulus to inquiry.....the problems raised by the subject under discussion should not be too difficult for the learner's own powers of intellectual inquiry.....So far as possible the natural practical interests of the learners should be enlisted as a powerful additional stimulus to scientific motive." No one is likely to question the reasonableness of the view expressed by Mrs. Bryant. As regards the third requirement of Mrs. Bryant, namely, that school science shall appeal to the natural practical interest of the learners, Professor A. Smithells has made some interesting observations which deserve the attention of teachers. "I state it, not as an opinion, but as a fact of experience, that the average science graduate, male or female, coming from an ordinary university course, is extraordinarily ignorant of some of the very simplest applications of science in relation to daily life, and that there is a considerable

region of facts, both in physics and chemistry, lying outside the conventional 'subject' as understood by degree artists in universities, which it behoves every reasonable school science-teacher to explore. I am not fond of the term domestic science, which rather curiously has been often used as synonymous with the arts of the cook and launderer, but that the principles and discipline of elementary physical science can be inculcated with a large accompaniment of topics and examples relating to the household arts I am perfectly satisfied, and I shall not readily be deterred from advocating this at some sacrifice of Atwood's machine and the oxides of nitrogen." An important question connected with the teaching of science is whether the appeal should be made to the utilitarian, or the scientific, motive. Every day phenomena are often introduced as illustrations when and only when they may happen to be wanted to give point to the teaching. But we think that the more preferable course would be to make a practical problem the starting point, so that the development of the scientific method follows instead of preceding. Boys and girls actually want to know how a machine works, whereas abstract principles interest only those that are above the age of sixteen or seventeen.

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JULY 1911.

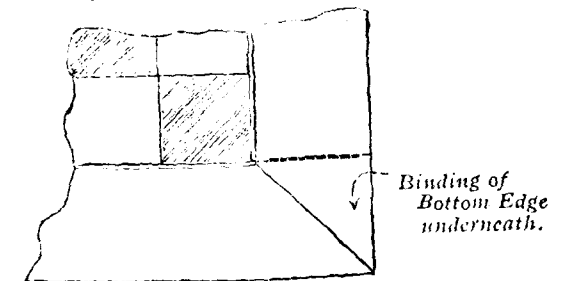
No. 7.

MANUAL TRAINING AND MANUAL TRAINING SCHOOLS—III.

(Continued from page 239)

1. The Chess-board is particularly appropriate as a first model, the only tools required being the scale, the set squares, the knife and the safety straight edge. The boys get plenty of practice in cutting straight lines in connection with the construction of a definite object which is so simple that first principles are not obscured by constructive difficulties. The shape and main outlines of a board are usually known and the model serves as an excellent foundation for exercises on the use of the set squares. The boys should be allowed to suggest dimensions for squares and border, to propose methods for making the joint down the centre of the board, and to choose colours for squares, border and binding. When a good design and suitable dimensions have been agreed on, the teacher makes a working drawing on the board and illustrates how the set squares are employed to produce a net-work of parallel and perpendicular lines: he points out, too, the importance of working from two mutually perpendicular centre lines, on which the leading dimensions are set out, in order to economise time and energy in using the scale. The boys make their drawings on the pieces of cardboard provided and use knife and safety

straight edge to produce clean square edges and corners, and to cut through the joint. The two halves of the board are then united by book muslin and glue or paste, pains being taken to ensure a good close joint. Strips of light and dark "leatherette" or other cover paper are provided and from these the boys cut squares which must be fixed accurately in place. Suitable binding cloth or paper is then glued to edges and back, particular attention being required by the corners, so that they may be neatly finished with a "mitre" and there are no ragged edges, overlaps and loose ends. (Fig. 1.)



Part of CHESS BOARD showing 'MITRE' at corner of BINDING.

FIG. 1.

If the board be made with squares of 4 cm. side and a border 4 cm. wide from mill-board of substance 80s, it will be found that the average boy takes about 5 hours to complete a satisfactory model.

2. *The String Box.*—A cubical box of 10 cm. side, having a hole 1 cm. in diameter at the centre of one face and a separate lid 2 cm. deep, is shown by the teacher. The lid is removed and the class is asked how the box can be made from a flat sheet of cardboard. If any difficulty is experienced, the teacher slits the model down the vertical edges, opens it out flat, and thus obtains its "net" or development. He then elicits the dimensions of this development and, pointing out that it consists of parallel and perpendicular lines, shows that the drawing can conveniently be produced in the manner adopted for the chess board and the class proceed to make a scale drawing of the development of the box in a book to be kept for this purpose. When the drawing—Fig. 2—is completed, neatly lined in and fully dimensioned, the boys are asked to draw and dimension the "net" of the lid. It may, in some cases, be necessary to point out that allowance must be made in the size of the lid for the thickness of the material forming the sides of the box, but it

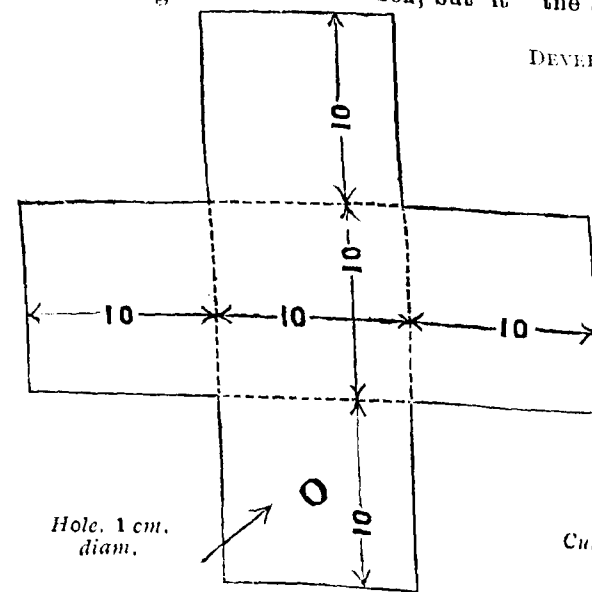
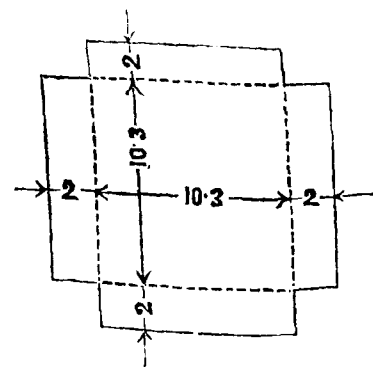


FIG. 2.

is a good rule not to give more information than is absolutely necessary. In fact, in the preliminary exercises, it may be advisable to allow the boys to make the drawing and even to complete the model without assistance and then ask why the lid does not fit. The point, however, is debatable and if time is limited a hint may be given. [With regard to the question as to how much help should be given, it may be pointed out that methods may be grouped roughly under two headings: the directed, or 'do as I tell you,' and the heuristic or 'run and find out.' The first gives good results, but means bad training as it reduces the pupil to the position of a machine. The second may give poor results, but it must mean good training if logically carried out. Unfortunately, a strictly heuristic method is out of the question considering the time at our disposal, and a judicious mingling of both methods is most satisfactory in the long run.]

When the drawing of the development of the lid (Fig. 2) is completed and dimension-

DEVELOPMENT OF STRING BOX AND LID.

All Dimensions in Centimetres
Cut along Full, Score along Dotted Lines.

ed, the model may be commenced. The boys are first asked to determine how much cardboard they will require for the model if waste is to be avoided, and suitable pieces are provided. For beginners, it will save material to have the development drawn on the board in pencil, but for later work, most of the lines may at once be "scored" with the cardboard knife. The "nets" are then cut out, scored partly through where folds are to be made, bent up into shape and fastened with strips of gummed tape. Some boys may fold the net so that the scores are inside the model and the resulting structural weakness is not without its value in illustrating geomet-

rical principles. When the rough model is complete it may be covered with coloured paper or "leatherette" and here again calculation and much scheming are necessary if waste of time and material are to be avoided and the finished product is to be worthy of inspection and preservation.

3. *The Instrument-box.*—The general method to be employed is the same as that used for model No. 2, but rather less demonstration should be necessary. The boys draw the "net" of a hollow box 20 cm. long 10 cm. wide and 2 cm. deep and when this has been done and neatly dimensioned (Fig. 3) they are asked to sketch the develop-

DEVELOPMENT OF INSTRUMENT BOX AND CASE.

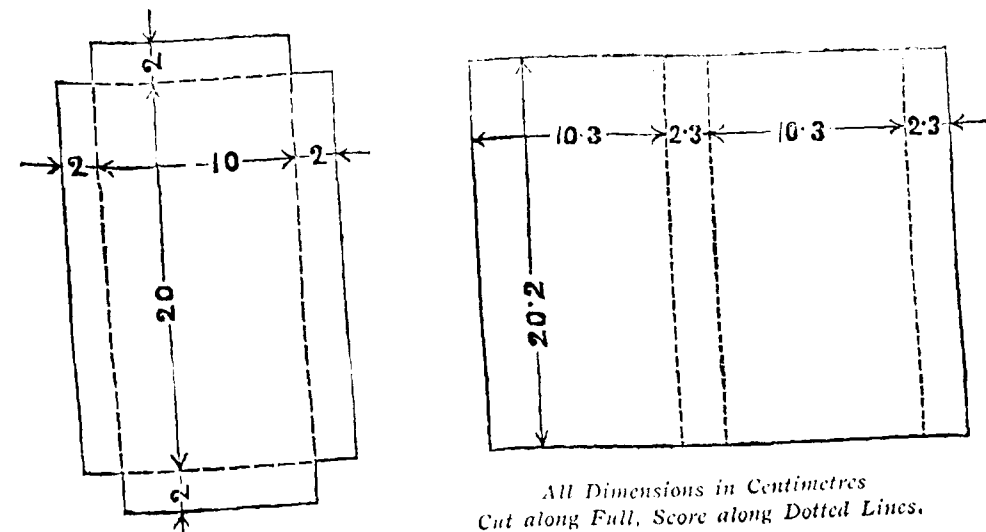


FIG. 3.

All Dimensions in Centimetres
Cut along Full, Score along Dotted Lines.

ment of a case or slide into which the first box may be pushed. Among the suggestions offered, there is to be one at least worth accepting and this may be used as a type. Here, again, it is important to notice that allowance must be made in the dimensions of the slide for the thickness of material of the box. When box and case are complete, suitable partitions (Fig. 4) may be fixed in the former and the whole covered with paper or leatherette. It is difficult to cover the box and its divisions and there is plenty of

scope for ingenuity in completing a satisfactory model.

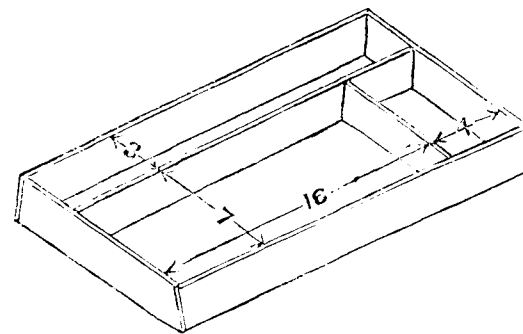
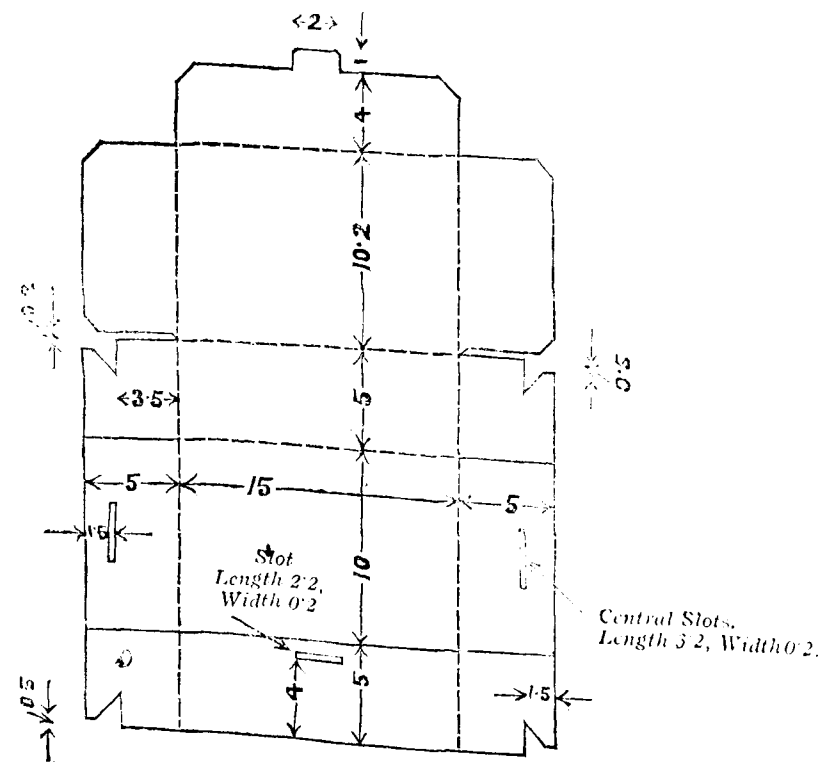


FIG. 4. INSTRUMENT BOX
Showing arrangement of Divisions.
Partitions held in place by Gummed Tape.

In place of assigning dimensions, the teacher may ask for dimensions to be chosen and a box designed, capable of holding certain specified tools—set squares, protractor, compasses, pencils and India rubber, and this is a useful variant on the routine model.

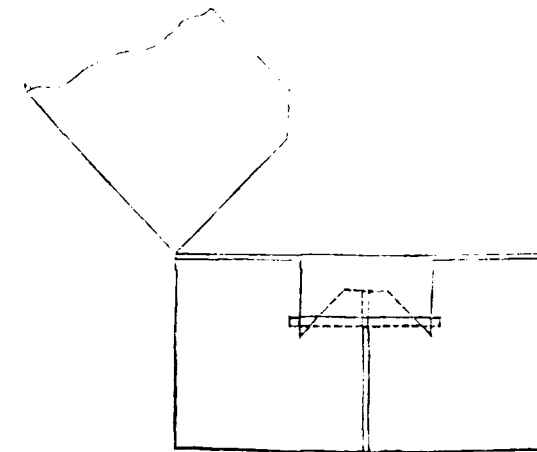
4. Fig. 5 shows the "net" of an *Egg Box*. It will be noticed that box and lid are in one piece and that it is so folded that glue is unnecessary. It is, of course, easy to modify the locking arrangement for sides and lid illustrated in Fig. 6 and plenty of latitude should be given to boys capable of original



DEVELOPMENT OF EGG BOX. Dimensions in Cms.
Cut along Full, Score along Dotted Lines.

FIG. 5.

work, so that they may design such arrange-



SIDE ELEVATION OF EGG BOX—LID OPEN
Showing Locking Arrangement.

FIG. 6.

ments for themselves. The best boys may be asked to design a box capable of holding one dozen eggs of specified size, the box and its lid to be folded from one piece of cardboard and arranged without glued joints.

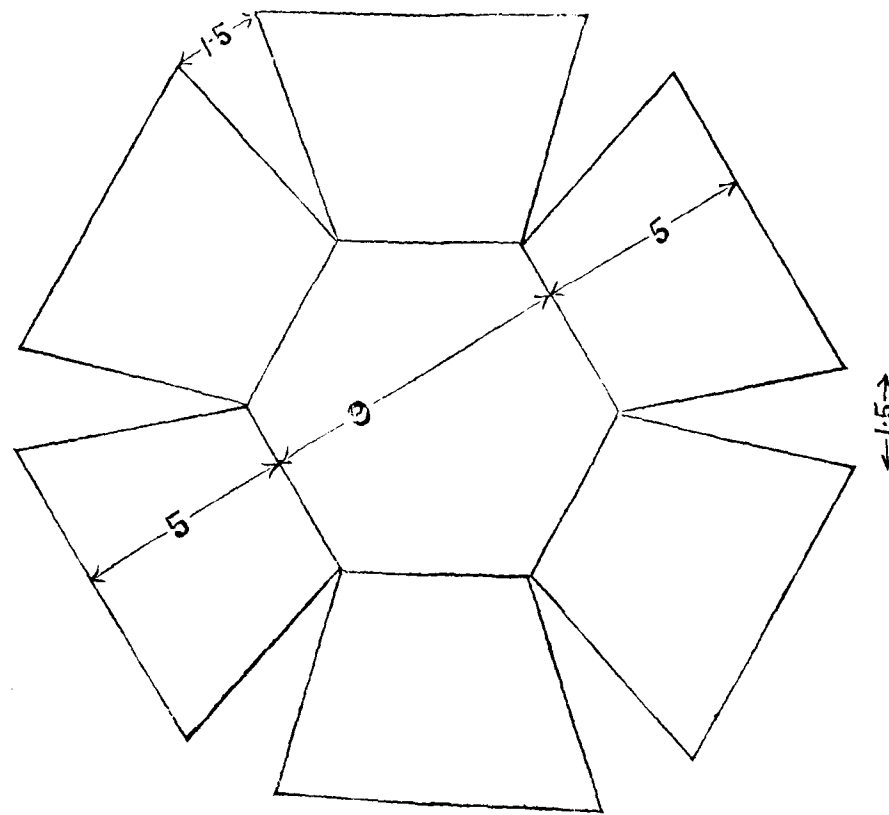
When the fourth model has been completed by the bulk of the class, it is convenient to introduce other methods of representing solids on paper and a few leading questions serve to introduce the subject of solid geometry. The meaning and use of projectors, projections, and of plans and elevations are easily learnt and the boys can then work either from development or from plan and elevation as may be convenient. It is advisable, at this stage, for the class to make plans and elevations of the models already completed, so that the principles underlying this method of representation may be thoroughly grasped before proceeding further. It is, of course, essential that the boys realise the value of the method and if they are asked to represent some complex solid and adequately to

dimension it, in a single sketch, they appreciate the advantage of using plan and elevation and recognise that at least two views are necessary, if the three fundamental dimensions of length, breadth, thickness are to be represented satisfactorily.

5. The next model presents no difficulty and there is no reason why each boy should not make his own design and choose suitable dimensions. Fig. 7 shows a typical development and valuable experience in the principles of solid geometry may be acquired by boys who attempt the correct representation of the model in plan and elevation.

6. The next model, the *Napkin Ring*, introduces a new conception; that of the development of a curved surface. This is the appropriate place for the teacher to elicit and illustrate some facts about developable and non-developable surfaces. The model is easy but is introductory to the next model, which is more difficult in construction. The model, too, is valuable in that it serves as a foundation for an investigation into the ratio of the circumference of a circle to its diameter. When the general principles have been illustrated, the boys may be asked to draw the development of a napkin ring of given diameter, as in Fig. 8.

7. To the boy who has profited by the lessons learnt during the construction of a napkin ring, the design of a *collar box* should present no difficulties, although there are many ways of arranging the joint where the bottom meets the curved surface and several types of lid may be suggested. As in other cases, it is neither necessary nor desirable that all the boys make the same type of model, unless that type has been chosen after exhaustive discussion and full consideration



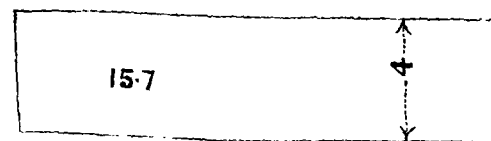
DEVELOPMENT OF HEXAGONAL TRAY.

Dimensions in Cms. Cut along Full, Score along Dotted Lines.

FIG. 7.

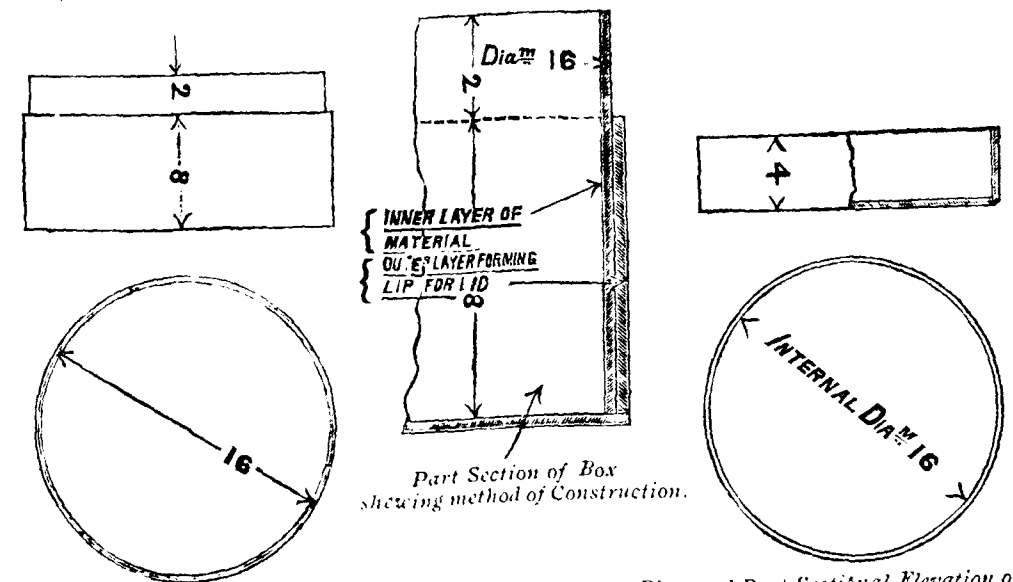
of the various modifications possible. One arrangement is shown in plan and elevation in Fig. 9, and when the design has been decided, views like those shown, as well as developments of all the parts, should be made by all the boys. In this model the use of a "former," or "mandrel" is necessary, but the use of such an accessory will, in all probability, be suggested by the boys themselves, and should not be demanded by the teacher without some questioning.

Exercises 8, 9 and 10 involve no new prin-



DEVELOPMENT OF NAPKIN RING. Dimensions in Cms.

FIG. 8.



Plan and Elevation of Box.

COLLAR BOX.

Dimensions in Centimetres.

FIG. 9.

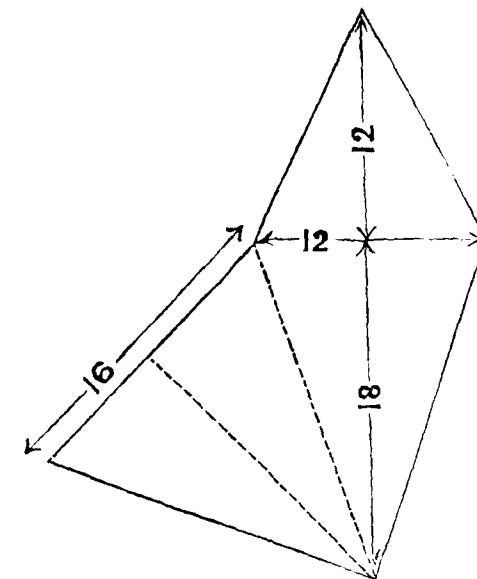
DEVELOPMENT OF WALL CORNER POCKET.
Dimensions in Cms. Score along Dotted Lines.

FIG. 10.

as skilful use of tools and material if satisfactory models are to be produced. The remaining diagrams (Figs. 13—15) illustrate some of the "voluntary" models suggested. It is unnecessary to discuss the course in carton work more fully. On looking round, one is struck by the number of articles in common use which are made of cardboard, or

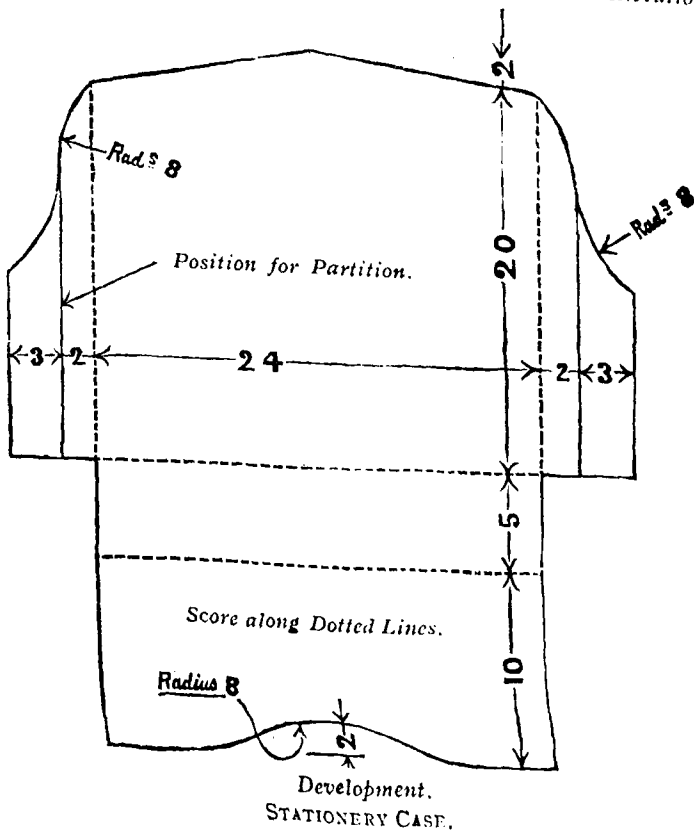
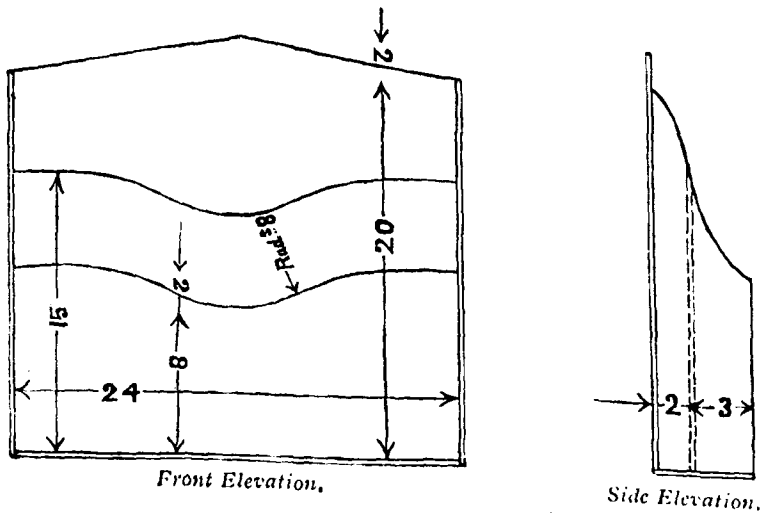


FIG. 13.

Development.
STATIONERY CASE.

similar material, and any, or all of these, an order suitable for beginners in manual may well find a place in the course. The work and it is hoped that the suggestions of only difficulty is that of arranging them in this chapter are worthy of consideration.

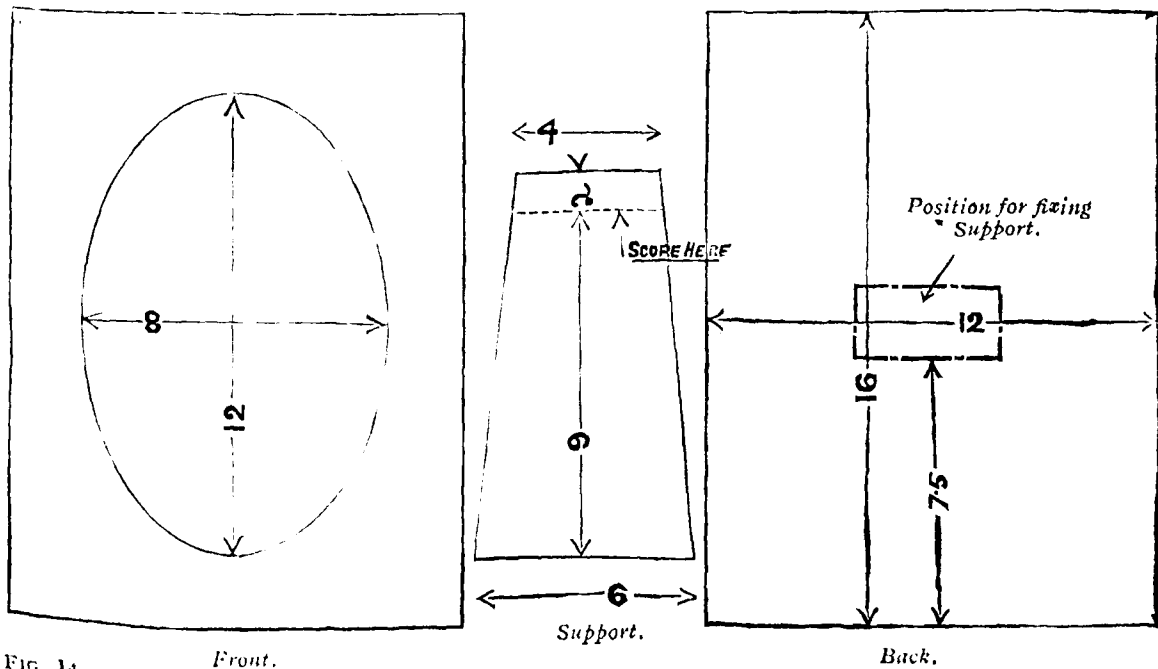
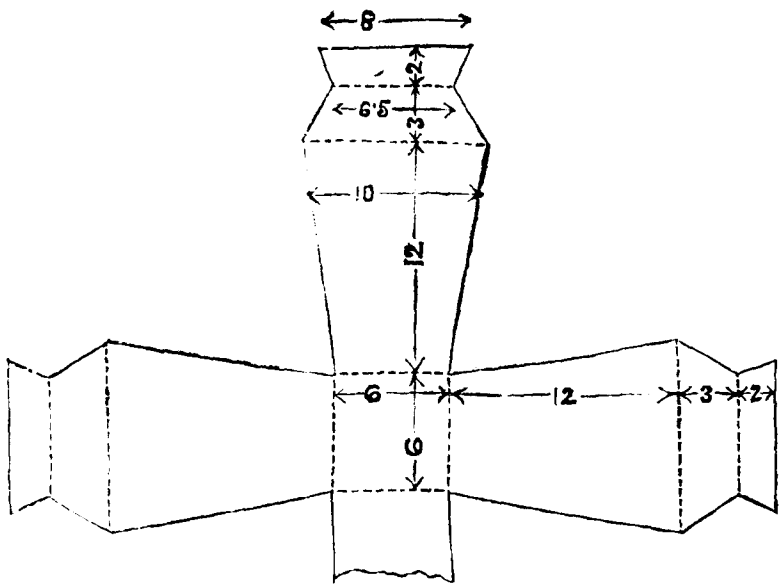


FIG. 14.

Front.

PHOTO FRAME.

Back.



PART DEVELOPMENT OF SQUARE VASE. Dimensions in Cms. Score and Fold on Dotted Lines.

FIG. 15.

(To be continued).

T. S. USHERWOOD.

LANGUAGE TEACHING—IV.

(Continued from page 95.)

LANGUAGE, speech, tongue—these words name man's expression of his thoughts by sound-symbols. The written word is not a visible expression of thought as the spoken speech is its audible representation. By writing we attempt to represent speech and not thought. Hence, the spoken speech is the real thing and the written language is but its shadow. This every one admits—as a theory; many would even say that it is a truism; but few realise the implications of this truism. Yet does not every man that is unacquainted with the recent developments of Modern Philology regard the written language as the norm and the tongue spoken even by the most cultured, a bad approximation to this norm! In this country people honestly believe that the spoken tongue is a corruption, a vulgar, barbarous degeneration of the written language. The written language is the perfected ritual reserved for ceremonial occasions and the actual language spoken by the people, a falling off from the ideal, due to original sin. The written language is the ideal of linguistic virtue and the speech that lives in the mouths of the speakers a vice, felt and acknowledged to be linguistically immoral but, like all vices too pleasant to be given up. Things are not much better in England, where grammarians teach that nouns ending in 'y' change 'y' into 'ies' to form the plural, e.g., 'lady,' 'ladies.' Now this is not a linguistic fact but a mere fact of modern spelling, the linguistic fact being that the plural is formed by the addition of 'z' sound to 'lady'; and even as regards spelling, it is more true to say that the 'ie' preserved in the written plural form has changed to 'y' in the singular. Again it is taught in the text-books of Grammar that the letter 'a' has

a number of sounds, thereby unconsciously fostering the notion that the letter existed before the sound, which of course is absurd. It is highly necessary that children should be saved from such misconceptions from the beginning. This is one of the many reasons why words should be 'directly' taught, i.e., words should pass as sounds from teacher to pupil and should not be learnt by the latter as hieroglyphics to be painfully translated into sounds.

The mother-tongue exists in our minds as auditory images and not as images of written words. When we think, a series of what one may call sound-pictures passes before the consciousness. No man thinks in written words. Hence words should first be presented to the mind as sounds and not as written symbols. This principle has far-reaching applications. It is on account of this that in organising instruction in foreign languages, a year's oral work should precede the teaching of reading. After reading is commenced, the words read should be those with which pupils are thoroughly familiar; because the object of reading at this stage is not to enlarge the bounds of knowledge but merely to train pupils to associate groups of words well-known to them with the printed or written symbols that represent them to the eye. At the next stage, i.e., after two or three years of reading-practice, teachers ought to introduce every new reading lesson with a few minutes of preliminary talk in which he should introduce the 'new words' of the lesson, so that the pupil may first learn them by the ear and then by the eye. At a still higher stage, the pupils may be trained to appreciate the melody of verse and the cadence of prose by the teacher reading select pieces before letting the pupil see them

PIAL SCHOOLS AND INDIGENOUS PROFESSIONS.

IT is most deplorable that the number of votaries of most of the indigenous professions requiring a fair knowledge of Sanskrit is increasingly on the wane and that several families, that were a generation ago in affluent circumstances as a result of their professional skill in medicine, astrology, teaching, etc., are eking out a hard livelihood. Rich men at present have a great admiration for Western ideals and usher their children into an education on the Western lines in order to make them qualify for University degrees in Arts, Medicine, Law and Engineering. The middle class people, content with High School education, go in for clerkships in the Government service or prepare for other "bread-studies" in the industrial or technical lines. The children of the poor have a hard struggle after their course in Elementary or Primary schools for petty clerkships or job-works in a printing office or a godown or a firm. A generation ago most of the rich, the middle-class and the poor had still their traditional ideals and studied Sanskrit in village schools or at the feet of a *Guru* with a true love of learning or with professional aims; but now, far from having a craving for it, the people have rather a great aversion to the study of subjects that supplied to their ancestors honourable means of livelihood.

If the rich and the middle-class may be exonerated from the charge of neglecting their ancestral professions, it is for the reason that they have taken instead to the study of modern sciences and professions that are highly lucrative, honourable and rich in prospects. But the neglect betrayed by the poor is strange and only handicaps them in

in print. Thus throughout the course the living tongue of the teacher is a more potent instrument of teaching languages than the dead leaves of the printed book. "In the beginning was the word," and this is true of smaller as of greater things.

Books on methods of teaching of a generation ago spoke of the analytical and the look-and-say methods of teaching reading: The analytical method began with the 'absey-book.' The first lessons consisted in learning to read A, B, C, etc., pronouncing them respectively *ei, bii, sii*; the next lesson was *ei, bii, ab; sii, ei, tii*, cat. This was the first step in training children in (artistic?) lying. The duller boy took it all a matter of course; he believed that '*sii, ei, tii*,' must be 'cat' because the all-wise master said so, just as the duller man pinches his nose with his thumb and ring-finger ten times during prayer, because the all-wise *Guru* told him that it was sinful to pinch one's nose less than ten times. But the more intelligent boy was always puzzled and if he did not question the correctness of the teaching, it was because the question would lead to unpleasant subsequent proceedings. The absurdity of this 'analytical method' of teaching reading is so patent that it is a wonder why the world (of schoolmasters) took so many centuries to discover it. The 'look-and-say' method is a more rational method of teaching reading but so long as the literal representation of sounds is not strictly phonetic (and this is never possible in the case of living languages, as pronunciation will change at a more rapid rate than it is possible to change spelling) a different method of teaching reading ought to be adopted.

(To be continued.)

P. T. SRINIVAS IYENGAR.

the struggle for existence, and therefore, the question of attracting the pupil to the study of Sanskrit and ancestral professions should receive consideration at the hands of every thinking man loving India, lest the indigenous professions should eventually perish.

I would ascribe this neglect not to the inherent defects of the indigenous professions which, of course, must be admitted to be true, nor to their supposed low market-value, but rather to the injudicious action of the educational authorities in eliminating Sanskrit in *toto* from the courses of study in the Pīal or Primary schools. The Hon'ble Dewan Bahadur Ragunatha Rao rightly pointed out in a recent letter to the *Madras Mail*, that the quality of education in the Primary school had degenerated during the past thirty years and urged strongly the restoration of the old pīal schools. In the old pīal schools of Malabar, a child learns vernacular alphabets in his first school year and proceeds to reading and recitation of purely vernacular *Slokas* during the second year. The third school year is devoted to the recitation of *Manipravalam*, a vernacular poem containing easy Sanskrit words. By the ninth or tenth year the student takes seriously to the study of *Amarakosam* or poems which form the Sanskrit lexicon. Then comes *Rupam* or Sanskrit grammar against which he struggles for a year or two. Lastly, while the student is about fourteen or fifteen, the study of *Kavyam* or high class literary Sanskrit work is taken up. It is to be noted that, prior to this last stage, the student had only a parrot-study of his lessons and, therefore during this last stage, the teacher as well as the student have to toil over great difficulties—the teacher in hammering the substance into the pupil's

head and the student to intelligently apply the lexicon and the rules of grammar which he studied before. As a matter of fact, curiously enough, explanations and meanings of words and expressions, the application of *Rupam* (grammar) and *Amarakosam* (lexicon) are all expounded during this stage so that the student feels himself at ease to devote himself to other literary works without much aid from his master. In fact by the seventeenth or eighteenth year the student understands Sanskrit so well that he specialises in professional studies, the *Nambudiris* and Brahmins mostly taking up Logic, Astronomy, Mathematics and Philosophy, the *Kanisans*, Astrology and others, Medicine. The study of the last-mentioned subject was so popular and lucrative that it was not confined to any caste, and, in fact, men well-versed in Sanskrit and commanding great respect and wide practice are not rare even among the low caste *Thiyas*; but such are at present found invariably only among men of past middle age. The present generation, who have adopted native medical profession, possess only a superficial knowledge of medicine, since most of them are not in a position to obtain knowledge first-hand from Sanskrit medical works as their brethren a generation ago could do.

The study of Sanskrit in the old pīal schools probably resembled that of Latin in schools in England some two generations ago in the fact that students learnt their lessons by rote. In England the Trivium (Grammar, Logic and Rhetoric) and the Quadrivium (Arithmetic, Music, Geometry and Astronomy) were studied by all those ambitious for the then valued posts, especially of those under the patronage of the Church, while

these had for their counterpart in India Sanskrit Grammar, Logic, Astronomy, Mathematics and Philosophy. In England the supplanting of Latin by the mother-tongue in Elementary schools did not hinder the acquisition of knowledge hidden in Latin literature, since the English language has been enriched by modern sciences and translations of Latin works; whereas the vernaculars of India with a few exceptions are still in infancy, not yet enriched by modern sciences and, totally devoid of what is best in ancient Sanskrit works.

The neglect of Sanskrit study on the part of the present generation may be due to various causes of which one is certainly the entire adaptation of courses of study in pīal schools on the models of Western ideals. Besides this, there is a false notion prevalent among all sections of people that without a smattering of knowledge in English just enough to be able to talk, one is a non-entity in society. Again at the commencement of his child's course in pīal schools the parent does not keep in view the career which his son is eventually to pursue. Further, men of the old type of the reputed physicians and specialists to whom students flocked in old times have hardly any mind to give access to them novices in Sanskrit and are averse to confide to them the repositories of their hard-earned knowledge. For all this state of things the system of the present pīal school education is chiefly to blame; for after a course of five or six years in a pīal school the child is thought too late to commence Sanskrit for which he cannot possibly have a bent. The immediate prospect of fetching for his son at the conclusion of the elementary course a job-work carrying a salary of Rs. 6 or 7 is too attractive for a parent to allow his children to

commence their studies in Sanskrit to qualify for a lucrative or indigenous profession.

The elimination of Sanskrit in the pīal school and its transference to special Sanskrit schools was evidently due in the first place to the intrinsic difficulties involved in its study and its deficiency as regards modern sciences and improvements. The second reason may be that in accordance with Herbert Spencer's Theory of "Economy of Nature," the subject that serves the double purpose of training the mental faculties and giving useful knowledge would do well in an elementary school. I should think that this could be all that could be desired if the knowledge obtained by the poor, who alone monopolise the pīal school, guarantees them a fair means of income. In a state of struggle for existence the scope for finding means of income should as far as possible be widened. The mere committing to memory of texts in childhood, in spite of its defects, has a clear advantage as "mental gymnastics;" for the receptive and reproductive powers of the mind are developed and according to psychologists the abnormal development of one mental faculty sharpens the other faculties and paves it easy for their growth and no one will deny that one who could recollect several books from beginning to end has a great concentrative and sustaining power that may be applied to great advantage in every-day life. Mr. Gladstone was reported to be able to repeat without a slip the forty-eight books of Iliad and he and a large many others were not the worse for knowing their texts by heart. Several of our eminent grey-haired politicians, journalists, judges and lawyers had their course in the village schools on the traditional systems of education

and committed to memory their lessons without understanding a syllable of what they read then. It may be said that their success was due to their native intellects, and if so, it is clear that their intellects were not blurred by the traditional course of study. I therefore would urge the Government to encourage the retention of the traditional course of study in Sanskrit in all Government and Municipal Elementary schools and to leave it alone in all indigenous schools running on the old method, the curriculum adopted on the Western lines not being allowed to monopolise the pupil's full school-time. The so-called 'waste' in the earlier stages resulted from the course in Sanskrit is more than counterbalanced by the advantages offered in later years for an honourable and lucrative profession.

Ayurvedic treatment, for instance, in spite of its empiricism has a great demand at the hands of people in every society and is degenerating sadly for want of earnest students. The skilful physicians conceiving medical lore to have been handed down to them from ancestors and *Gurus* sacredly and with injunctions of judicious secrecy, are reluctant to transmit it down except to earnest scholars who cling to them with faithfulness and with the vow of secrecy. For want of scholars the medical lore known to the ancestors is being lost to the world. In rural parts where English medical aid is slow to reach and where English dispensaries do not exist there is certainly a wide scope for native physicians. Even in towns we often hear of miraculous cures effected by native treatment. Considering all these no stone should be left unturned to encourage the study of medicine and increase the number of special-

ists and with an eye to this the study of Sanskrit in the indigenous schools should in no way be hampered. The pial schools would prove to be excellent feeders to the special Sanskrit schools patronised by the Government and to the Sanskrit colleges preparing for Oriental Titles Examination.

P. M. ANANDAN.

THE ASSISTANT MASTER OF A PRIVATE SCHOOL.

THE assistant master is a teacher. There is no doubt about that. And teachers, says Thring, 'do not grow like mustard and cress on a bottle by just sprinkling a few minutes of Council by authority over the land.' But the assistant master does. That is his claim to public notice. He is a raw material when he begins life. The raw material is manufactured into a finished artistic product under favouring circumstances. Then it fetches an enhanced value and ceases to be a—raw assistant. But more often than not, the finished product does not find a ready sale in the market and the assistant master gets disappointed and begins to regard himself like Mrs. Gumidge, a 'lone-lorn creature.' Now, if any man has a right to feel proud of his position and satisfied, surely, it is not the assistant master. He belongs to the noblest of all professions; but he, like the young lawyer, exclaims that his *profession* is much better than his *practice*.

The assistant master is a philosopher. He draws consolations from his philosophy. Indeed, he seeks the aid of philosophy to keep his body and soul together. Times may change, conditions of life may differ, the standard of living may rise higher, even

the educational machinery may be entirely recast, still, the assistant master is pretty much the same personage he was before. But he is very ambitious—ambitious to make both ends meet. He may be a family man with a dozen children about his knees. He envies the village preacher who, if you believe Goldsmith, was passing rich with £40 a year. His ambition leads him to take up all sorts of odd jobs for extra remuneration. He becomes an itinerant private tutor, a commission agent, a bookseller, a printer, a publisher or a hanger-on of some big official or rich landlord. Of course, there are assistant masters and assistant masters. Some are tyros. Some are mere fossils. Many are birds of passage. And many more are incompetent run-aways from other professions. All are assistant masters and no one is the least thankful for being what he is.

The assistant master is a nobody. He is not a favourite of the public. He is not invited to a social entertainment nor is he troubled by being asked to participate in a movement which aims at the welfare of the community in general. Once an assistant master, a man feels he has got stranded on a place whence there is no use hungering for the fishes and loaves of the Government service or looking wistfully at the dizzy heights attained by some of his old chums in the learned professions. And so, he ceases to be an aspirant for honours. All that he can now do is to assume the rod, affect to nod and frighten the children (especially the young ones) out of their wits.

The assistant master is not a hero to his students. They know his merits full well and do not hesitate to air their opinions about him even in his own hearing. "There's no good your attending my class," said an

irate assistant to a student who was inclined to be mischievous. "That is the opinion of everybody, Sir" coolly replied his young charge. I know an assistant master who used to engage his class in quite an original way. At the beginning of each period, every boy in his class was visited with the lash of his corrective birch which, of course, resulted in a tumult of weeping and crying. Then he waited for the noise to subside and took up the rod again to darken the sunshine until the period drew to a close. One inquisitive boy, however, was bold enough to ask him, by the way, whether he had any children of his own!

The assistant master is a migratory being. He goes from school to school in search of an increased pay. His average stay, in any one school, particularly if he happens to be of an ambitious turn of mind, does not exceed a couple of years. Some managers of schools try to put a check to this migratory habit by introducing what is called the indentured labour system. But that is more fitted to the coolies working in the plantations than to those who work in the field of education; and so the cry of *Laissez-aller* is frequently raised from the ranks of the malcontents to the utter chagrin of the managers concerned. But whether the recruitment of assistant masters is on the model of the indentured labour system or on the principle of *Laissez-aller*, the boys invariably find an easy way to go to the dogs.

The assistant master has no backbone. If he has one, he will be knocked against the managers and will get a broken shin for his pains. He has also no individuality. Even if he thinks he has that quality, he finds no scope for its exercise in the stifling atmosphere of his surroundings. He

is a great favourite of the educational fad-dists who, as a writer puts it, 'are imbued not with the facts of experience, but with the theories due to the want of it.' It is very amusing to see how readily the assistant master adopts their fads and even believes in them.

The assistant master is a bore. That may be one reason, at any rate, why he is not liked much in society. Outside his school, he is like a fish out of water and can only talk shop. At best, he is only a pedant; and somebody has described a pedant to mean one who has got rid of his brains to make room for learning. There is an awkwardness, almost a cowardliness in his manners when he comes face to face with those who consider or pose themselves as his betters. The consciousness that his status has not been publicly recognised tends to lower his dignity as man, and how can it be otherwise? India has not so far advanced that her sons can look upon the assistant master with anything like respect.

The assistant master is also a noddy. Clever men, shrewd men, sharp men will never remain as assistant masters. Their sphere of activity will be elsewhere, preferably at the bar. But the assistant master's being a noddy is a recommendation for the post he holds; because he deals with the *Young Innocents* and not with the *Old Guilty* as a lawyer does.

And lastly, the assistant master is a man. Yes, he is a man—as genuine a piece of man as God ever made. This fact is not well or generally understood. Hence the necessity for its reiteration here. One touch of nature makes the whole world kin. If the world remembers the fact that the assistant master

is a man, then, surely, the importance of the work that he is doing with all its difficulties and drawbacks will be more widely realised and a great deal more of true sympathy and encouragement will then be flowing to him from all quarters of the globe.

C. KUTTIRAMAN NAIR.

THE ADDRESS OF THE HON'BLE MR.
G. K. GOKHALE ON THE OCCASION OF
INAUGURATING THE ELEMENTARY
EDUCATION LEAGUE IN MADRAS,
22-7-1911.

This League of which we hold to-day the inaugural meeting has been brought into existence with the declared object of organising public opinion in support of the Elementary Education Bill which was introduced into the Viceroy's Legislative Council last March. As I happen for the moment to be identified in a special measure with that Bill, may I take this opportunity of conveying an expression of my profound gratitude to the leaders of public opinion and the public bodies of Madras for the almost unanimous, the whole-hearted and enthusiastic support which they have given to that measure? Those of us who are acquainted with the condition of the different parts of India, the three leading Presidencies of this country, viz., Bengal, Bombay and Madras, sometimes feel that while the gift of spiritual vision has been given to Bengal in a pre-eminent degree and that of practical action to Bombay, in regard to deep and acute thinking Madras carries the palm. When a proposed measure receives a unanimous and enthusiastic stamp of approval from the people of Madras, the framers of that measure have every reason to regard the situation both with hope and satisfaction. This is the first occasion after the introduction of the Bill on which I am speaking publicly on the subject. And that being so, I hope you will not take it amiss if I take this opportunity to make a further statement on it. Last March, in speaking of this Bill at the time of its introduction, I ventured to say in Council that if the Council granted me the permission that I sought at its hands to introduce the Bill, the discussion of the measure would then be transferred from the Council Chamber to the press and platform of this country. That idea at

any rate has been amply justified. In fact, all those who are interested in this measure had no reason to be dissatisfied with the amount of attention which the measure has called forth in every part of India. It has been my duty to follow with the closest interest all the criticisms, friendly and otherwise, that have been passed on this measure and, having followed the criticism in that close manner, I think that certain misapprehensions which have been expressed in certain quarters may well be removed on this occasion. At any rate, I may try my best just now to remove them. If you examine the Bill, you may divide it into portions that concern the principles of the Bill and portions that are merely details. The principles on which the Bill is founded stand on a different footing from its details. What are those principles of the Bill? That is the first question to answer. And then what are the details which call for the most attention and criticism? That would be the next question to answer.

To my mind there are three principles in the Bill. First of all, the Bill aims at introducing the principle of compulsion into the elementary education system of this country. Secondly, it seeks to do this not by going in for compulsion at once, but gradually, by empowering local bodies whose areas are ripe for compulsion to go in for compulsion. And the third principle is that the initiative in regard to compulsion is to be taken by local bodies, the sanction of Government being required before compulsion is introduced, and Government also having to find a certain proportion of the total cost. But the chief responsibility for initiating this compulsion rests on local bodies. All these three to my mind are fundamental portions of the Bill. And I do not think that it is possible to change any one of these principles or to suggest or arrive at any compromise in regard to them. Not that I mean that if anything stronger than this Bill were possible I should hesitate to propose that stronger thing. But, taking the country as it is, considering the state of things throughout all parts of India, nothing stronger than this is possible. That is my firm conviction. Therefore, we who are friends of that measure, must stand by these three principles. As regards the details I must say a few words later on.

First, the Bill aims at introducing the principle of compulsion into the elementary education system of the country. On this point I really do not think that I need add anything to what has just now fallen from Dr. Nair who, in his lucid, eloquent and altogether admirable speech

has dealt with the principle of compulsion. All over the civilized world it is now an axiom that unless there is compulsion introduced in regard to elementary education there is not much chance of elementary education spreading throughout the country. We must profit by the examples of other countries. We are already lagging behind and we cannot make experiments of our own in the maintenance of ignorance. Therefore, we must also go in, in our own way, for compulsion. Those who stand up for individualism—there is not much of individualism in this country—they and we must agree to differ in regard to this. Though it may be agreed that compulsion is necessary, the question is how this compulsion can be introduced. There are three possible positions with regard to this compulsion: either you may have universal compulsion throughout India at once or you may have no compulsion at all, or you may have compulsion piecemeal, area by area, as each area is ripe for compulsion. All those who know the state of things in this country, both urban and rural—and you must remember you will have to legislate for the whole country—will at once see that universal compulsion introduced at once will only defeat itself. We are not yet ripe, all parts of the country are not equally ripe for the introduction of compulsion. Therefore this course which the Gaekwar of Baroda has now adopted—he first made the experiment in one of his Talukas—is impossible in regard to British India. As regards having no compulsion in India I have already stated my view. There remains only the third position, the introduction of compulsion gradually, piecemeal, area after area, as each area considers itself ripe for compulsion. That is precisely what the Bill proposes to do. Even here we have a precedent to follow. In England and Wales they proceeded on somewhat similar lines; this was more so in Ireland where they legislated on permissive lines. The Irish Act empowered local bodies to introduce compulsion, and the Government undertook to find a certain proportion of the cost, so much per head in many districts. The state of things here is similar to that which prevailed in Ireland. That is the best and safest example for us to follow. It is on this account that the Bill provides for what may be called "permissive compulsion." As each area finds itself ripe for compulsion, the local body may try to take advantage of the provisions of this Bill and, after obtaining the legal sanction of the Government, apply the provisions to the local area. The third principle is that action must be taken by local bodies. This is as important a point as any of the other two. We have to face the facts

of the situation in this country fairly and squarely. We have to realise that it is a foreign Government that is ruling here. There are many things which an indigenous Government may do which are not open to the foreign Government to do. The foreign Government is bound to be anxious before it enters upon a course which the indigenous Government may enter upon without the same amount of anxiety. A measure of compulsion is bound, in the first instance, to be somewhat unpopular with those to whom that compulsion is extended. It is no use denying that. It has been the experience of all countries; but the rulers of those countries have not hesitated to accept that unpopularity. The British Government in this country, which has already difficulties of its own, may well be excused; at any rate, we can understand its position when it shrinks from incurring the unpopularity of compulsion. It is necessary, therefore, that we should see how far we can help ourselves with the assistance of Government. The sanction of Government is necessary because the Government has got to find large sums of money. Everywhere else in the world, the central Government finds a proportion of the cost of compulsory education and we expect the British Government to do the same. With this safeguard, the initiative ought to be taken by our own people. It is not fair to expect Government to do this. If we expect Government to do this, we shall have to wait for a very very long time indeed. Therefore, we must help ourselves and I have enough faith in the patriotism and the enthusiasm of our educated men for the welfare of the masses, to lead me to trust that, when this will pass into law, a number of people will go about and stir up public opinion by inducing local bodies to take up this measure and to apply this measure to local areas. What we need now is the power to do it. At present, no matter how intense your patriotism may be, how keen your enthusiasm may be on the subject, you cannot expect to go very far on a voluntary basis. Voluntary effort has been a failure everywhere else in the world and is bound to prove a failure in this country. These are the three principles on which this Bill is based. As regards them, there can be no compromise, no modification as far as I am able to see just now. If you take away anyone of them, to that extent you impair the usefulness of this Bill.

Coming to the details, there are several details that are very important and others that are comparatively unimportant. With regard to any one of these details, I say they are all open to discussion and if the weight of public opinion

in this country is in favour of modifying any one of the details important or unimportant, then everything will be done in the subsequent stages of the Bill to give effect to that opinion. They are all details that do not affect the principles of the Bill and, therefore, any good suggestions are welcome. There are four or five important details, to which I will just now refer.

There has been a great deal of controversy with regard to one of these details, namely, the clause which empowers local bodies to levy a special educational rate, if necessary, and to earmark the proceeds of the rate for the purpose of elementary education. There is a misconception about this clause and I shall try to explain what I mean. I fear I was not sufficiently full when I explained it in the Council. Judging from the misapprehensions, I wish to explain once more my ideas in regard to this clause. That clause is in itself, a permissive clause. It does not say "every local body shall levy a rate." It only says "every local body may levy a rate when necessary." Dr. Nair just now gave you an instance. Following what he said just now, it appears to me probable that, in Madras, they may not require extra taxation. There are certainly other Corporations which take the same view of the situation. In Bombay, the Corporation of Satara feels it will be able to carry out this Bill without recourse to extra taxation. Therefore, this Bill does not require any local body to introduce extra taxation necessarily for carrying out this Bill. If, however, any local body finds itself unable to take advantage of this Bill without additional taxation, this Bill says that body may go in for extra taxation. There is a difference between District Boards and Municipalities. Municipalities already have power to impose extra taxation. So far as they are concerned, the only new thing this clause will do is to confer on them the power to earmark any particular tax for any particular purpose and that is entirely in favour of these bodies. I know for certain many cases where it has happened that when a Municipality imposed extra taxation for one purpose, the Executive Government came down upon it and compelled it to apply the proceeds of that tax to another purpose. It has happened in our own days when plague broke out in Poona, every other expenditure of the Municipality had to be cut down. Roads were allowed to be in a most miserable condition. Every rupee on which hands could be laid was seized in order that it might be utilised for combating plague. Thus you see that this new power that the Bill proposes, *viz.*, the power of earmarking the proceeds of the

education rate exclusively to educational purposes is exceedingly valuable. In regard to the District Boards, they have not now got the power to impose fresh taxation. But I expect that, in the near future, very few District Boards will come under this Bill. One of the provisions of the Bill is that the Government of India ought to lay down what should be the extent of the spread of education in a locality before the local body of that locality may take up this question of compulsion. In introducing the Bill, I suggested a percentage of 33, *i.e.*, a fairly workable percentage. In England when the system of compulsion was introduced, there were 43 per cent. of the children of school-going age at school. In Japan the figure was 28 per cent. We might have proposed 25 or 30 per cent. but I think it best to be on the safe side, and therefore propose 33 per cent. There are few District Boards—there may be one here and one there—in which 33 per cent. of the school-going age are already at school. The bodies then, that I have in view at present are Municipal bodies.

This is the first detail about which I wanted to explain matters. The second detail about which there is some misapprehension is about the levying of school-fees from parents whose income is more than Rs. 10 a month. I share with Dr. Nair the view that when education is compulsory, it follows as a corollary that it should be free. Last year, when I introduced my Resolution on the subject in the Viceregal Council, I urged that when education was made compulsory, it should be made free. But we have to face facts also in this matter. The question of making education free involves the question of cost. The question was taken by the Government of India five years ago. It appeared for the time that in the hands of liberal statesmen primary education would soon be made free. That was because the Government of India at that time had a large surplus in their hands and wanted to give relief to the tax-payers. Two years ago, when the financial situation was suddenly changed the Government of India also changed their views in this matter. More than that, when the local Governments were consulted in regard to the making of primary education free, all the local Governments with the exception of one opposed it strongly. That is a fact we have to take into consideration. The finances of the Government will not bear the same strain now in regard to primary education as they could have done at that time.

Besides, we must remember that even in England education was made free 20 years after it

was made compulsory. In Japan, education was made compulsory in 1872. It is not even now free. Therefore let us first of all try to make education compulsory. That is more important now than making it free. But let us try to make it free to the poorest, and after that, as our means and opportunities permit, let us try to extend it further. I had at first intended to put down in the Bill that parents should be charged fees only if their monthly incomes exceeded Rs. 25. But I was advised by a friend for whose opinion I have the utmost respect that it would be well to bring down the limit still further, for really fees in primary schools are not very high, and it is desirable that the difficulties in the way of inducing compulsion should be removed as far as possible. Our friend Sir Gurudass Banerjee especially was of this opinion. In deference to his opinion I put down the limit, as low as Rs. 10. That is, however, a detail and there is nothing to prevent us from raising the limit to Rs. 20 or Rs. 25 and if funds are available to make primary education free altogether. Remember this clause gives latitude of action to Municipalities and local bodies. All that the clause says is this:—That so far as parents are concerned whose income is less than Rs. 10, the education of their children shall be free. As regards those whose income is more than Rs. 10, the local bodies may charge fees in their discretion. If a local body finds itself with money enough it can indulge in the luxury of free education. It may impose a special rate and then it may not charge any fees at all. There is a good deal of theoretical objection to levying fees in the case of those people who pay the special education rate; it is not desirable that the same burden should fall twice on the same persons, once in the shape of a rate and once in the shape of a fee. In some cases, the Municipality may levy a low rate so that it might not yield the amount it wants for primary education. It may then supplement the proceeds of that rate by taking fees from those whose income is, say, Rs. 50 a month. Another Municipality may levy a higher rate and dispense with fees altogether. The provisions of the Bill are therefore sufficiently elastic. If the weight of public opinion is in favour of any particular provision, there is nothing to stand in the way of that opinion being carried into effect. That is about the second detail. Then there has been some criticism passed about a third detail of the Bill. The Bill gives to the Government of India the power to lay down what should be the proportion of those who are already at school to the children of the school-going age before compulsion is introduced. Now, I may tell you that I did this on the advice of some of those

who are connected with the Government of India on this subject. Circumstances in different provinces differ. If you lay down a hard and fast rule for all provinces some local Governments might raise objection to the Bill. It was therefore thought better to make the provision elastic like this. There is nothing to prevent us from altering the detail. The fourth detail is in connection with the proportion the State has to bear of the cost of compulsory education. I think it is necessary to deal with this question at some slight length. I hope you will not mind my doing so. There is no doubt whatsoever that it will be more satisfactory if the Bill laid down as one of its provisions the proportion of the total cost of compulsory education which should fall on the State. I may tell you that my own view was to have that in the Bill. A serious difficulty, however, confronted me under the rules and regulations of the Constitution of the Council of the Government of India. You cannot introduce a Bill which throws a financial burden on the Government without the previous sanction of the Viceroy and in financial matters the sanction of the Viceroy means a reference to the Secretary of State. If therefore I said that two-thirds of the total cost of compulsory education should be borne by the State and one third should fall on the local body, the Government of India may take the view that it was throwing the financial responsibility upon the Government of India and the Viceroy's sanction would be required necessitating a reference to the Secretary of State before this Bill could be introduced. That would mean the loss of one full year. Some of our best men in Calcutta, acute lawyers, advised me to evade this difficulty in this manner and urged that the proportion should be mentioned in my speech. When the Bill goes to the Select Committee there is nothing to prevent us from substituting a definite proportion in place of the present vague provision. It would not be unfair by any means. Government will be strongly represented in the Select Committee. After all, unless Government is willing to give assistance in the matter the Bill has no chance of success. There is an official majority in the Viceroy's Council. I may tell you that if the Bill is so fortunate as to receive the support of the Government of India, we shall have an opportunity of negotiating with them, and then I am quite sure we shall be able to arrive at some satisfactory conclusion on the matter. Then the Government of India may lay down by rule in what proportion the cost should be divided between the local Government and local bodies. Under the present state of things local Governments are in charge of

education and therefore whatever contributions are made by the Supreme Government in aid of the spread of primary education will have to go through the local Governments. The distribution therefore will have to be made between the local Government and the local bodies. It is understood that the additional money that will be required by the local Governments for this purpose should be found by the Government of India. I certainly think if anybody proposes that this proportion should be fixed by the statute that is not at all antagonistic to the spirit of this Bill. In fact, it would rather strengthen our hands if there was a general demand that the proportion should be fixed in the Act itself. These are the four more important details of the Bill. There are some minor details and the objections taken have not been very serious in regard to them. I therefore do not deem it necessary to deal with them. The only other criticism referred to by the critics of the Bill has come from those who are mostly friends of the Bill. Many of these are of opinion that the compulsory period of four years is altogether inadequate. They suggest that the period might be longer. It should be six years; six to twelve as it is at present in Baroda. You have to be satisfied with small beginnings. I myself should be glad to extend it further; but an additional year means that so much more of money will have to be found generally by local bodies and local Governments. On a careful consideration of the whole situation with those whom I consulted, I think for the present at any rate we should be satisfied with a compulsory period of four years. That is what Japan did. In Japan the compulsory period was at first four years. They have now extended it by three more years. In Italy they began with a compulsory period of three years. I should therefore suggest that at the very start we may begin with four years. I do not mean to stop with four years; in course of time, I should look forward to the day when the compulsory period will be extended from four to five or six and even to seven years, as it is at the present moment in some of the western countries.

There are two other suggestions which have come from certain Mahomedan friends, and I shall tell you what those suggestions are and my attitude with regard to those suggestions. It has been represented to me by the Hon'ble Mr. Ibrahim Rahimtolla, who has been a warm friend of compulsory education for many years that a bare majority in a local body can sometimes cause difficulty and compulsion is rather a serious matter especially in this country with conflicting creeds

and other conflicts of interests. Therefore, it would be desirable to provide for a substantial majority of two-thirds. Well, I do not want to commit myself to any statement in any way. But there is a good deal of force in this suggestion. What we want is a cautious beginning and if the principle is secured and there should be a fairly large body of public opinion in favour of a two-thirds majority before compulsion may be introduced, there is nothing to prevent us from going in for a two-thirds majority. The second suggestion of our Mahomedan friends is to add one exemption to the exemptions under the Bill. It has been represented in certain parts of Upper India, especially in the Punjab, that the compulsory powers of this Bill may be used to compel the Mahomedan boys who are in a minority to attend a Hindu school and to learn Hindi. I recognise that if there is such an apprehension, no room must be given to it. I am therefore quite prepared to add another exception to the number of exceptions we already have. A parent may object to sending his son to a school, the vernacular of which is not the vernacular of the child. I think, we must be prepared for it, when the Bill comes up before the Select Committee.

I will now briefly refer to a few objections raised to the general policy of the Bill. They are from friends who are with us, whose voices will not be raised against us. But they are men of little faith, and they ask, "do you really think it is time for compulsion to be introduced?" If they are in public meetings they will willingly accord their support to us. They will raise their hands but still they would ask, "Is it really time for compulsion to be introduced in the matter of education?" I want to say to those friends that as far as my personal opinion is concerned—it is based on a life-long study of the question of education—that time for compulsion has not only come, but compulsion has been long overdue. Let us see how these things are in Baroda, an Indian fondatory State. Compulsion there is universal to-day. Are the people of British territories behind the people of Baroda? Are not things which are possible in the State of Baroda, possible also in British India? Take Ceylon for instance, where the large part of the population is of Tamil origin. Yet, one-third of the area of Ceylon is now under the system of compulsion. If compulsion could be introduced among the Tamil population of Ceylon, I really do not see why it should not be introduced in this Presidency also. Take the case of the Philippines; there all the Municipalities have by their own

ordinances made education compulsory. It is thought by some that these local ordinances are not legal, yet by means of those ordinances they have made primary education compulsory. Are we behind the Filipinos, we of Aryan descent? To those of us, who despair of the time for compulsion being introduced, I say to them, have a little more faith in the cause. All this distrust will be found by ourselves to be absolutely groundless.

Well, gentlemen, there is another objection raised by some friends of primary education. Not that I doubt their sincerity, but they are mentioning difficulties which may impress the unwary and take in the simple. They ask, where are the teachers to teach boys? Where are the school buildings to accommodate large numbers of boys, and what do you mean by proposing compulsion? To them I will only recommend a careful study of the state of things in other countries. In England the same cry was raised. In Japan also, there are records of the time to show that this difficulty was sought to be made much of. What did the people of Japan do? They did not propose buildings in every street. They held classes in verandahs, held them morning and evening. In that famous declaration of 1872 the Emperor of Japan said "Our ambition is that there shall not be an ignorant family in a village and an ignorant member in a family." It appeared to be a most ambitious statement to make in 1872, but within less than 30 years this has been made true by the people of Japan. They did not shake their heads about difficulties over getting trained teachers. You have not trained teachers to-day for all your schools. You have them only for a fraction of your schools. Let new schools be satisfied with untrained teachers. Our fight is not to give a high degree of primary education but to give rudimentary education to the masses and to banish illiteracy. As time advances, you will get better and better teachers. Teachers will be trained to meet the requirements. The responsibilities rest with the local bodies to open training schools. There is no difficulty about getting clerks and there will be no difficulty about getting trained teachers. The current will be diverted. It is the same in regard to your buildings. Let schools be held in verandahs. There is nothing beneath our dignity in that. What was not beneath the dignity of Japan cannot be beneath the dignity of India.

Then there is the third objection raised by people who apparently talk as though they knew a great deal, but whose knowledge when closely examined you find to be astonishingly small.

They ask, "Why don't you throw the whole of this cost on the Government of India?" If you examine the whole question you will find this is a most dangerous suggestion. Nothing is more calculated to wreck this Bill than the suggestion to throw the whole of the cost on the central Government. Secondly, there is no justification for the suggestion in the experience of any country whose history we can study. In the first place our compulsion is not to be universal, it has to be gradual. If it is to be universal, it may be said, "Let the State levy taxation." It would be the same thing whether it is Imperial taxation or local taxation. But this Bill does not propose to make compulsion universal throughout India. It is proposed to proceed by areas. The area which wants to have recourse to compulsion must bear a certain proportion of the cost, because it is only fair to the other areas. That is the first answer. The second answer is that nowhere else in the world, except in the solitary instance of Ireland, is the whole cost borne by the Central Government. I did not care much to emphasise this point in the two speeches that I made in the Viceroy's Council on the subject, because it would have amounted to a direct suggestion to throw a larger burden on local bodies. I think it is best to know how things are in other parts of the world. In England at the present moment about 55 per cent. of the total cost is borne by the State and 45 per cent. by local bodies. In Scotland little less than two-thirds is contributed by the State and one-third by local bodies; in France two-thirds by the State and one third by the local bodies. In Germany, America and Japan two-thirds of the burden falls on local bodies and less than one-third in the case of one of those countries falls on the Central Government. Our proposal throws on our local bodies far less than what is being borne in those three countries. All that we urge is that one-third of the burden of compulsory education should be borne by the local bodies. In Ireland, about 90 per cent. falls on the Central Government and ten on local bodies. The financial relations between Ireland and Great Britain have a history of their own. Ireland has been complaining for a long time that the Central Government was taking more from them than it should. Protests have been made from time to time and at the present moment a Commission is sitting to consider the financial relations between the two countries and what relief should be given to Ireland, in consideration of its complaints on this subject. Therefore, when this permissive compulsory Act was introduced into Ireland, more relief was given

to Ireland and more liberal treatment to its local bodies than to those of Scotland and Wales. But the case of Ireland does not apply in regard to other countries. The best examples on which we might base our case are those of Scotland and France, where two-thirds of the cost comes from the State and one-third from the local bodies. That is what we are asking. If we ask for this strongly, firmly and strenuously, I think, if not this proportion, at least something like it will ultimately be forthcoming.

There is one more objection raised that I should notice. It is said that by introducing compulsion piecemeal, and by giving these local bodies extra assistance, you are introducing inequalities in the taxation of the country; you are giving advantage to certain local areas and to that extent you are placing other areas under a disadvantage. It is a perfectly theoretical argument, advanced to pile up difficulties in our path. Are there not inequalities to-day in the distribution of revenues under the provincial contracts? No two provinces are fairly equal. From some Provinces nearly 50 per cent. more is taken for Imperial purposes more than from others. Is there not inequality there? Take the case of cities like Calcutta, Bombay and Simla. Dr. Nair raised the question in Madras. I do not know how far Madras has succeeded. These cities get large grants for improvements, whereas places of secondary importance like Poona and Ahmedabad are practically left to shift for themselves. There is this injustice of 50 lakhs being given to Simla, 100 lakhs to Calcutta and 50 lakhs to Bombay, while other towns of importance are left to shift for themselves. Take the new policy of the Government in regard to drainage and water works. Under this new policy certain substantial assistance is given by local Governments to local bodies which go in for these works. There is inequality in this. That inequality does not differ from the inequality proposed in the Bill. What is done is to get the inequality caused by the introduction of this Bill to be as low as possible. As a matter of fact the very inequality will be a very powerful force pushing other local bodies to come up and range themselves alongside this Bill.

These are the objections against the general policy of the Bill which have been urged in various quarters, which I have thought it worth my while to notice on this occasion. I fear I have trespassed unduly long on your patience. As I have already said, this is the first occasion on which I am speaking publicly on this Bill since the Bill was introduced, and therefore I

thought I might utilize this occasion for making a further statement. This question of universal education is really at the root of the question of the moral and material condition of the masses of our people. Whether it is destitution, whether it is misery, whether it is squalor or whether it is disease that you want to fight, you are forced to this conclusion that the first remedy of all remedies is to be able to remove the ignorance of the mass of the people and to give to people the benefit of education. If you want to increase the wage earning capacity of the worker, if you want the peasant to grow stronger and take better care of himself in his dealing with the money-lender, if you want him better to understand the benefits of sanitation, if you want him to grow out of superstitious beliefs—if you want to do any one of these things—you will find that the first and foremost thing to do is to give him the rudiments of knowledge. Without that you could do nothing with him. With that you can do everything. Therefore, this question lies at the root of the moral and material advancement of our people. You will remember that that is recognised everywhere else in the world both by the Government and the people. In this country, if we are jealous of our good name, if we do not want to be reckoned with uncivilized nations, we ought to realize towards our poorer brethren the same responsibility which the State and people are realizing in other countries. This is a matter of absolute justice to the poorer people of our land. They have got the faculty of receiving the rudiments of knowledge, the same as other people. It is a monstrous and cruel wrong that millions and millions should be left without that knowledge and that the joy of that knowledge should be absolutely unexperienced by them. I think the conscience of our people has been sleeping much too long, and it is time some of us roused that conscience as vigorously as we can. It is not only the conscience of the people that has been sleeping, the conscience of the Government also has been long sleeping in this matter. However, there are signs that the conscience of the people is awakening and that the conscience of the Government is also awakening. I have no doubt that those who are responsible for that extension of knowledge, the Government of India and the Secretary of State, are anxious to promote primary education almost more than any other branch of education. This year I venture to think there are special circumstances why this question should receive specially favourable attention. The King-Emperor is visiting this country. It will be a historic occasion and I think the Government of

India will do well, do wisely, if they will try to commemorate this great and historic occasion in some striking manner, and what commemoration would be more striking than the conferring of this boon of universal education on the masses of the people of this country? But whether the Government do confer this boon or not, so far as we people of this country are concerned, our duty in this matter is clear. It is, not to rest till we have secured this boon for the people of this land. I therefore rejoice that you have brought into existence this Elementary Education League. Let me point out to those who have organized this League that they have thereby undertaken no light responsibility. Dr. Nair referred in his speech to the Birmingham League. If you want to do anything in the direction of what that League did you will have to be up all the time. I want you to realize that you will be confronted with many difficulties in this work, but the difficulties will vanish and success will be yours if you only have faith in the cause. If you will continue to work with stout hearts fully persuaded that in the present state of the country no work is more necessary, more urgent, more patriotic, or more blessed than this work of spreading mass education in the country, if you are firmly persuaded of the truth of this, then I am quite sure you will be able to discharge this solemn responsibility which you have undertaken! Otherwise you will only be adding one more instance to the long list of failures which we have to deplore in the cause of our land. I want you to realize the responsibility that you have undertaken by bringing this League into existence. As you discharge this responsibility well or ill, so will you deserve well or ill of your children and children's children. I thank you most sincerely for the kind and patient manner in which you have listened to me.

Reviews and Notices.

INORGANIC CHEMISTRY: BY F. S. KIPPING, PH.D., SC. D., F.R.S., AND W. H. PERKIN, PH.D., SC.D., LL.D., F.R.S. W. & R. CHAMBERS, LIMITED, LONDON & EDINBURGH. 1911.

The authors claim some originality for the arrangement of the subject matter. In their opinion the arrangement of the subject-matter does not correspond in most of the existing textbooks with all the requirements of the average student, with the lectures he attends, or with his progress in the study of cognate subjects. An

attempt is made to furnish a text-book which would be suitable for a three years' continuous course. Part I of the book contains what the authors consider to be suitable and sufficient matter for the first year's course, and covers the same ground as the Chemistry syllabus of the London University for the external Matriculation examination and that of the Board of Education for Stage I. In this part the study of the atmosphere and of the common gaseous elements is postponed until the student has become familiar with chemical change in the case of other more tangible substances and the consideration of the complex processes of ordinary combustion is deferred till carbon and some of its compounds have been described.

Part II contains the subject-matter which, in the opinion of the authors, is suitable for those who, having mastered Part I, desire to devote at least two years more to the study of inorganic chemistry. The earlier portions of Part II are devoted to a further consideration of what has been dealt with slightly in Part I, especially the general principles of the science. The rest of Part II contains a systematic account of the better known elements, followed by a chapter on the periodic system. There are also short references to spectrum analysis and radio activity.

Throughout the book the authors have aimed at presenting the fundamental principles and theories of the science, rather than a mere collection of facts. Thus the book furnishes a sound basis for those that desire to specialise in one or other of the branches of chemistry. It may be studied with advantage by all students of chemistry.

THE CONCISE OXFORD DICTIONARY: BY H. W. AND F. G. FOWLER, ADAPTED FROM THE OXFORD DICTIONARY. (OXFORD CLARENDON PRESS). 3s. 6d. net.

One of the most enduring monuments of literary labour that have come into existence in recent years is Sir James Murray's *Oxford New English Dictionary*. But its volume and price have been barriers of real difficulty in the way of its wide and popular use. Students must feel thankful that the rare privilege of consulting Murray's Oxford Dictionary is no longer the small price. We are familiar with a large number of lexicons that command popularity in this country, and we affirm without hesitation that for the student at College and those engaged in literary pursuits, there cannot be a better book

of reference than the *Oxford Concise Dictionary*. Its superior claims may be set down at a mere glance. The learned Editor and his associates have brought to bear upon their task, the most authoritative scholarship and minutest research. It is a modern dictionary and the full significance of the epithet can be evident only to those who have realised the advances in linguistic research achieved in recent years. A very successful attempt has been made to enable the book to discharge some of the functions of a Dictionary of Allusions, without straying at the same time, to any appreciable extent from the scope of an ordinary lexicon. The manner of presentation though necessarily condensed has yet room for illustrations taken from the most varied sources. The linguistic notes have been attended to with particular care, and it is not too much to say that its difference from the lexicon intended for the layman is quite apparent. The volume, which extends to more than a thousand pages is a marvel of cheapness and we cannot think of a more authoritative and useful guide in the study of the English language. Teachers of English will be lightening their work considerably by insisting on the use of this Dictionary by their students.

THE SCHOOL ANTHOLOGY: BY J. H. LOBBAN, VOLS. I AND II. (BLACKWOOD & SONS). 1s. each.

The older generation of educationists have often observed with some regret that the days of anthologies have disappeared for ever. Whatever might be the superior attractions of the illustrated 'Readers' of the present-day, it must be observed that the uses of an anthology furnishing extracts from the masterpieces of poetry, are valuable indeed. Mr. Lobban gives a collection which is undoubtedly creditable to his literary tastes and thoroughness of work. He has not fallen into the common mistake of forgetting the short, stray pieces which might however enjoy a high rank in literature. We are glad to see Barbour's lines to *Freedom* with the famous beginning 'Ah, freedom is a noble thing!'; Spenser receives adequate attention; Sidney's *Sonnet to Sleep* is here; Drayton's *Agincourt* has not been left by any oversight; more than thirty extracts introduce the student to Shakespeare; there is a very fine selection from Burns and the seventeenth and eighteenth centuries have been well represented. An idea of the author's anxiety to present all the extracts of merit and importance can be gathered from the fact that he has taken care to include Addison's famous lines on Marlborough in the *Campaign*, containing the simile of the

Angel, the few lines of Scott on the 'crowded hour of glorious life' and on Pitt.

No serious objection can be taken to the Editor's inclusion of extracts from living writers, but an anthology intended for use in schools ought not certainly to include specimens from poets of little or no reputation. We fail to see how the following names could have received any attention, if this ideal were kept in view: Neil Munro; Rudolph Lehmann; May Byron; Perceval Graves; James Stephen; Thomas Edward Brown and Locker-Lampson. It is also strange to note the author's omission of William Morris, Rossetti and Thomson—no anthology of English poetry can be complete without specimens of their work.

INDIAN SCHOOL ORGANIZATION: BY PERCIVAL WREN.

M. A. (LONGMANS, GREEN & CO.) 3 Rs.

This book is intended as a companion volume to the author's *Indian Teachers' Guide* reviewed in these columns some time ago. In the former volume Mr. Wren dealt with the theory of education and the principles enunciated there are applied here to the practical conditions of the country and worked out in sufficient detail. Mr. Wren has not tried to evade difficulties. He has set up before himself the task of attending to the minutest details relating to school organization.

One striking feature of Mr. Wren's book is his successful combination of idealism with the ordinary routine of the school-room. The chapter on the *Head Master*, for instance, not merely points to the details of work at school which must fall on his shoulders, but also gives a vivid and inspiring description of the spirit which must dominate an educationist who is placed in that position.

We have no doubt that this book will be found as useful as the author's *Indian Teachers' Guide*, to training institutions in this country.

Indian Educational Notes.

MADRAS.

Departmental Notifications.—Lieut. Col. J. L. Van Geyzel, I.M.S., having resigned his office as an Ordinary Fellow of the Madras University, becomes an Honorary Fellow.

Mr. C. Kunkan Nayar, Sub-Assistant Inspector, Calicut Range, under orders of transfer to the Tellicherry Range, is granted privilege leave for one month and fifteen days, from the date of his relief from the Calicut Range, Mr. C. S. Rama-

swami Aiyar, Supervisor of Elementary Schools, Palghat, is to act as Sub-Assistant Inspector, Tellicherry Range, in the Probationary class, during the absence of Mr. C. Kunkan Nayar on leave or until further orders.

Mr. T. L. Subba Rau, Sub-Assistant Inspector of Schools, Ramnad Range, is granted privilege leave for one month. Mr. V. Sambamurti Aiyar, Supervisor of Elementary Schools, Tiruvadanai, is to act for him in the Probationary class during his absence on leave or until further orders.

The following appointments have been made:—

Mr. P. Appalarasayya Pantulu, Sub-Inspector of Schools, Chicacole Range, and Acting Assistant Inspector of Schools, Ganjam District, to be Assistant Inspector of Schools, Kurnool District, vice Mr. H. Swami Rau permitted to retire—to join expeditiously on relief by Babu Sasibhushana Palit.

Mr. P. G. Vanchi Aiyar, Sub-Assistant Inspector, Tellicherry Range, and Acting Assistant Inspector, Malabar District, to be Sub-Assistant Inspector, Calicut Range—to join on relief by Mr. U. Raghavendra Rau.

Mr. C. Kunkan Nayar, Sub-Assistant Inspector, Calicut Range, to be Sub-Assistant Inspector, Tellicherry Range, vice Mr. P. G. Vanchi Iyer, but to join on the expiry of the privilege leave that has been granted to him.

Mr. N. N. Sundareswara Aiyar, Sub-Assistant Inspector, Perambalur Range, acting in the Tellicherry Range, to act as Sub-Assistant Inspector, Tirumangalam Range, vice Mr. S. Seshagiri Sastri on other duty or until further orders—to join on relief.

Mr. M. Bava, Sub-Assistant Inspector of Schools, Central Mappilla Range, to act as Sub-Assistant Inspector of Schools, Central Mappilla Range, vice Mr. A. Kadir Kutti transferred.

Mr. A. Kadir Kutti, Sub-Assistant Inspector of Schools, Central Mappilla Range, to act as Sub-Assistant Inspector of Schools, North Mappilla Range, vice Mr. M. Bava—to join on the expiry of his leave.

Mr. A. E. Anantakrishna Iyer, Headmaster, Government Training School, Malappuram, to act as Sub-Assistant Inspector of Schools, for the Mappilla Range, in the Probationary class, until relief by Mr. A. Kadir Kutti.

Mr. T. K. Duraiswami Aiyar, Acting Sub-Assistant Inspector of Schools, Salem Range, to be Sub-Assistant Inspector of Schools, Coacanada Range, in the Probationary class, vice Mr. A. Venkanna transferred, but to act as Assistant Professor, Presidency College, in the fourth class of the Subordinate Educational Service—Collegiate Branch, vice Mr. T. S. Subrahmanya Iyer, on

other duty or until further orders—to join expeditiously after handing over charge to his clerk.

Mr. C. Gopala Iyengar, Second Assistant, Government Training School, Tanjore, and Acting Headmaster, Government Training School, Cuddalore, to act as Sub-Assistant Inspector of Schools, Salem Range, in the Probationary class, *vice* Mr. J. C. Chinnappa, on other duty, or until further orders—to join expeditiously on relief.

Mr. Rai Bahadur M. Raghunatha Rau, Assistant Inspector of Schools, Malabar District, to be Assistant Inspector of Schools, South Canara District—to join on the expiry of his leave.

Mr. U. Raghavendra Rau, Assistant Inspector of Schools, South Canara District, to be Assistant Inspector of Schools, Malabar district—to join on relief by Mr. Rai Bahadur M. Raghunatha Rau.

Mr. R. W. Ross, to act as Vice-Principal, Teachers' College, Saidapet, in the Indian Educational Service, *vice* Mr. H. Champion on other duty or until further orders.

Mr. T. S. Subrahmanya Aiyar, M.A., L.T., to act as Assistant, Teachers' College, Saidapet, in the 9th grade of the Provincial Educational Service, *vice* Mr. N. R. Krishnamma on other duty.

Mr. K. R. Ramaswami Aiyangar, M.A., L.T., to act as Assistant, Teachers' College, Saidapet, in the 9th grade of the Provincial Educational Service, *vice* Mr. K. Rangachari on deputation in the Agricultural Department.

The following promotions in the Provincial Educational Service are made with effect from the 1st March 1911:—

Mr. C. W. Moss from the 3rd to the 2nd grade.

Mr. J. W. Coombes from the 4th to the 3rd grade.

Mr. M. Kameswara Rao Pantulu, from the 5th to the 4th grade.

Mr. D. A. Hobday, from the 6th to the 5th grade.

Mr. T. Sankara Rao, from the 7th to the 6th grade.

Mr. H. Narayana Rao, from the 8th to the 7th grade.

Mr. K. Rangachariyar, from the 9th to the 8th grade.

Mr. M. Seshagiri Prabhu, from the Subordinate Service to the Provincial Educational Service, 9th grade.

To have effect from 14th June 1911:—

Mr. A. Subrahmanya Iyer, from the 8th to the 7th grade.

Mr. T. V. Sivakumara Sastri, from the 9th to the 8th grade.

To have effect from 10th July 1911:—

Mr. K. R. Duraiswami Iyer, from the 7th to the 6th grade.

Mr. Babu Sasibhushana Palit, from the 8th to the 7th grade.

Mr. C. Bhagavanulu Pantulu, from the 9th to the 8th grade.

Mr. P. Venkateswara Seshu Iyer, from the Subordinate Service to the Provincial Educational Service, 9th grade.

Mr. L. A. Ganapati Iyer, from the Subordinate Service to the Provincial Educational Service, 9th grade.

The privilege leave granted to Mr. C. E. Venkatarama Aiyar, Sub-Assistant Inspector of Schools, Adoni Range, is extended by five days.

The leave on medical certificate granted to Miss E. Hunter, Sub-Assistant Inspectress, Godavari Girls' Range, in the notification already published is extended by six months.

Mr. K. Srinivasa Aiyangar, Sub-Assistant Inspector of Schools, Civil and Military Station, Bangalore, is granted privilege leave for six weeks, with effect from the date of his availing himself of it. The Inspector of Schools, Fourth Circle, will be in charge of the Sub-Assistant's Office during the period of the Sub-Assistant's leave.

Miss M. F. Prager, Sub-Assistant Inspectress, North Arcot-Salem Girls' Range, sub. pro tem. to be Sub-Assistant Inspectress, South Arcot-Tanjore Girls' Range, sub. pro tem., *vice* Miss A. Shanmukham, retired—to join expeditiously after handing over charge to her Head Clerk.

This cancels the appointment of Miss Karney as sub. pro tem. Sub-Assistant Inspectress, South Arcot-Tanjore Girls' Range, which was already notified.

Mr. A. Viswanadha Aiyar, Sub-Assistant Inspector of Schools, Chittoor Range, acting in the Tirupati Range, to act as Sub-Assistant, North Arcot-Salem Girls' Range, in the third class—to join after handing over charge to the Supervisor of Elementary Schools, Tirupati.

Mr. K. Alwar Chetti, Headmaster, Government Training School, Rayachoti, and Supervisor of Elementary Schools, Kalahasti, sub. pro tem. to act as Sub-Assistant Inspector, Tirupati Range, in the Probationary class, during the absence of Mr. S. N. Venkatarama Aiyar on leave or until further orders.

Mr. S. Achyuta Sastri, Supervisor of Elementary Schools, Satur, to act as Sub-Assistant Inspector of Schools, Periyakulam Range, in the Probationary class, during the absence of Mr.

T. A. Ramachandra Aiyar on privilege leave or until further orders.

Mr. M. Seshagiri Prabhu, First Assistant, Mangalore College, and Acting Vice-Principal, Training School, Rajahmundry, to be Vice-Principal of the latter institution, *vice* Mr. M. Venkataratnam Garu, retired.

Mr. P. V. Seshu Aiyar, Assistant Professor, Presidency College, to be Professor of Mathematical Physics in the same College with effect from 10th July 1911.

Mr. L. A. Ganapati Aiyar, Assistant Lecturer and Acting Lecturer, Rajahmundry College, to be Lecturer in the same College, *vice* Mr. T. V. Sivakumara Sastri transferred with effect from 10th July 1911.

Mr. T. A. Ramachandra Aiyar, Sub-Assistant Inspector of Schools, Periyakulam Range, is granted privilege leave for two months, from or after 11th July 1911.

Mr. I. C. Abraham, Sub-Assistant Inspector of Schools, Dindigul Range, is granted privilege leave for one month from the date of his availing himself of it. Mr. A. Aiyaswami Aiyar, Supervisor of Elementary Schools, Dindigul, is appointed to act for him in the probationary class in addition to his own duties during Mr. I. C. Abraham's absence on leave or until further orders.

Mr. K. Narasimham Pantulu, Sub-Assistant Inspector of Schools, Gudivada Range, is granted privilege leave for three months; one month and fourteen days on half pay and one month and sixteen days on full pay, with effect from the date of his relief.

Mr. V. Lakshminarasimham, Supervisor of Elementary Schools, Narsapur, is to act for Mr. K. Narasimham Pantulu in the Probationary class during his absence on leave or until further orders.

Mr. S. Venkatasubba Aiyar, Sub-Assistant Inspector of Schools, Conjeevaram Range, now on deputation under the Pudukkottai Darbar, is to act as Assistant Inspector of Schools, Tanjore District, *vice* Mr. B. C. Ramaswami Aiyar, on other duty, or until further orders, to join on relief from his present appointment.

Mr. H. W. Callaghan, Assistant Inspector of Schools, Trichinopoly District, and Acting Deputy Superintendent, Reformatory School, Chingleput, is to act as Assistant Inspector of Schools, Chingleput District, during the employment of Mr. D. A. Hobday, on other duty or until further orders, to join on relief.

The Teachers' College, Saidapet.—The Teachers' College at Saidapet has been reorganised, and we understand that it is the intention of the authorities to man the institution with the best teachers in the service of Government, so that the training imparted in the College might be really useful to the large body of teachers that are sent out from it annually. This is a step which, we suppose, has been taken in pursuance of the policy of making Secondary education more efficient. The school attached to the College is described to be a model one even in official publications. It is a matter, however, well-known to those who are acquainted with the working of the institution that it is one which hardly deserves to be called model. We hope that the efforts of Government to improve the practising section of the College will be attended with success. The scope of the reorganisation is stated as follows in the proceedings of the Acting Director of Public Instruction reviewing the report of Mr. Hall, the Principal of the College:—"About the close of the year, sanction was accorded to the reorganisation of the College, which includes the amalgamation with it of the L. T. class of the Training College, Rajahmundry, and the employment of a complete staff for the model school, independent of the teachers of the training section and the students under training. The reorganisation will be brought into force from the beginning of the next term." Mr. Hall writes in his report about the services of Mr. S. Subrahmanya Aiyar, First Assistant of the College, now retired: "I take this opportunity to place on record the valuable services rendered by M. R. Ry. S. Subrahmanya Aiyar in the Teachers' College, Saidapet, during the past twenty-five years. He was particularly successful in preparing the graduates of the College for the practical portion of the L. T. Examination." There were on the rolls on the 31st December last 2 M.A.'s, 48 B.A.'s, 9 F.A.'s and 16 Matriculates under training, making a total of 75 against 71 in the previous year. Baroda, Travancore, Mysore and Cochin Darbars had sent in 10 students for training. With the establishment of a fully-equipped Teachers' College at Trivandrum, however, the necessity for Travancore and Cochin to send students to Saidapet has ceased. In the practising section, there were 345 pupils on the rolls on the 31st December last as against 496 in the previous year, for which Mr. Hall has given the following significant explanation:—"The considerable fall in the strength of the practising school is due to the institution of the revised

enhanced scale of fees which was brought into force from July 1910." When the subject of enhancing school fees was under discussion, fears were widely expressed that it would have the effect of making Secondary education costly and thus limiting its usefulness. The authorities were not prepared to accept that this result would follow and carried out their resolve in the teeth of opposition, in their desire to make Secondary education 'efficient.' The fall in the number of pupils in the 'model' school attached to the Training College, it may be urged, cannot be taken as a fair instance, of this, the managers of aided and non-aided schools having the discretion to levy the higher rates or not. But, in view of the fact that grants-in-aid, such as are being given, are calculated on the standard rate of tuition fees fixed by Government, Managers of many non-Government schools would sooner or later introduce the higher scale of fees. And if Government should not deem fit to reconsider the matter, the result will be, it is feared, a reduction in the number of students in the secondary stage of instruction. The next few years should show what the precise extent of the evil will be, as a consequence of the new policy. Commenting on the fact of the decrease in the number of pupils in the Kindergarten department of the College, Miss R. McLeod, Superintendent, writes: "The lowest classes are especially small. The decrease is owing to the fact that the fees in the infant section were increased from 3 annas to Re. 1-8-0 a term. If it could be made possible to admit children under 5½ years of age as free pupils, the gain to the normal students practising in the Kindergarten would be considerable." We trust these words would have the desired effect. All the students who were trained last year have, we are told, secured appointments.—*The Hindu*.

Opening of a Secondary School.—A very interesting ceremony was performed on the 30th June 1911, at Dharakotta in the Ganjam District by Mr. J. M. Turing, I. C. S., Acting Collector of the district. In 1897, owing to the backward state of education among the Uriya community, the present Raja opened a school at Dharakotta. The numbers attending the school, having since considerably increased, the accommodation in the building hitherto used as a school-house was found to be inadequate, and the Raja constructed at a cost of Rs. 4,751, a new school-house of a design approved by the Inspector of Schools, and before occupation of the new building, the Collector of the district was invited to perform the

opening ceremony and to distribute the prizes gained during the last year. For this purpose, a large *shamiana* was pitched and many of the residents and some visitors assembled at 8 A. M., to welcome the Collector who was received on arrival by the Hon'ble the Raja, his eldest son Sri Patradem the heir-apparent and Mr. E. A. Smith, the Dewan, and conducted to a beautiful silver chair in the *shamiana*. The proceedings commenced by the Headmaster reading a brief history of the school. The building was then opened by the Collector who walked through it. The prizes having been distributed, one of the boys sang a song in Uriya and the Pundit read some verses in Sanskrit in praise of the Collector. The Collector then congratulated the prize-winners and made a few remarks showing his sympathy with Uriya education. After the Hon'ble the Raja had thanked the Collector for coming and presiding and performing the opening ceremony, the party had been garlanded and *pan supari* distributed, and the meeting dispersed, the Uriyas of Dharakotta being quite pleased with the interest evinced in them by the Collector. The Collector then motored with the Raja to the Palace and saw the Darbar Hall and the Billiard Saloon.

The Agricultural College, Coimbatore.—The College-day celebrations were performed very recently, all the old students of the College being present in addition to many visitors and the present students and teachers. We may have an idea of the working of the College from the remarks made by Mr. Kunhi Raman Nayar as the official visitor which we quote below:—
I am happy to have had this opportunity of visiting the College for the second time, and I am only sorry my own engagements prevent me from coming oftener. It is very plain that teaching here is eminently practical and an improvement of the Saidapet College where I was a student myself at one time. It strikes me that the students here are more earnest and of a better class.

If I may be permitted to suggest I think it would be a very good thing to open a special class for the training of agricultural maistries. The teaching would be mostly out-door and practical. Many landlords who cannot afford to employ well-paid instructors would be glad to utilise the services of the trained maistries who would be able to do field and garden-work.

During their vacations students might be required to visit various private and Government Farms and submit reports. They might also be

required to submit notes relating to agricultural matters on their own private properties. In this connection they might further be advised to inaugurate experiments on their own properties provided they have people who could be trusted to conduct those experiments and report upon them faithfully and intelligently.

As is known, the study of agricultural entomology is very backward among us. Students may be especially requested during vacations to make collections of insect pests and to take notes as far as they can regarding the life history, methods of destruction, etc. of the insects collected. If the entomological teachers find anything noteworthy in a collection special students may be instructed to persevere in the study of particular insects. In course of time this would lead to a collection of a great mass of valuable information on our insect pests.

Coronation Celebration at Kumbakonam.

—Under the auspices of the Kumbakonam Elementary Teachers' Association, the Coronation of Their Majesties King George V and Queen Mary was celebrated with great eclat on the 22nd July 1911 at the Palace Theatre from 2 to 5-30 P.M., under the presidency of the Hon. Dewan Bahadur R. Raghunatha Rao, C. S. I. The Theatre was decorated with flags and bunting. The teachers and pupils of Elementary Boys' and Girls' Schools in the Kumbakonam Taluk and Municipality numbering in all about 1300, and about 100 local gentry were present on the occasion.

The picture of their Majesties King George V and Queen Mary was decorated with flower garlands and placed in a prominent position on the dais. The clarinet was in attendance. At first prayer songs were sung by the girls of the Saraswati Patasala and by the boys of Elementary Schools with harmonium. Then the stories "Anasuya" and "Evidence of one's own Parrot" were staged by the students of the Elementary Schools. Then there were competitions in Kolattam, physical and flag drill, etc. The President rose amidst loud cheers and delivered an interesting speech explaining in Tamil the object of the meeting. He dwelt at length on the good qualities of Their Majesties and prayed that they may be spared long to reign over India. Rao Bahadur N. Krishnaswami Iyengar delivered in Tamil, an instructive speech on the advantages of British rule in India. Mr. A. Govindaraja Mudaliar dwelt for some time on the lives of Their Majesties King George V and Queen Mary. As President of the Teachers' Association

he garlanded the President and proposed hearty votes of thanks to him for occupying the chair, to Mr. N. Krishnaswami Iyengar for his lecture, to the teachers and supervisors of schools that rendered him much help in the celebration, to Mr. A. R. Chakrapani Chettiar, the landlord of the Palace Theatre, and to Mr. Joseph, the proprietor of the Royal Bioscopic Exhibition, for allowing the use of the hall on the occasion, to the Police for maintaining order, and the leading gentry that graced the occasion by their presence and co-operated with the Association in the celebration.

Sweets were distributed to all the school children, and *pan supari* to the gentry and teachers who were all garlanded.

The picture of Their Majesties was placed on the elephant. In front of it the Police fired *feu de joie* in honour of the occasion. The schools were arranged four abreast in front of the elephant, the flags bearing the name of each school being held in front of each school by the boys. The Police with their guns on their shoulders lined on both the sides of the elephant. The flags, banners, silk fans, silver sceptres from Sarangapani Swami Temple were also conveyed in front of the elephant and followed on each side by five Washington lights. Between the school and the elephant the leading gentry took their stand. Preceded by clarinet and native music the procession started from the Palace Theatre, wended its way along the Bazaar Street and Big Street to the Porter Town Hall where fireworks were exhibited. The picture of Their Majesties was dismounted from the elephant. Dewan Bahadur R. Raghunatha Rao as President of the Club received the picture and placed it on the table. The Hon. Mr. N. Krishnaswami Iyengar as the representative of the public delivered a short speech dwelling on the good qualities of Their Majesties. He referred to the Guild Hall speech of His Majesty delivered at London immediately after his return from India wherein His Majesty advocated a wider sympathy as the true key of the British administration in India and pointed out the great change that followed the same in the Indian administration and remarked that it was right and proper that all the public should meet together to rejoice over the Coronation of Their Majesties and wished long reign to Their Majesties. Thus the day's proceedings was brought to a happy termination.

BOMBAY.

Agricultural College, Poona—opened by H. E. the Governor.—His Excellency Sir George Clarke performed the opening ceremony of the

new Agricultural College, situated on the outskirts of Poona, on a large estate, comprising 150 acres of good arable land on which have been erected two massive stone buildings which, with a most up-to-date hostel, now in course of construction, have cost the Government close on Rs. 10 lakhs. The movement of which the present College buildings is the outcome, was started in the year 1878, after the famine, and the classes giving elementary lessons in agriculture were then begun in the building on the site of the present College of Science. This was continued with varying success till in 1880, need for practical lessons in agriculture led to the purchase of the land for the purpose. The recommendations of the Famine Commission of 1881, in which the establishment of Agricultural Departments throughout India was advocated, formed the basis of the scheme out of which the present institute was evolved. Besides being of an educational nature, the buildings provide accommodation for the purpose of research as well as for well-equipped and up-to-date library. One result of the report of the Famine Commission was to provide trained men, and for several years agricultural classes were well attended by some students passing the required test to attain the Diploma of Agriculture granted by the Bombay University, until the action of the Government in according the University graduates the same facilities, in the matter of appointments, led to set back, which practically resulted in stopping further work. In 1897, however, Government, by raising the standard of admission to the Agricultural Course placed the holders of the diploma on an equal footing with the University graduates and thereby gave fresh stimulus to the movement which the terrible famines of 1896 and 1901 showed urgent necessity for some organised form of imparting higher education in all branches of Agriculture, viz., Physics, General Chemistry, Botany, Zoology, Agricultural Entomology, Engineering and Climatology with veterinary science course, which at present occupies three years of practical and theoretical work.

Bombay Moral Education Committee—The following Resolution has been issued:—The Governor-in-Council has had under consideration the question of preparing hand-books of moral lessons for the use of teachers in the educational institutions in this Presidency. Most of the books available on the subject are based on Western materials and Western modes of thought. It was therefore necessary to accumulate a stock of illustrative material from Indian sources. Mr.

R. V. Enthoven, C. I. E., I. C. S., was asked by Government to undertake the work while on leave in England last year, and to continue it on his return to India. After making inquiries and consulting experts of authority on educational questions in England he has prepared two volumes of materials. The first volume contains extracts which are drawn mainly from Indian sources and is intended for the use of teachers in primary and anglo-vernacular schools. The second volume contains materials suitable to pupils in High schools. The new series of vernacular readers already contains a number of lessons dealing with moral virtues, e.g., honesty, truthfulness, courage, thrift, etc., interspersed throughout. A reference to these lessons is given under the appropriate headings in the volumes in order that the teacher may make use of them in preparing his lesson.

2. As explained in the preface to these volumes, the materials are only intended for the use of teachers. They will provide teachers with a store of well-selected illustrations, but the actual lesson will have to be teacher's own work. The Governor-in-Council is of opinion that it is not desirable to publish the lessons in the form in which they are to be given, as this would inevitably lead to their being read aloud in a dull and lifeless manner, little likely to interest the class for more than the opening sentences.

3. The Governor-in-Council is pleased to appoint a Committee consisting of the following gentlemen to examine these hand-books and report whether they are suitable, with or without modifications, for use in the manner indicated in the preceding paragraph:—

The Hon'ble Sir Narayan Ganesh Chandavarkar, Kt., B. A., LL. B., Chairman; The Hon'ble Mr. Gopal Krishna Gokhale, C.I.E., B.A.; The Hon'ble Rao Bahadur Shrinivas Konher Rodda; Hormasji Jehangirji Bhabha, Esq., M.A.; Ibrahim Muhammed Sayani, Esq., B.A.; V. G. Apte, Esq.; Professor Vaman Govind Kale, M.A. (representative of the Deccan Education Society); Lalshankar Umiashankar, Esq. (representative of the Gujarat College Board); P. Wren, Esq., M.A.; Ramchandra Parasharam Godbole, Esq., B.A.

Elementary Education in Bombay.—A Press Note has been recently issued:—In October 1909, the Government requested the Director of Public Instruction to report whether it would not be possible to take in respect of indigenous schools in the Presidency, proper action somewhat similar to that which has been so successful with regard to Mulla schools in Sind.

Paragraph 2 of the letter to the Director was as follows:—

I am to remark that private schools exist in many villages in the Presidency and Government consider that if efforts were made to improve them, the result would be an appreciable spread of elementary education at a less cost than is contemplated in the plans now under consideration. Moderate proficiency in reading, writing and arithmetic is all that children in rural areas can be expected to attain and elementary instruction in these subjects could be provided in many places by means of small private schools supported by moderated money grants. The proposal made by the Director as well as the report from Mr. Wright submitted by him, were referred to the Commissioners, Northern, Central and Southern Divisions, with a request that they would favour Government with their opinion after consulting selected Collectors on the subject. Government after careful consideration of the report of the Director of Public Instruction and views of Commissioners, have issued the following:—

The following questions are discussed in these papers:—

(A) Sub-division of Primary Schools maintained by Local Boards into two classes, one to be termed Rural schools, teaching up to the fourth standard only, and other or full Primary schools, teaching all the seven vernacular standards.

(B) Simplification of curriculum for the former class.

(C) Encouragement of indigenous schools, and

(D) Raising of the minimum age for appearance at the Vernacular Final Examination.

It is proposed that all Primary Schools, should be divided into two classes, Rural and Full primary. The latter would be maintained only in large villages where there is considerable proportion of population that requires longer course. Government approve this proposal and is of opinion that the final decision as to the location of these two sorts of schools should rest with the Director of Public Instruction. But District officers should be consulted in all cases and local opinion should be fully ascertained. In order to prevent hardship the Governor directs that the system of scholarship should be instituted on wide basis so as to meet the case of boys from villages where there is only a Rural school, wishing to attend a full Primary school. The Governor accordingly approves the proposal that standards for Rural schools should be drawn up entirely in the interest of children of agriculturists. With regard to the question of encouraging indigenous schools, it appears that there has been some misunderstanding of the intention of Government

which was not intended that the growth of these institutions should be forced. The proposal was that wherever it was found that a village without a public school had provided itself with a private school, it would be good policy to encourage the latter either as a substitute for the local Board school or until one could be started. The maximum grant admissible to an indigenous school has recently been raised from Rs. 88 to Rs. 150. Revision of the rural courses will bring them within competence of private masters. The Governor has carefully considered the question of a minimum age for admission of candidates to the vernacular final examination. It appears to him that the reduction of minimum age for appearance at the examination from 17 to 15 has been justified by the results. It induces many students to complete the vernacular course, who otherwise would not do so and recent demand for the new schools could not have been met but for a greatly increased number of qualified men available. It is clear that the present arrangement fulfils the objects which were contemplated. Having regard to these considerations the Governor is not disposed, at present, to raise the age limit.

CALCUTTA.

Elementary Education—a Representative Calcutta Meeting.—A largely attended meeting was held at the newly built premises of the Ripon College on the 26th July 1911 under the presidency of Babu Surendranath Benerjee. There were a goodly number of leading men of the city including many of those who have spent their life-time in the cause of education.

Mr. A. Chaudhuri moved the first resolution which ran as follows: That this meeting is of opinion that the time has come when an united effort should be made by our people for the universal diffusion of Primary education. In seconding the resolution Mr. Dhannulal Agarwalla said as there was some reference to Mr. Gokhale's Education Bill he should mention one or two points. Mr. Gokhale who to quote the words of Baron Reuter was an unsuspected educationist included two questions in his Bill, viz., compulsion and cost. As to compulsion he did not think there was any wrong in having education under compulsion. As regards the question of cost, if they wanted Primary education they must pay for it. Then the question was who was to do it? Whether the Government or the people? To his mind it did not make any difference, for payment by Government was, after all, payment by the people. Therefore he must support the Bill of that suspected

—he should rather say—unsuspected educationist, Mr. Gokhale. Pandit Kesava Dev Sastri, the well-known Lecturer on Hindu Marriage Reform, supported the resolution. The resolution was carried *nem con.*

Principal Heramba Chandra Maitra moved the second resolution: That this meeting accords its cordial support to the principles underlying Mr. Gokhale's Elementary Education Bill. He said that in commending the resolution for their acceptance, he had the support of the Indian National Congress, the support of his Mahomedan fellow countrymen who passed a resolution in favour of free and compulsory primary education at Nagpore and he was sure he would have the support of every one of his unbiassed and unprejudiced countrymen to the principles upon which Mr. Gokhale's noble Bill was based. They had the example and experience of every civilised country on the immensely beneficial result that had followed such education. The speaker longed to see those noble principles introduced without further delay in this country. Mr. D. C. Ghose seconded the resolution. He said that the fundamental and essential condition of success of this measure lay in the whole-hearted enthusiasm with which it must be backed by the people. From the numerous meetings that were held in all parts of the country it was clear that the question was evoking enthusiasm everywhere. Babu Jitendralal Banerjee in supporting the resolution said that criticisms of Mr. Gokhale's Bill came from three sources, viz., the University, the *Statesman* newspaper, and from the editor of the *Indian World*—people who said they were friends of the poor ryot. For the criticism of the *Statesman* their valued correspondent the Hon'ble Mr. Cathcart was responsible. As to the criticism of the *Indian World* the speaker said the whole thing came to that the ryot would be angry, because the extra cess would fall upon the poor. There was no reason to assume that the additional cost would be thrown upon the poor ryots. Why, he asked, should it be so? Mr. Gokhale did propose nothing of the kind at all. The additional cost, Mr. Gokhale proposed would be shared proportionately between the Imperial Government and local bodies—one-third would be raised in the shape of cess. The resolution was carried unanimously.

The third resolution: That this meeting expresses its hearty support to the Elementary Education League, which has been formed to spread primary education in Bengal, was moved by Mr. A.K. Ghosh. He said when he first heard of Mr. Gokhale's Bill it came upon him as the pleasantest surprise. It has been a step in the right direction and they must take it up whole-heartedly. If the measure

failed let it not be said that it failed of lack of enthusiasm on the part of their middle-class people. He hoped that it would receive their support and they would do everything in their power to make it a success. Babu Sachindra Prasad Bose seconded the resolution in Bengalee. He referred to the observations made by Lord Ripon on the eve of His Lordship's departure that the redress of their grievances lay in education and His Lordship repeated the word thrice.

The President in bringing the deliberations of the meeting to a close said that it was to him a matter of very great personal satisfaction that the very first function, which had taken place in the newly-built premises of the Ripon College should be the function which commemorated their deep concern, their care and solicitude for the promotion and diffusion of primary education among the masses of their people. The President then dwelt upon the principle of Mr. Gokhale to raise education tax.

Mr. A. C. Banerjee moved a vote of thanks to the chair in a humorous speech in Bengalee which gave rise to frequent uproars of laughter. The meeting then terminated.

ALLAHABAD.

The Hindu University—an announcement.—The Hon'ble Pandit M. Malaviya, in a communication to the Press, announces that the proposal to amalgamate Mrs. Annie Besant's Scheme of a University of India with the Hindu University Scheme of his own, has been fully considered.

The petition for the Charter which Mrs. Besant submitted to the Government and rules of management appended thereto, were drawn up for a University which was to be only an Examining Body in the beginning and which was to make no distinctions between religions but to affiliate institutions Hindu, Mahomedan, Christian, Parsee and Buddhist alike. That petition and those rules of management do not meet the requirements of a teaching University which will belong to one denomination in particular. Those changes were thought very cursorily and at very short notice were put forward for consideration by those who were interested in either of the two schemes. The fuller consideration that they have since received, has shown that they are not suited and cannot be adopted for the purpose of the proposed Hindu University and that it is necessary to prepare a new constitution and to draw up a fresh petition for a charter for such University.

Lawyers will soon take up this work.

The Central Hindu College being in Benares where the University is to be founded, it is both natural and reasonable that it should be the first College to be affiliated to the University Board of Trustees.

It has been built up largely by the donations of Hindus and with very few exceptions, it is only Hindu students who attend it. There is thus every reason why the College should not be amalgamated with the University and become part of it. It will be of no small advantage that this should be so. As regards the terms of incorporation or affiliation, they cannot be finally settled until the next annual meeting of the Board of Trustees of the Central Hindu College has been held. But there is no reason to apprehend that these terms will not be settled to the satisfaction of all parties concerned.

It is devoutly to be hoped that this statement will satisfy all thoughtful men and that every Hindu will earnestly co-operate to make the idea of a Hindu University an accomplished fact.

INDIA (GENERAL.)

Orientalist Conference—The Conference of Orientalists met at Simla recently. The Hon'ble Mr. Butler presided. The following gentlemen were present:—

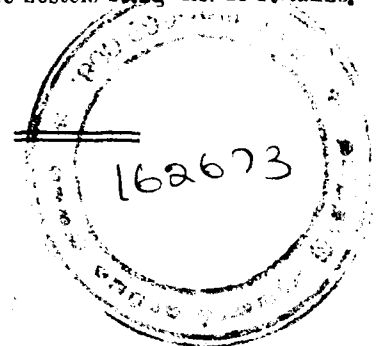
The Hon'ble Mr. S. H. Butler, C.S.I., C.I.E., the Hon'ble Mr. Ludovic Porter, Dr. J. P. Vogel, Ph. D., Colonel D. C. Phillott, I. A., Dr. G. Thibaut, C.I.E., Ph. Dr., D. S. C., Mr. A. Vanis, M.A., Dr. D. B. Spooner, Ph. D., Dr. E. G. Bhandarkar, C.I.E., Khao Bhadrur Sahibzada Abdul Quayam, C.I.E., Mahamahopadhya Dr. Gauda Nath Jha, M. A., D. Litt., Mr. A. C. Haravitz, Ph. D., Kunwar Maharaj Singh, Shams-ul-Ulama Moulvi Shibli Nomani, Mahamahopadhya Har Prasad Sastri, M.A., Rai Bahadur Sarat Chandra Das, C.I.E., Mr. G. H. Tippar, Mr. C. Duroisate, Shams-ul-Ulama Moulvi Kamal-ud-din Ahmed, Dr. E. Denison Ross, Ph. D., Sheikh Muhammad Isfahani, Mr. S. R. Bhandarkar, M.A., Mr. G. R. Kay and the Hon'ble Mr. H. Sharp.

The main questions discussed were the preservation and improvement of ancient learning, the encouragement of the Pandit and Moulvi and libraries and the cataloguing of manuscripts.

The Conference decided to recommend the constitution of a central institute for advanced Oriental Studies at Calcutta.

Progress of education in India:—Some interesting figures about the progress of education in India are given by the *Pioneer*. Taking into

account all the public and private schools in British India, the number of pupils in attendance in 1909-10 was 6,214,995, an increase of 1,796,687 on the figures of the last decade. Ten years ago the number of female scholars was 429,645, to-day it is 831,954—an increase of 94 per cent. It is certainly instructive to note the rate at which female education in India neglected for many centuries has suddenly begun to forge ahead and there are now 14,184 schools specially devoted to the teaching of girls. The various institutions for boys number 156,285. It is also instructive to see that of the total number of male scholars (5,383,041) 18 per cent. are undergoing higher education, while the girls' percentage for that class of learning is 12, which seems quite remarkable, considering that it is but a short time since Indian girls commenced to take any serious interest even in Primary schools. The ratio of girls to boys under instruction is about 1 to 7; last decade it was 1 to 10. It is calculated that the percentage of students to the population of school-going age, which is taken at 15 per cent. of the total population, was in 1909-10 thirty per cent. in the case of males and five per cent. in the case of females. Of the schools that conform to the standard prescribed by the Educational Department 86 per cent. (containing 89 per cent. of the scholars) receive public aid. In fact the expenditure on education has jumped from Rs. 3.84 crores ten years ago to Rs. 6.88 crores in 1909-10, or by 79 per cent. It may interest the curious to know that the average annual cost of educating each pupil in the different schools and colleges of British India is in the case of Colleges for professional training Rs. 327; Arts Colleges, Rs. 178; Training Schools, Rs. 141; Secondary Schools and special schools, Rs. 22; and in Primary Schools, a little over Rs. 4. During the period with which we are dealing, there were 2,499 hostels or boarding houses attached to the various colleges and schools and containing 96,029 residents. Of the total number, 2,107 of the hostels were for males and 392 for females, the boarders numbering 74,080 and 21,949 respectively, and the total expenditure on the hostels being Rs. 48.30 lakhs.



The Educational Review.

In a book, entitled *What is and What might be*, Mr. Edmond Holmes, the author of the much-discussed "Holmes Circular" has offered his views on the theory and practice of education in the Western world. He thinks that "education as such is a failure in the West." This failure is attributed to the faulty philosophy and theology of Christendom. This philosophy has, in the opinion of Mr. Holmes, permeated and tinged with its gloomy and devitalizing principles the philosophical tenets and dogmas of Western peoples and to it is due the tenacity with which they cling to the doctrine of original sin and to a system of external rewards and punishments. This has led to the regime of repression and mechanical obedience to which infants and children are subjected, as well as of examinations, syllabuses, and the like which in most schools limits and circumscribes the growth of mind and body. If the true function of education is to foster the normal, symmetrical growth of the whole nature of man, this can be effected only in a free, nourishing, stimulating environment. At present school-life is not in general joyous and stimulating. The average child feels the class-room as an irksome place, and he has to be lured into diligence by the hope of prizes and goaded into industry by the fear of punishment. The present day-school is said to be in sorry plight—"no life in it, no spontaneity, no happiness, and singularly little learning of any sort; everything deadened and darkened by the shadow of compulsory individual examination." The present system of oral instruction is characterised as a futile expen-

diture of "chalk and talk" and is regarded as having produced no other result than dislike of every branch of human learning. The value of school-life, as Holmes rightly says, depends upon the influence of the teacher. The teacher must be for the pupils "the very symbol and embodiment of love, the centre whence all happy, harmonious, life-giving, peace-diffusing influences radiate, and to which, when they have vitalized the souls of the children and transformed themselves into sentiments of loyalty and devotion, they all return." The teacher must be singularly efficient and highly gifted; must maintain discipline of the best kind with the least repression; must know that all children cannot be taught by one unvarying method; and must have grasped the principle of the correlation of subjects. In the concluding chapter of the book an attempt is made to answer the question: Should education be religious? Mr. Holmes is of opinion that the whole of the teaching during every school-hour should be under the influence of religion and breathe its spirit, but his views about religion are very liberal and free from all dogmatism. Mr. Holmes considers Buddha as the highest guide to morals and education among men.

At a conference on education, organised by the Institution of Civil Engineers, Professor Silvanus Thompson initiated a discussion on the extent to which mathematical and scientific subjects should be combined with purely literary subjects in the training given to school-boys, who intend to enter later the profession of engineering. The professor's opinion is that not one of the schools of the type which furnishes boys to the engineering

profession has any definite educational goal to set before the majority of its boys. In general schoolmasters have no definite educational aim whatever for the bulk of the boys. This hopeless state of affairs cannot be radically altered, so long as the goodness or badness of a school is adjudged by the triumphs of a few, and not by the proportion of all its scholars whom it brings to a maturity test. In all German secondary schools there is a perfectly definite goal before every boy at school. Before reaching the topmost class he has to pass the *Einjährige* examination, or pass out disgraced. Three years later, he has to pass the *Abieturient* examination and the way is open for him to any university and to any professional career. In England, on the other hand, secondary education is in a chaotic condition. Each university wastes its energies over holding matriculations and the like. Almost all professional bodies hold amateur matriculations or preliminary examinations of their own. The result, educationally, is muddle, waste, inefficiency. The schoolmasters, in despair at the twenty conflicting matriculations, fix upon none and let chaos work. Professor Thompson thinks that for the studentship examination no specialisation at school is desirable, the instruction in mathematics should be by somewhat modified methods, a general knowledge of elementary physics and chemistry or natural philosophy is preferable to the pursuit in detail of some particular department in science, and a leaving examination for secondary schools, similar to that in existence in Scotland and in Wales, is desirable throughout the United Kingdom.

We agree with the professor in saying that the first object of science teaching should be

to evoke interest, not to impart the facts or data of science, still less to systematise their re-discovery. Even the driest subject can be made thoroughly attractive by a live teacher who handles his subject in a human way. Bad teaching is responsible more than anything else for distaste for mathematics. Professor Thompson deplores the disappearance of Euclid in the teaching of mathematics. He thinks that the teaching of Euclid is in one respect absolutely invaluable. If approached rightly, after practice in geometrical drawing, the study of Euclid constitutes an unrivalled training in methodical and cogent reasoning. No satisfactory substitute for Euclid has been found. Professor Thompson is of opinion that at the present day boys are less capable of following a sustained train of thought than they used to be. Training in thinking and in the correct expression of thought is more essential than the study of any particular subject. In all studies—science, mathematics, language, or literature—there should be cultivated precision in the use of words and cogency in modes of thought. These things are vastly more important in the ultimate making of a professional engineer than the acquisition of a hoard of scientific facts. The secondary school must not degenerate into a house of cram.

A long discussion took place at a recent **The Bombay** meeting of the Senate of the Bombay University on the question of making English History a compulsory subject in the Arts Course. The Government disapproved of this inclusion of English History as a compulsory subject. Whether a certain subject should, or should not, be included as a compulsory subject in the Arts Course, will depend entirely upon

the goal of education. In the present circumstances of our country every educated Indian should make himself conversant with English history and institutions. Every Indian boy should have a general education which will make him liberal in mind and sympathetic to mankind in general. No subject is better fitted for this purpose than a study of history. The connection of India with England makes it absolutely necessary that every Indian should be acquainted with the history of the political institutions of England, for his political aspirations also lie in that direction. There can be as much originality of thought in the teaching of English history as in the teaching of any other. It is wrong to suppose that English history tends itself specially to cramming. Of all subjects of instruction history is the one which can be made most attractive, because it is the most human of subjects and can be handled in the most human way. Crammers do cram not only history but also mathematics and electricity.

The interference of the Government in educational matters which lie wholly within the purview of the senate of a university is a matter that deserves serious consideration. The majority of the fellows of every university in India is appointed by the Government. If such a body comes to a decision on any important matter, it seems to us strange why the Government should take objection to it. In dealing with educational problems an important body such as the senate of a university must be allowed independence. The intelligence represented by the secretariat of a government cannot certainly outweigh that represented by the senate. We do not deny that there may be occasions when the inter-

ference of the Government may be necessary, but on such a question as that before the Bombay University the interference of the Government is surely uncalled for.

At the conference on education held under College and the auspices of the Institution of Civil Engineers, Workshop. which we referred to in a previous note, Dr. W. C. Unwin delivered, as the chairman of the section on scientific and practical training, an interesting address on the relation of the college to the workshop. He laid stress on the erroneousness of the idea that a college course unfits a man for practical work. "There may be," he said, "students who prove unfit for practical work in spite of college education. They would equally fail if their education was purely practical. There may be college courses, I am afraid it must be said there have been college courses, badly arranged, and teachers in colleges less competent than is desirable. But such things are inevitable. Nothing is more certain than that there has been a great improvement of college teaching of applied science in the last twenty years. An employer who takes into his works college students is, I think, often disposed to expect from them an immediate availability which is unreasonable. It is not the main object of a college course to make a student acquainted with the details of any particular business; that is the proper object of the first year or two of practical work. It is not the main object of a college course to fit students specially for such work as will fall to them, while in the lowest rank of the profession. The college course must contemplate the fitting of a student for his whole career, and provide him with an intellectual equipment which will only gradually become useful as he rises to

higher rank in his profession. The view of the employer who looks only to the immediate usefulness of the student is a short-sighted one. . . . I believe employers will find—some of them have found already—that they owe a debt to the colleges, and the college-trained student will prove, with a minimum of special experience, a valuable assistant, and in some cases the originator of a real advance in practice." This is also our opinion. We know of Masters of Arts of Indian universities, who after a few years' apprenticeship have become very capable directors of large dyeing and tanning factories. The pity of it is that there are few works which are solely under Indian management and thus available to the students of Indian colleges.

We are glad to note that a great deal of Elementary edu- enthusiasm is being evinced all over the country in connection with the Bill on Compulsory Elementary Education introduced by the Hon'ble Mr. Gokhale in the Imperial Legislative Council. As pointed out by Mr. Gokhale the Bill involves three principles. First of all, it aims at introducing the principle of compulsion into the elementary education system of this country. Secondly, it seeks to do this not by going in for compulsion at once, but gradually, by empowering local bodies whose areas are ripe for compulsion to go in for compulsion. And the third principle is that the initiative in regard to compulsion is to be taken by local bodies, the sanction of Government being required before compulsion is introduced and Government also having to bear a certain proportion of the total cost. So far as the general principle of the Bill is concerned, there can be no difference of opinion among the thoughtful. Every civilized country

has gone in for compulsory elementary education. Voluntary effort, based on strong religious motives, may prove successful for a short time, but as in other countries it is likely to prove a failure in the long run. Government's intercession in the matter of primary education is absolutely necessary. Money can be easily found, if the Government makes up its mind to pass the Bill into an Act, and if a special cess would have to be levied to meet the extra expenditure, we feel sure that the people would not grudge to pay it. Objections on the score of want of suitable buildings and trained teachers seem to us to be silly. The elementary education that is contemplated in the Bill can be imparted easily in the pials of houses, even as it is being done in many parts of India. We have in these columns often laid stress upon the necessity of free and compulsory primary education for the elevation of our country. Without universal education the moral and material advancement of our country must be extremely slow. And we hope the Elementary Education League which has been inaugurated at Madras to forward the Bill will work strenuously to attain the end in view. It is a happy sign that the Senate of the Madras University has accorded its favourable vote to the general policy of Mr. Gokhale's Bill by a large majority.

The Board of Education of England have issued a new Educational Industrial edu- Pamphlet (No. 18), which cation in Germany. deals with the adolescent question. It contains the full report of an inquiry instituted on the spot into the working of compulsory continuation schools in Germany. Compulsory education lies at the root of the tremendous advance that

Germany has made educationally, commercially and imperially since the great war of 1870. Elementary education is compulsory throughout the German Empire, but in very many parts of Germany attendance at continuation schools also is compulsory. No German boy leaves elementary school under fourteen. About three months before the time for leaving school the teacher gets into touch with the boy's parents and gives them pamphlets containing full information of the various local employments. As soon as his vocation is chosen, the boy joins the evening school, attending four or six hours weekly for two or three years. Almost every trade in a large town has its own particular course, each complete in itself. The parents regard the compulsory attendance at the evening school as a continuation of the elementary school course. The most striking feature in connection with the German system is the active co-operation of the trades, employers of labour and parents. The employers are by law obliged to give their workers facilities for joining evening schools. Parents readily complain when the employer prevents their boys from going to the evening classes. The trade societies and the chambers of trade contribute liberally and voluntarily to the cost of apparatus and machinery for the purpose of teaching, and the employers are kept in close touch with the technical classes through their advisory school committees. The Municipal Labour Bureau completes a well-organised system for looking after Germany's embryo citizens. All boys about to leave school are sent compulsorily by the authorities to the Bureau, and steps are taken from the very commencement to prevent the unscrupulous exploiting of boy labour. Those that are interested in the progress of our

country have much to learn from this pamphlet.

In the *Musterschule* in Frankfurt-am-Main an interesting experiment in self-government among boys is being tried.

The system has been in operation for eleven years and to it is said to be due the spirit of freedom and informality prevailing in the school. In the management of the school the boys play an important role. "One important function of the school is to make its pupils independent, to teach them to help one another, and to educate themselves. The system of self-government at the *Musterschule* seeks to accomplish by making the *Primaner* (i.e. the two highest classes) assist the teachers in their oversight over the pupils." The administrative organization consists of the following: From among the members of the two upper classes the teaching staff chooses every year two upper-prefects, who have a general oversight over all the pupils, and twenty-four under-prefects to assist the upper-prefects in their work and to be controlled by them. The prefects divide the work among themselves without any interference on the part of the teachers. One *Primaner*, called the "class-prefect," is assigned to each of the lower classes, for which he is then responsible. The class-prefect forms "the friend, confidant, and adviser of the class which is entrusted to his care." The business of the prefects is "to maintain order in the building and in the yard, to punish disobedience, to admonish slothful pupils, and to exert, both inside and outside the school, a good influence on their younger comrades." The duties of the prefects have to do not only with the daily routine of school-life, but they are also responsible for the social, athletic and

theatrical events of the year, such as school excursions, school concerts, dramatic performances, the purchase of tickets at reduced price from the local theatres and the distribution of the same among the boys, and so forth. Each of the lower classes chooses three of its members, known as class representatives, who act as a connecting link between their class and the *Primaner* on the one side and their class and the teachers on the other. These representatives are responsible to the prefects for order in their respective classes. If a class finds the work assigned too difficult, they make complaint to their representatives and these take the matter up with the teacher concerned. It is clear from the foregoing that in the *Musterschule* the older boys have intrusted to them considerable responsibility. An American visitor to the school vouches for the success of the experiment in self-government that has been initiated in this school.

In an address delivered at the inauguration of the President of the University of Texas, the speaker to be the following: "To labour constantly for the world with no thought of self, to find indifference and opposition where you ought to have active assistance, to meet criticism with patience and the open attacks of ignorance without resentment, to plead with others for their own good, to follow sleepless nights with days of incessant toil, to strive continuously without ever attaining—this is to be a College President. But this is only half the truth. To be associated with ambitious youth and high-minded men, to live in an atmosphere charged with thoughts of the world's greatest thinkers, to dream of a golden age not in the past but in the future, to have the exalted privilege of striving to make that dream a reality, to build up great kingdoms of material conquest and make daily

life richer and fuller, to spiritualize wealth and convert into weal, to enrich personal character and elevate all human relationships, to leave the impress of one's life on a great and immortal institution—this, too, it is to be a College President." We very much wish that we could describe the work of a College Principal in our country in the same terms.

At the last annual Conference of the National Union of Teachers of England and Wales the major part of the time at the

The Holmes Circular.

public sessions was given to the discussion of the so-called Holmes Circular. This circular, purporting to be from the pen of Mr. Holmes, the Chief Government Inspector for Elementary Schools, was sent out in January 1910 among the Central Government Inspectors all over England. Its purport was that these inspectors should as far as possible use their influence to see that Oxford and Cambridge men were appointed to the positions as local inspectors. Moreover, the circular made most general and sweeping charges against the fitness of teachers who had come up through the elementary school system, to serve as inspectors over the same schools. One statement in the circular runs thus: "Apart from the fact that elementary teachers are, as a rule, uncultured, and imperfectly educated, and that many, if not most of them, are creatures of tradition and routine." Another is: "The inspector of the public school and varsity type has the advantage of being able to look at elementary education from the point of view of complete detachment, and therefore of being able to handle these problems with freshness and originality." Such statements naturally aroused a storm of indignation among the elementary school teachers. It may be true that the elementary teacher has not had many of the advantages of the university man, but the extreme ignorance

of most of the university men not only of inspecting the work of the elementary school the problems, aims and purposes of the elementary school, but also of any sound theory of educational philosophy and practice would appear to a far greater defect as far as

is concerned. We in India know the defective character of the inspection of schools, chiefly elementary in several instances.

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POETRY AND THE WORLD'S WORK.*

THE opinion was once very widely held and expressed, that, as the trend of our modern civilization turned more and more in the direction of scientific progress and physical achievement, there would be less and still less scope for poetry as an element in the life of humanity. It was thought, that poetry had its roots in the faculty of wonder, and drew its nourishment only in an atmosphere charged with the element of mystery. We are growing so wise, the argument of our fathers ran, that wonder and mystery must soon cease to be; we know, they said, how things are done; we know the causes of the colours of the flowers, and a rainbow, after all, is a very dull affair; life is a mechanism and no longer a mystery, and as for the poets with their vague words and portentous long phrases, we have no more use for them. They were picturesque and appropriate, no doubt, in the dark ages, or in those desolate old cultures of Greece and Rome, but it seems the poor fools put trust in imagination or the like, and of course we bartered imagination for knowledge when we invented the steam-engine. Mystery was the food of poetry, our stock is exhausted, and the Muses, poor misguided wenches, may go starve.

Such, in the rough, was a very general

* An address delivered at Pachaiyappa's College.
XVII

feeling even among thinking-men about the middle of last century. Macaulay gives expression to it in one of his earlier essays, and other instances of this belief, or of something very like it, may be found in the literature of the period.

Since then, there has been a change in many respects. Few men, we may imagine, would subscribe to such an opinion in its entirety, and many of us, most perhaps of those who have ever troubled to think about the matter, would utterly refuse to entertain it. Why has there been this change in popular opinion, and why do we hesitate to admit that there may be the least grain of truth in a point of view which some circumstances seem to recommend, as, for instance, the apparent absence of outstanding poetic genius in the English-speaking world of to-day?

There are two main flaws in that point of view. The first, which was at all times obvious and is now widely recognised, lies in the fact that the progress of science and our advancing knowledge of the physical processes of nature, have increased rather than decreased the mystery of life in many of its aspects. We have learned now that the light of science is no blazing illumination shining on a plane surface so that everything is revealed and naked to our eyes, but rather a flickering and elusive gleam playing upon tracts of

infinite irregularities, where for every new-corner that is made clear, a dozen new shadows start into being.

The second, which is more widespread, and greatly pernicious, is due to a misapprehension of the relation existing between poetry and the other divisions of life; a failure to recognise its real and serious import. To very many men and women poetry—and by poetry in this connection and throughout this essay, I mean not solely verse, rhymed or unrhymed, but all imaginative and creative literature, which exists for its own ends, and not to further some ulterior purpose—is a frivolity and plaything, the occupation, like a gramophone or a pianola, of an empty hour, to be valued, if at all, for the easy and mechanical jingling of its rhythms and its rhymes, or the equally mechanical solution of a Chinese puzzle plot.

That is not our view of poetry. It is impossible to imagine anyone belonging to a society formed for the better appreciation of literature who brings to it no greater purpose than that. But what, then, are we to think on this matter? What relation exists between poetry and the great body of human interests and aspirations? What relation does it bear to the theory and practice of living?

Are we to consider poetry as the pleasing vehicle of moral and intellectual truth—the jam as it were, under which the pill of correct thinking is to be administered to resentful humanity? Or is poetry a thing by itself, lonely and self-contemplative, dwelling apart from the ordinary pre-occupations of men? Is it a refuge and a mere escape from the cares of reality, or should it be read as a commentary on the text of life?

If an answer is to be found at all for these

questions, we shall find it with the greatest certainty by glancing at the records of the past, by attempting to note what has been the due practice of some of the world's greatest workers in this medium. Not that we are to think that any poet of the first magnitude ever worked out a theory of poetry and then wrote up to it, but that from what we know of their writings it is possible to guess at the feelings on this matter which animated them, and to form an estimate of the degree in which these feelings were helpful or a hindrance to them in their work.

Let us first consider poetry as the vehicle and instrument of moral or intellectual truth. Exigencies of time compel us to be brief and uncritical in our methods, selecting our examples at haphazard, and subjecting them to no curious examination.

The greatest Latin poet called didactic was, it will be agreed by most competent to judge, Lucretius. His poem, the *De Rerum Natura*. 'Concerning the Nature of Things' is in effect an exposition of the origin of the universe and its order, as he conceived of it. It is therefore a typical example of a poem the proposed object of which is to inculcate intellectual truth in a pleasing form. What is the result? The system which Lucretius expounds is made not only obsolete but almost ludicrous by the increase in scientific knowledge which has taken place since the 1st century B. C. A Board School child of to-day could correct the stupendous errors which are embodied in the content of the poem. But is Lucretius no longer read for this reason? Is his book hounded out of libraries and condemned to the waste-paper basket? We know that nothing of the kind has happened, and that, but for the decay in the knowledge of Latin, Lucretius would never

have been more highly appreciated than at this day.

The 'De Rerum Natura' is now read not for the scientific theory in its content but for the poetic beauty of those passages which are least didactic in essence. The vehicle has survived that for which it was fashioned, the instrument has outlived the hand, long since dust, for which it was formed.

Take another instance. Milton's 'Paradise Lost' was undoubtedly intended by the author at the outset to be in part a didactic poem. We cannot doubt this if we consider the circumstances of its composition, the subject that was chosen, and Milton's own definite statement of his purpose:—

'To justify the ways of God to man.'

What is the position now, after the lapse of two and a half centuries? Is it not the fact that the fragments of old-fashioned theology imbedded in the poem are estimated more lightly than any of the other elements which constitute it?

And still further testimony to the hostility which subsists between didacticism and the authentic spirit of poetry is forthcoming. In the free ardour of poetic composition Milton's didactic purpose was time and again abandoned. He is hurried by the exuberance of the creative impulse into amazing contradictions and incongruities. He compels us to open our hearts to Satan and deflects our sympathies from archangels, and with it all, it is just these passages of our author's glorious misconduct that are the admitted marvels of a marvellous poem, the outstanding and unforgettable splendours of *Paradise Lost*.

We shall come back presently for a little to this question of didactic poetry.

For the moment let us turn to a phenomenon which is the very antithesis of this. From time to time in the history of literature the cry has been raised of 'Art for Art's sake'—a battle cry which has commonly had the rider or tag appended to it of 'Down with Mrs. Grundy.' With Mrs. Grundy we need not deal at present; we may remark in passing that in good poetry there is room neither for Mrs. Grundy nor for practical protests against that lady and her influence.

The root idea of art for art's sake has, however, its significance for us. It is evidently a cry which voices the feeling antagonistic to didacticism, a protest against the use of artistic, or for our purposes, literary, production as a medium for the expression of alien substance, moral, or intellectual, or of any other kind. So far so good. There is no need for us to quarrel with so eminently reasonable a proposition. But let us revert to the method which we applied to didacticism, and turn to the actual work which has been produced by the upholders of this theory.

In modern poetry, perhaps Swinburne and Rossetti are the two most obvious examples of this school. Both of them were eminently successful artists in their kind, and both were much more concerned with the artistic quality of their work than with any message which they proposed to convey to their fellow-men by means of it.

We read them both with pleasure, and if we read them with understanding, there is a genuine joy to be found in their metrical skill and the melodious interplay of their intricate verse. But is our satisfaction undiluted? Do we feel that we have been reading the best sort of poetry? Is our imagination kindled and stirred and set in

activity? Almost the universal experience of unprejudiced readers is that there is no such feeling of satisfaction to be found in them. On the contrary, although short passages of these writers may delight and astonish, the effect of a prolonged sitting with them is to produce weariness, and a burden of monotony, a sense, almost, of mental nausea.

To what cause can we ascribe this feeling? Is it not due to an excess of the formal element in their poetry and to be an over-insistence on the sensuous appeal to the ear?

Shakespeare's *Macbeth*, in his frenzy and despair compares life to—

'a tale

Told by an idiot, full of sound and fury,
Signifying nothing.'

If that were our estimate of life, we might be content with a form of poetry as empty; but as most of us are neither frenzied nor despairing, a consensus of experience seems to demand that any poem claiming to be great shall signify something. Neither the sound and fury, nor the music and the melody, are sufficient without that signification.

Neither of these schools of poetry, then, satisfies the highest demand that can be made, and is made. We saw that didactic poetry as such failed by reason of the excess of an alien element which had been imported into it. The poetry of the 'art for art's sake' men fail also by reason of excess—the excess of one element which to a point is necessary in all poetry, the element of the sensuous appeal to the ear.

Both kinds fail, by reason of excess, although the excess is in different directions. In the residuum which exists and pleases us in both schools after the element of excess

has been subtracted there must reside the quality or qualities essential to the nature of poetry. That is to say, the relation which poetry bears to the rest of life lies neither in didactic teaching nor, exclusively, in the purely sensuous appeal to the ear.

We said above that we had no quarrel with the theory of art for art's sake, and that it seemed in many ways an eminently reasonable proposition. In its first significance, and especially in so far as it is a protest against didacticism it is just and not subject to refutation. But like most epigrammatic definitions and battle-cries, it must be revised and enlarged if it is to be capable of a more general interpretation.

If we regard it in itself, and examine it in its practical application, it becomes plain at once that something is very much wrong. From this point of view, Art for Art's sake has, as a creed, just as much and just as little significance as 'Hats for Hats' sake,' 'Cows for Cows' sake' or any similar absurdity.

A hat is nothing except in its relation to man, nor are cows of any practical importance except in so far as they serve to accommodate mankind. Nothing has an effectual existence apart from the consciousness of man, and nothing and no part of life is of importance to us except in so far as it is subservient to human purpose.

So if we are to understand by the phrase 'Art for Art's sake,' that art has special values peculiar to itself remote and abstract from the generality of human wants, we are simply failing to think clearly, and, as a result, enunciating the thing which is not.

If, on the other hand, we mean when we use the phrase not to lay emphasis on the

separation of art from human interests, but merely to recognise the fact that the appeal of art, and so of poetry which is art, is made on different lines and by different channels to those employed by ethics, for example, or religion, or exact science, we have laid our hands upon a truth which is essential to the just knowledge and appreciation of poetry.

What is this appeal which poetry makes, and by what channels does it make it? Poetry presents to our consciousness not what is moral or immoral in ethics, and not what is true or untrue in exact science, but beauty considered absolutely and in the widest sense of the term—to include for instance the ugly, which may also at times be beautiful, as in tragedy. It makes this appeal through the æsthetic sensations—partly through the sense of the ear, as by melody, partly through the faculty of intellectual perception.

What do we mean by saying that poetry presents or reveals beauty to our consciousness? Is this appreciation of beauty an abnormal quality found only in poets and artists, a species, as it were, of inspiration permitted to them alone? On the contrary it is as common to all humanity as the faculty of adding 2 and 2 together and arriving at the total 4, or of recognising that to love one's kind is well and to murder, ill. In some men, no doubt, it is, like other faculties, more highly developed than in others, and these are our artists and our poets. But they would have no readers if this faculty were not common, for there is much truth in the saying that a man only gets from a book or a work the good that he brings to the study of it.

As to beauty itself, and the virtue of it, which is the objective of poetry, it has never been

satisfactorily defined. Tentative suggestions, which seem to be in the right direction have been made, and they enable us to guess at some of the elements of it. The apprehension of unity behind a diversity of forms, for instance, certainly affects us as beauty, and from this arises the pleasure of rhyme and rhythm in poetry, and our pleasure in unity of action in dramatic poetry. That also which is highly characteristic affects us as beauty, and hence arises our pleasure in the heightened incidents of romance, and the colossal character types of drama.

Is it conceivable, then, that so integral a part of human life can ever be superannuated—one of the great trinity of ethic, and knowledge, and æsthetic, which form the tripod on which humanity rests? The question needs no answer. Our race cannot limp, docked of a limb for the remainder of its course.

There are even signs that in the future poetry, whether in the strict form of verse, or generally, as imaginative literature, may be called upon to play even a greater part in the world's work than in the past. Æsthetic sensibility, though the common property of mankind is, it would seem, slower and harder to develop than either ethic or science. Between the time of Sophocles and Plato and our own time there has been but barely perceptible advance in appreciation of the beautiful if we compare the greatest personalities of the two eras. But in the spread over wider human areas of an increased capacity for appreciating beauty the race may claim to have made some progress. And so poetry has more material to work upon.

Nor is any phenomenon in modern civilisation more remarkable than the complex development of individual consciousness that has taken place. The tendency is for each

of us to have more, comparatively, of his personality buried beneath the surface, as it were. Underneath the exterior, the man of hates and desires, pre-occupied with his own interests and devoted to practical purposes, there is another self, more complex now by far than was generally the case in earlier ages, meditating on a hundred problems, and regulating from time to time the outer self, and criticising him.

This contemplative latter-day creation within us must needs speak, when he speaks at all directly and not through the medium of the outer self, in the language of art and poetry, for his thought and his conceptions are often too subtle or too unseizable for the language of ethic or of science, and can only find expression in the form devoted to beauty in art, or in poetry.

In such wise, then, we may place poetry in its relation to the rest of life, and the never-ceasing work of humanity. It is no mere escape and refuge from the stress of affairs, 'Haply to interpose a little ease' nor is it subservient to other departments of life. We estimate it too lightly even if we consider it as a commentary on existence. For it is neither a reflection, nor altogether an interpretation, but the very substance of all human activity, realised through a particular medium.

J. H. MACKINTOSH.

THE THACKERAY CENTENARY.

(BORN 1811—DIED 1863).

FREDERIC Harrison protested some time ago against the common practice of celebrating the centenary of the birth of distinguished persons on the ground that it is not possible for mankind to form a sober judgment of the greatness of individuals, when they are yet within living memory. There is in all such cases the danger of transient popularity being mistaken for an eternal claim to homage; of personal prejudice obscuring the faculty of criticism and of fond affection indulging in meaningless adulation. But the most adverse critic of Thackeray will grant that in celebrating the centenary of the great novelist we are doing honour to a master whose place in literature is secure beyond all possibility of overthrow.

Literary history has not many names greater than that of Thackeray in fiction and millions of readers all over the English-speaking world will have thoughts of affectionate praise for him on the occasion of the centenary of his birth. He has laid the novel-reader under a deep debt of gratitude by his masterpieces which are among the proudest possessions of the English language. The event must specially appeal to Indians as this country boasts of his birth, Thackeray having been born in Calcutta. In the vivid delineation of society, in the painting of details of character and in the keen examination of individual frailties, he has won the reputation of a great master. *Vanity Fair* and *Esmond*, *Newcomes* and *Pendennis* are deservedly among the most popular of English novels. Becky Sharp has repeatedly appealed to our sentiments by her extraordinary cleverness and complexity of life;

we have nothing but genuine admiration for the angelic *Esmond*; the pathetic career of Colonel *Newcome* has often moved us to tears and we meet Thackeray face to face in the pages of his *Pendennis*. Over this world of gaiety and sorrow we behold the striking figure of the author, analysing with profound observation the vanities and vices of the world, directing his vision fearlessly even on the world which takes refuge behind Wealth and Rank.

The vein of satire is undoubtedly strong in Thackeray's work though it cannot lend adequate support to the common notion that he was a confirmed cynic. The souls of goodness found in the gallery of his fiction form the best refutation of this charge. We must however admit that his satire was not expressed with the cordial geniality of a Horace—it often came down on its victim with the gloomy severity of Juvenal. The beaming smile of Addison was not present in his attacks on society—they were surcharged to an appreciable extent with the spirit of Swift and Voltaire. While recognising this aspect of his work as a satirist, it must be said to his wisdom and glory that he never passes beyond the pale of our affections. An impartial examination can only lead us to an unqualified approval of this tribute to his memory by Austin Dobson:—

Because he touched the flaw in all,
There were who called him cynical;
Because his mood to pity leant,
They styled it mawkish sentiment;
Because—disdaining to make light
Of wrong by treating it as right—
He probed the wound he saw exist,
They dubbed him heartless satirist!

We have reversed all that to-day:
We know him better—or we may.
We know he strove by ridicule,

To shame the hypocrite and fool;
We know alike in age and youth,
He sought unshrinking for truth;
Made of no smallest virtue sport;
Loved honesty and good report;
Went manfully his destined way;
Doing as far as in him lay,
His daily task without pretence,—
With dignity and reticence.

P. SESHADRI.

GEOGRAPHY TEACHING IN SECONDARY SCHOOLS.

(Continued from page 155.)

iv. Methods of Geographical Teaching.

IN the previous article I discussed the educational value of Geography. In this connection question is often raised whether Geography is a science or no. The answer to this question depends on the meaning we give to the word *science*. The consideration of this question need not engage our time much. Suffice it to concede at once that Geography cannot claim recognition as an exact science in the sense in which Mathematics, Physics, Chemistry and Geology are called sciences. As has been observed there is no Q. E. D. in Geography. The truths of these sciences admit of no qualifications or modifications. We cannot say the same with reference to geographical truths. In the United States of America, for example, the relief of the country and the climatic conditions have been the same for the last over 1,000 years at least. But these phenomena have produced totally different influences on the Red Indian and the European races. What does this establish? We have no means of measuring the influence of geographical phenomena on man. The human element is a varying one; personal initiation and peculiar traits of each race

have all their influences which we cannot afford to ignore. What is true of Geography is true of History and Economics. If these are "sciences," then Geography also is a science.

It is sometimes contended that Geography is only a "*graphie*" and not a "*logos*" and so it cannot be called a science. Dr. Mill in his *International Geography* pertinently meets this objection by asking these critics whether they would admit that Astrology which is a "*logos*" is a science. If Geography is content with merely describing the earth's surface it cannot claim to be a *quasi* science even. But in addition to describing the earth's surface, it traces the cause and effect, searches and establishes the underlying principles—these are said to be true marks of science—then Geography is certainly a science. The Report of Fifteen, U. S. A. contains the statement "Geography is not a simple science by itself like Botany, Geology or Astronomy but a collection of sciences levied upon to describe the earth as the dwelling place of man and to explain something of its more prominent features."

Whatever difference of opinion there may be on the question whether Geography is a science or no, all are agreed upon the fact that the subject needs to be treated in a scientific method. What is scientific method? Professor Pearson gives the following definition of it in his *Grammar of Science*. "This method consists in the careful and often laborious classification of facts, in the comparison of their relationship and sequences and finally in the discovery by the aid of disciplined imagination of a brief statement or formula which in a few words resumes a wide range of facts." Acquisition of geogra-

phical facts, analysis and classification of them a comparison of facts so classified drawing of inferences and a getting at the underlying principles are all involved in this method.

I propose to refer briefly to the different methods devised in Germany for the teaching of this subject. Mr. T. G. Rooper, for sometime Geography Teacher and later Inspector of Schools in England—has, in a very interesting address delivered at the Annual Meeting of the Geographical Association, in January 1901, "opened up a glimpse of a wide prospect" with reference to these methods.* He rightly observed "None of these methods is complete in itself, none of them is without value and all of them ought to be present to the mind in preparing the simplest course of lessons in Geography."

The first method is what is known as the *Analytic Method*. The earth is taken as a whole, analysed systematically into oceans, continents, countries, etc. The chief objection to this method is it does not start from the child's immediate neighbourhood and so it is not suited to the beginners. Nevertheless it has the advantage that it introduces the child even at an early stage in a cursory way to the globe and the map of the world.

The second method is the reverse of the first and is known as the *Synthetic Method*. The child begins with the study of the smallest portion of the earth's surface which is most familiar to him and gradually proceeds until he has mastered the geography of the whole globe. This method has no doubt its merits. The child may arrive at a compre-

* The address is printed in one of the numbers of the *Geographical Teacher* for that year. I am indebted to this article both for the matter and the phraseology in some places.

hensive idea of the regions nearest to his own before examining more distant parts. But its chief defect is that it is opposed to the fundamental principle of Geography teaching, that the whole aspect of the globe must be presented sufficiently early in the school course of a pupil to develop his imaginative faculty and to rouse his curiosity. This method also ignores the fact that Geography is a living subject and all parts of the earth are not equally worth studying.

The third method is the *Associative Method*. Geography as we have already seen, draws its materials from several sciences. This method consists in showing the bearing and dependence of each of these sciences on others. Prof. Rooper observes in this connection: "If we think for a moment of sciences as circles and then of several circles intersecting at a given point we have the presentment of a fresh science which differs from any of them taken by itself and yet is made up by the common ground which is shared by all of them." It ought not to be supposed that this method does not consist in amalgamating History, Geology and Astronomy and the rest to one science under a new name. All that it aims is to show the bearing of each of these sciences on the other in a certain sphere of study; how they depend on each other and how they support each other in dealing with a particular range of facts. Undoubtedly this method seems a matter of common sense.

The fourth method is known as the *Grouping Method*. As the name suggests it consists in grouping together geographical facts and phenomena of the same kind and dealing with these kindred facts and phenomena together. Temperature of zones, regions of heavy rainfall, the deserts of the world, the tropical

forests are the groups which form the basis of study. This method is no doubt very good but will not do for beginners. It is fit for advanced students as it pre-supposes much knowledge. This method is a help to deepen the advance study of Geography as facts already known are placed in a fresh light; as it connects distant places together and suggests comparison; and as it leaves the student to search for principle and to comprehend more clearly that there are laws which underlie apparently dissociated facts and phenomena.

The fifth method is the *Concentric Method*. Under this plan the child will at the very threshold of the school career study a very very brief outline of all that is intended he should study in the school course. In every subsequent year this brief outline is gradually expanded till the whole world in full detail is mastered. Prof. Rooper is of opinion that as regards the elements of Geography, there is except to a very limited extent no such systematic whole to be studied that the concentric method can be applied with advantage.

The sixth method is known as the *Comparative Method*. This consists in comparing the various leading phenomena of one country with those of another. It is better adapted to make the study of Geography more intense. The comparison of the Ganges river basin with the Indus basin will lead to the appreciation of contrast also and these contrasts will suggest a number of interesting problems. This method cannot be left out of account in any course of lessons in Geography however elementary.

The seventh method is the *Constructive Method*. The method is based upon the principle that the brain grows while the hand works. At every stage the student

of Geography constructs models and maps to illustrate almost every feature he studies in connection with the Geography lesson. This method is a very valuable one provided due sense of proportion is observed. It has been said and said very well that a great deal of brain energy oozes out when the hand and brain are working in harmony; the result is much better work than when the two are not correlated. Practical work systematically done will keep in full employment the self-activities of the pupil. Without it are lost splendid opportunities to assist rational education.

K. A. VIRARAGHAVA CHARI.

GRAPHICAL ILLUSTRATION OF THE MULTIPLICATION OF POSITIVE AND NEGATIVE QUANTITIES.

CASE I.

To prove that: $(+2) \times (+3) = +6$.

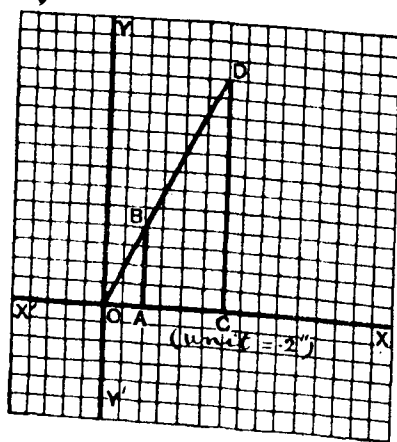


FIG. 1.

Let OA, marked along the axis of X, be the unit (Fig. 1); draw the ordinate AB = +2; take OC = +3 and draw the ordinate CD to meet OB produced at D. Then from the similar triangles OCD and OAB, we have

$$CD:OC = AB:OA; \text{ (i.e.) } CD = \frac{AB \times OC}{OA}.$$

But, OA = +1, AB = +2, and OC = +3.
 $\therefore CD = \frac{(+2) \times (+3)}{+1} = (+2) \times (+3).$

Since CD contains 6 units and is above the axis of X, $\therefore (+2) \times (+3) = +6$.

CASE II.

To prove that: $(-2) \times (+3) = -6$.

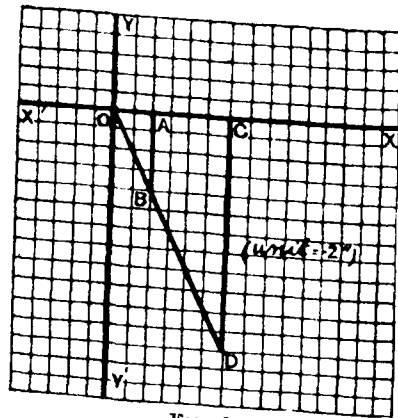


FIG. 2.

Draw OA, along the axis of X, equal to the unit (Fig. 2), and the ordinate AB = -2; take OC = +3 and draw the ordinate CD to meet OB produced at D.

Then as in Case I we can show that,
 $CD = (-2) \times (+3).$

Since CD contains 6 units and is below the axis of X,
 $\therefore (-2) \times (+3) = -6$.

CASE III.

To prove that: $(+2) \times (-3) = -6$.

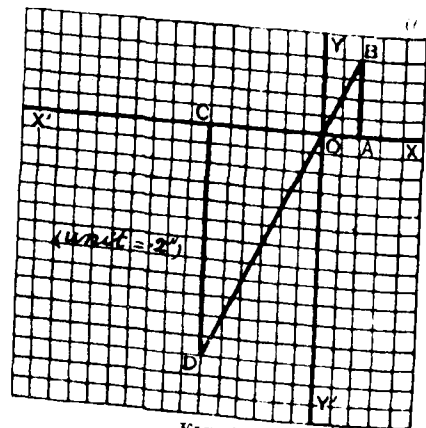


FIG. 3.

As in Case I, make OA = +1, and AB = +2 (Fig. 3); take OC = -3 and draw the ordinate, as before, to meet OB produced at D.

Then, as in Case I, we can show that,

$$CD = (+2) \times (-3).$$

Since CD is below the axis of X,

$$\therefore (+2) \times (-3) = -6.$$

CASE IV.

To prove that: $(-2) \times (-3) = +6$.

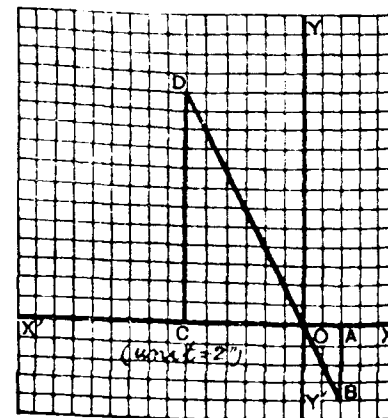


FIG. 4.

As in Case II, make OA = +1, and AB = -2 (Fig. 4); take OC = -3, and draw the ordinate CD, as before, to meet OB produced at D.

Then, as in Case I, we can show that,

$$CD = (-2) \times (-3).$$

Since CD is above the axis of X,

$$\therefore (-2) \times (-3) = +6.$$

V. V. R. NARASIMHACHARY.

CO-OPERATION AND EDUCATION.

'EDUCATION' is the art of drawing out, developing and cultivating our mental faculties. It is the process by which our tastes are refined and our passions subdued. It creates in us the desire for truth and truth leads to goodness. Its main object is the co-

operation and harmonious development of our faculties. Without Education, we are likely to fall a prey to crass ignorance and foul superstition.

As to the sources of Education, I may mention a few of them. They are:—Books; Discourse; Travels; and Experience.

Books supply us with a variety of information, but they are not thorough and practical. Books are our best companions, but in these days of endless multiplication of books, some of them are more insidious than persons. So, a great deal of caution is required in our choice of books. In his Essay on 'Studies' Bacon says:—"Some books are to be tasted, others to be swallowed and some few to be chewed and digested."

Discourse is the means whereby our thoughts are clarified and we feel and correct ourselves where we go wrong. It develops our power to argue and bestows upon us the gifts of ready speech and quick judgment. It is a sacred saying—"Miss not the discourse of the elders."

Travelling, the third source, is considered by the Westerners as an indispensable part of their education. In England, a young man sets out on his tour through the continent, to give a 'finishing touch' to his University Education. Travelling, of course may do no good to those who are ignorant and illiterate, but it does yeoman service to a man of learning, as it widens his horizon and broadens his sympathies. The knowledge gathered from books is of a somewhat theoretical character, and in order to make it really useful, we must supplement it by our personal observation of men and things. "I am a part of all that I have met," says Tennyson, and Shakespeare has observed "Home-keeping youths have homely wits."

Moreover the wisest teachers of all times have been great travellers. Homer, Milton, Addison, Dickens—all had enriched their minds with a long course of travels.

Experience, the last of the sources and of the greatest importance has much to do with success in our daily life; it encourages us in times of peril and above all, assists us in the pre-determination of future events. In the words of John Gay—"Long Experience makes man a sage."

Next, I turn to the different kinds of Education. I may pass a few remarks on Education under the following heads:—Physical, Intellectual, Moral and Spiritual. 'Physical Education' means the training given to the various organs of our body. It is essential as it contributes to our bodily welfare and keeps us healthy and cheerful, at all times.

By 'Intellectual Education' is meant the development and cultivation of our intellectual faculties. The close connection between mind and body is brought about by the saying—"*Mens sana in corpore sano.*"

'Spiritual Education' tells us about our religion, the why and the wherefore of existence, and the wonderful powers of the Almighty. It is the most essential part of our education and should never be neglected. It must be borne in mind that, but for the spirituality of India, Indian civilization would have become extinct long ago.

Having run over the sources and kinds of Education, I shall now point out the defect of our present system of Education, which need be remedied at no distant date, for our own good and for the sake of posterity.

Of the four kinds of Education mentioned, it is really commendable that we are not lacking in any of them. As regards Physical and Intellectual Education, we have been up

and doing, for the last three or four decades. Our country is proud of having produced men like Rama Murti and Gopal Rao, great giants in their respective spheres. As regards Moral Education, we have had great teachers like *Thiruvallura Nayinar*, though we have not followed their precepts.

We are not lacking in Spiritual Education, for the atmosphere of this ancient land, is more or less spiritual. But, how can the spirit work without the body? So, naturally enough, we require some support for the body. This support for the body can be obtained only by 'Material Education.' By Material Education is ordinarily meant, that Education, which will give us food and raiment and other animal comforts. It includes 'Agricultural,' 'Industrial,' and 'Commercial' Education, and strange to say, we are sadly wanting in these. The Industry of the Westerners has made them great in our eyes, and we may hope for like greatness if we are earnest and persevering in our acquisition for the same.

Under this head, we have to note three important things. They are:—

First, Industry should be well-organised and well-directed. 'Method' is a great saving of labour.

Secondly, *Energy* is requisite. The man who wishes to rise must bid good-bye to apathy, and work with a will.

Lastly, we must *persevere* in what we undertake.

'Perseverance,' the maxim says, 'is the mother of success.' In certain parts of India, steps are being taken to ameliorate the condition of the 'depressed' classes, by giving them some Industrial Education. The example set by Baroda and followed by

Bengal, is worthy of our imitation. The signal services rendered to our countrymen by His Highness the Maharajah of Baroda, invite our warm greetings to the gracious sovereign. Let us like Baroda and Bengal, pave the way for our onward progress by imparting a sound Industrial and Commercial Education in this country, and by trying to develop 'Business Habits' in the Indians. They are slowly appreciating their labours and the time is not far when they will turn to business-knowledge, and turn out specialists and experts in arts and industries.

The second defect in our present system, is the want of co-operation between the teacher and the taught, and the parent and the teacher. Unless there is mutual love between the teacher and the pupil, it will be a case of *in at the one ear and out at the other*; and the system will not be sound. These defects are partly got over by a few, but are ignored by a large majority.

Now-a-days, the commercial spirit of 'competition' is strong among us. But this spirit of rivalry, instead of opening the way to the progress of the individual, is sowing the seeds of selfishness and disunion in our hearts. Hence, there must be cultivated, the feelings of love and brotherhood between man and man. Each man should love his neighbour, and if he does so, there will be peace and no strife between man and man.

"Hope, Conciliation, United-Effort"—these are the three watchwords of progress in India, pointed out by Sir William Wedderburn, when he presided at the last session of the Indian National Congress. And these are the three things needed for co-operative success. Let us be united in our thoughts, words and deeds; let us work and wait; let

us be conciliatory, give-and-take in our dealings with our brethren. The Rochdale Pioneers have set a great and memorable example, by their co-operative work. We see thousands of Missionaries at work in India, who are provided for by their Home Committees, out of the trifling tributes contributed by the pious poor. Let us not look at them with blank wonder, but let us follow their example and meet our wants with the help of the co-operative system. For the diffusion of general knowledge, let us open Free Reading Rooms and Libraries all over the country. For the spread of Industrial Education, let our brethren realise the difficulties of the situation and found Co-operative Societies and leave a margin of 3 per cent. of the profits, a little more than the Co-operative Union has done in England—for the purpose. Above all, let us bind our hearts together in love, so that we may work whole-heartedly, steadily, and zealously and achieve our great purpose of uplifting the masses, who are sunk in ignorance, steeped in poverty, and wrapped in selfishness. Let us pray for more light and more love—for, these alone can remove the scales off our eyes and stamp out vileness from our hearts. Let us in conclusion, sing with the poet, who says:—

"A song for our banner? The watchword recall,
Which gave our nation her station;
'United we stand, divided we fall'!
It made and preserved us, a nation;
The union of hearts—the union of hands—
And the Flag of our union for ever;
Our hearts and hopes are all with thee.
It makes and preserves us a (nation)."

M. SUTCHIDANANDAM PILLAI.

Heading.	Matter.	Experiments, diagrams, correlation, reference to books, etc.
Reflection of Light.	When rays of light fall upon the surface of media such as a piece of looking-glass or bright metal, some of them are turned back or seem to start off: They are said to be <i>reflected</i>. Two kinds of reflection:—<i>Regular</i> and <i>Irregular</i>. i. <i>Regular reflection</i> takes place according to definite laws, from smooth and regular surfaces, such as those of glass silvered at the back, polished metal; also clear, still water and mercury. ii. <i>Irregular reflection</i> takes place according to no simple rules. The light that falls on uneven surfaces like white paper or white cloth, is scattered in all directions; most non-luminous bodies become visible on account of the light which they <i>diffuse</i> or reflect irregularly, e.g. house, furniture, paper, powdered glass, etc.	The difference between <i>Regular</i> and <i>Irregular</i> reflections may be illustrated thus: Allow a small beam of sunlight to pass through a hole in the shutter of a darkened room and fall upon (1) an ordinary mirror, (2) a sheet of tin-plate, and (3) a sheet of white paper or cardboard, one after another. i. Notice that the mirror throws on the wall or ceiling a distinct patch of light, which moves about as you move the mirror; if a person stands in a far part of the room and looks at the mirror, he sees a glare of light if the mirror is so held as to reflect the beam directly towards him; otherwise, he can scarcely see the mirror at all. ii. The tin-plate throws a fairly distinct patch of light, but not so bright or distinct as in the case of the mirror; but the plate is better visible than the mirror. Here, the amount of regular reflection is less and irregular reflection, greater. iii. The white paper does not give any distinct patch of light; but it can be seen <i>almost equally well</i> from any part of the room, on account of the light scattered in all directions.

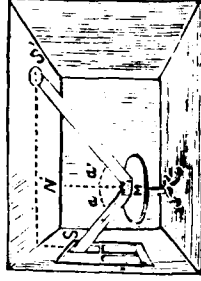


FIG. 14.

Laws of Reflection.

- (1) The incident and reflected rays lie in the same plane as the Normal at the point of incidence, and on opposite sides of it (normal).
- (2) The angle of incidence is equal to the angle of reflection.

Note.—The students should be made to know clearly the meaning of the italicised words and expressions above.

Practical work for students.

The laws may be verified by the *pin-method* or by means of a semi-circular cardboard divided into degrees, a mirror and a luminous source, such as candle flame.

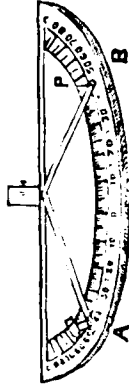


FIG. 15.

Vide 'Practical Physics,' by L. M. Jones;
'Heat, Light and Sound,' by Wright;
'Practical Exercises in Light,' by Clay.

Reflection from Plane Mirrors.
Position and Characteristics of Image.

- i. The image of a luminous object lies as far behind the mirror as the object is in front of it.
- ii. The image is *virtual*, *erect* and of *the same size and shape* as the object.
- iii. The image is affected by what is known as *lateral inversion*. If we stand before a plane mirror, our right hand appears as the left hand of the image.
If a printed page is held in front of a looking-glass, the letters are all erect in the image but the words read from right to left. The letter *p* appears in the image as *q*. A page of type, as set by a printer, can be read by holding it in front of a mirror.
- iv. The position of the image of a luminous point, and hence the position and size of the image of an extended object, produced in a plane mirror, can be found by a simple *Geometrical construction*: Draw a perpendicular from the luminous point to the mirror and produce it until its length is doubled.

The image of an object is built up of the images of the several points forming the object.

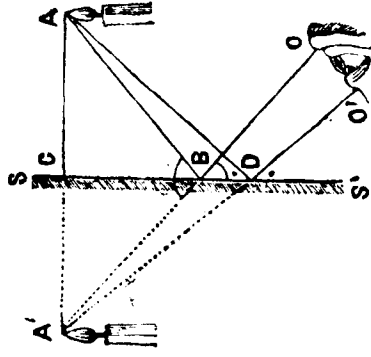


FIG. 16.

To find, by Geometry, the position of the image, draw from the luminous point A, two rays AB and AD to meet the reflecting surface SS' at B and D. These incident rays are reflected along BO and DO' respectively and appear to diverge from A' which is the image of A. From A drop a perpendicular AC on SS' and produce it to meet OB produced at A'. By comparing the triangles ABC and A'BC or ADC and A'DC, AC may be shown equal to A'C.

Note:—

(1) A plane mirror is a *flat* reflecting surface, or, a smooth, polished and perfectly plane surface.

(2) The image of a point in a mirror is a corresponding point from which the rays of light *diverge* or *appear to diverge* after reflection from the mirror.

The point from which they *actually diverge* is called a *real image*; and that from which they *appear to diverge* is termed a *virtual image*:

Real images of self-luminous objects can be caught on a screen.

(3) *Parallax method* :—

Generally, the position of an ordinary object is judged by the eye by 2 methods:—

(a) *The apparent size*: Here, we are able, with our accumulated experience, to estimate accurately the actual distance of an object, by the angle it subtends at the eye.

(b) *The stereoscopic method*: In this case, if we can see the object with *both eyes*, we can estimate its distance by the convergence of the axes of the eyes.

In addition to the above methods, the distance of an object can be estimated to some extent, by a *change in the accommodation of the eye*:

When an image is formed by a mirror or lens, most of these methods fail us, for various causes such as the small size of the lens or mirror, and the difficulty of dissociating the image from the

To determine the position of the image *experimentally*, two methods may be employed.

(1) *Sighting method*:

Draw a line AB on the paper and place a plane mirror vertically so that the line coincides with its silvered surface. Stick a pin Q at 5 or 6 cm. before the mirror. Insert a pair of pins P_1 and P_2 in such way that they seem in a line with the image q of Q, i.e., on looking along $P_1 P_2$, P_1 appears to hide both P_2 and q . Similarly, insert another pair of pins P_3 and P_4 . Remove the mirror and the pins, join $P_1 P_3$ and $P_2 P_4$, and produce them to meet at q' . Measure QR and qR , and observe that Qq is bisected at right angles by AB.

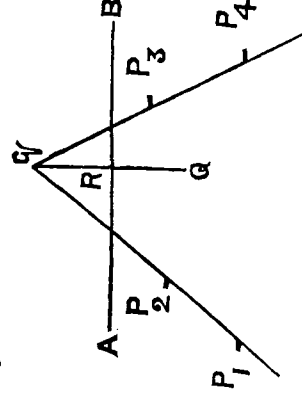


FIG. 17.

(2) *Parallax method* :—

Place the mirror and the pin Q as before. Looking in the mirror *nearly normally*, with the eye at such a height that only the lower part of the image of Q is visible in the mirror, stick a long pin Q' behind the mirror, so that the upper

part of this pin may seem to be a continuation of the image q of Q. Q' is now on the line joining the eye and the image q , and may be in front of or behind q . To ascertain this, move the eye to the right as far as the mirror will allow. If Q' is still appears to be the continuation of q , it is so placed as to coincide with q exactly; if it be found to separate from q , Q' should, by repeated trials, be so placed that, wherever the eye be placed, Q' and the image of Q will appear continuous. The distances of Q and Q' from AB will, on measurement, be found equal and Qq' will cut AB at right angles.

Suppose an observer stands before a window and two objects, say two retort stands are placed in a line between him and the window; when he moves to the left, both the retort stands will appear to move across the window to the right, but by different amounts, the retort stand which is further moving less to the right than the nearer one; considering the retort stands alone, the further one is now *apparently* to the left of the nearer one. Thus, if there be two objects at different distances from the observer, the further object of the two will appear to move, *relatively to the nearer, in the same direction as the observer*. If one is vertically over the other, the two will appear in the same straight line, in all directions of view.

This rule should be firmly impressed on the memory of students.

Reflection from Transparent bodies

Transparent substances like window panes and the surface of clear, still water do, under certain circumstances, act as reflectors.

This phenomenon coupled with the laws of reflection explains the so-called ghost experiments and wonders such as, 'candle burning inside water,' the 'talking-head' (vide Fig. 19), 'the figure suspended in mid-air' and 'the stage ghost.'

Vide 'Practical Exercises in Light' by Clay. A Class Book of Physics' by Gregory and Hadley.

The students may, with advantage, be asked to draw the images of numerals and letters like 3, 5, 9, E, G and W.

Note:—
The reflecting power is different in different reflectors; and with the same reflector, it varies with the angle of incidence of the rays; e.g., if a sheet of foolscap is held near a flame and looked at *obliquely*, an image of the flame can be seen. At an angle of 40° , the surface of water reflects 22 out of 1000 incident rays, while, at an angle of 89.5° , 721 rays, the remaining rays being either *reflected irregularly* or *absorbed* by the medium.

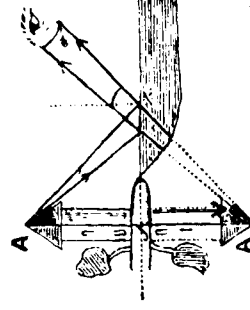


FIG. 18.

In these cases, the objects are *strongly* illuminated, and their images are formed by reflection in *clear* glass that is *unobserved* by the spectators.

(a) The images of persons sitting in a tram-car or a railway carriage might be seen in the glass panes of the car or carriage, especially at night, when the interior is brightly illuminated.

(b) If you look obliquely at a window pane of a room or shop, not only are objects inside the room seen through the glass, but the images of yourself and other objects outside appear among the *real* objects inside.

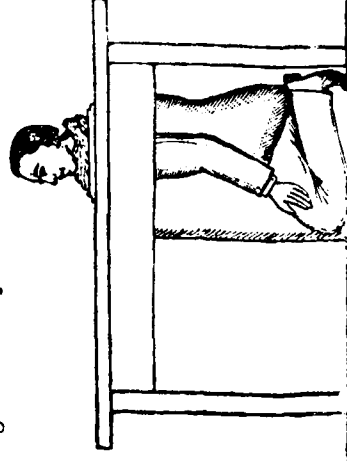


FIG. 19.

A lighted candle is held close to an ordinary looking-glass made of thick plate of glass and quicksilver on the back. A person looking *obliquely* into the mirror sees many images of the candle. Why? Also illustrate by diagram.

The students might observe the number of images and their arrangement for different inclinations of mirrors, say, 30° , 45° , 60° , 75° , 90° , and 120° , and verify the truth of the general formula.

* Inclined Mirrors;
Multiple Images.

When an object is placed between two mirrors inclined at an angle, more than one image will be seen, the number of images increasing as the angle decreases:

i. It can be proved, by means of diagrams and experiments, that the integral number of images is $\frac{360^\circ}{\theta} - 1$, where θ is the angle between

the mirrors: The images are arranged symmetrically along the circumference of a circle described about the intersection of the mirrors as centre.

ii. *Parallel mirrors.* If the mirrors are parallel, the number of images will be *infinite*, if the luminous source were *sufficiently bright*, and the mirrors of *perfect polish*. *Practically*, however, the distant images become faint, on account of loss of light, so that only a small number can be distinguished.

This phenomenon can commonly be seen in temples and the houses of men of wealth and fashion.

Kaleidoscope.

An optical toy invented by Sir David Brewster:

Principle: An object placed between 2 mirrors inclined at 60° , produces 5 images.

Construction: 2 strips of mirrors (sometimes 3) are placed in a tube, inclined to each other at 60° ; one end of the tube is closed by a disc of ground glass: Between this and a disc of plane glass, pieces of bright coloured glass and beads are placed. This end is held to the light and the observer looks in at the other end through a small hole.

The coloured pieces of glass produce symmetrical images, the arrangement of which changes as the tube is turned and different coloured patterns are seen.

Students may exercise themselves at representing the formation of images by geometrical construction.



FIG. 20.

A. VARADACHARIAR.

SECONDARY SCHOOL-LEAVING CERTIFICATE SCHEME.

THE STUDY OF VERNACULARS AND SANSKRIT.

The following memorial of the teachers, parents and guardians of the students belonging to the various educational institutions in Madras has been adopted at a recent public meeting:—

1. That the grouping of the subjects for the Secondary School-Leaving Certificate Scheme, coupled with the options allowed to the students, operates as a discouragement to the study of the vernaculars of the Presidency and, in an even greater measure, to the study of Sanskrit or Persian.

2. That most students, having to choose between these languages and such subjects as Mathematics, Physics or Chemistry, are apt to show no preference for the former, and that these languages will therefore continue to be neglected so long as they are not included in the obligatory portion of the course of study.

3. That your memorialists are informed and have reason to believe that several institutions in the mofussil and one large institution in Madras have ceased to provide for the teaching of these languages and literatures,—an omission, which, if allowed to become general, must seriously impair the soundness of our educational system and its capacity to impart well the basic elements of culture and citizenship.

4. That while the inclusion of vernacular composition and translation in the A Group secures some little attention to the vernacular languages, it cannot be, and, if any inference may be based on the practice of the schools so far, is not likely to prove a guarantee that the vernacular languages are thereby encouraged to be taught as they should be.

5. That Sanskrit, which does not enjoy even this partial advantage in the present scheme, was brought up at the recent public examination only by about 800 candidates, the number that used to be examined in previous years in that language in the Matriculation examination being about 2,000; and that as the full effect of the new scheme begins to be felt, even this number of 800 is very likely to be materially reduced.

6. That your memorialists, while wishing that Sanskrit and the other classical languages studied in India should receive better recognition in the

Secondary School-Leaving Certificate Scheme, are convinced that no Indian student should be allowed to neglect altogether his vernacular on the ground that he learns a classical language, and hence consider it necessary to test the knowledge of the vernacular possessed by such students as take up Sanskrit or any other classical language by including in Group A translation from such language into their respective mother-tongues as an alternative for the vernacular composition and translation in that Group. To make sure that this translation-test really secures the object kept in view, it should be made known distinctly that, in the valuation of this translation from a classical into a vernacular language, fully as much weight will be attached at the vernacular handwriting and spelling and simplicity and accuracy of expression as to the faithfulness with which the meaning of the original is brought out in the translation.

7. That your memorialists pray that Sanskrit and other classical and foreign languages and the Indian vernaculars may be transferred from Group C of the scheme to Group A so that their study in the Secondary Schools may be stimulated to some extent by bestowing on them the prominence which a public examination carries with it.

8. That, if it be feared that the transfer above suggested might make the public examination more heavy or more important than is consistent with the nature of the Secondary School Leaving Certificate Scheme, these languages may be transferred to Group B at least, which includes subjects expected ordinarily to be taught in Secondary Schools.

9. That your memorialists are aware that no subject of study is, in the strict sense of the word, compulsory in the present scheme for the award of Secondary School Leaving Certificates, and that it is theoretically possible for schools to neglect these languages even when included in Group B; but your memorialists are fully persuaded that should their prayer be granted, the Department of Public Instruction will carry out the policy, and intention of Government by exerting its authority and influence in favour of these languages in the same manner as it does in favour of Indian History and Elementary Science.

10. That your memorialists trust that the change prayed for will not add materially to the burden of the candidate. If, however, it be found to do so in actual practice, your memorialists have no doubt

that the School Leaving Certificate Board will, in the light of experience, effect a proportionate lightening of the courses prescribed for the various non-language subjects in Group C.

LAW EXAMINATIONS.

To

THE EDITOR OF
THE MADRAS EDUCATIONAL REVIEW,
Madras.

SIR,

Comments have appeared in the Press on the deplorable results of the B. L. Examination in Constitutional Law, I wish to draw public attention to the equally bad results of the F. L. Examination in Roman Law. The Examiner in both the subjects is understood to be the same learned gentleman. The results of the two examinations are compared below:—

	B. L. Constitutional Law.	F. L. Roman Law.
Total number examined ...	315	486
Number ploughed in the subject alone ...	38	73
Number ploughed in it and other subjects combined ...	115	121
Total ploughed ...	153	194
Percentage to total examined ...	48	40

While the failures in Constitutional Law alone work up to 16 % of the total failures in B. L., the number failed in Roman Law alone is 24 % of the total failures in F. L.

The number failed in other subjects of the F. L. Examination are:—

(a) Jurisprudence	11.
(c) Contract alone	11.
(d) Torts alone	27.

Compare these with

(b) Roman Law alone	73.
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From the above figures the severity of the examination in Roman Law is apparent.

It is a striking circumstance that the largest failures in the two examinations should be due to the same Examiner.

It is really cruel on the part of the Syndicate, or the Faculty of Law, or whosoever might be responsible, to put so many students under the mischievous idiosyncracies of one Examiner. A duty lies on the Senate also to bring its influence to bear on the body responsible, so that no opportunity may be given again to the gentleman to slaughter the innocents. The proper field for his talents is the Bar and the Law and Juristic Journals.

Such failures would not be felt so much if the examinations were more frequent than once a year. In Europe a student who passes in a few subjects of the examination and fails in the rest is exempted from re-examination in the former. And for passing the latter he need wait only for 3 or 6 months. This system is adopted in this country for the Lower and Higher standard examinations of the I. C. S. But nobody considers or at least tries to alleviate, the crushing hardships inflicted on the whole lot of University and other examinees by the existing system. Can it be that the Examiners and those that frame the Regulations desire to keep down new admissions to their own profession as far as it lies in their power.

As Burke observes somewhere, no law will be beneficent that is made by Legislators who are not affected by it in their private capacity. If those that are responsible for the laws and regulations of this country, should be affected by them personally or in their children, there will not be so many serious flaws to complain of in them as there are now.

INTERESTED.

Reviews and Notices.

MODEL LESSONS IN THE HISTORY OF INDIA FOR LOWER CLASSES—(Re. 1); FOR HIGHER CLASSES—(Re. 1-4). MACMILLAN & CO., LTD.

The author of these two good books on the History of India prefers to be anonymous. These books are not so much histories as guide-books in the method of teaching the subject. Their aim is distinctly pedagogic and the author has within certain limitations succeeded in illustrating and inculcating precept by example. The body of the text contains instructions to teachers which would help them to elicit facts as far as possible from the boys themselves, to help their pupils to construct outlines of history, outlines of time, sketch maps, etc. The teacher who follows the instructions and moulds his teaching accordingly will make his pupil an "agent rather than a mere recipient in the process of instruction," reduce the tax on his mind and memory, call in hand and eye as aids to brain by constant employment of ocular demonstrations and manual activity. One redeeming feature of the books which ought to commend them to Indian teachers is the fact that the lessons do not confine to Indian History alone. Topical lessons are introduced which may serve to give a few ideas of general history. Part I and II of these books are intended for teachers in Primary and Lower Secondary Schools and in these, the picturesque side of History is dealt with as more likely to attract pupils' attention. Parts III and IV complete the gaps left by the first two parts and in these parts the conditions of modern India received more attention than in text-books of ordinary type. We feel however the books are capable of improvement in some important respects. The map in page 111 of the senior book indicating the trade routes to India is very disappointing. Sentences like the following show the books are wanting in thorough accuracy here and there. "There are four High Courts (in India) some of the Judges of which are appointed by the King of England; several of these Judges are Indians."

A FIRST BOOK OF GEOMETRY, BY J. V. H. COATES. (MACMILLAN & CO.)

The book is a very attractive little book with neat diagrams and anybody will be delighted to read it. It is a first introduction to Geometry and covers Euclid's first book and third book 1-32. The fundamental geometrical concepts are led to through judicious oral questioning and easy practical exercises; and short proofs of propositions are indicated. The special feature of the book is the play-ground and field-work given in Chapters III and X. Any one who wishes to be introduced to the elementary notions in Geometry will find the book a useful and instructive one.

A NEW GEOMETRY, BY BAKER AND BOURNE. (BELL & SONS.)

The authors are well-known to the mathematical world for their excellent books on Elementary Mathematics. The book before us is quite as good as the previous publications of the authors. This is a shorter and more condensed book than the ordinary books on Geometry; and to those who have gone previously through some practical and experimental Geometry, it will be found to be a useful introduction to formal Geometry. The introduction to "the theory of parallels" is very good. Propositions are taken in groups and unnecessary and silly exercises and other useless details are avoided. The book will be found to be a suitable text-book to students bringing up Geometry and Algebra of Group C in S.S.L.C. Scheme. The get-up of the book is very good and it is also priced cheap.

A STUDY OF WORDS, BY E. M. BLACKBURN, M.A. (MESSRS. LONGMANS, GREEN & CO.) 3s. 6d.

Those who recall the impression produced on them, by their first reading of *The Study of Words* of Archbishop Trench will be able to appreciate the pleasure afforded to young minds by the acquirement of a knowledge of derivation. The task of tracing every word to its earliest sources cannot hope to command wide sympathy unless there is a strong element of picturesqueness and

vivid interest attached to the origins. It is not the ordinary word whose derivation makes any impression on the student, but words which are either poetic in their source or have a long history compressed in them. Mr. Blackburn has done well in bringing out a glossary of such words with the necessary notes. The aim of the compiler has been to select such material as seems calculated to help young minds and furnish food for thought and he has been quite successful in the work.

But we are afraid that there have occasionally been words of no peculiar interest creeping into the list. It is difficult to see how the compiler hopes to furnish 'food for thought' by a note like this: '*Avidity* from Lat. *avidus*, eager.' We fail to see how a word like *joyial* could have escaped Mr. Blackburn's attention. The following note is certainly inadequate for the word *Paladin* especially to the elementary student for whom the work is intended: '*lit.* a knight of the palace,' 'one of the twelve knights of Charlemagne's court.' The usefulness of Mr. Blackburn's book might have been enhanced by cross-references, as they would aid the student in associating similar words. Under *heathen*, there might have been a reference to *pagan* and *vice versa*. An occasion might have been availed of for grouping together words of similar origin—*saturnine*, *mercurial*, *disastrous*, *influence* and *joyial* reference to the absence of which has been made already, might have been conveniently suggested in one place. We do not propose to be hypercritical, but why is the word *humour* dismissed with such scant attention: 'Fr. *humour*, Lat. *humor*, 1. moisture; 2. one of the four bodily fluids, i.e., blood, phlegm, choler, and black choler, which were supposed to determine a person's temperament'? A lexicon cannot probably afford to indulge in a longer note but Mr. Blackburn's book is a *Study of Words* and our demand will certainly be considered not very severe.

We have however great pleasure in recommending Mr. Blackburn's book to teachers of English in this Presidency as it is one of the few good books relating to this line of study.

Indian Educational Notes.

MADRAS.

Departmental Notifications.—Mr. R. Littlehales, Inspector of European and Training Schools, combined privilege leave and furlough for twelve months and twelve days from or after the 23rd October subject to arrangements for his relief.

The following gentlemen are to be Ordinary Fellows of the Madras University:—

Surgeon-General W. B. Bannerman, M.D., I.M.S., Officiating Surgeon-General with the Government of Madras.

Lieutenant-Colonel G. G. Giffard, M.R.C.S., L.R.C.P., I.M.S., Professor Midwifery, Medical College, and Superintendent, Maternity Hospital, Madras.

The Acting Director is pleased to grant privilege leave to Mr. M. Hanumanta Rau, Sub-Assistant Inspector of Schools, Markapur Range, for one month with effect from the date of his availing himself of it, and to appoint Mr. G. N. Ramanatha Aiyar, Supervisor of Elementary Schools, Cumbum, to act for him in the probationary class in addition to his own duties during the absence of Mr. M. Hanumanta Rau on leave or until further orders; and to Mr. C. O. Mahomed Koyee, Sub-Assistant Inspector of Schools, South Mappilla Range, sub *pro tem*, privilege leave for two months, with effect from the date of his availing himself of it and to appoint K. Kunchi Ahmed, Supervisor of Elementary Schools, Ponnani, to act for him in the probationary class during his absence on leave or until further orders.

The Acting Director is pleased to make the following appointments:—

Mr. L. Venkatasubba Aiyar, Sub-Assistant Inspector of Schools, Mannargudi Range, to act as Sub-Assistant Inspector of Schools, Mayavaram Range, *vice* Mr. T. A. Swaminatha Aiyar on other duty or until further orders—to join expeditiously on relief.

Mr. V. Vembu Sastri, Head Clerk, Office of the Inspector of Schools, Fifth Circle, and Acting Head Clerk, Office of the Inspector of Schools, Fourth Circle, to act as Sub-Assistant Inspector of Schools, Mannargudi Range, in the probationary class, *vice* Mr. L. Venkatasubba Aiyar—to join expeditiously.

Mr. P. Virraju Pantulu, Sub-Assistant Inspector of Schools, Vizagapatam Range, to act as the Sub-Assistant Inspector, Ganjam-Vizagapatam Girls' Range, in the third class, *vice* Miss A. de Rozario on other duty or until further orders.

Mr. V. Tarakabramham, Sub. *pro tem*. Supervisor of Elementary Schools, Cocanada, to act as Sub-Assistant Inspector of Schools, Vizagapatam Range, in the probationary class, *vice* Mr. P. Virraju Pantulu,—to join expeditiously.

Mrs. A. M. Srinivasa, Third Assistant Inspectress, Kistna-Guntur Girls' Range, and acting First Assistant Inspectress to act as Inspectress of Girls' Schools, Northern Circle, *vice* Mrs. Rhenius on leave.

Miss M. A. Jupe, Sub-Assistant Inspectress, Tinnevely Girls' Range, and Acting Third Assistant Inspectress, West Coast Girls' Range, to act as First Assistant Inspectress in the West Coast Girls' Range, *vice* Miss Patterson on other duty.

Miss A. de Rozario, Sub-Assistant Inspectress, Ganjam-Vizagapatam Girls' Range, to act as Third Assistant Inspectress, Kistna-Guntur Girls' Range, *vice* Mrs. Srinivasa on other duty.

Mr. M. Seshagiri Prabhu, Vice-Principal, Training School, Rajahmundry, will be considered to have held permanently, without prejudice to the officiating appointment held by him, the post of First Assistant of the Teachers' College, Saidapat, from the 1st March to the 13th June 1911, *vice* Mr. Subrahmanya Aiyar Avargal retired.

Mr. A. Ganthrie is to be Leather Expert from the date of his joining the appointment.

Mr. T. A. Swaminatha Iyer, Sub-Assistant Inspector of Schools, Mayavaram Range, is to act as Assistant Inspector of Schools, Coimbatore District, *vice* Mr. V. R. Venkatarama Iyer on leave or until further orders—to join expeditiously after handing over charge to the Supervisor of Elementary Schools, Mayavaram.

Mr. V. C. Srinivasachari, Sub-Assistant Inspector of Schools, Cuddalore Range, will be considered to have acted for the Sub-Assistant Inspectress, South Arcot-Tanjore Girls' Range, in the third class, in addition to his own duties from 1st June to 25th July 1911, both days inclusive.

Secondary School Leaving Certificates.—The Hon'ble Mr. J. H. Stone, M.A., F.R.H.S., Acting Director of Public Instruction, Madras, addressed the Government as follows on the 17th June, 1911:—Under Article II (2) of the scheme for the award of Secondary School Leaving Certificates, sanctioned in G.O., No. 427, Educational, dated 21st July 1909, candidates for the certificates are required to have attended each of the fourth, fifth and sixth forms for not less than 60 per cent. of the number of working days in each term and for not less than 120 working days in each school year. It will be seen that the effect of this rule is to make a pupil lose a whole year if he falls short by even a single day of his attendance of 60 per cent. of the working days of either term. This, it appears to me, is unnecessarily stringent and I think that some deficiency of attendance as reckoned by terms might be considered atoned for by a considerable excess of attendance above the minimum as counted by the year. The Board for the award of Secondary School Leaving Certificates agrees with me and has recently passed a resolution to the effect that a pupil who has

attended for not less than 150 working days in the school year should be considered to have put in the necessary attendance for admission to the public examination, although he may have attended for less than 60 per cent. of the number of working days in one or both of the terms comprising that year. I have the honour to recommend that the resolution of the Board may be approved and that Article II (2) of the scheme may be amended as shown in the draft notification submitted herewith in duplicate.

GOVERNMENT ORDER.

The proposal of the Director of Public Instruction has been approved by Government and the following notification is published in the *Fort St. George Gazette*:—

NOTIFICATION.

For Article II (2) of the scheme for the award of Secondary School Leaving Certificates published in Part IB of the *Fort St. George Gazette*, dated 27th July 1909, substitute the following:—"have attended each of the fourth, fifth and sixth forms either for not less than 60 per cent. of the number of working days in each term and for not less than 120 working days in each school year, or for not less than 150 working days in each school year."

Admission into the Intermediate Class under the New Regulations.—The Syndicate of the University of Madras has called for reports from the Principals of First and Second Grade Colleges in the Presidency as to the principles by which they were guided in admitting holders of the new Secondary School Leaving Certificates into the Junior Intermediate Class of the current year. The essence of the new scheme is the latitude given to Principals in the matter of admitting students who may be able to show a record of good work done during the three years prior to the granting of the certificate. The Syndicate will soon, it is believed, formulate certain rules to be observed by heads of Colleges in this respect. The real extent of the difficulty now experienced by holders of School Leaving Certificates in joining Colleges will only be known sometime hence. But that such difficulty may happen in an increasing degree is certain. In the United Provinces, this has been experienced for the last few years by Matriculates. Information, we are told, of a College being full was frequently received so late that there was no time for the applicant to find another College before the course began. They had no means of knowing what Colleges had vacancies. There was thus felt the necessity for the provision of a bureau where intending students could obtain the requisite information. The Allahabad University were addressed on the subject and they have caused the following circular to be issued to Principals of affiliated Colleges:—"With reference to this office circular No. 32 of 1909, the undersigned has the honour, under direction of the Hon'ble the Vice-Chancellor, to request that at the beginning of each term Principals of

Colleges will report to the Registrar of the University probable vacancies in the various classes of their Colleges and also instances in which students have been refused admission on account of classes being full. This will enable the undersigned to inform students, who have been so refused by one College, of vacancies existing in other Colleges. His Honour the Chancellor is strongly in favour of this system, and it is therefore urged that Principals will kindly do their best to give their prompt and careful attention to this matter. The necessary information should be sent to the undersigned as soon as possible after the Colleges reopen after the vacation.—M. V. G. COLE, Registrar."

Exemption from production of Attendance Certificates.—The Syndicate has been hitherto recommending exemptions from the production of attendance certificates required for the B.A. Degree Examination under the old Bye-laws to candidates who would have been eligible for exemption under Bye-law 150 (c) provided they will have completed their *twenty-fifth* year before the 20th March preceding the examination. In modification of this procedure the Syndicate has now resolved that in reference to the B.A. Degree Examination to be held under the old Bye-laws in the years 1912, 1913 and 1914, it be prepared to recommend such exemptions to the Senate in the case of candidates who will have completed their *twenty-third* year before the 20th March preceding the Examination. The attention of the public is drawn to this concession to students who wish to appear for the B.A. Degree Examination under the old Bye-laws.

The late Mr. Ashe, and the Board High School, Amalapuram.—On the occasion of the Prize-distribution of the Board High School, Amalapuram, on the 12th inst. with Mr. E. P. Walsh, I.C.S., in the chair, Mr. Ganti Lakshman, High Court Vakil, and Vice-President, Taluk Board, Rajahmundry, offered to found a medal styled "The Ashe Memorial Medal," of the value of a gold mohur to be given every year to the VI Form student of the said school who scores the highest marks in English.

The appropriateness of the medal is significant in many ways: *First*, it is founded in a district where Mr. Ashe was a very popular Collector, and endeared himself to the people, especially during the *Pushkaram* festival about three years ago by his kind and sympathetic attitude to the pilgrims that flocked to Rajahmundry in tens of thousands. *Secondly*, it is started in an institution under the management of the Local Board under his control, he having been the President of the District Board. *Thirdly*, it is to be awarded for proficiency in English, a subject in which the late Mr. Ashe won the prize at Oxford in successive years. And *fourthly*, it is offered by a gentleman, who was an *alumnus* of the institution having matriculated from there, and who is now officially connected with it in

his capacity as the Vice-President of the Taluk Board.

The school is thankful to Mr. G. Lakshman for giving it the privilege, though a melancholy one, of perpetuating the dear name of the outraged gentleman in a fitting and substantial manner, calculated to improve the cause of education.

Report of Mr. J. A. Yates, Principal, Kumbakonam College.—The report of Mr. J. A. Yates, Acting Principal, Government College, Kumbakonam, on the working of that institution during the fifteen months ending with March last, affords interesting reading. Mr. Yates is known to be a sympathetic educationist who takes great interest in his students and is liked very much by them in consequence. He is, moreover, also known for his advocacy of the status and position of teachers in Southern India. We are sure that under his able management, the College would regain some of its popularity. In reporting the death of the former Tamil Pandit of the College, Mr. V. M. Satagoparamanuja Chariar, the Principal, writes: "He was connected with this College as Tamil Pandit for a little over seven years. He was one of the ablest of Tamil scholars and his work in this College, as evidenced by the excellent results produced year after year at the University examinations, was much appreciated." The strength of the College declined from 197 at the close of the calendar year 1909, to 127 at the end of the period under report. The class which suffered most was the Junior Intermediate, and this was due to the poor results of the Matriculation examination of last year. The strength of the current year ought to show a considerable increase, especially in the Junior Intermediate Class, the test of admission to that class being the progress as recorded in the School Leaving Certificates of candidates. As many as 117 students came from the Tanjore District, and with the exception of a single student from Chingleput, no student was told, either in the Junior B.A. Class or the Junior Intermediate Class came from outside the Tanjore District. These facts demonstrate unmistakably the extent to which the College caters for the aspirants to higher education in the district of Tanjore. The Principal complains that the matter of providing additional accommodation for the laboratory and for other classes has not received adequate attention. The hostel attached to the College was working satisfactorily, the average strength being 32. The Principal states that the tone and discipline of the students were excellent and a feature, which is commended by the Hon'ble Mr. J. H. Stone as 'a novel feature of considerable interest in student life,' is thus described by Mr. Yates:—"M.R.Ry. Venkateswara Aiyar (Sub-Warden and Assistant Lecturer in the College) took considerable interest, under my instructions, in extending and improving the hostel garden. He brought his personal influence to bear on the boarders and roused them to keenness in gardening during their recreation hours."

The Noble College, Masulipatam.—The annual prize-distribution of the Noble College and High School was celebrated on Saturday, the 19th instant, with Mr. H. L. Braidwood, I.C.S., Collector, Kistna, in the chair. Mrs. Braidwood distributed the prizes to the successful students. After the distribution of prizes, the Chairman delivered a speech in the course of which he said:—

"Ladies and Gentlemen:—In the first place, I have much pleasure in offering very sincere and hearty congratulations on behalf of myself and the other visitors to the Principal and the College staff on the very satisfactory report which has just been read to you by the Principal. I think, the fact, in spite of certain alterations in University and School Regulations, that the College and the School had produced good and praiseworthy results, is indeed a matter for congratulation. It seems, I think, that the College as an institution, is full of vigour and vitality and in spite of the enervating and unhealthy climate of Bandar, the staff as well as the students have been doing their work thoroughly and energetically. I may especially mention the fact that the strength of the College has risen to a great extent, in spite of some increase in the fees. That I think would be a matter on which the Government would be very much pleased, because criticisms had been very freely made when the fees were raised that it would be a death blow to higher education.

Then there is another point for congratulation. We have seen buildings springing up to provide additional accommodation wherever necessary. This is especially a matter of congratulation in the case of hostel, as our Principal has told us, that there will be good accommodation in the course of few months for a considerable number of pupils. Another point for congratulation is the success of the Noble College in the competition for *Atkinson's Tennis Cup*. This clearly shows that the physical side of education has not been unduly neglected. It is customary on these occasions for the Chairman to offer a few words of advice to the students. The Principal has quite rightly emphasized the importance of the Christian teaching in connection with this institution. Of course, as we know, a large number of students, perhaps a great majority are not Christians. I don't think that anybody would deny the fact that this is an institution bearing the motto of inculcative Christian principles and that those who are not professed Christians, will have gained some advantage from the existence of this institution in this town in moulding their own character. It is truism to say that success in life depends upon character. In fact when we talk of success in life in a moment we can mean that a man has lived a life in which he has been useful to himself and his country successfully. To make the students who leave the College useful to themselves and to the world is the excellent motto of the Noble College and High School and the spirit of Christian teaching it imparts.

I remember a distinguished public servant saying that he did not work to satisfy his masters but to satisfy his own conscience because he knew the kind of work which he has to do. I hope that you, students, will satisfy yourselves by paying devoted and careful attention to your studies. I do not think that there is anything more I need say on that subject.

In conclusion I must offer thanks on behalf of Mrs. Braidwood and myself to Mr. Penn and the College staff for having been so kind as to ask us to assist on this occasion and it is a great pleasure to do so and I think a great pleasure to have an opportunity of saying something on this occasion."

The meeting terminated with a hearty vote of thanks to the chair.

The Madras Engineering College—The Madras College of Engineering did good work last year. A striking feature was that the number of students on the rolls on the last day of the year was 272 as compared with 213 in 1909 and 256 in 1908. It may be remembered that at the end of year before last, there was an outcry against the then proposed restriction in the number of students. The results of the sessional examinations were very satisfactory, while those of the University examinations were disappointing. Seven students of the senior divisions of the engineer class, six students under practical training and ten ex-students appeared for the B.E., but only five passed, three in the mechanical branch and two in the civil branch. There were 35 students for the F. E., of whom only nine were successful. Apparently, the severity which characterised the Law Examinations of the Madras University was extended also to the engineering examinations. In his report, the Principal of the College states that it is now fairly certain that, under the new University Regulations, the College will not obtain the students it requires and that he is accordingly addressing the Director of Public Instruction separately on the subject. Of the total number of students last year, 79.4 per cent. were Brahmins, while non-Brahmin Hindus formed only 4.3 per cent.

Religious and moral instruction—Mr. C. P. Ramaswami Aiyar, High Court Vakil, delivered a lecture, in the Kellett Hall, Triplicane, on "Religious and Moral Instruction" in Schools and Colleges, when the Rev. J. M. Russel was in the chair.

Mr. Ramaswami Aiyar being introduced by the Chairman, said that the subject on which he was going to speak was one of his own choice. There was no question more pressing and urgent at present than the question of religious and moral instruction in Schools and Colleges. He chose that subject in the hope that any discussion on it might stimulate and awaken interest in it. Was this instruction necessary or useful? Was it to be imparted in Schools and Colleges or to be left to be

given at home? What was the method by which such instruction should be imparted? Should it be direct or indirect moral teaching? Should doctrinal matters be omitted or not in such instruction?

Before dealing with these questions he gave a general view of the history of the subject. Formerly education in India was not known or conceived except as an aid to religion or ethics. It was so in England till 1870. With the introduction of English education in India there came a change. Since the time of Lord Macaulay English education had been secular and non-ethical. With the introduction of Western education in India new ideas also crept in. The results were some desirable and some undesirable. The danger of the present system of instruction was felt and the question was whether this state should continue any longer or whether instruction should be given along certain ethical channels. Unfortunately this subject had taken a political turn. The discussion was started by Valentine Chirol in the *Times*. He and several others had dealt with this question as a kind of political expedient. Even in the minds of Government there lurked the doubt that the unrest was due to the lack of ethical and moral teaching in schools. Apparently the Government were of opinion that if some system of religion and ethics was taught in Schools and Colleges it would be a valuable political asset and have a counteracting influence against the present tendency. It was assumed on the one hand that religion alone would hold the fabric of the Society together and could not be loosened without danger to the State. It was further assumed that it was a political expedient to put down sedition. On the other hand it was contended that such instruction would split up the Indian community into a greater number of subjects and castes than it had already done and would produce greater diversity and hinder that solidarity which it was the aim of India now to achieve. It was further contended that the present was an attempt to make India a nursery ground of religious differences and animosities and the introduction of social strife. Both those sides were apt to exaggerate in this matter. They should dissociate themselves from the political aspect of the question and consider the subject from the point of view of efficient schoolmasters in regard to their teaching.

Attempts were now made both in England and in India to introduce a system of moral education. A Moral Education League had been started in England. The Maharajah of Mysore had started in his State, religious and moral instruction on certain lines. Experiments were also made in Baroda. Movements in this direction had also been started by the Hon'ble Pandit Madan Mohan Malavaya and Mrs. Basant. In Madras recently, an appeal was made on behalf of the authorities of the Pachaiyappa's College for an addition to their funds, for the purpose of extending the religious and moral instruction in that College. What was then the method by which such instruction could be impart-

ed? There were two methods—the direct and the indirect instruction on religion or ethics should not form a portion of the school curriculum like history or geography, for it would then produce a revulsion of feeling. Direct instruction was likely to produce artificiality or priggishness. There would not be a healthy development of the faculties in the student. Text-books were absolutely of no use for the imparting of moral instruction. Moral instruction should be incidentally given in the teaching of literature or history, etc. Teachers should take occasion to point out the ethical ideas underlying each story or to illustrate the virtues of each particular person. In Japan they had a system of indirect moral teaching. Patriotism was defined to be the highest civic and almost religious virtue. Patriotism must be inculcated by taking the life of a hero, teaching it to the class and making students imbibe the virtue.

That was the only method likely to be successful in achieving the object.

The Chairman wound the proceedings of the meeting with a few remarks in the course of which he said that many of his young friends in Schools and Colleges had a very inadequate and erroneous conception with regard to such great questions as the question of liberty and so on. It was worthwhile trying to systematise as far as possible the moral instructions that were universally true.

BOMBAY.

Indian education on moral instruction.—In speaking of the need of moral instruction a writer in the *Indian Education* makes the following practical suggestions:—

(1) The accumulated effect of a series of lessons, and not that of an individual lesson should be observed. We cannot expect a boy to listen to a lesson, go home and bring the precepts into practice. The process must be slow.

(2) The class-room for moral instruction should have its walls decorated with the portraits of great men.

(3) Misconduct of boys should be noted down, and should be referred to during the course of a moral lesson when suitable occasions arise.

Increment of School-fees in Bombay.—The Bombay Government have decided to increase the present rates of fees, Rs. 2, Rs. 3 and Rs. 4, charged in Government schools in Bombay, by eight annas all round. It has further been decided to apply the same principle to schools in mofussil, namely, rupees two and half for the first three standards, rupees three and half for the fourth and fifth, and rupees four and half for the sixth and seventh standards. To help capable pupils, if of advanced communities, whose circumstances might render the payment of fees a hardship and the pupils belonging to backward classes a system of free studentship has been

adopted. The maximum limit of free studentship is ten per cent. of the total sanctioned number of students for each school and is to be divided equally between the poor students belonging to the advanced classes and those belonging to backward classes. The higher rates now sanctioned will produce a net increase in the revenue from fees, of about Rs. 50,000 per year and Government have already set aside a sum equal to the above amount for the development of secondary education. The new scale of fees will be introduced from 1st November, 1911 and aided schools are requested to adjust their fees to two-thirds of the new scale from the same date.

Scientific Library for Bombay.—Rao Sahab Vasanji Trikamji has generously placed at the disposal of His Excellency the Governor a sum of two and a quarter lakhs of rupees for the foundation of a Scientific Library in connection with the Institute of Science now being erected in Bombay, on the condition that the Library be called Vasanji Trikamji Mulji Library, and a marble bust of the donor with a suitable inscription be placed in a suitable position. The Government in a press note publicly thanks the donor for his generous benefaction.

Opening of a Girls' School.—Their Excellencies Sir George and Lady Clarke declared open the new building of the Sirdar Dastur Noshir Van Parsi Girls' High School on the 17th inst., and distributed prizes to the scholars. There was a numerous gathering of Europeans and Parsi ladies and gentlemen present and much interest was evinced in the work, both fancy and plain, of the school girls. Sirdar Dastur Kaikobad, High Priest of the Parsees of Deccan, welcomed Their Excellencies on behalf of the Managing Board, after which Khan Bahadur Mehor Hoshang Dastur, Honorary Secretary read a report, in which was set out the history of the school since its removal into its present handsome quarters. The new building, which cost nearly Rs. 50,000 was designed by Mr. Burjor Jamshed Aga, of the firm of Messrs. Saapurji Chaudabhoy and Co., Architects of Bombay, and to both Mr. Aga and Mr. Chaudabhoy, His Excellency presented gold watches and chain on behalf of the Board of Management.

The school which consists of two divisions, Vernacular and Anglo-Vernacular, has a total attendance of 216 pupils with seventeen teachers.

Bombay University—Boards of Studies.—At the meeting of the Bombay University Senate on the 9th instant consideration was resumed on the report of the Committee on the revision of the Arts course. Dr. Harold H. Mann moved 'that the regulations submitted by the Science Committee for the Intermediate, B. A. and M. A. examinations be adopted.' In a long speech Dr. Mann emphasised the importance of special Boards of studies. Three such Boards would be created, one dealing with Physics and

Chemistry composed of eight members, one dealing with Biology and Geology consisting of six members and the third dealing with Mathematics consisting of four members. The duties of these Boards would be to report annually to the Syndicate on the working of the practical courses and suggest modifications in them, to recommend new groupings of subjects and new subjects in various examinations, to suggest modifications of curriculum in the subjects with which they dealt, and to suggest changes in books specified as text-books or recommended for study. Dr. Mann then referred to the changes which were proposed to be made in the curriculum. There were a number of amendments against Dr. Mann's proposition. Some of these were withdrawn, while others were accepted by Dr. Mann and ultimately the proposition as amended by Dr. Mann was agreed to.

CALCUTTA.

Zemindary Training College—opened by Maharajah of Cossimbazar.—The Maharajah of Cossimbazar recently opened the Zemindary Training College at 15, Sircar's Lane, among a group of distinguished guests. Among those present were Sir Gurudas Banerjee, Hon'ble Rai Baikuntha Nath Sen Bahadur, The Hon'ble Babu Bhupendra Nath Bose, The Hon'ble Babu Rudra Charan Pal, Rai Yatindra Nath Chaudhuri, Babu Hirendra Nath Dutta, Babu Girish Chandra Bose (Principal Bangabasi College) Babu Prafulla Nath Tagore, Babu Sudhindra Nath Tagore, Mahamahopadhyaya Satish Chandra Bidyabhusan (Sanskrit College), Babu Suresh Chandra Samajpati, Babu Hemendra Prosad Ghose, Babus Hemendra Nath Sen, Siva Prasanna Bhattacharya, and Hira Lal Chakrabatty (Vakils), Babu Maumohan Bhattacharya, M. A. (Manager of Babu Brojendra Kishore Roy Chaudhuri), Babus Kuagendra Nath Mitra, Jadupati Banerjee, (Retired Sub-Judge, Nandadal Chaudhuri (Zemindar), Satyendra Nath Bose of the Bangabasi Babus Ashutosh Mullick, Sasibhusan Basu Mullick, Sub-Editor, *Hindu Patriot*.

The ceremony began with a neat little speech from the Secretary Babu Sailesh Chandra Majumdar, in which he dwelt on the needs of an institution like the present, and explained the object of the College. The object, he said, was to impart training in zemindary affairs, in order to fit the students for all sorts of zemindary work, from the post of a Mohurrir to that of a Manager. Several well-known lawyers including retired Sub-Judges and Vakils, have undertaken to give legal instructions, and several expert managers and surveyors have also consented to work. The Secretary also intimated that many eminent zemindars have agreed to consider the claims of the students of this College in making new appointments. Then the Hon'ble Rai Baikuntha Nath Sen Bahadur, Babu Suresh Chandra Samajpati, Rai Yatindra Nath Chaudhuri and Babu Siva Prasanna Bhattacharya offered some practical suggestions, after which the President declared the

College open. A vote of thanks to the chair was proposed by Babu Prafulla Nath Tagore and the President was garlanded by Sir Gurudas Banerjee. Light refreshments were served to the guests and the gathering then separated. The ceremony was a grand success.

ALLAHABAD.

Central Hindu College, Benares.—The following resolutions were passed at a general meeting of the Board of Trustees of the Central Hindu College held recently:—That, in view of the apprehensions in the public mind that there is some danger of the College being used for dissemination of doctrines which are not in consonance with its articles of association, the Board draws the attention of the Managing Committee to declare the objects of the institution,—namely, that the moral and religious training imparted in the College shall be in accordance with the Hindu Shastras, and trusts to uphold and enforce this principle and to prevent the putting forward within the institution of any propaganda that are not in consonance with it. Further, this meeting cordially approves of the principles stated by the President of the College in her letter published in the *Leader* on the 22nd April, namely, that such an order as that of the "Rising Sun," or "Star in the East" ought not to be joined by those who are in *status pupillari*, and re-affirms for general information the sense of its previous resolution on the subject. It is also stated by Mrs. Besant in the letter above referred to that religious teaching in this institution is and shall be strictly confined to the *Sanatan Dharma* text-books published by this Board; and it is recorded that this institution has nothing to do with the abovenamed orders. In view of legal difficulties involved in the draft resolution the Board is of opinion that the time is not ripe for taking any action in regard to the funds and property of this institution, but the Board desires to place on record its willingness to join hands with Mrs. Besant and the Hon. Pandit Madan Mohan Malaviya and to co-operate with them in all ways in promoting the establishment of a Hindu University at Benares, of which the Central Hindu College shall form an integral portion.

Another Hindu University Scheme.—The third Hindu University scheme has been launched by the Bharat Dharma Mahamandal, a body representing the strictly orthodox members of the Hindu community and numbering among its patrons a majority of Hindu Chiefs. The Mahamandal professes itself ready to co-operate with the supporters of Mrs. Besant and Pandit Malaviya's schemes, provided the "true" Hindu ideals are kept in view. The Mahamandal scheme dates back to the year 1902, when its members first began to busy themselves with the idea of establishing a Sanskrit University. In the scheme considerable importance is attached to Varnasram, that is to say the pursuit of hereditary professions and crafts by various castes,

this being according to the Mahamandal, the chief distinguishing feature of Hindu society. It would confine its energies mainly to the cultivation of Sanskrit learning. Instead of having Central colleges it would maintain colleges and schools at the seats of Hindu culture such as Benares, Nadia, Muttra, Etawah, Poona and Conjeevaram. The control of the school and libraries would be in the hands of a council, who would make arrangements for their upkeep and inspection. There are to be no fixed text-books for students electing to go in for the higher degrees and diplomas for proficiency are to be granted on the recommendation of a Board consisting of local Pundits, these including the teachers and professors under whom the candidates have studied. Finally, compulsion is to be avoided as far as possible in the curriculum. After a preliminary general course, every subject will be optional with the student, who will be at liberty to select one or more according to his taste and bent of mind.

HYDERABAD (DECCAN).

Moral Education in Hyderabad.—Mr. G. L. Fox Pitt, a leading member of Moral Education Society and the Honorary Secretary of "The Indian Moral Education Society" recently delivered an interesting lecture on "Moral Education" and also held a demonstration class. In both the meetings there were present among others, Mr. A. Hydari, the Home Secretary; Mr. Mayhew, the Educational Advisor; Dr. Sir-Jul-Hussan, the D. P. I. and most of the teachers of Hyderabad and Secunderabad. In the course of the interesting speech, Mr. Fox Pitt drove home the supreme importance of moral education in our schools and colleges. He said that, for the right conduct of the future citizens of India, they ought to be given some moral lessons from various sources. He further added that a teacher's work would be very pleasant, if in the course of his teaching, he takes care to enlighten the boys by illustrating the virtues of great men. In his demonstration lecture he narrated short stories to the boys and elicited their underlying morals from them. Both the boys and the audience were immensely benefited by his learned mode of instruction. Mr. A. Hydari, a prominent member of the Indian Moral Education Society, thanked the lecturer for his instructive discourse and said that the lecturer had laid the Hyderabad public under a deep debt of gratitude for his able treatment of the subject in so limited a time.

TRAVANCORE.

Revised scale of pay in Elementary Schools.—It will be remembered that last year the Travancore Government sanctioned a revised scale of pay of the staff of all the departmental Elementary Schools in the State. The Government have now passed orders on the proposals of the Director of Public

Instruction regarding the revised scale worked out Taluq by Taluq. The schools in Trivandrum, Nedamangad and Chirayankil have been reorganised and the additional expenditure involved is Rs. 1,437 per mensem. The Darbar have also sanctioned the revised fixed contingencies to the Sircar schools in the three Taluqs as also the Director's proposals regarding personal allowances to be given to certain teachers on account of their present pay being higher than the scale sanctioned for their appointments. Thirteen teachers have also to be discharged from service on pension.

The Baker Memorial School.—The annual distribution of prizes to the girls attending the Baker Memorial High School, Kottayam, took place recently, in the School Hall. Mr. A. T. Forbes, I.C.S., British Resident in Travancore and Cochin, presided, and Mrs. Forbes gave away the prizes. All the leading officials and other ladies and gentlemen of the station were present on the occasion. The President and Bishop Gill delivered interesting and appropriate addresses. The Revd. E. V. Joun addressed the girls in Malayalam. The annual report was very encouraging. The report over, the Bishop in an introductory speech expressed his pleasure in welcoming back the permanent Principal, the Revd. F. N. Asquith. He also welcomed the Revd. A. F. Turnbull, the new Vice-Principal, and spoke in high terms of his academic distinctions. His Lordship then went on to speak on the future aims of education. Education, as some one recently said, was filling the mind with great and good thoughts. This was done not only chiefly in the class-rooms, but in leisure hours, more effective work being done in a student's leisure hours than in the class-rooms. His Lordship then took an illustration from the play-ground. There is a saying that the Battle of Waterloo was won in the play-grounds of Eton. The noble qualities of self-control and self-discipline were formed in taking part in athletics. His Lordship exhorted the students to make the best use of their leisure time for the formation of character. The higher aim of education was not to go through the various examinations for honours, or to get certificates of merit, but to see to the happiness and blessings that exist in the world to come, and also to show a good example to others. In the course of the presidential speech, Mr. Forbes emphasized the remarks made by the Bishop and expressed his pleasure in the College students having won the football match as was evidenced by the silver cup placed on the table. He said that education consisted not only in taking in, but also in giving out. He expressed also his hope that the students would, when they go out in the world, be of service to their fellowmen. Before closing his speech, he eulogized the scholars and their teachers for the success attained by the school, and addressed to them words of encouragement to perform their respective tasks creditably and maintain the future progress of the College. He wished the institution

all prosperity. The interesting proceedings then came to a close by the singing of the National Anthem.

The Kottayam College Prize-distribution.—The annual distribution of prizes took place recently, under the Presidency of Mr. A. T. Forbes, I.C.S., the British Resident in Travancore and Cochin. The College Hall was crowded with European ladies and gentlemen, besides native officials, etc., of the station. Mr. Forbes, the Chairman, with Mrs. Forbes, was received by the Principal at the entrance of the Hall, which was neatly decorated for the occasion, and conducted to the dais. The Principal read the report for the year 1910-1911, which showed that the numbers on the roll stood at 588, of which 277 were in the High School, 219 in the Middle School, and 92 in the Primary School. Of these 446 were Christians and 142 Hindus. Mr. Asquith, in referring to the necessity of a Hostel for the Christian students and to lay water and gas on to the Science rooms, observed that Rs. 18,000 were required. It was very encouraging for him to note that the C. M. Society had been pleased to grant Rs. 8,100 and a collection had been made in England, at which Rs. 3,400 had been realized for the purpose.

INDIA (GENERAL).

The "Leader" on 'Raising Fees in Schools and Colleges.'—The number of Colleges for males in the whole of British India in 1909-10 was 174, an increase of 12 over the previous year. But the figure of 1908-9 was lower by 7 than that of 1907-8, and still lower by 4 than that of 1905-6, which again was lower by 2 than that of 1900-1. The number rose from 108 in 1885-6 to 133 in 1890-1, to 154 in 1895-6 and to 175 in 1900-1, but then began a set-back, and the figure of 1909-10 was still less than that of 1900-1. Do we see in these figures a fruit of the Curzonian policy? The number of Colleges for females steadily rose from 2 in 1885-6 to 12 in 1905-6, then it fell to 10, and again rose to 11 in 1909-10. The number of Schools for males rose from 90,739 in 1885-6 to 118,234 in 1909-10, and the same for females rose from 4,719 in the former year to 12,498 in the latter. Including private institutions both for males and females, the total number of Colleges and Schools in 1909-10 was 170,469 against 122,367 in 1885-6. The number of male students at College in 1909-10 was 29,187 and of female students 342. In 1885-6 the number of the former was 10,507 and of the latter only one. The number of male scholars in Public Schools was 4,802,339 in 1909-10 against 2,771,763 in 1885-6, while of female scholars the numbers for the respective years are 763,906 and 197,603. In all kinds of Colleges and Schools in 1909-10 there were males and females together, 6,211,918, against 3,325,080 in 1905-06. The total expenditure on education from all sources was

Rs. 6,88,21,231 in 1909-10 against Rs. 2,40,62,494 in 1885-86. The amount is made up as follows:—

From	Rs.
Provincial Revenues ...	2,34,81,243
Local and Municipal Funds ...	1,27,01,318
Fees ...	1,85,69,735
All other sources ...	1,40,68,935

The above shows that fees contribute a substantial share of the educational expenditure, and they should not be raised. Just now the Bombay Government have raised the fees, while the Madras Government and the Central Provinces Administration anticipated Bombay, and the question of raising the fees is engaging the attention of the United Provinces Government. With the fear of a severe and widespread famine before the people it seems to us that the present is a singularly inopportune time for the raising of fees and we hope at least our Government will stay its hand. Certainly, to raise fees at such a juncture as the present is to invite not the further spread of education but a retardation of educational progress. Indian public opinion has expressed itself unequivocally against such a step and we trust it may not be without its effect on the Government.

Ten State Scholarships.—The following communique is issued in the Education Department:—

The Government of India have this year sanctioned the award of ten State Technical Scholarships to the following candidates for a course of training in Europe in the subjects noted against each:—

Recommended by the Government of Madras (1) Mr. M. C. Sitaram for weaving, (2) Mr. H. Sakharam Rao for textile manufacture.

Recommended by the Government of Bombay (3) Mr. P. V. Meho for manufacture of tanning extracts and their use in tanning.

Recommended by the Government of Bengal (4) Mr. H. D. Bennett, (5) Mr. Phani Bhusan Ray for mechanical and electrical engineering.

Recommended by the Government of the United Provinces (6) Mr. Ram Chandra Srivastava for manufacture of sugar.

Recommended by the Government of Eastern Bengal and Assam (7) Mr. Abinash Chandra Dutta for silk weaving, dyeing and finishing.

Recommended by the Chief Commissioner of the Central Provinces (8) Mr. M. Chulamali for manufacture of oils, fats and their products.

Recommended by the Chief Commissioner of Coorg (9) Mr. K. M. Muttanah for mechanical engineering.

Recommended by the Chief Commissioner of Ajmere Merwara (10) Mr. Ram Lal for cotton spinning and weaving.

Foreign Notes.

GREAT BRITAIN.

Relation of the College to the Workshop: an Address.—At the Conference on education held under the auspices of the Institute of Civil Engineers, Dr. W. C. Unwin delivered, as the Chairman of the Section on Scientific and Practical Training, an interesting address on the relation of the College to the Workshop. He laid stress on the erroneousness of the idea that a College course unfits a man for practical work. 'There may be,' he said, 'students who prove unfit for practical work in spite of College education. They would equally fail if their education was purely practical. There may be College courses, I am afraid it must be said there have been College courses, badly arranged, and teachers in College less competent than is desirable. It is not the main object of a College course to fit students specially for such work as will fall to them, while in the lowest rank of the profession. The College course must contemplate the fitting of a student for his whole career, and provide him with an intellectual equipment which will only gradually become useful as he rises to higher rank in his profession. The view of the employer who looks only to the immediate usefulness of the student is a short-sighted one. I believe employers will find—some of them have found already—that they owe a debt to the Colleges, and the College-trained student will prove, with a minimum of special experience, a valuable assistant, and in some cases the originator of a real advance in practice.'

A munificent gift.—At the recent annual assembly of Faculties of University College, London, a letter was read from Mr. R. C. Forster announcing his intention of giving £30,000 to the College towards the building of new chemistry laboratories, and stating that the gift was intended to commemorate the Coronation.

The Bishop of Worcester on 'Manners.'—The Bishop of Worcester, at the Speech Day celebration at Wolverley School, Worcester, recently, gave an account of a conversation he once had with the King when Duke of York on the subject of manners. The Bishop said that on the occasion in question he was about to address some public schoolboys, and the Duke of York said to him, "Why do you not ask that in public schools manners should be taught?" The Bishop asked why manners should be specially emphasized, and the Duke of York replied, "Because, as you know, I mix among all sorts and conditions of men, and it has been a positive distress to me to see how often, when abroad, Englishmen lose in the race with Frenchmen, Italians, and Germans, because of the Englishmen's want of manners. The foreigners know when to bow, to shake hands, to converse, to stand up, or sit down in the presence of their superior, while the

Englishman is wanting in these manners, and when vacancies have to be filled up those are the points which very often tell, and that is where the Englishman does not shine."

Mr. Runciman on "the Training of Teachers."—In his statement on educational progress in England which he made to the Committee of Supply, Mr. Runciman dwelt at some length on the important question of the training of teachers. He expressed an apprehension that the establishment of numerous Training Colleges would not ultimately prove to be advantageous. If every county, he stated, was going to set up Training Colleges for its own children who were going to pass out of the local schools and who never got out of their own area, the width of their view should be very much circumscribed. In this connection, he also announced his decision to extend the period of the stay of would-be teachers at Training Colleges by one year, confining the three years which they now spend there into a course purely for University work and devoting the fourth year to training work. He hoped by this course to enable "even the poorest child coming from the meanest of the Elementary Schools to go to the Secondary School, and to the University and finally come to the teaching with a

good University degree behind them. In pursuance of this policy, the Board of Education has issued a Parliamentary paper on the "Regulation for the Training of Teachers for Elementary Schools," which have come into force from the beginning of the current month. The object of the new arrangement is to relieve the strain which was felt till now by students having to prepare during the three years for the University degree and at the same time get themselves trained for teaching work. As regards women teachers, the paper says: "The increase in the number of Training Colleges attended by men and women has rendered it advisable to secure that in the staffing of Colleges proper regard shall be had to the particular needs and circumstances of the women students. Such Colleges will have normally a man as Principal, but provision has been made for the appointment of a woman Vice-Principal and a reasonable proportion of women on the staff. The Board have been impressed with the need of securing that the Principal of a College shall be possessed of high academic standing and they have accordingly provided that a man proposed as Principal of a College who does not hold a degree in honours of a British University will not, save in exceptional circumstances, be recognized for the purpose."

The New Matriculation History of India

(Second Edition)

Revised to suit fully the New Curriculum

BY

C. K. GOVINDA RAU, B.A.

Headmaster, High School

Nuzvid.

Price As. 12.

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REGISTRATION OF GRADUATES IN THE MADRAS UNIVERSITY.

THE ensuing election of Fellows to the Madras University by the registered graduates raises a question of great importance, which has been pressing on our attention by significant circumstances. The regulations require the payment of a sum of fifteen rupees for registration for life or two rupees a year if the initial fee of five rupees be paid. We are prepared to appreciate the high value of exercising the franchise in the election of Fellows to the University and we have no hesitation in urging upon the graduates of South India to enrol themselves in the registered list. But we are disposed to question the wisdom underlying this rule. In a country which has yet to develop the spirit of ideal representative institutions and which has not certainly an excess of faith in the sacredness of the franchise it is difficult to rouse a wide interest in the institution by the levy of a heavy fee. There is a more serious ground—the ground of economic incapacity and we should not be very severe if we go to the length of questioning the value of this franchise, whether the privilege is really of sufficient importance to justify the fee.

Those acquainted with the conditions of the poor South Indian graduate will be able to testify to the fact that the amount is no light matter to him. This is no place to enter into an examination of the causes underlying this degradation of his economic status, but there must be an absolute unanimity of opinion on his unfitness to meet this financial drain. The least favoured of the class are unfortunately found in the department of education, and the rule thus operates most severely on those

who are probably best-fitted to have a voice in the matter. A painful instance came to our notice only a few days back. In one of the largest educational institutions of this Presidency, there were as many as a dozen graduates of more than ten years' standing employed as teachers in the lower classes who had a real desire to get themselves registered as graduates but who could not, out of sheer financial inability. We are familiar with the fact that fees are charged in Western Universities for the exercise of a similar privilege, but the critic must be rash indeed who would apply the advanced conditions of the West in all their entirety to the countries of the East. If a demonstration were needed for the soundness of our position we have only to draw the attention of our readers to the fact that though it is four years since the regulation relating to the registration of graduates was passed, the number on the enrolled list is at a ridiculously low figure—it is only between five and six hundred. That only five hundred graduates out of the thousands that have left the portals of the University—we remember the ten years' rule—should have come forward to take advantage of the privilege is an argument of sufficient strength.

It is not merely the high fee that has given rise to complaint, but the insistence on the payment of what the University calls 'arrear' or 'penalties.' If the graduate does not register himself, as soon as he is entitled to have the privilege, he has to pay a heavier and a heavier sum with the lapse of each year. If financial inability prevents him from registering himself at the outset, a discouragement is offered to an exercise of his desire by raising the fee—till out of sheer despair and disgust, he gives up the idea

interesting themselves in elementary technical instruction would do well to keep before them.

The recent annual Congress of the British University Students draws our attention to the benefits conferred by the Student Representative Movement.

This movement began about the year 1884, within the conservative walls of Edinburgh University. Its real origin is perhaps traceable to Germany, where student organization is a fine art. The aims of the movement are three:—(1) The representation of students in everything affecting their interests; (2) the provision of approved means of communication with University authorities; (3) the promotion of social life and academic unity among under-graduates. In all Scotch universities statutory sanction has been given for the formation of student representative councils, and these form an integral part of the universities. The establishment of these councils has tended to make the highest courts and conclaves belonging to the universities broader and less-blind in their enactments. The under-graduate voices his ideas and ideals through his own representatives who are now privileged to sit in the university circles of legislature. The Student Movement has also a foreign office, called the International Academic Committee. The specific duties of this Committee are to maintain academic relationships with foreign universities; to supply students from abroad with all possible information; to furnish introductions and guidance to students going to universities abroad. Every university in Europe has an honorary student consul, who receives men carrying letters from the com-

mittee and gives them a passport into the inner and intimate life of the foreign universities. These consuls are as friends in an unknown land. The International Section of the Student Movement forms, as it were, a ministry for the binding up of nations. A note to the Secretary of the International Academic Committee, Students' Union, Edinburgh, will bring any student going abroad the information he may seek. Some years ago we had a Student Movement among the under-graduates of the Madras University and the result was the formation of a University Institute. After some years of work the Association ceased to exist. We are sure that if the societies of under-graduates of the several Indian universities do active work for sometime they may obtain statutory sanction and have their representatives on the senates of the universities.

A propos of the Elementary Education Bill which has been introduced by the Hon'ble Mr. Gokhale into the Imperial Legislative Council of our country, we may draw the attention of those interested in the spread of elementary education in our country to a Bill on Elementary Education which has been prepared by the Educational Settlement Committee and ordered by the House of Commons to be printed. The main provisions of the Bill are as follow:

1. There must be a county school accessible to every child of school-age both in town and country.
2. To provide the additional accommodation required, two years of grace (which may be extended by the Board of Education) are allowed to the local education authority.
3. Before providing new schools the local

education authority must consider any representations made to it by any approved association of voluntary schools within the area.

4. The local education authority may either establish a new county school, or, in a rural area, take over a voluntary school on terms to be agreed upon with the trustees.

5. The terms of transfer are (1) payment of rent, (2) use of buildings for denominational instruction during the first half hour of every school-day. The local education authority may provide alternative non-denominational instruction.

6. On the requisition of not less than a hundred and fifty parents within any rural area, a new voluntary school may be established and must be maintained by the local education authority, but the cost per head must not exceed the average cost in county schools.

7. If the number of children in any voluntary school fall below fifty, the Board of Education may declare such a school unnecessary and close it.

8. No religious tests shall be imposed on teachers, nor shall there be any differentiation of salaries between teachers who give and who decline to give religious instruction.

9. Teachers in voluntary schools shall be nominated by managers, but appointed by the local education authority.

10. With the approval of the Board children may receive their religious instruction elsewhere than in the school.

11. The local education authority must either provide themselves or afford facilities for the provision within the school buildings, of instruction, denominational or other, "in the Bible and the principles of the Christian religion," with an alternative of secular instruction.

12. Assistant teachers and head-teachers

employed as such at the passing of the Act may give the religious instruction.

13. The education committee of the local education authority shall appoint a religious instruction committee representative of teachers of religion to advise on syllabuses, etc.

This Bill is regarded by all parties to be satisfactory. In this connection we are glad to note the good work begun by the Lahore Elementary Education League in the starting of Elementary Schools. We wish that the Elementary Education Leagues started in other places would do something similar.

"Unrest and education in India" is the title of a brochure by Dr. Unrest and edu- cation in India. W. Miller, the former Principal of the Madras Christian College. In it the veteran educationist of Madras brings the weight of his long experience and full knowledge to criticise the views put forward by Mr. V. Chirol on education in his well-known essay on "Political Unrest in India." Dr. Miller and Mr. Chirol both agree that the formation of character is the chief end of education, and they further are at one in thinking that this end will be attained most effectively by imparting religious instruction in schools. Frightened by certain evils which have arisen in Bengal, Mr. Chirol pleads for turning all educational institutions into State institutions and making religious instruction an integral part of the education given in them. On the other hand, Dr. Miller urges that it would be impossible to impart religious instruction in Government institutions, and emphasises the recommendation of the Educational Commission of 1882-83, that the improvement and extension of schools and colleges under private management should be the principal care of the Government.

altogether. We have known graduates so seriously annoyed by this accumulation of arrears, as to turn away with profound dislike from anything relating to this institution of election.

We should not be laying this emphasis on this question but for a keen realisation of the disastrous results it has led to. The narrowing of the electoral area is a more serious evil than what is implied by the mere absence of the privilege from a large number of deserving persons. When there are only a handful of voters, there is room for the play of undesirable canvassing and the exercise of undue influence by those who have learnt to engineer elections. There is no popular democracy whose uncertain decision is awaited with anxiety, but a few voters who are approached by letters, friends and various other agencies. A very small number of those who enjoy the privilege of calling themselves the children of the *Alma Mater* take part in the election and the event passes without rousing the active enthusiasm of a large majority who can certainly be credited with the judgment

necessary for having an opinion on the matter.

We now come to an examination of another aspect of the question--there is some truth in the contention that the privilege is not after all so valuable as its champions would make it out to be. A very small percentage of the seats in the Senate are thrown open to election. We admit that under the new scheme the electors have had the opportunity of returning persons who could have had no great chance otherwise, but we are only anxious to point out that it is nothing so important for instance, as the privilege of electing the Vice-Chancellor of the University or the members of the Syndicate which is conferred on the graduates of several Western Universities. As sincere lovers of the University it is our desire to see the institution of registration get more and more popular and we hope that the experience of these four years will serve to convince the authorities of the immediate necessity for a change in the direction indicated.

A REGISTERED GRADUATE

Just Ready. MAUD—A MONODRAMA

BY
ALFRED TENNYSON

WITH
INTRODUCTION AND NOTES

BY
E. H. ELLIOT, B.A.
*Sometime Junior Professor of English, Presidency College;
Late Principal, Coimbatore College.*

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The Educational Review.

It is acknowledged on all hands that examinations have proved more injurious than beneficial to education. An interesting question connected with examinations is how far these are a test of intelligence. Can we charge any school or college as producing an unintelligent type of pupil merely on the basis of examiners' reports? We may do so if at all times we can be sure that the questions are reasonable. But can we always do this? If the answers of a very large majority of students are wanting in intelligence, may we not suspect the reasonableness of the questions? Are not examiners, like the rest of mankind, creatures of tradition? We know for example, that some Boards of Examiners, always try to show in their reports that about forty-five per cent. of the candidates have passed in their examination. The tradition that a very large proportion are expected to get below the minimum required for a pass has resulted in a special type of paper. An examiner, who set a straightforward and reasonable paper and sent in results showing that nearly three-fourths of the students got sixty per cent., would be set down as a crank or a fool and not be re-appointed. Hence an examiner, who like the rest of the race has his eye to the main chance, merely does what is expected of him and makes his questions involved and tricky. Consider, for example, the results of the last public examination of the School Final Certificate. In most subjects the average was very low. Why should it be so? Surely the pupils of our High Schools are not really unintelligent. Can it be said that teachers are not doing their work properly? We dare not say this, knowing as

we do how enthusiastic the present generation of teachers is in their work. There must therefore be something wrong in the style of examinations.

In a very instructive paper contributed to the *Revue pedagogique* a Vocational and French writer discusses liberal education. how best we can combine vocational training with liberal education. He accepts that general education is necessary as a basis to raise the value of a man and render more profitable any professional knowledge he may acquire. But he lays stress on the fact that the education of the workman should be the result of his vocational training, even the general instruction being adapted to his vocation. In order to be directed to this end, there must be a certain unification of instruction. "All instruction," as M. Tripard says, "should clearly converge towards one precise aim, namely, apprenticeship. To this end it is necessary that each teacher guards against isolating his course and regarding it as all sufficient. On the contrary, he should feel that his instruction is closely and solidly connected with that of his colleagues, and therefore endeavour to keep himself constantly in touch with them. The teachers must always give their instruction the practical character which would make it professional. They should however take care not to neglect the educative side and their efforts should be in the direction of developing the powers of observation and reflection of their pupils and training their character as well as their mind. The education of the future workman or the commercial employee should be a direct result of his professional training itself." This is an ideal which those of our countrymen who are

What exactly would be gained by substituting Government institutions for aided ones is not easy to see. Were it even desirable, it would be impossible. The so-called ills of education in India, which are as much the ills concomitant to education in other countries, cannot be cured by bringing all educational institutions under direct State control or by imparting religious instruction. No doubt the formation of character should be the end aimed at, but this can be achieved only by the personality of the teacher. Religious instruction usually glides off the mind of the pupil leaving little effect behind, but the influence of a good teacher always persists.

The Teaching Committee of the Mathematical Association has drawn the attention of examiners to the following points about geometry examinations :—

1. When a *construction* is asked, it should be clearly stated, either in the question or as a general heading : (i) what instruments may be used ; (ii) whether the construction is to be fully described in words, or only those parts of it which are not obvious from the figure ; (iii) whether a theoretical proof is required.
2. When the proof of a *theorem* is asked for, if the examiner wishes for an accurate figure drawn with instruments, this should be stated in the question.
3. The Committee is of opinion that, in general, it is inadvisable to require that the figures for the proofs of theorems should be drawn accurately with instruments ; the Committee considers that such a requirement tends to waste of time, and that a neatly drawn free hand figure should suffice.

This statement, it would appear, has been communicated to examining bodies through-

out England. We very much wish that there were in India a central association like the Mathematical Association, which could speak with authority on matters connected with the teaching of mathematics. All the same the Syndicates of the several Indian universities would do well to communicate to their Boards of Examiners in Mathematics the recommendations made by the Committee of the London Mathematical Association.

Between scientific and religious instruction there is a fundamental and incessant antagonism. This can be shown in various ways. For example, in the domain of matter the scientific instruction shows us nature to be subject to fixed, eternal and invariable laws, and teaches us that to master nature we must study and apply these laws. Religious instruction, on the contrary, does not recognise natural laws, or, if it does, takes for granted the existence of benevolent and malevolent supernatural powers capable of continually contradicting and violating the laws of nature. To master nature, man has to placate or solicit these powers. Scientific instruction incites men to work and inspires them with confidence in the fruits of their labours, in personal progress and social betterment, while religious instruction keeps man in distrust of himself and urges him to prayers and prostrations instead of labour. In the domain of history, scientific instruction values characters according to their contributions to the development of civilization and the liberation of humanity, while religious instruction esteems characters for their services to the cause of some church. In the domain of morals, scientific instruction inculcates the eternal

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rules of conduct recognized and refined by the evolving conscience of the individual and of society ; while religion generally confuses this clear issue with the requirements of liturgies and the duty of the observance of ceremonies often meaningless and superstitious. In every way these two kinds of instruction are opposed to each other. One proceeds from the sense of justice, the other from the gift of grace ; one depends on reason for the discovery of truth, the other looks to faith for the revelation of truth ; one looks to the present world as the scene of its labours and makes its chief duty the production of citizens who will, in the community, in the family, in business and social relations, fulfil their mutual duties in love and good will ; the other regards this world as a vale of tears, a mere vestibule to heaven, a place of probation filled with temptations which are to be overcome, not to make a man a stronger moral individual and a better member of society, but to win him a place in heaven. Can these two kinds of instruction exist side by side in our schools and colleges ? Shall we allow justice, liberty, humanity to have free course in our educational system, or shall we allow superstition, slavery, caste prejudice, tyranny reign rampant ?

The introduction of the Secondary School Leaving Certificate as a passport for admission to college leaves to the college authorities the power to lay down for themselves the qualifications needed for admission to the Junior Intermediate Class. According to old method only those who had passed the Matriculation examination were entitled to admission. According to the new scheme the

principal of a college has to gauge by the School Leaving Certificate whether its possessor is qualified for admission. It is feared that there is no uniform standard employed by the principals of all the colleges affiliated to the University in gauging the qualifications of the candidates for admission. It is therefore believed that the Syndicate will soon formulate certain rules to be observed by the heads of colleges in this respect. We believe that any interference on the part of the Syndicate is not a move in the right direction. The principals of affiliated colleges are expected to possess the discriminating power by which they can decide which of the candidates for admission to college are really fit to benefit by the collegiate course. Suppose some undeserving candidates have been admitted to a college, the University has the power of sifting out these by means of its examination. By laying down cut and dry rules as to the conditions for admission all the evils of the old scheme will be re-introduced. The aim of the new scheme is to gauge intellectual capacity and not the scoring of a sufficient number of points. The School Leaving Certificate takes into account the results of a public examination as well as those of school work. There will always be some difficulty in securing a uniform standard of valuation from all schools. In some schools the marking may be lenient, while in others it may be stiff. Further the questions in the public examination may be unreasonable and the examiners may be influenced by motives which have no value with teachers. All these points were taken into consideration when the Senate of the University made up its mind to treat the School Leaving Certificate as a substitute for the Matriculation examination. A certain

amount of freedom given to the principals of colleges would, we believe, prove beneficial in the long run.

At Teachers' College, New York, was held sometime ago a Conference on the Moral Phases of Public Education. There were five sessions, at each of which a special aspect of the general subject was discussed: (1) legal provisions for moral instruction and training in the various States; (2) the training of teachers for the work of moral instruction and training; (3) the practice of the schools in the different States, with special reference to new experiments; (4) a comparison of methods of moral instruction and training; (5) what advance steps should now be taken. At the last sitting were passed the following resolutions which embody the results of the deliberations of the Conference:

"We, the members of the Conference on the Moral Phases of Public Education, believe that the *moral aim*, i.e., the formation of character, should be treated as fundamental in all education; that morality has a positive as well as a negative content; that the former should receive primary emphasis; that it consists, in one aspect, of promotion of the common good, in another, of the attainment of individual character.

"We believe that the personality of the teacher and the general organization of the school are primary agents in the development of character.

"We believe that progress has been made in recent years in the development of character through public education; that such progress is forcibly evidenced by the diminishing significance of punishment as an element in the school life of the present; by the improved organization of the school whereby initiative and therefore independence on the part of the pupil is much more fully secured than formerly; by the develop-

ment through instruction of the taste for good things to an extent far beyond that which prevailed a generation ago; and finally by a remarkable provision for the physical and thereby the moral welfare of the child.

"In spite of this progress, we believe that still more systematic efforts on the part of the school for the development of moral character are imperative. With this fact in mind, we make the following recommendations:—

1. "That teachers be impressed with their responsibility for a much greater use of their personal influence with pupils through personal contact and sympathy than is now customary.

2. "That the teachers' opportunity for personal contact and influence with the children be enlarged (a) by reducing the number of pupils assigned to a teacher, (b) by eliminating the obsolete and less vital materials from the curriculum, (c) by permitting the teacher greater personal choice in adjusting subject-matter and method to the individual needs of children, and (d) by modifying the prevalent character of school supervision so that the subtler personal influences of good teaching may be more completely taken into account.

3. "That an increased effort be made to secure the moral values of the content of all subjects in the curriculum so that moral instruction may be enlivened, appreciation awakened, and personalities enriched.

4. "That *direct moral instruction*, varying in content according to conditions, systematic or otherwise according to personal preference, be employed as a means of moral education, with the special object of developing the power and habit of moral thoughtfulness.

5. "The school and community activities, such as plays, games, festivals, student organizations, social intercourse, social service, etc., be more extensively yet vigilantly used as a means of moral growth.

6. "That the foregoing five recommendations be considered as applying in full to institutions for the training of teachers, such as normal Schools and Colleges, recognizing that beyond question the *practice* touching these demands followed by such institutions will largely determine the extent to which such demands find realization in the public schools.

7. "That, in addition, courses in personal and social ethics, moral instruction and training, constitute a prominent part of the curriculum in such institutions.

8. "That since the improvement of character demands that education inside the school go hand in hand with efforts for social betterment in the community outside, every opportunity be taken to arouse in teachers and normal students an intelligent interest in these vital facts by means of courses in educational sociology and active participation in philanthropic and civic work.

9. "That we approve of the greatly increased emphasis in the teaching of the biological sciences laid upon personal and institutional hygiene, and, in particular upon sex-hygiene and eugenics."

We are in perfect agreement with most of the statements contained in these resolutions. We must, however, express our dissent with reference to the recommendation on direct moral instruction. We believe that teachers competent to give moral instruction can do this as effectively through informal means.

In some quarters it is feared that the grouping of the subjects South Indian Vernaculars. for the Secondary School Leaving Certificate Scheme

operates as a discouragement to the study of the vernaculars in South India. The inclusion of vernacular composition and translation in the A Group is considered insufficient to guarantee the proper teaching of vernacular languages. We do not believe that the compulsory inclusion of the vernaculars in the School Final Scheme will bring about the results which some people hope for. For the growth of a literature some motive force is necessary. The history of the Tamil language, to take one South Indian vernacular as an example, shows that the growth of its literature is directly connected with the religious movements of South India. The man imbued with the Western spirit finds very little of value in the extant vernacular literature of this Presidency to minister to his needs. The lack of patriotism in the South Indian in general has shown itself also in an utter disregard for his vernacular. How is it that two Tamil graduates converse with each other in English, even when there is no occasion for it? Only a spirit of enthusiasm for the vernaculars inspired by a strong motive force will give the vernaculars sufficient vitality to win in the struggle for existence.

says of it contemptuously in *Hudibras*. The French critics advanced no further and in England no great progress has been made in spite of such attempts as Dryden's brilliant *Discourse on Epic Poetry* or Addison's analysis of Milton's epic in the *Spectator*.

In an eloquent passage in the *Life of Milton*, where Dr. Johnson declares that the first praise of genius is due to the writer of an epic poem, as it requires an assemblage of all the powers that are singly sufficient for other compositions, he describes the essentials of an epic poet by making the most extraordinary demands on his capacity. It is said that he must not merely possess a knowledge of History, Ethics, Policy and Nature but also display dramatic energy diversified by retrospection and anticipation. This does not throw much light on the essence of the *art*, but Dr. Johnson here ventures upon a kind of definition which has a direct bearing on the present discussion. 'Epic Poetry,' he says, 'undertakes to teach the most important truths by the most pleasing precepts, and therefore relates some great event in the most affecting manner!'—an astounding definition open to adverse criticism in almost every part of it.

The demand of a direct moral purpose is inconsistent with the spirit of poetry. It is impossible to conceive of a poem of 'precepts,' except in the weary formalisms of Tupper's *Proverbial Philosophy* or in the prosaic moralizings of Young's *Night Thoughts*. It is true, it 'relates some great event,' but 'an affecting manner does not seem to be its essence so much as that of tragedy—its appeal being more to the imagination than to the heart. Dr. Johnson's definition is thus not of great service to the student of criticism.

III.

But this demand of a purpose which has the high sanction of Boileau is urged so often that it might be useful to discuss it at the outset in relation to Virgil and Milton. Milton made no secret of his moral aim. He sought to justify the ways of God to man. But in an appreciation of the beauties of *Paradise Lost*, the moral purpose never enters the mind of the general reader, the moral purpose itself is not very well worked out, and the epic has rarely been the subject of praise in this respect, except from the professed champions of religion. Prof. Courthope refers to an eminent prelate, who seems to have complained to him that the young men and women of his acquaintance could never be persuaded to read *Paradise Lost*.^{*} When pressed for the reason, they were even prepared to confess they could not put up with Milton's theology! That is probably the general attitude towards the high moral purpose of Milton's work, the reason being not far to seek. Nothing less than the position of a supernatural revelation or the high authority of a prophet hallowed by divinity can accord to a theological work, any universal popularity, and Milton's *Paradise Lost* though it emanates from a soul of lofty religious fervour cannot lay claim to any such privilege.

Virgil might have had a similar aim before him, that of presenting the perfection of manhood in the person of his hero. The character of Æneas will form the subject of discussion later, but it will be observed here that the epic does not impress itself on the reader as the concrete exposition of a moral ideal even as Spenser's *Fairie Queene* and Tennyson's *Idylls of the King* do not

^{*} Essay on Milton: *Life in Poetry, Law in Taste*.

appeal to the reader on the strength of 'fashioning,' as Spenser says 'a gentleman or noble person in virtuous or gentle moral discipline.'^{*}

The idealisation of Augustus, or what is more noble, the glorification of Rome and her people, by associating them with the mighty heroes of Troy would seem to have been the less austere, but more successful pursuit of the Latin poet. It will be easily seen that this intertwining of the action of an epic with the fortunes of a mighty nation, in one of the most glorious periods of its history brings it into wide popular favour. This is probably the secret of the vogue enjoyed by Virgil's masterpiece through several ages, in which there was any appreciation of the achievements of Rome. An interesting parallel might be sought for in the *Lusiad* of Camoens which treats of some of the proudest triumphs of Portugal in the East, or in the *Jerusalem Delivered* of Tasso which idealises an Italian warrior, or in the *Iliad* itself, which affords a flattering testimony to the greatness of the Greeks.

IV.

The classification of the aspects of Epic Poetry suggested by Aristotle and elaborated by Addison might be availed of in an examination of this subject. The action or plot comes for consideration at the outset, for a good story is after all the first requisite of any work relating to Epic, Romance or Fiction. It is demanded that the action should be one and entire and this artistic unity and completeness which ought to be the features of all good art are maintained by Virgil and Milton. It is in obedience to this necessity that Virgil's poem opens on Æneas and his Trojan com-

panions sailing on the Mediterranean, thus being almost within sight of the end of their journey and the accomplishment of their purpose. An account of the Trojan war and the early career of Æneas is appropriately relegated to a later canto where the narration is naturally demanded by the occasion. The completeness of the action is probably not quite apparent but from the defeat of Turnus and the Latins, the imagination of the reader might picture all the later achievements, especially when they have been repeatedly prophesied in all their detail in the course of the *Æneid*. Milton again begins the poem with a magnificent account of the fallen angels engaged in an infernal council which is to evolve the central plot. It is carried out with absolute thoroughness and the epic does not end before showing the first parents 'take their solitary way through Eden, with wandering steps and slow.'^{*}

The critical eye will however discern an occasional infringement of these principles in both the works. Dr. Johnson in the course of some remarks on *Paradise Lost* insinuates the presence of such defects in the *Æneid* with the remark—'here are no funeral games, nor is there any long description of a shield.'[†] At least the weary account of the funeral games must be regarded a digression. The minute description of the shield was probably necessary for an indication of the future glories which were to result from the labours of Æneas.

Milton is not free from similar faults. The archangel's account of the cosmogony, reminding us of elaborate treatises like the *Works and Days* of Hesiod or the *De Rerum Natura*

^{*} *Paradise Lost*: Bk. XII.

[†] *Life of Milton*.

^{*} Letter to Sir Walter Raleigh.

of Laocetus, does not form a natural part of an epic intended to give an account of the Fall of Man. The constant indulgence in theological controversy and philosophic speculation, a weakness observed in Dante's *Divine Vision* also, does not advance the action to any extent, the reader might ask for an elimination of passages of that class, without any of the weakness implied in Dr. Johnson's question, 'Superfluities so beautiful who would take away?' It might shock the susceptibilities of readers who have long regarded Virgil's and Milton's lines among their cherished favourites, but some restraint on the part of the two bards might have usefully reduced the length of the poems.

It is hardly necessary to dwell on the greatness of the action in the two cases, the one affecting the origins of a race that has set the mark of its glory indelibly on the world's history, and the other resulting according to Christian theology in the Fall of Mankind. One must however take note of the feeling of dissatisfaction created by the representation in the latter case of an action which can rouse only the regret of man. As Dryden says, 'the giant has foiled the knight and driven him out of his stronghold to wander through the world with his lady-errant.*' The evil is remedied to some extent by the consolation administered to Satan's victims, and the dire confusion shown to have overtaken the author of the evil.

The greatness of the action, must lie according to Addison, also in its duration. The theory is probably drawn from the observation of Aristotle that while 'Tragedy endeavours to confine itself to a single revolution of the sun, or to only slightly exceed that

limit, Epic is unlimited in point of time'—* where it is seen, there is only a study of practice, but not any injunction with regard to time. Despite the absence of a model it is possible to imagine the representation, within a short compass of time, of Titanic forces rushing in impetuous fury, midst circumstances of great import, giving occasion to epic action in all its magnitude. But Virgil and Milton have a wide canvass even in this sense, for the exercise of their imagination; the former takes several seasons for the development of his plot while the latter ranges over worlds where no calculation of time is possible.

One more aspect of the action of an epic poem and its consideration might end. If the supernatural can be allowed to enter any species of literature, it must be in the epic where the reader gives a free rein to his imagination, to meet Gods and Goddesses. With all the changes in the temperament of man, due to the intellectual advance of recent centuries, it has been appreciated at least within the ideal realms of song and the world is still prepared at least in poetry to

Have sight of Proteus rising from the sea
Or hear old Triton blow his wreathed horn.†

The practice of recent poets is the best proof of the existence of this interest. Tennyson did not hesitate to draw on that world in his *Idylls of the King* and to come to contemporary literature the epic of Alfred Noyes on *Drake* and the ponderous *Dynasts* of Hardy might serve as examples.

It is unnecessary to re-open the vexed controversy with regard to the use of divine machinery in Epic Poetry. To avoid the intro-

* *Posties.*

† Wordsworth: *The World Is Too Much With Us.*

duction of a mythological frame-work, Tasso took refuge in an incongruous world of spirits and abstractions, and Boileau declared there could be no Christian epic. The most forcible argument against this theory is in the success of Milton's epic, and in the fascination still exercised on the cultured man, by some of the beautiful conceptions of Pagan mythology. It is unnecessary to argue with Addison that there is absolute verisimilitude in Milton, if the premises be granted, as the reader of Epic Poetry is willing to obscure his critical faculty, anxious to be entertained by whatever is beautiful in an imaginary world. But attention will be drawn here to a distinction in the employment of the supernatural by Virgil and Milton. Both of them probably obey the dictate of Horace,

Never presume to make a God appear,
But for a business worthy of a God,*

but while the very fundamentals of the structure and action of *Paradise Lost* are based on the supernatural, the divine agencies in the *Aeneid* might be looked upon as ornamental appendages. The wrath of Juno is not necessary to explain the disasters of Aeneas at sea; the most ardent love can be kindled without Cupid coming in disguise; Turnus had sufficient grounds for a declaration of war without the Fury's serpent and one can understand a victory on the battlefield without the interferences of deities who work as the guardians of the contending heroes.

V.

The next demand of Epic Poetry would relate to the department of characters—or *manners* as Aristotle calls them—which must be lofty and capable of inspiring reverence. The greatness of epic heroes must not how-

* *Are Posties.*

ever carry them beyond the range of human sympathies, for without this interest it would be difficult to conceive of any piece of literature enjoying universal popularity. The epic heroes must ultimately resolve themselves into the primary emotions of humanity. They must be built on the model of man, 'the roof of creation'—only magnified in form and spirit. It is amusing to see Dr. Johnson hesitate to decide the human interest of a tragic hero, with the remark that 'as heroes and heroines are not beings that are seen every day, it is hard to find on what principles their conduct shall be tried.' The idea of characterisation in detail, and the infusing of a living and human interest in the actors, has met with adequate recognition only in modern times, but there need be no hesitation in declaring that it will always form an important consideration in deciding the universality of a piece of literature.

Discussing the claims of some modern epic poets to be ranked with Homer and Virgil, Dryden says in his *Discourse on Epic Poetry* that Milton might have had a plea 'if the devil had not been his hero instead of Adam.' It is only a narrow literary spirit that would place under its ban, the forces of evil that certainly exist in the world and therefore demand the cognizance of the artist. If they are of epic proportions, volcanic in their magnitude and fervour, they must be good enough for poetry of this class. The epic poet, like his brother the tragedian cannot afford to ignore those artists in omnipotence who as the poet says,

Use for colour this red blood of ours,
Compose music out of dreadful cries,
Their orchestra being our human agonies,
Their dream the desolation of mankind,
And all this pulsing world their theatre.*

* Stephen Phillips: *Nero.*

* *Discourse on Epic Poetry.*

The *Faust* of Goethe is an instance—it is difficult to classify the poem—of a lord of evil forming the chief character of a successful literary composition. It must however be confessed that the first parent intended by Milton to be his hero, does not rouse our admiration, though the poet always refers to him with reverential awe. Even at the risk of offending Christian orthodoxy, it must be said that he is not great enough to be the hero of an epic poem.

The *Æneid* offers a refreshing contrast in the presence of a strong human element, appealing to our emotions throughout the poem. It can also boast of several variations of the human type, challenging comparison to some extent even with a modern work of fiction. The vexed controversy on the character of *Æneas* will not be re-opened here, either in the aspect of his alleged cowardice, or in his conduct towards Dido. It will only be urged that in the painting of *Æneas* there is none of the vividness of outline and strength of spirit usually associated with heroes of Epic Poetry.

VI.

The subjects of sentiment and language still await treatment. In loftiness of moral purity, and in the general greatness of ethical feeling the *Paradise Lost* is as supreme over the *Æneid* as the angelic puritan bard is over the polished courtier of Augustus. Milton has been the glory of England, as much in the world of moral heroism as in the achievements of poetry. Wordsworth was not merely appealing to national vanity when he declared that there was no danger to British freedom as long as the people held the faith and morals which Milton held. It is significant that the invocation should have been to the spirit of

Milton, when England was 'a fen of stagnant waters.' This 'Son of Light,' as Shelley calls him, raises the sentiments of his poem to an eminence of awe-inspiring sublimity. His righteous indignation flashes out in meteoric brilliance and his religion rises to the fervour of ecstasy. But for the weakness of sectarian prejudice, due to excess of faith, he should be summing up in his work, most of the highest ethical ideals of the modern world.

The heart of the pagan poet is often obscured by sentimentality, but he is nevertheless successful in the delineation of the tenderer virtues, which could not evoke adequate response from Milton whose soul held its starry course in the heavens. Filial piety and womanly devotion, the faith of friendship and the loyalty of service—these find a sympathetic exponent in the good-natured Virgil. In delicacy and in grace, the Puritan yields the palm, but in strength and sincerity he is unrivalled. But it will be granted that the direction of Milton's achievement, is peculiarly akin to the greatness of Epic Poetry.

VII.

The want of familiarity with the *Æneid* in Latin itself, renders it impossible to discuss the language of Epic Poetry in relation to the two poets. Perspectivity and sublimity are according to Aristotle the two essentials of epic language. Ignoring the first characteristic, which must be demanded of all literature, the requisites resolve themselves into sublimity of diction. With regard to Milton, it is hardly necessary to assert that the highest achievements of the English language in the line have been reached in his mighty harmonies. It is absurd to base a

judgment of style on the treacherous picture presented by a translation, but there might be room for a vague characterisation, if this presumption be granted, that Dryden's

Two coursers of proud ethereal race,
With necks in thunder cloth'd and long resounding
pace,

might be expected to preserve intact, at least the sublimity of Virgil's style. Proceeding on this assumption, it might be worthwhile hazarding, what is at best an impression. The sublimity of Milton is more sustained than that of Virgil. It is also mightier in its rush, wider in its sweep, and more resounding in its melodies. Virgil excels in grace and polish, in the brilliance of the jewels with which he adorns his verse. This distinction might also have been implied in Tennyson's lines on Milton and Virgil. Milton is a

Mighty mouth'd inventor of harmonies,
God-gifted organ-voice of England,

Virgil is a lord of language and in his work we have

All the chosen coin of fancy flashing out from
many a golden phrase,

* * * * *
All the charm of all the muses often
flowering in a lonely word.

VIII.

When all is said, the literary critic has to make the confession, that no clear analysis of the *spirit* of Epic Poetry is possible, though its technique might easily be subjected to such a cold process. If the Lyric eludes definition by its ethereal spirit of sweetness and grace, the epic does it by its overwhelming grandeur. The imagination is dazzled by its magnitude and exalted spirit

It has a voice whose sound is like the sea,
Pure as the naked heavens, majestic, free

and the venturesome soul gazing at its dizzy heights, might recall to the mind before it is too late, the misfortune which overtook the tempting Satan, who on beholding the glory of the Lord,

Smitten with amazement, fell!

SYSTEM OF TEACHING DRAWING,
ITS DEFECTS AND ITS REMEDIES.

ACCORDING to the new Educational Rules and Regulations all teachers must have some knowledge in Drawing. It is only then they can shine as good teachers. It is a well-known fact that the black-board illustration, however rough and imperfect it may be, gives a clearer and more vivid idea than a good lecture for hours together.

Generally speaking, some teachers seem to think that this art comes down to persons only as a gift. No notion is more mistaken than this. Some again say that they have no taste for this subject. It is wrong to say so without entering into the subject, taking some pains and working at it.

In some cases, the matter or subject will be really quite good, but a distaste may be created by bad methods of teaching.

If one has a natural taste, it is easier for him to become a good artist, but others also can easily acquire a good taste for the subject. But all may not acquire the same amount of efficiency—some may only crawl, while others may walk or even run.

VALUE OF TEACHING DRAWING.

The advantages of a training in drawing from the educational standpoint of view alone are quite sufficient to justify its position as a

most important branch of school-work. The powers of the eye, the hand and the mind are all more fully developed; habits of neatness and careful observation are formed; ability to perceive and appreciate beauty of form is cultivated; and imagination and inventive faculties are all fostered and increased. In addition to these points we may also mention its great importance in connection with industrial and commercial pursuits. It is a main part of technical education which can be well and easily done in ordinary schools.

"QUALIFICATIONS FOR TEACHING DRAWING."

I would here point out that it is not at all necessary that the teacher of drawing in our schools should be an artist. To turn out a successful teacher in drawing the teacher should be enthusiastic in his work and his enthusiasm should be felt by his pupils without effort. He should create a good taste in the subject by his example, the readiness and the grace and ease with which he does his work, and the intelligence of his plan of treatment of the subject. In the next place he should be up-to-date, and study the modern methods and thus add to his store of knowledge, else the work will become only mechanical and uninteresting. In the latter case the teacher will do more harm than good to his pupils.

Previous preparation on the part of drawing-masters is absolutely necessary. The same methods so successfully employed in the case of other teachers teaching general subjects should also be applied in teaching of drawing.

PRESENT SYSTEM OF DRAWING AND ITS DEFECTS.

Though the old system of giving out copies and the teacher going round to each pupil is

now dead, yet it is more followed in schools here. It should not be used at any rate in Primary and Lower Secondary classes.

Some teachers, generally speaking, draw a figure on the black-board as soon as they enter the class-room without paying attention to the discipline and to the readiness of the pupils to follow them and then the pupils are asked to copy the figure without the necessary instructions. They then sit and only watch if pupils do so without talking to each other. This method is wrong on principle. Another defect is that the teachers correct the mistakes themselves in full in order that these drawing books might be fit for the Inspector's inspection. This is also bad. Further when students are asked to draw the same figures once corrected they fail to draw them correctly. This shows that they have not understood the principles underlying these corrections.

HOW TO REMEDY THESE DEFECTS.

In the Primary classes, a short lesson with plenty of questions and illustrations is most profitable. The lesson may be made not only instructive but also exceedingly interesting. The questioning must be smart, definite and be accompanied by plenty of practical applications. Children will always be children and it must be remembered that they are capable of receiving in but small quantity of instruction at a time. So the language of the question must be clear and simple, the figure which we desire the pupils to draw should not be shown at the outset, in the Primary classes but we should go on with our method giving only the construction, step by step and then they will be very glad to see the full figure at the end and their happiness can be seen in their joyous faces. But on the other hand, if the figure is shown in the beginning,

children will only think of the figure and will not care to listen to our instructions however valuable they may be in themselves, for children, as all know, have not much power of concentration. Our aim in teaching in these classes should be to train up their little fingers to acquire good facility so as to enable them to draw what they see. We need not impress the principles of drawing in these classes.

In Forms (I to III) the figure to be drawn might be shown beforehand and suitable questions should be put to students and the teacher should draw the figure bit by bit as he goes on eliciting answers.

In the High School classes:—The same figure should be given to each student and they should be asked to copy the same in the required size. The teacher should explain only those points where he thinks that explanation is necessary. I should like to suggest the advisability of having number of cards of the same figure.

For Normal students in training institutions and other teachers, a high degree of proficiency and accuracy in drawing is not to be aimed at. They should have a certain amount of practice in free-hand drawing which is necessary for the free-arm drawing. They should be made familiar with drawing of animal picture, birds and natural objects. The object of learning drawing in the case of teachers is to improve their powers to rapidly illustrate on the black-board. They should be able to draw the nearest approach to the object in a ready and off-hand manner. To gain this end the drawing-master should impress on their mind clearly the proportion of various parts of the object as a whole. With this object in view, instructions should be given during class-hours.

XVII

THE VALUE OF BLACK-BOARD TEACHING.

The advantages of black-board teaching are so obvious that they scarcely need repetition. The great saving in teaching all the class the same thing at the same time, the ease with which errors can be pointed out and difficulties illustrated, the demonstration of proper methods of procedure, the stating of the reasons of the various steps taken and the fact that the pupil is encouraged to try and imitate what he sees the teacher doing, are reasons quite sufficient to justify its adoption. The teacher is also enabled to supervise more effectively the work done and can grade his lessons so that one naturally follows from the principles last taught.

T. S. ALWAR IYENGAR.

ESSAY-WRITING IN SCHOOLS.

THAT the average Indian student of to-day can by no indulgence of generosity, be said to possess a satisfactory command over the English language is a fact but too well-known. The causes which lie at the bottom of this lack of sufficient mastery over the English language may be summed up in the words, "inadequate and superficial acquaintance with the works of good writers and insufficient practice in composition." The seed of bad reading and little writing is sown during the school-days of a student. It is most unfortunate that essay-writing should continue to be a neglected subject in many of our schools. Most school-boys do not feel very much inclined to welcome the essay-hour. The teacher who has sometimes to wade through page after page of incoherent ideas and bad grammar also grows tired of his work before long, though it is partially

relieved by a sprinkling of respectable essays. A subject is evidently doomed when the teacher's interest in it has flagged and that of his students has not yet been aroused.

The method of teaching English composition which at the present time obtains in most schools, is primarily responsible for this lack of interest and the general negligence of the subject. Not many teachers care to guide their students in the exercise of independent thought, and in the expression of it in direct, simple and befitting language. Too much of memory work and grammar and too little of conversation in the English tongue may also partially account for the poor show in composition. It should be remembered that "the power of speaking and writing correctly is more a matter of practice and tact than of following a set of cast-iron rules." It is said that it is mainly a result of the daily conversations which a German master holds with his pupils in Latin that an average German school-boy knows the English language much better than his English cousin.

As the advantages of the direct method of teaching English are more and more realized, a system of oral descriptions of scenes or narratives of events (in which a teacher may employ the "catechetical" method and lead out the students point by point to think for themselves) might very profitably be introduced in the IV and V Standards of our High Schools. These 'oral essays' may sometimes be varied by an exercise in writing short original stories about animals and little children. The sooner the system of 'reproduction' of interesting stories and anecdotes which obtains so widely in this country is abandoned, the better. It is, to say the least, quite superfluous, considering the remarkable mnemonical powers with which

Indian students are generally credited. Teachers should take advantage of a natural enthusiasm to speak in English which is noticeable in a good many of boys during the earlier years of their school-life, and ought to spare no pains to encourage the efforts of their pupils to express their thoughts in a foreign language. I know of a few cases in which students willingly agreed to pay small fines if, while within the school precincts, they indulged in a conversation in their vernacular.

As regards the two higher standards, *i.e.*, the VI Standard and the Matriculation Class, the work of teaching English composition should be entrusted to efficient trained teachers who are known to possess a good knowledge of the language. Whether they are the class-teachers of the respective standards or not it should not matter. Further the time now devoted to essay-writing is very inadequate. Students are required to think out points on a subject at a moment's notice, to arrange, enlarge, and illustrate them, to write correct and coherent sentences, to spare time for the revision of their essays and all this in the short space of one hour. To my mind essay-writing deserves more time to be allotted to it, in so far as it is one of those subjects in which are brought into play, perfectly untrammelled, the student's natural intelligence, general knowledge, and powers of observation, reflection, and imagination.

We would suggest that three hours be devoted every week to the teaching of English composition—one hour each on Monday, Tuesday and Wednesday. On the first day the teacher may announce the subject of the essay, and ask his students to put down all the points, vivid phrases, and illustrative anecdotes bearing on it which may occur

to them during the course of the hour and then to arrange a 'skeleton' of the essay, striking out all points which do not appear to be directly connected with the subject. It may perhaps be objected by some that one hour is too much for preparing a 'skeleton' of an essay. It should be remembered that many students cannot easily concentrate their thoughts on a given subject. Their strange affection of open-mouthed listlessness and their lapses of attention and ineradicable habit of drifting into foreign channels of thought are a matter of common knowledge. Some teachers, who on the previous day draw out skeletons of essays at home, are fond of giving to students the advantage of their labour, instead of compelling them to "unloose from their prison-houses the creative faculties of their imagination." A much more advantageous practice (but only to be followed by a teacher for the first few occasions as an illustrative lesson to students) would be to try to think out the points impromptu and before the class. I am not quite sure that many teachers will have sufficient confidence in themselves to try this method, but it cannot be doubted that it is the better of the two. On the next day the teacher may criticise the skeletons prepared by students and suggest the necessary alterations, additions or omissions to be made in them. There will generally be found to be three or four different points of view from which the students treat the subjects of most essays. It is better to leave these untouched than to prescribe one common standpoint. On the third day, *i.e.* on Wednesday, the students may be given one hour in which to write out the essay. The skeletons having been already completed and written down on the composition note-books, the students will have ample

time to write a correct, sensible and well-paragraphed essay.

The correction of the essays is most perfunctorily done. The average teacher does no more than flick over the pages, hurriedly dashing out a word here and a sentence there. We should not blame him much. The classes in his charge are generally bulky and the time at his disposal inadequate. I would suggest that during the course of the remaining three days of the week, the students may be sent for at the end of the regular school-hours in batches of about fifteen, unless the classes are very large. Each boy should be shown not only the mistakes, which he has committed but also the corrections which have to be made in their place. It is to be regretted that some teachers, for reasons which are easily understood, prefer destructive criticism to constructive.

The method which I have briefly sketched above, to be successful, should be supplemented by careful reading, on the part of the students of really good books. To ripen one's ideas this should be followed by serious reflection. It is to be regretted that many a student one comes across in these days of superficial readers is "deep-versed in books but shallow in himself." A short quiet meditation over what one reads is of inestimable value. To improve the style select authors should be studied and a patient and regular practice in writing should be made. Much also will depend on how far a painstaking teacher is able to arouse in his pupils an interest in original composition and create a liking for holding independent views on common subjects of discussion.

J. D. A.

TEACHERS' PROFESSION.

IT has often been said that the teachers' profession is the noblest of all professions, but the sorriest of all trades. It is true. This profession carries with it a large amount of responsibility : but many people resort to this profession not because they have realised their responsibilities of the profession, but they consider this profession as a stepping-stone to some other profession. Some again become teachers for they do not know what to do in their life and some again take up this profession because in no other department they are able to get a decent sum to begin with.

The teachers have been rightly called the *loco-parentis*. Many young children are entrusted to their kind care. So the teachers carry on the onerous duty of imparting the right sort of education not only intellectual, but also physical and moral. This profession expects a very high standard of conscience on the part of the teachers, for children are imitative by nature. To them their teachers are their highest ideals and always speak with pride that such and such things are true because their teacher said so.

Therefore, the teachers should aim not at filling their children's brains with matter both digestible and indigestible, but should hold for their lofty ideals the formation of good character and conduct in their children or pupils. These children are to be the future citizens on whom would depend the welfare or otherwise of the whole nation. The greatness of a nation depends on the qualities of head and heart of the individuals forming the nation. The members of the profession can legitimately feel pleasure in the greatness and honour shared by persons in other

walks of life. The discredit brought on the individuals by themselves would also naturally flow to the institutions wherein they were educated. Hence teachers should be men of exemplary character and conduct.

Considering the great responsibility on their shoulders, the remuneration is relatively poor and rather discouraging. But it is a source of gratification that the question of bettering the conditions of teachers is now being taken up on hand in right earnest by the authorities concerned. This is a profession where members should not feel disgust and show lack of zeal in their work. The moment they feel such disgust they would do well to retire from the field, or better they are made to do so when their want of interest has been *honestly* noted by the authorities.

The members of the profession, as a general rule, die at an early age; for, they have continuous and heavy work in spite of the often repeated fact that teachers enjoy more holidays than members of other professions.

It is but proper, therefore, that they should be well paid while in service and made to retire with a decent pension, or good bonus or some other suitable provision for their future life.

Institutions. Institutions are of two kinds:— 1. Public; 2. Private. Public institutions are those that are established and managed by Government itself. There are other institutions that are quasi-public. Their position is intermediate between the Government ones and the private institutions. To this class belong institutions under the management of District and Local Boards and Municipalities. All other institutions are called private. Some of these institutions get financial help from the Government and some do not. In the former case they are called aided

institutions. Institutions, whether aided or otherwise, are bound to conform to the rules issued by the head of the Educational Department. But, generally speaking, the Department was not very strict with the latter institutions. But now to maintain an institution already in existence is rather very difficult owing to the stringency of the rules which the Government of late have issued. Much more is the difficulty to start new institutions at the present time. The Government have made it clear that managers of institutions can no longer make institutions as a commercial concern and hence every institution is to be under the management of a committee composed of rich, cultured and influential members who would heartily co-operate with one another and devote their leisure time and energy towards the advancement of education. So the management of an institution under one who used to style himself as the Headmaster, Manager and Proprietor is a thing of the past.

Institutions can also be classified as general or literary and special or technical and industrial. In India, as a whole, there are many colleges and schools imparting general education. But there are only a few technical institutions and fewer still the number of industrial institutions. Hence there has been of late a general cry and desire for the establishment of more technical and industrial schools and colleges. A careful perusal of the new rules and regulations will show that the general education has been made very costly and the object of the Government in doing so, seems to check the 'general rush' towards the general education which has been very marked throughout India. Though the introduction and establishment of industrial and technical institutions would, in a

large measure, conflict with the interest of the 'home industry,' yet the Government are in favour of establishing these institutions in pursuance of the policy which has been declared many a time since 1858.

The Nature of Service. There can be no two opinions that the Government service is the best considering the stability of service. If one is found to *honestly* discharge his duty he will not be asked to quit his service, and there is no fear of break of service in the middle. But there is considerable difficulty to get into the Government service, for it is not always the merit that secures the appointment; it goes more often with letters of recommendation than with real merit. Owing to the stability of service the starting salary is not attractive and consequently men of real merit and skill desire to pursue other walks of life.

In the Government service there is some regularity in promotion, according to seniority. Invariably the promotion is rather slow, except in a few cases of merit and recognition of the merit by the Government. Another advantage in the Government service is that it carries with it a future prospect of pension which would keep the recipients against want and sufferings in their old age. It does not necessarily follow that all Government servants do enjoy the pension; for we see that many Government servants die in harness. But one can hope to enjoy the pension if God would spare him long. Government posts have been carrying always a vast amount of prestige in the eyes of the mass or the public. Even now in less advanced parts we find parents stating that a clerk's post on Rs. 15 is much better than a post on Rs. 40 in a firm or a teacher's post. The reason is that it is stable and that they fondly hope to get

some extra income. Again independence is, in most cases, a bar to one's own progress and promotion; yet it is commendable to adhere to right principles, which one's conscience dictates to be right. Sacrifice of principles is always a weak point in one's character. It is by far better to die a martyr to one's well-grounded principles than to live pompously by sacrificing them at the altar of selfishness. History records instances where independent men have succeeded in their lives in the long run though they suffered in the middle.

Some say that poor officials cannot do any good. It is a mistaken notion. They can do a lot of good only if they desire to do so. Where there is a mind there is a way. If they do not render any good, it is because they are prompted by selfish motives. Instances are not wanting to show that some good officials have done as much good to the community as non-officials.

Private Service. All other services may be considered as private. In this there is no security of position. Opportunities are fewer for asserting one's individuality even when he is in the right. Undue pressure is brought to bear upon the servants who have no other option than to obey to the mandate of their superiors and sacrifice their own right and sensible views. One has to die many a death if his action would cause displeasure to his superiors and so there is hardly any freedom of action. In this dangers are relatively greater than in the Government service.

Under this class can be brought any private undertaking—I mean, commercial business. This requires some amount of capital, labour and business pluck on the part of one that desires to begin any undertaking. But it is a pity that wealth and wisdom do not generally go

together. There are men with wealth that have no business capacity or inclination to start business. There are men with a vast amount of genius and with a commercial turn of mind, but they have hardly any capital to carry out that intended object. The chief drawback amongst us is the want of confidence in each other and the consequent disinclination to co-operate with one another. In this respect we have yet to learn from the West the advantages of Joint Stock system. I have made some digression here, I believe, but I felt some necessity for it; for nothing affects a man so seriously in his life as his failure to choose the kind of life for which he is most fitted. For young students, there was till recently a difficulty for choosing one's subject after passing his F.A. examination. Some had to change their subjects many a time. That is their first difficulty. The more serious difficulty is one that was referred to above regarding the choice of profession; failures in life can be accounted for only in this way that persons went wrong in judging of their fitness for particular a walk of life. They see their mistakes rather too late and find it hard to rectify the mistakes so committed.

It must be borne in mind that a man is a creature of circumstances and the fond hopes and dreams of boyhood might wither in a day by the bursting of sudden storms of calamity and unforeseen accidents in life. Hence there is no certainty that we will be able to realise our aspirations in full, yet it is our duty, without despair, to catch time by the forelock and turn every opportunity that may present itself to ourselves to best account and leave the result to God with full and unshaken faith in the Divine dispensation of justice.

Relation between the Manager and the Head Master. In Government institutions there is not much difficulty as Headmasters have only to follow certain prescribed rules and regulations. In a Government school the only defect that can be said against it, is that it is full of cumbrous procedure and great deal of correspondence. The Headmaster's time is occupied with much routine work and consequently the teaching work has dwindled into nothing. I don't deny that there may be Headmasters who, in spite of official worry, have the students' welfare at their hearts and consequently discharge their duties very efficiently to their own satisfaction and to the satisfaction of all concerned. In private institutions, the Headmaster should, in prudence, discuss with the Manager all possible questions regarding his powers, which he deems necessary for the efficient discharge of his duties in the school. The line of demarcation should be definitely drawn and reduced to writing. A prudent Headmaster should get the requisite authority from the Manager that the latter would not interfere in the least with the internal management of the school. Else, he would be ship-wrecked many a time in steering his vessel. The Manager should hold himself responsible for pecuniary help and other external management and should interfere with the Headmaster only in cases of gross, wilful and malicious conduct of the Headmaster towards his assistants. In which case he should satisfy himself with the explanations on either side, before he finally passes his order in the case. The Manager should place himself in the position of an un-prejudiced and impartial judge and should not readily incline to either side, for an erroneous condemnation is capable of doing

greater harm than a wrong acquittal. A severe censure on a party who is not in the least blame-worthy would upset the work of the institution as a whole, and other sensible and intelligent assistants would, in consequence, lessen their regard for the manager and then would show lack of zeal in their work, which is the result of want of confidence in the Manager as regards his genuine appreciation of the work done. Hence great wisdom, tact and calmness should be exhibited by those at the head of the Department.

Qualifications of the Headmaster. Generally speaking much care and caution should be exercised in the choice of all teachers, more so in the choice of Headmasters. Because the Headmaster occupies the highest post in the school and is responsible for the proper conduct of the school, for efficient instruction to pupils, for the excellent formation of character and conduct of pupils on the one hand and for the sympathetic and kind attitude towards his assistants so as to gain their good-will and enlist their sympathy on his side and his uniform maintenance of respectful behaviour towards his superiors on the other side. The credit or discredit of the institution will always go to him. He can make the institution or mar it. He is morally responsible for shaping the destiny of a vast number of children studying in that institution of which he happens to be the head for the time being. If a happy choice is made as regards the Headmaster, that institution should be considered as a great blessing to the local people that send their young children to the school. Such a school will be really shedding beneficent results on people.

The first and foremost requisite in a Headmaster should be that he is rich in good

qualities that go to form a 'man.' He must aim at developing his good qualities more and more so that he might be called sooner or later by the name "He is the man."

Of the several qualities that might be deemed necessary for him, nothing is superior to the noble quality of being *sympathetic*. This quality is essential for heads of departments from the king downwards. This quality, some fear, would be misconstrued and the sympathetic head may be regarded as a weak person. It is erroneous to think so. This spirit of sympathy should pervade all his actions. To rule by love is more effective than to rule by fear. A greater proof is not necessary than the fact that the highest head of the department, *i.e.*, the late Majesty King Edward VII won many peoples on his side by this single quality. His worthy son has given public utterance on more occasions than one that he would follow the glorious example of his father. The next quality that is worth mentioning is *sincerity*. This is a necessary adjunct to the former; for outward sympathy and inward insincerity would sooner or later bring the man into trouble. An ass in the lion's skin cannot get on well for any length of time. Nothing is more ruinous to the Headmaster than his assistants, his superiors, his fellow-men, his students or the public coming to suspect his sincerity. It is no good to shed crocodile tears and meditate harm or injury to his subordinates. By far better it would be to openly declare one's attitude towards another so that there may be no hiding of the fact on either side; for, one should either love a man heartily or hate him really. This half-hearted dealing contributes to the happiness of neither party. When this ignoble or abject quality is found to

exist in the Headmaster, he falls very low in the estimation of all. He is condemned. He becomes an object of pity, scorn and ridicule. He fails to command respect of his assistants, love of his pupils, regard of his superiors and the good opinion of the public. So he should not allow his name to be brought as an example under the lines of Shakespeare "Men are not what they seem." The possession of these two qualities would go a great way to cover many other blemishes.

Tact. He must possess this quality in a pre-eminent degree. What helm is to a pilot so is tact to the Headmaster. The keynote of the Headmaster's success depends upon his tact or ability to manage affairs. He who lacks this quality is unfit to govern an institution. If this quality is not found innate in one person, he may acquire this from his practical experience. Every kind of failure by particular line of conduct ought to teach the doer a good lesson if he is careful to learn and benefit by the result. Tact is necessary to deal with his boys in the first place, with his subordinates in the second place, and his superiors in the third place.

As regards the relationship of the Headmaster towards boys, the former should by his very force of character create in the minds of students both fear and reverence. These effects should be produced in the minds of students by the very personality, dignified behaviour, and efficient teaching. These cannot be produced by any amount of assumed qualities on the part of the Headmaster. Even granting such a thing to be possible, the effects would not be lasting. There should be uniformity, impartiality and justice in his dealings with pupils. All pupils irrespective of their rank, social condition in life, wealth, relationship, etc.

should be treated alike. When boys go wrong, and commit mistakes, he should correct and chastise them, but never betray or ruin them, for, no man is in this world who would chop off his finger because the finger happens to hurt his eyes. Such should be his identification in the cause of his pupils. But this should not descend into undue leniency and freedom with young students, for students are after all students, and cannot be expected to rightly understand the courtesy and leniency shown to them. His talk on the one hand should not border on levity nor on the other hand end in unhealthy and unpalatable jokes. Students should not be found fault with for personal deformities or for other things over which they have no control. He should, in fine, exercise a healthy influence over them.

As regards his assistants, he should be strict in exacting the proper amount of work from them, but he should be at the same time kind and sympathetic towards them. He should always support their cause when they are right and should not side with his superiors. He should fairly and impartially judge of the work done by his assistants and represent facts as they are, or as he honestly thinks them to be to his superiors, and recommend them for promotion when they deserve. He should never bring in his personal likes and dislikes into the matter and thus stand in the way of promotions that may be voluntarily given by the managers. His own exemplary work should be sufficient incentive for them to work without his asking. The conscientious manner in which the Headmaster does his work, will make his assistants to work with ten-fold zeal on their part. This will cause great fear in them who will be always on the alert to discharge their

duties, and the result would be splendid work in the institution as a whole. He should show his spirit of sacrifice when opportunities arise and require that. That will generate a great deal of love and respect in the minds of assistants.

In the matter of notices and other circulars, full courtesy should be shown. Words "should and must" be very sparingly used. Greater care should be used not to wound the feelings of assistants. Many of them might be men of feelings; besides kinder words would have better result, be a better punishment than unkind, harsh and rough language. This fact should not be lost sight of, for, in some schools this kind of language has alienated the good feeling and love of the assistants. High-handed procedure will always end in ruin and is twice cursed. For the faults of a few persons, general notices should not be used. In such instances personal warning in private would add charm to it, and the faults would be remedied at the same time.

The Headmaster should never forget for a second the various steps of a ladder by which he rose to the present position and should never put on the condescending tone. This condescending attitude is the most despicable of all things. Sometimes people rise from a low position to a very high position; the higher they rise, the more modest, kind, courteous and affable they should be; and the more popular they would grow, in greater esteem they would be held by their superiors and more honours would be thickly showered on them.

In forgetting their previous positions, they only make those already acquainted with them laugh in their sleeves. There is a tendency

amongst some that others also should suffer in their life because they suffered a great deal in their life. This is no argument but only a weakness in them. This very suffering should teach them on the other hand a better lesson that others shall not suffer the pangs and troubles they underwent in their life. They should feel gladness in other's prospects; they will grow happy if they do so. If on the hand, they feel hatred and jealousy in others' prospects, they would make themselves more unhappy and this jealousy when it once takes possession of any person acts like a cancer worm and causes destruction as is illustrated in Shakespeare's Othello. Again some Headmasters feel a stronger grip over the purse of the school than the Manager himself, so far as others are concerned. It is the result not of self-interest but of selfishness—a base quality which should be shunned at any cost.

As regards his Manager. He should always move at arm's length from the Manager. He should neither be indifferent towards him nor servile, and allow himself to be led by the nose. In the 1st case he incurs the displeasure of his superior who would readily wait for an opportunity to get rid of him and in the latter case, he falls low in the estimation of his subordinates. He should occupy the golden mean position. He must uphold justice and fight against injustice. When the Headmaster thoughtlessly moves very freely with his superiors, then undue pressure is brought to bear on him, then he wakes up and finds out the awkward position in which he has placed himself. He should never slacken or fail to show that respect due to his official superior, however familiar with him he might move in his private capacity. He should bear

in mind that private friendship is a different thing altogether from public and official duty.

V. RAMACHANDRA AIYAR.

(To be continued).

HISTORY OF GREAT BRITAIN AND IRELAND—A GENERAL SURVEY A SYLLABUS.

1. The early inhabitants of Britain; the Roman occupation.
2. The English Conquest of Britain; the English institutions; introduction of Christianity; unification into one kingdom.
3. The struggle with the Danes; Alfred the Great; Danish Conquest; The Normans; The Norman Conquest.
4. The Rule of the Norman Kings; The Feudal System.
5. The early Plantagenets; Henry II's dominions; The Crusades; The Magna Charta; The Beginnings of the House of Commons.
6. The Conquest of Wales; attempts to conquer Scotland; Robert Bruce; The Hundred Years War. The Peasants' Revolt; Lollardism.
7. The Wars of the Roses, Anarchy; Baronial Oppression.
8. The strong Tudor monarchy; The Reformation.
9. The maritime enterprises of the English; The Elizabethan age.
10. The struggle between the Parliament and the Stuart kings; The Civil War; Oliver Cromwell; The Dutch Wars; The Revolution.
11. The Union with Scotland; the Jacobite Rebellions.
12. The 18th century wars with France; growth of Greater Britain; extent of the British Empire in 1713; Conquest of Canada;

loss of the American Colonies; British Raj in India; Colonization of Australia.

13. The war of the French Revolution; Battle of the Nile; Trafalgar; the Peninsular War; Waterloo.

14. The rise and growth of the British dominions in S. Africa; the Boer wars; The Union of S. Africa.

15. British policy in the Near East; the Eastern Question; the Crimean War; the Treaty of Berlin; The Concert of Europe; the British control of Egypt.

16. The Industrial Revolution; Factory Legislation; the Free Trade Movement; Parliamentary Reform; Religious equality; Growth of democracy.

17. The Irish question; the Union of 1800; Redress of Irish grievances; the Home Rule.

18. The British Empire; its extent; its natural resources; system of administration; The New Colonial System; Colonial Federation; Imperial Conference; the greatness of the Empire.

G. SRINIVAS AIYAR.

DEMOCRACY IN EDUCATION.

Bishop Welldon, the President of the Educational Science Section of the British Association which met at Portsmouth on 30th August, dealt in his address with the present state of education in Great Britain and advanced some proposals for its improvement. As one who during 15 years had occupied the headmasterships of two great public schools, "differing radically in type"—Dulwich and Harrow—he styled his address "An Old Schoolmaster's Reverie." He is also Deputy Chairman of the Manchester Education Committee. The following are extracts from his address:—

He said that before any attempt could be made to criticize the existing educational system or

want of system in Great Britain, and especially in England, it was necessary to state the principles underlying all true progress or reform in education. In the briefest possible language they were, he thought these:—

1. That every child shall enjoy the opportunity of developing in full measure the intellectual and moral faculties with which God has endowed him or her.

2. That no difference of opportunity or as little difference as possible, shall exist between the richer and the poorer classes of society.

3. That the supreme object of education is to provide good citizens—citizens who, in Milton's stately language, will be able to "perform justly, skilfully, and magnanimously all the offices, both public and private, of Peace and War."

4. That, as the personal influence of the teacher is a potent factor in education, it is the business of the State to ensure the highest possible efficiency, not only of intelligence but of character, in the men and women who adopt the educational profession as their life-work.

It seemed to him that all the educational questions of the day might naturally be ranged under these four heads. The first included physiology and psychology as subjects directly bearing upon the teacher's art, the study of individual character, the size of classes, the specialization of studies, the opportunity of self-culture, the time-table and the constituents of the curriculum—above all the practical insight by which a teacher discerned and the sympathy by which he or she encouraged the signs of genius or talent, even when they were overlaid by many faults and failings in a pupil. There was no more humiliating reflection than that teachers had so frequently been blind to the promise to distinction in their pupils. Of the public schools especially it was only too true that they had been, and in some degree still were, the homes of the average and the commonplace. They had applauded mediocrity, if it conformed to the rules made by the masters for boys and the yet stricter rules made by boys for one another; they had been not only oblivious but even contemptuous of such

conduct as was felt to be a departure from, if not a reflection upon, the established form, of public school life.

ELEMENTARY EDUCATION.

More than 40 years have elapsed since the passing of the Education Act of 1870. That Act was a signal legislative achievement; it still reflected lustre on the name of Mr. Gladstone and Mr. Forster. In the intervening years it had been subjected to severe controversy, not so much on educational as on ecclesiastical grounds. It had undergone some grave modifications at various times, especially in 1902. But, after all, the main principles embodied in the Act of 1870—viz., that education was a national concern, that the children were the greatest asset of a State, and that it was the interest no less than the duty of the State to provide, or to see that provision was made, for the education of all children in elementary or other schools—had not been and in all probability would not be seriously challenged. The Act of 1870 had proved to be a great moral reform. It lifted the nation as a whole to a new level of self-respect. For the child who had acquired even such elementary learning as was popularly symbolized by the "Three R's" was a higher being than the child who could not read or write. The elementary school teacher, not in denominational schools alone, had been a missionary of civilization, and, he thought he might say, of Christianity, in many a dark region of many a populous city. He had been told that to the influence of the Board Schools in East London was traceable a marked advance among children in kindness to the lower animals. Any disparagement or depreciation of the Education Act of 1870 was little less than treason to the moral interests of the people at large.

But it was permissible to inquire what fresh light had been shed by the experience of 40 years upon the established system of elementary education in England. After some careful consultation with persons who in Manchester and elsewhere had studied the question for many years, he had been led to the conclusion that the reforms needed

at the present time were principally the following:—

The control of the Board of Education over local educational authorities has become too strong and too stringent. It is probably stronger and more stringent now than it has ever been since 1870. It would be wise, I think, to leave or to place greater administrative power in the hands of the local educational authority. Local authorities understand local needs. So long as they do not depart from the general principles laid down by the Board of Education, they should be free to expend each its share of the public monetary grant in the way which they hold to be best of their own communities.

I see no need for a dual system of inspectors in elementary schools, and I think it tends to the interference of H. M. Inspectors with details upon which their judgment is sometimes more confident than their knowledge is profound.

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The period of a child's school life is now too brief. There should, I think, be a universal *minimum* age at which children may leave school. It should probably be 14 years. But whatever that age is, it should be absolute. It should be wholly independent of local by-law, of the passing of standards, or of attendance at school before the age of 14.

The question of evening schools is fraught with difficulty. To make attendance at such schools compulsory would be to run a serious risk of overpressure. It is probable that sympathetic co-operation between local education authorities and the employers of labour in the locality will in this matter afford the best hope of success. For it is the interest of the employers themselves that their *employees* should not cease to improve themselves in knowledge as soon as they leave the elementary schools.

The need of the local education authority for increased financial help out of public funds was recognized, I think, in Parliament during the debates on the last Education Bill. The State cannot make fresh demands upon the education authorities with-

out granting them fresh funds. Yet there can be little doubt that the feeding of necessitous children and the care of the epileptic, feeble-minded, and crippled children will soon or late become duties imposed by Parliament on all local educational authorities.

Lastly, the connexion between the elementary school and the University or the technical school should be made complete. At present the elementary school provides education for children up to their 15th year. The University or the technical school does not admit pupils under 16 years. But education, when it is once broken, is hard to resume. The educational system, if it is to be efficacious, must be continuous.

RELIGIOUS INSTRUCTION.

Upon the difficult and delicate subject of religious teaching in elementary schools he had so far scrupulously refrained from touching. It would not, he thought, become him to make more than those two remarks:—

1. That religion is in the long run the most potent support of morality; religious teaching is, therefore, a necessary element in every sound educational system; and any religious teaching, if it be but the belief in an Almighty Power, is far better than Secularism or Paganism. But it is the State alone not any Church or religious body, but the State alone which can ensure the attendance of all children at religious teaching subject, of course, to exemption on conscientious grounds.

2. That if it is or may be held to be the interest of the several Churches to educate their children in watertight compartments, so that no child shall come in religious contact with any child not of same creed as his own, that is not at all the interest of the State. The State needs that its citizens shall have learnt to know and respect each other in spite of religious differences, to rub shoulders together, and to co-operate with each other for the public good. It needs citizens who are capable of judging even religious questions not without reference to the welfare of the body politic. It is probable, therefore, and I cannot say it is unreasonable, that the State, while freely allowing the

different religious bodies, if they are able and willing, to provide for the religious education of their own children, will require some mitigation of religious differences in the school supported out of the public exchequer or out of the local rates.

THE ABUSE OF SCHOLARSHIPS.

A public elementary system of education that must be complete in itself, so far it prepared children physically, intellectually and morally for the affairs of life. But it must not lose sight of the possibility that some, and those the most promising of the children educated in elementary schools would deserve to rise to a higher than an elementary educational standard. It was probable that the ascent of pupils from one class of school to another would become more usual in future years. This ascent would be effected or facilitated, as to some extent it already was, by the provision of free places, bursaries, exhibitions and scholarships. Even now boys educated in elementary schools had attained the highest honours in the ancient as well as in the modern Universities. Some such boys have won admission to the public schools, and among these schools to boarding schools as well as to day schools. Whatever amount of social exclusiveness might still apparently linger in that most truly democratical of English institutions, a public school, it seemed to him, impossible that in a democratical age there should ultimately remain any school which would not open its doors to pupils who were drawn from every social section of the community. In the education of girls the schools of the Girls' Public Day School Company and other similar schools, whether publicly or privately governed, had done much to mitigate, if not to dissipate, the social differences among girls living in the same locality.

But the agencies by which children of comparatively poor parents had in the past been enabled to receive an education in the schools and indeed in the Universities, of the rich were, he was afraid coming to be gravely abused. Scholarships and exhibitions were designed to remedy the disadvantage of the poor, not to accentuate the privilege of the rich. To confer pecuniary rewards upon boys

and girls whose parents could well afford to dispense with them was to foster a double abuse. It was to spend money where money was not needed, and to withhold money where it was needed. Yet in the public schools, and to some extent in the Universities, scholarships and exhibitions tend to become the perquisites of the rich. In the field of secondary education the competition for scholarships and exhibitions had become so severe that scarcely any boy in the examination for them stood a chance of success, except at the cost of three or four years spent beforehand in an expensive preparatory school. But as rich boys were the only boys whose parents could afford this preparatory expenditure, it followed that rich boys were generally the successful candidates for scholarships and exhibitions. The evil was scarcely capable of exaggeration.

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PECUNIARY CONSIDERATIONS.

No doubt there was force in the plea that the Universities could not afford the pecuniary loss which would result from the policy of excluding Passmen or of pressing hardly upon them. It must be answered that no pecuniary consideration could justify a University in ceasing to be primarily a learned body. But women students were more earnest than men; and if the Universities granted degrees, as he hoped they would, to women equally with men they would probably find that they would receive as much money from the addition of the serious students, who would then belong to them, as they now received from those students who were not serious at all. The Universities of Oxford and Cambridge had made frequent appeals for pecuniary support. Education, especially scientific education, was expensive and it tended to increase in expensiveness. But he had sometimes wished that, before money was poured into the exchequers of the Universities, a Commission, composed of men who were fully sympathetic with academical culture and yet had been trained in the habits of business, could issue a Report upon the use now made by the Universities and by the colleges of the funds which they severally command. He was of opinion that such a commission would

not prove unable to suggest the possibility of large economies which might be carried out without impairing the efficiency of the Universities as seats of learning, or even of the colleges as homes for the students whose proper object in their academical life was to acquire learning.

THEOLOGICAL DIVISIONS AND SOCIAL LIFE.

It was desirable that every University should be free from theological restrictions. He looked forward, therefore, to the time when the Universities of Oxford and Cambridge would recognize Non-conformists no less than Churchmen as eligible not only for degrees, but for Lectureships and Professorships in the Theological Faculty. There was a broad distinction between the study of theology and the profession of theological beliefs. It was no hardship upon a student that he should be examined in theology so long as he retained his complete freedom of theological opinion. That theological recognition should be accorded to none but persons of particular views upon theology was in conflict with the highest interests of theological learning. At present the Universities of Oxford and Cambridge were the close preserves of the Church of England; the natural result was that the modern Universities tend to become the preserves of Non-conformity; and neither class of University was benefited by the consequent one-sidedness of theological study.

The co-education of men and women in the Universities whether ancient or modern, was already an established reality. The only difference was that co-education was recognized in the modern, and was not recognized in the ancient Universities as necessarily leading to an equality in the matter of degrees. The real objection to placing women on an equality with men in their relation to a residential University was the difficulty of finding room for a number of female as well as male students within the precincts of the same University. On that ground alone there was some advantage in Universities or colleges for women only, such as the Royal Holloway College; but experience had shown that colleges for women do not flourish except in close relation to a Univer-

sity in which the education of men was carried on, and he felt no doubt that the granting of academical degrees at Oxford and Cambridge to women as well as to men was merely a question of time.

No critic of the ancient Universities, and certainly no one who had spent some happy years there as an under-graduate and a Fellow could forget that the social as well as the intellectual side of the life was a part of its privilege and benefit. But that social intercourse would lose something of its value if students of different classes and different creeds did not mix freely. It was too often forgotten, in the zeal for ecclesiastical propaganda, that one element of education lay in teaching people who do not agree to work together. To make the least, and not the most, of personal differences was a factor in the life of Universities. It was for this reason that he did not look with any great favour upon the institution of special colleges set apart for Churchmen or for Non-conformists or for men of poor and humble circumstances. It was better that such students should as far as possible associate with other students; for in such proportion as under-graduates of religious feeling or of strenuous self-denying character were educated by themselves, there was a diminution of their valuable influence on the mass of the under-graduate body. There might as well be Conservative colleges and Liberal colleges as colleges of a special and exclusive theological character.

Colleges were expensive features of academical life, and they tended to become more expensive; but the expense was justified by the benefit which the students might receive from the influence of their teachers upon their lives. But if colleges were to exist as integral parts of the University, there should be a sufficient number of Fellows and tutors living within their walls. No feature of modern life at Oxford or Cambridge was more pitiable than the spectacle of a married man coming into his college at a late hour of the evening, with his carpet-bag in his hand, to fulfil the statutory obligation of sleeping within the walls. No deep personal interest or influence of

a tutor in the lives of his pupils was possible in such circumstances as these. If only it were possible to defer the opportunity of marriage until a man had rendered some years of service by residence within the walls of his college, and then to grant it only to men whose service the college wished to retain, the collegiate life of the ancient Universities would be less likely to lose its effective value.

THE SPIRIT OF A UNIVERSITY.

But when all was said, how great was the charm of the ancient English Universities! They were unique; they exercised a life-long spell upon pupils who had spent three or four years within their ancient walls; they fostered, even if unconsciously, a noble sense patriotic duty; they haunted the memory; they were fruitful in high and generous and sacred inspirations. What was the spirit of a University? How was it born? How did it operate? Why was Cambridge in a special sense the home of mathematics, and Oxford of letters? Why was it that Oxford found so many, and Cambridge so few, representatives upon the public Press? Cambridge it seemed had played the greater part in the thought and Oxford in the life of the nation. But why was it that Cambridge had given to the world sons more famous, it might be, than any whose names belong to the sister University—Bacon, Newton, Cromwell, Milton, and Darwin? Why, above all was Cambridge in so pre-eminent a degree the University of the poets? Such names as Milton, Ben Jonson, Herrick, Cowley, Byron, Gray, Wordsworth, Tennyson belonged to Cambridge alone. Nothing could replace, nothing perhaps could greatly affect, the relation of the ancient Universities to the country whose ornaments they were. What was needed, and would be more and more needed as democracy extended its power, was to enhance the strength of the influence which the Universities exercised upon the national life at large.—*The Times.*

Reviews and Notices.

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R. W. K. EDWARDS (ALSTON RIVERS, LD.,
LONDON).

The book is intended to provide a first year's course in Trigonometry. We cannot find anything special in the book so as to justify an addition to the already existing numerous elementary books on the subject excepting perhaps the inclusion of some problems of solid geometry such as relate to slopes of planes and of lines of intersection of planes. Though there is nothing special in the book, it is good enough as an introduction to the subject and contains many intelligent questions both practical and theoretical.

ELEMENTARY ALGEBRA FOR HIGH SCHOOLS, BY HALL
AND KNIGHT. ADAPTED FOR USE IN INDIAN
SCHOOLS, BY B. HANUMANTA RAU, B.A. (MAC-
MILLAN & CO) Price Rs. 1-8 0.

As the title itself indicates, the book is a revised edition of Hall and Knight's Elementary Algebra intended for the use of students preparing for the School Leaving Certificate or the Entrance Examination of Indian Universities. Many desirable changes are introduced in this edition, such as the early introduction of negative quantities, large use of graphical illustrations, the stress laid on the use of checks in verification, the relegation of Long Multiplication, Long Division, H C F., &c. to a later stage, the introduction of logarithms, &c. However to justify its adaptation for use in Indian schools we wish the author had given practical problems taken from Indian life. Most of the problems are of the stereotyped old ones such as involve 'rates,' 'age,' 'number,' &c. The printing and the get-up are far from satisfactory.

SCHOOL ALGEBRA, PART II, BY HALL. (MACMILLAN
& CO.) Price 1s. 6d.

This is Part II of a book on School Algebra which the author is writing. (This part deals with the progressions, the theory of indices, the theory of quadratics, ratio, proportion and variation, and logarithms). Mr. Hall is well-known as the joint author of a number of publications on Elementary Mathematics. And we are glad to say that, as would be expected from the name of the author, the book is clear in exposition and

lucid in style. The general get-up of the book is simply excellent.

THE UNIVERSITY TUTORIAL SERIES—HENRY V, BY
A. J. F. COLLINS, M.A. (UNIVERSITY TUTORIAL
PRESS). Price 2s.

The publications of the University Tutorial Press have always been characterised by a commendable thoroughness and spirit of scholarship. Mr. Collins' edition of *Henry V* in the series maintains a high level of excellence. The introduction is specially valuable—besides the usual biographical study of Shakespeare and the characters of the play, there is a lucid discussion of several interesting questions which have a direct bearing on the dramatist and his work. It is instructive to see him consider, for instance a question like the use of prose and poetry in the play, or the occurrence of rhyme. We have no hesitation in recommending the book to students who have to study it for their examinations.

MAUD, WITH INTRODUCTION AND NOTES, BY E. H.
ELLIOT, B.A. (SRINIVASA VARADACHARI & CO.)
Price Rs. 1.

Mr. Elliot's edition of *Maud* must be highly useful to students of this University who have to study it as a text-book. He is particularly instructive when elucidating difficult points of interpretation in the text, and his special ability in this line has enabled him to explain the passages with the clearness and force necessary for the appreciation of the meaning by the Indian student.

SAMSON AGONISTES—A DRAMA BY MILTON, TRANS-
LATED INTO TAMIL, BY K. VENKATARAMA
IYER, B.A. Price As. 4.

A demand for Tamil Prose Literature has brought into existence a number of publications. Some of them are no doubt good, but generally there is a deterioration in style. This translation is free from this defect. It has further the advantages of possessing the qualities of simplicity and chastity. It requires a Kamban to translate Milton into good Tamil Poetry. When we cannot have one, we must be satisfied with good prose renderings. We are very glad to say that the translation before us is not of the common type, but of more than average excellence. While not making the style too difficult, the force of the subject-matter has been brought

out with as much clearness as possible and with dignity of style.

The defect caused by the want of a poetical translation is made up for by splendid adaptations of good Tamil Poetry, where ideas similar to Milton's have been expressed; one such instance may be mentioned. Amongst the splendid poetic lines of Pattannathu Pillayar are some condemning slavery to women and forgetfulness of a noble life. By changes of a few words the translator has very beautifully brought out Milton's ideas in Tamil poetic garb.

In these days when Tamil Composition is much attended to, some books with slang and colloquialisms not much desirable in books written for scholars are used. It must be a pleasure both to the teacher and to the pupil or student to have a good translation of this kind before them.

OUR COMMON INHERITANCE I. THE INDO-EUROPEAN
LANGUAGE. FIVE LECTURES DELIVERED AT
THE QUEEN'S COLLEGE, BENARES, BY C. M.
MULVANY, M.A., B.LITT. BENARES: PRINTED
AT THE M. S. P. S. PRESS AND PUBLISHED BY
THE AUTHOR. 1911.

The aim of the book is to make accessible the evidence for the theory that Sanskrit and the Sanskritic languages, Persian, Greek, Latin and the other languages of Europe (excepting Hungarian and Turkish and Finnish) are all derived from one original language. To illustrate the unity of these languages the author has made a selection of comparison from well-known authorities. The words compared are arranged in six columns. The first column contains Hindi words; the second Sanskrit; the third modern Persian and words from the Avesta, the oldest Parsee scriptures; the fourth Greek; the sixth Latin; and the seventh English along with an occasional German word.

Of the five lectures the first is devoted to showing that there is a very large common element in these languages. This is done by means of certain groups of words, nouns of relationship, numerals, pronouns, names of parts of the body, &c., and finally through some specimens of declension and conjugation. In the second lecture it is shown that changes in language take place in an orderly fashion. The earlier part of the third lecture contains the interpretation to be put on the material collected in the second lecture, while the latter part deals with the

close connection between Sanskrit and the language of the Parsee scriptures. The fourth lecture treats of the changes that particularly contribute to hide the identity of the English language with the ancient languages. The last lecture deals with the relations between English and Latin and some Eastern languages, from which many words have passed into English.

The book professes to be no more than a compilation, but the author deserves great credit for putting all the materials so laboriously collected into orderly shape.

GENERAL PHYSICS FOR STUDENTS—A TEXT-BOOK
ON THE FUNDAMENTAL PROPERTIES OF MATTER,
BY EDWIN EDSEER. (MACMILLAN & CO, LTD.,
LONDON. 1911).

The object of this book is, as explained in the preface, to discuss accurately the fundamental properties of matter in an elementary fashion without the use of the calculus. The phrase "fundamental properties of matter" does not connote anything very definite and therefore covers according to the ideas of different writers on physics different extents of ground. Thus, we find in this book portions from all parts of physics, which could have been conveniently dealt with in their respective places in a general treatise on physics. For what grade of student the book is intended is not clear. The student who is likely to study the subjects treated in the book is likely to acquaint himself with the elements of differential and integral calculus. The special methods by which some integrations are performed in this book could have been avoided and unnecessary explanations could have been spared. However, the amount of material brought together in this book makes it a help both to teacher and student and as such will prove a useful addition to any college library. Though we cannot recommend it as a text-book to any stage of student in our universities, yet we think that the book will be found very helpful for occasional reference.

Indian Educational Notes.

MADRAS.

Departmental Notifications.—Mr. P. P. Braithwaite, Inspector of Schools, Eighth Circle, is granted combined privilege leave and furlough for one year and six months from the 2nd January, 1912.

Lieutenant-Colonel C. M. Thomson, M.B., I.M.S., has resigned his Ordinary Fellowship of the Madras University.

The Acting Director is pleased to grant Mr. S. Ragunatha Rau, Sub-Assistant Inspector of Schools, Hospet Range, privilege leave for one month and thirteen days from the 23rd September, 1911, or from the date of relief, and to appoint Mr. V. Narasinga Rau, Supervisor of Elementary Schools, Kudligi, to act for him in the probationary class in addition to his own duties during the absence on leave of Mr. S. Ragunatha Rau or until further orders.

The Acting Director is pleased to grant Mr. M. Parvatesam Pantulu, Sub-Assistant Inspector of Schools, Berhampur Range, privilege leave for two months, with effect from the date of relief and to appoint Mr. A. Tammanna Pantulu, sub. *pro tem.* Supervisor of Elementary Schools, Chipurupalli, to act for him in the probationary class during his absence on leave or until further orders—to draw a salary of Rs. 65 per mensem.

The Acting Director is pleased to grant Mr. K. Viswanatham Pantulu, Sub-Assistant Inspector of Schools, Palakonda Range, privilege leave for one month from the 20th September, 1911 or from the date of relief thereafter, and to appoint Mr. P. Papa Rau, sub. *pro tem.* Supervisor of Elementary Schools, Palakonda, to act for him in the probationary class in addition to his own duties during Mr. Viswanatham Pantulu's absence on leave or until further orders—to draw Rs. 45 per mensem.

The Acting Director is pleased to make the following appointments:—

Mr. K. Amirta Rau, Assistant Professor, Presidency College, sub. *pro tem.* to be Sub-Assistant Inspector of Schools, Chiescole Range, in the probationary class, with effect from 1st September 1911 vice Mr. P. Appalarasyya Pantulu transferred but to continue in his present officiating appointment.

Mr. Narayana Panigrahi, to act as Sub-Assistant Inspector of Schools, Chicacole Range, sub. *pro tem.* in the probationary class, vice Mr. K. Amirta Rau.

Mr. K. Alwar Chetti, Headmaster, Government Training School, Rayachoti, and Acting Sub-Assistant Inspector of Schools, Tirupati Range, to act for the Sub-Assistant Inspectress, North-Arcot-Salem Girls' Range in the third class, vice Mr. A. Viswanatha Aiyar, suspended for a month without pay—to join on relief.

The Pachaiyappa's High School Literary Society:—Under the auspices of the above Union, a public meeting was held recently in the junior intermediate class hall with Dewan Bahadur L. A. Govindaraghava Aiyar in the chair. There was a good muster of students and Mr. J. M. Craig, M.A., B.D., of the Madras Christian College delivered an interesting and suggestive address on the subject of "Moral Culture." He commenced by observing that the literary meaning of "Moral Culture" was the tilling of the soil of the habits of one's conduct. The question of moral culture was a most important question in India, and he thought it was a national question. For the purposes of his present address, he divorced religion from the question of moral culture. There were an infinitesimal number of subjects on which moral culture could be dwelt upon, but for the present he confined himself to one important question from the point of an individual, how to develop his conduct to make his life worth living. Quoting from Cicero, he said, that this object could be gained from two habits—learning and practice. Quoting largely from the expressed opinions of Prof. James, he said that they must acquire habits and carry out at the first opportunity any resolution they might come to. They must exert to the extent they had been endowed by nature to the acquirement of these habits and as illustrations of his advice he referred to the lives of Socrates and Demosthenes, who though originally were not orators had become such by exercises with a definite purpose. He advised them to be never unemployed and never to be uselessly employed. He advised them to take every opportunity of knowing their environments. The absolute need of an idea that they could always think of was also an absolute necessity. Equally important with this definite comprehensive view was individuality and originality, by the recognition of which each individual might contribute something good to the public. He advised them in conclusion that they should concentrate their duties and not imitate any one and when the opportunity afforded itself to act upon their own ideas.

The Chairman in highly eulogising Mr. Craig for the highly and suggestive address, advised the students to have the same printed and think over it at their leisure moments. The question of moral culture was one in which he was keenly interested, for success in life depended not upon intelligence but upon character first, and upon everything next. Therefore their foremost duty was to develop character—that is to cultivate the field for their capacity and by this development of character they would discharge their duties as members of Society and as creatures of God.

The meeting terminated with a vote of thanks to the chair, and to the lecturer.

Some Eastern ideas in recent English Poetry.—A lecture—The twentieth anniversary meeting of the Madras Excelsior Club was recently held

at the Muthialpet High School Hall, Georgetown, with the Hon'ble Mr. Justice P. R. Sundara Aiyar in the chair. The meeting was largely attended.

Mr. C. P. Ramaswami Aiyar delivered his lecture on "Some Eastern ideas in recent English Poetry," of which the following is a summary:—

Epigrams are never more than half truths and are almost always mischievous. They are so superficially attractive that their brilliance is mistaken for wisdom. One such Epigram is the saying of Kipling "East is East, and West is West and never the twain shall meet." Some writers suppose that the ideas and the ideals of the East are incommensurate with those of the West that the mental outlook of the Indian is as different from that of his European brother as his physical outlook. This is a mistake. The Literature and Philosophy of Egypt and India influenced Greece and Rome. In one sense great literature belongs to no country. This is the case with poetry especially. The mind of man is moved alike by emotions, joys and despairs. The Epic Poetry of Greece and India are so marvellously similar. The love songs of Shelley and Keats appeal to the Indian trained in the melodies of Amaru and Kalidasa. The genius of the East consists rather in regulation and in wise passivity whilst the spirit of the West revels in action and self-assertion. The distinguishing mark of Western Literature is the struggle that is kept up against destinies. It is this spirit which has produced those long struggles of freedom culminating in the political institutions of the West. The Eastern spirit is to allow the storm pass over its head and never seek to quarrel with fates. The first notable poem that reveals a distinct Eastern influence is Bailey's "Festus." In this we have what may be said to be the variant of the theory of transmigration. By about the middle of the 19th century scholars had carefully studied the Literature of the East and begun to understand that there is something in them to learn from. The doctrine of evolution that was first promulgated by Darwin was in fact an old Eastern idea dating as far back as the Sankhya. If one had to summarise the Indian philosophy of the self could one do it better than quoting this from Tennyson: "Ancient Sage,"

"For more than once when,

Themselves but shadows of a shadow world.

No truer description could be given about the results of that self-culture which has been denominated "Yoga" when the soul sees itself as a part of the greater soul and is pained at its separation from it and longs to unite itself with it.

Tennyson is oppressed by the shadow of dogmatic Christianity. Typical of the struggle between the East and the West in him is his "Locksly Hall." To Sir Edwin Arnold must be conceded the praise that he familiarised the English audience

with the ideas of Karma and Nirvana. It must be remembered also that though the "Light of Asia," is only an adaptation of the Buddhistic Kathas it embodies in clearest and most melodious from the essential truths of Buddhist Philosophy. Two poems of William Watson show how deeply the essential teachings of eastern Philosophy have been understood and how profoundly they have affected the thoughts of finer minds of the West. His poem 'The Unknown God' is a brilliant exposition of the fundamentals of Vedanta.

To Matthew Arnold come the flashes of the revelations of the East and in his "Resignation." We obtain a contrast between the life without and the life within. His cry is too often the cry of Arjuna in the Bhagavad Gita. "Native worship" as Wordsworth knew it, was another way of magnifying the work of the Supreme; and the variant of the Te Deum. To Swinburne and to the later English poets has been vouchsafed the Eastern gift of feeling nature as one with our own self. In the 'Princess' we find the most complete exposition of the Indian point of view with regard to the emancipation of woman. It illustrates the mistake of refusing to recognise natural limitations.

In Rossetti we see the perfection of the contentment in mystery, the absence of a rife and the refusal to demand certainty in matters of feeling and faith, all Eastern ideals. As for Mrs. Sarojini Naidu she is reminiscent of Rossetti or Swinburne, or now and then of Tennyson. She has not yet created a manner of her own—I shall deem myself rewarded if I have partially succeeded in showing how universal in appeal the Poetry of England has been and how not an inconsiderable stream of Eastern thought has contributed to feed the Castalian spring.

A proposed Second Grade College at Mylapore.—We learn from a reliable source that the authorities of the Pennathur Subramaniam High School at Mylapore have resolved to raise the High School to the position of a Second Grade College and have applied for its affiliation to the Madras University. A Select Committee was appointed by the Syndicate to make local enquiries. The Committee consisting of Messrs. E. W. Middlemast and Mark Hunter, the Rev. E. M. Macphail and Dr. Henderson visited the school recently. Mr. Dewsbury, the Registrar of the Madras University, was with the Committee during the enquiry. The Hon'ble Dewan Bahadur Mr. L. A. Govindaraghava Iyer along with two other members of the Board of Trustees and the Headmaster of the High School was there to furnish such information as the Committee might require during the enquiry. The results of the enquiry are not known.

Scholarships.—Government Scholarships of the monthly value of Rs. 20 tenable for two years, have been granted to the undermentioned students to

enable them to engage in post-graduate study:—A. Subbaiya—St. Joseph's College, Trichinopoly; K. Sanjiva Rao, P. Narayana Aiyar, P. Suri Sastri, Mandayam J. Narasimhachari, K. Karunakaran Nayar—Presidency College.

Study of Vernaculars and Classics.—On Thursday the 31st August 1911, was held at the local Town Hall of Trichinopoly a public memorial meeting of the parents and guardians of the school-going population. It was largely attended by students, teachers, parents, vakils and others.

The Hon'ble Moulvi Syeed Murthuza Sahib Bahadur occupied the chair. In a brief but lucid address he pointed out the degradation to which the new secondary school final scheme has reduced our vernacular and classical languages. For Mahomedans, he said, the study of Hindustani, Arabic and Persian was essential. Hindustani was the *lingua franca* of India and was largely spoken by Hindus and Mahomedans alike; Persian and Arabic were indispensable. A knowledge of both the vernacular and classical languages were necessary for a good Mussulman who wished to lead a civilised and religious life based on the teachings of his Prophet. The same, he said, was the position of Sanskrit and Tamil, Telugu, Malayalam or Canarese in the case of the Hindus. Then he called upon Mr. T. V. Swaminatha Aiyar, B.A., L.T., of the local Bar to speak on the subject. In an eloquent address he dwelt on the enslaved condition under which our teachers are suffering and pointed out the necessity of a separate Teachers' Association in which the managers of schools would have no part. Mr. A. V. Gopalachariar, M.A., B.L., spoke in strong terms of the neglect of indigenous languages. Mr. S. K. Devasikamani, B.A., L.T., Headmaster, S. P. G. High School spoke in detail about the difficulties of student and teacher alike in the new scheme. Mr. C. R. Srinivasa Iyengar, B.A., of the S. P. G. College, and Mr. M. M. Balakrishna Aiyar, teacher, National High School, Trichinopoly and Mr. B. V. Kristnasawmy Aiyer were the last speakers. After a few words from the chair it was unanimously resolved that a Committee formed of Messrs. T. V. Swaminatha Aiyar, S. K. Devasikamani, B.A., L.T., and Hon'ble Moulvi Syeed Murthuza Sahib Bahadur, should get the memorial prepared in respect of this subject largely signed, and have it submitted to His Excellency the Governor-in-Council, Madras.

The Scheme of School Leaving Certificate.—Every week a circular or proceedings of the Director of Public Instruction is communicated for information and guidance to the Head Masters of the High Schools. It is only now that we can understand the creation of that class of people called the Superintending Head Masters. They may properly be termed the Supervising Head Masters as they now generally raise up their heads in token of anxiety mental inequanimity, as crazy people generally

do, because the circulars or the proceedings set them a thinking as how best they could make use of the suggestions or follow the proceedings. One such proceeding—Proceedings No. 4043 of the D. P. I.—requires the Headmaster to make such a provision in the time-table of the school as to enable the students that have rejoined school to improve their certificates to take up say four subjects in Group C at a time. If a student wishes to improve his certificate, he should not take up the same subjects but wherever possible for subjects of Group A and Group B, a corresponding or an allied subject in group C should be taken. Note the *should*. It is not even left to the option of the students. Thus if a student has unfortunately secured very low percentages in almost all the subjects of Groups A, B and C, he has to take up several optionals at a time, i.e., subjects of group A.—(1) English, (2) Vernacular Translation and Composition, (3) Elementary Mathematics.

Group B.—(1) Elementary Science, (2) History of India, (3) Geography, (4) Drawing.

In group C the student must have already taken two subjects; else he is not eligible for admission into the Intermediate class nor for taking up service. Such a student then has to take up, wherever such a course is possible or the subjects admit of a change, instead of—

1. Elementary Mathematics—Algebra and Geometry.

2. Elementary Science—Physics or Chemistry in Group C.

3. History of India—History of England of Group C.

Thus it will be seen that students who have no aptitude for Mathematics have to undergo a course in Algebra and Geometry (advanced study) and students without any aptitude for study of History have to take up History of England, and such is the lot of students who have no taste for Science (the stumbling block in the old Matriculation examinations). Again it will be seen that if a student has already taken up History of England and Vernacular as his optionals in the first year, if he has to improve his certificate in Elementary Science and Elementary Mathematics, he has to take two more optionals, i.e., Physics or Chemistry and Algebra and Geometry. The student has either to give up the idea of improving his certificate or he must make up his mind to remain for two more years in the same class, improving some subjects in one year and the remaining subjects in the second year. The Headmasters also will find it almost impossible to arrange for the work, especially the Headmasters of *somehow managed institutions*. There will be no such difficulty in the case of institutions where there is a superfluity of teachers. But our schools, very few of them, have even the required number of teachers. It is a hard lot for teachers in these days.

Now this question has a bright side too. This proceedings of the Director will act as a check on those Headmasters of multifarious duties, who find no time to take an active and intelligent part in working the school, but who still manage to find

sometime to interfere with the selection of the candidates to the public examination. Perhaps this is the view of the Director. It will also prevent the students from making their annual pilgrimage to the sacred shrine of the Headmaster during the selection examination.

Anyhow this year at least this proceedings will work much against the progress of the student—*The Hindu*.

Muslim Literary Association.—The Fourth Anniversary of the Muslim Literary Association was held on Saturday, the 16th instant, in the Lyric Hall, Mount Road, Madras, with the Hon'ble Mr. Justice Abdur Rahim in the chair. The meeting was largely attended by the Mahomedan gentlemen of the city. Rev. G. Pittendrig and Mr. J. R. Henderson were also present. An interesting programme of recitations and music was successfully gone through. A lecture was delivered on "Call to Duty" by Mr. A. Hameed Hasan Sait.

The Secretary then read the report on the work of the Association during the past year, which on the motion of Mr. Syed Badruddin seconded by Mr. Syed Abdul Kader was adopted.

The Hon'ble Mr. Justice Abdur Rahim then made a speech. He said that he was glad to be present there that evening and to listen to the interesting programme that had been creditably gone through. Their thanks were due to the members of the Association for the great pains they had taken in giving them such an interesting and varied performance.

He would like to say one word regarding the Association, i.e., that the Association was undoubtedly very much in its infancy; but all of them, well-wishers of the student community of Madras would desire that the Association would have a progressive and prosperous future.

He would then like to make it clear to the members of the Association that what was possibly meant by including social reform and teaching of the ethics of Islam among the programme of the Association was that papers would be read by the members on those very large and interesting subjects; for he hardly thought that the students at the present age of their life would have time to seriously undertake any ambitious programme of social reform or of making more widely known than perhaps was at present in this Presidency the great teaching of Islam. He did not wish for a moment to discourage them that wanted to do their duty to their community. It was certainly the duty of every one who was in a position to do so to work for the progress of the community. The members of this Association could not be in any great position or could not have any very favourable opportunity to do much practical work. It would be enough for them if they tried to understand the real position of the community and its wants to discuss the best plans for improving its position. A community was composed of members and the members of the Association as members of the Mahomedan community should discuss among themselves what

would be the best means of improving their own position. If each of them was in earnest to improve their own status in the society and to make the best use of their talents and opportunities, they would be doing their very best service to the community itself. One of the objects of Associations of this character was to enable young men to prepare themselves for the struggle in life and to co-operate among themselves and to learn the great lessons of the give-and-take of life and to appreciate in good spirit the criticisms of those who did not agree with them and to try to understand the difficulties of others with reference to questions which they might be thinking of Mahomedans as a community suffered too much from individualism, or in other words, from lack of spirit of co-operation. He would be immensely pleased if they learnt how to co-operate with each other, how to tolerate each other's opinions and to sympathise with each other in their difficulties. It was a most lamentable fact that there were too many divisions among Mahomedans and want of mutual sympathy. Of late that want of co-operation and mutual respect and sympathy was not so very prominent among the students as among the more grown-up people. If they wished well for the community they must give up jealousy and attempt to pull down each other. When a society was in a degenerate state, it handicapped each member in the struggle for life. If there was no harmony of feeling in the community, each member suffered most grievously for it.

During the year under report the Association had made good progress. The number of members had risen from 30 to 40. To those students of the Mahomedan community who had not yet joined the Association he would say it would be a very desirable thing to join it so that they might meet their fellow students and pass a pleasant and useful time there. There must be Associations of a similar character in different places. But there must be a central Society consisting of most of the students of those places. That would be much more useful than a number of small societies fluctuating in the number of members.

Speaking of the finances of the Association he said that all well-wishers of the Mahomedan students, their parents and guardians should encourage them in doing a useful literary work of this character. The formation of a library was an object not yet realised by the Association. He would therefore appeal to the friends of the students of the Mahomedan community to enable them to get a library.

An anniversary of that character would encourage them to preserve in their work. That would show that men interested in their welfare were ready to come forward and help them and encourage them in what they were doing. He wished them success in their undertaking and sincerely hoped that their next anniversary would be even more successful than the present one.

With a vote of thanks to the chair proposed by Mr. S. M. V. Oosman Sahib Bahadur the meeting terminated.

Kulitalai Teachers' Association.—A meeting of the Teachers' Association, Kulitalai, was held on Saturday, the 16th September 1911, in the premises of the Board Secondary School, Kulitalai, under the presidency of the Rev. A. F. Gardiner, M.A. The several items of the programme were the giving of two model lessons and the reading of an essay. The Headmaster of the Board Secondary School gave a model lesson on Geography to the V Form, and Mr. M. Narayanasamy Iyer, an Assistant of the same school gave a model lesson to the III class on Arithmetic. An essay was then read by Mr. P. S. Madhava Rao on "The Teaching of Languages."

The Chairman in a very learned and instructive speech appreciated the two model lessons and the essay very warmly. He said a great change had been introduced in the teaching of Geography, both in India and in England. Originally it began with definitions; but now with experience. He urged on all the teachers present, the necessity and utility of local excursions to study the various terms in geography and learn them by actual experience. Then again Geography must be correlated with History and the dependence of man on Nature must be pointed out. Geography could be learnt only by excursions and it was only then the pupils would get themselves acquainted with Nature and their mental horizon would be widened.

Coming to the teaching of Arithmetic, he had very little to say: the lesson was excellent, interesting and according to the latest principles. He spoke very warmly about the successful way in which the teacher handled the cubes to illustrate the processes of Multiplication and Division.

He spoke for a long time on "The Teaching of Languages." All the old methods had fallen out and been superseded by the direct or natural method of teaching the same. Then the eye was used first, the hand next, and the ear and the mouth, last; but now the ear had taken the first place, the eye and the hand last. The teacher should perform any action he liked and by his actions illustrate the new word. The pupils must then be asked to describe or reproduce the same. They must be forced to think in the same language. The faculty of imagination must be cultivated first and then they should proceed to write their thoughts. It was only then that every new word would become entirely assimilated. More importance should be attached to accents. A wrong accent was the evil effect of making the pupils read even from the very beginning. Perhaps the teacher might ask how the pupils could be expected to spell words correctly if they were not asked to read. But then, spelling could easily be reformed, whereas accent could not be reformed. He condemned the use of dictionaries and grammars to start with and pointed out how the whole burden rested on the teacher.

The Chairman was then garlanded by the Secretary and after a hearty vote of thanks to the Chairman the meeting was brought to a close.

BOMBAY.

Science teaching in schools and colleges.—The question of science teaching in schools and colleges in the Bombay Presidency was, it may be remembered, the subject of a long-standing dispute between the Government and the Senate. There are at present various institutions which teach advanced science, and the matter of confining each to one branch of that subject has been under the consideration of Government for sometime. With the prospect of the establishment of an up-to-date College of Science, the question has become urgent, and the Government has decided that with effect from 1st November, 1911, the College of Science at Poona should confine itself to Civil and Mechanical Engineering only except in respect of the workshop course, in which Electrical Engineering forms one of the subjects taught; and that no provision should be made for teaching pure science except so far as it is required for the Engineering courses. From the same date the name of the College of Science will be altered to "College of Engineering." The Deccan College will be purely an Arts College and when the Bombay Institute of Science is opened, no arrangements will be made for the teaching of the Science courses in the Deccan College except the compulsory first year's course in elementary physical science under the new regulations adopted by the University. When the Bombay Science Institute is opened (i) provision will be made in it for the teaching of the full science courses for the D. Sc. and the M.Sc. degrees, and (ii) the teaching of science in the Elphinstone College will be discontinued, a reduction proportionate to the amount paid on account of science teaching above the first year's compulsory course being at the same time made from the grants-in-aid annually given to the Aided Colleges in Bombay.

St. Mary's Girls' School, Poona.—The annual prize distribution of the St. Mary's Girls' School took place at the school premises on the 19th instant in the presence of a large gathering of ladies and gentlemen. H. E. Lady Clarke was to have presided, but was unable to be present on account of illness. In her absence Mrs. Lyons, wife of Surgeon-General Lyons presided.

The Rev. C. B. Grey Collier read the report which showed that there were 126 pupils on the rolls at present. Of the examination results, the school passed two out of the two candidates for the Cambridge Higher Local examination, four out of the four for the Cambridge Senior, two out of the two for the Junior examination and the same result in the Cambridge Preliminary. Equally good results were achieved for the Trinity College of Music examination. The prizes were distributed by Mrs. Lyons in the absence of Lady Clarke whose speech was read, to which she added some words of encouragement of her own.

The programme of drills and physical exercises was then gone through by the girls which brought the proceedings to a close.

CALCUTTA.

Amusing explanation of the failure of the Calcutta Historical Society.—An amusing article explaining the failure of the Calcutta Historical Society appeared in a recent issue of "The Journal." The Calcutta Historical Society, said our contemporary, will commit "hari-kari" on Wednesday (6th September) next in the rooms of the Royal Asiatic. "Da mortuis nil nisi bonum." But since the society is not yet dead, we may be permitted to inquire what mistake it has committed to call for self-destruction. It is now some four years since the Society was started with a great flourish of trumpets by two or three enthusiasts who possessed, if one may use the expression, more zeal than discretion. One might have anticipated, indeed, that so violent a blaze would soon burn itself out. Yet the start was auspicious enough.

PICNIC FLIRTATIONS.

The Chief Justice presided at the inaugural meeting, Viceroys, Rajas, and Grand Dukes consented to become patrons; and quite a lot of people subscribed, because it seemed a proper thing to do. Expeditions were planned to explore historic sites, and pleasant picnic parties went up and down the river. There was flirting and giggling and gray old gentlemen delivering solemn lectures, and much consumption of food, and some grumbling afterwards, because the food was an extra. The explorers on one occasion penetrated to Murshidabad. Then when the excursions began to pall they fell back on the quarterly magazine.

"Bengal, Past and Present" had a deal to say about the past but no apparent connection with the present. It would be ungracious not to admit that the excellent editors took very great pains over this publication. Its size was portentous, its illustrations creditable, its articles collected with much labour from many sources, its printing beyond reproach. But there was more collecting than editing. We are prepared to concede that there was at least one good article in every issue, but to reach that article one had to dig through great chunks of dry stone—very dry indeed.

BENGAL, PAST AND PRESENT.

Had the magazine been published monthly, and been a third of the size, and had, moreover, some connection with the present, it might have been more popular. But the conductors seemed sometimes to imagine that the history of Bengal began and ended with the 18th century, just as many people at home only think of India in connection with a Mutiny. We imagine most readers became weary at last of Sir Philip Francis and Warren Hastings and Madam Grand. Very worthy persons, no doubt and interesting and amusing, but one cannot be living always in the 18th century.

"Bengal Past and Present" would have been more true to its title and much more amusing had it given, for instance, the story of the Tavoli. "Whence arose Calcutta's Music Hall and how did it gain its rowdy reputation?" "Nights I have

known," by an Old Stager, would have proved for more popular than a dozen articles on dead and gone Governors. Had this been too low and sordid a subject for the very select people who composed the Society they might still have accepted an article on "The Mysteries of Belvedere." Every Lieutenant-Governor who has resided there has met with some romance or tragedy in his time, from the days of Sir George Campbell, who had a lonely encounter with a lunatic, in his bedroom at two in the morning, down to Sir Andrew Fraser, who—but let us reveal no official secrets.

BOARDING HOUSES WITH HISTORIES.

Kidderpore House has an interesting history but so has Mrs. B's boarding house. But he would be a bold man who should write the history of Calcutta boarding houses. Modern Calcutta alone could furnish material for a Dickens, a Thackeray or a Balzac, but the Historical Society stuck grimly to the historic and a very limited history at that.

The Historical Society flourished for four years, but you would never guess from its journal what historical years those were. In 1907 the last sailing ship rounded Garden Reach, the first steamer with wireless telegraphy came up to Calcutta. What an opportunity to write the "Story of the Hooghly." But nobody wrote.

There was sedition in Bengal, there were riots in Calcutta, but the Historical Society was too discreet to publish any accounts of Wahabi outbreak, the Santal rebellion, or the Sannyasi rising. One wonders whether the battle of Mohun Bagan would have inspired an illustrated article on the history of Calcutta football. We fear not. The sterile scenery of "Bengal Past and Present" was not even broken by pleasant rills of poetry. Yet the history of a people should surely include its literature. There are literary remains as well as those of brick and stone. Specimens of Bengal literature past and present would have enlivened the outlook.

To do it justice, we must add that the Society left other monuments besides these bulky volumes. We are indebted to its members for the restoration of the tombs of such historic worthies as Sir William Jones, Rose Aylmer, and De Rozio. They followed Lord Curzon's example, to a certain extent, of placing tablets on historic houses. They were responsible for the republication of some very ancient pictures, documents and such like. To this extent they justified their existence. But they made a mistake in supposing that the European population of Bengal is large enough to support a society on these terms or that any considerable portion of the European community is interested in the past. We are too much occupied in keeping alive in the present. So the Historical Society has to die. It was a gallant, if ill-advised attempt, and will no doubt receive a niche in history.

An address from the Calcutta University to welcome the King-Emperor.—A meeting of the

Senate of the Calcutta University was held recently when the Senate recommended that a loyal address be presented by the University to the King-Emperor on his visit to Calcutta.

Dr. Mukerjee, who presided, in an eloquent address, said that the University of Calcutta in presenting the Address might well be allowed to view itself as the representative of the entire body of the Indian Universities, for so far as he was aware of, no other University would enjoy a similar privilege. On them in Calcutta would thus devolve the honourable, and at the same time the responsible task of being the spokesman for the Indian Universities in general, and, if they took a survey of their position, even wider, but not, he thought, altogether unjustified, for that whole section of the people of India, that had received a University education.

Free Primary Education suggested as a Coronation boon—In the course of a leading article on Coronation Boons the "Indian Daily News" says:—If it is intended to leave an ineffaceable impression upon the popular mind of the royal visit, we think that a grant of the boon of Free Primary Education would admirably fulfil that intention. The boon would be consistent with the beneficent aims and purposes of the educational policy of the State. The opinion of all thinking men in the Indian community is unanimously in favour of Primary Education being made free throughout the country. The strong support, that Mr. Gokhale's Elementary Education Bill has received and is receiving, proves this. The only criticism directed against that measure bears upon the Taxation clauses. It is at best halting and feeble criticism, although it is the sort of criticism that might prejudice Mr. Gokhale's great measure in the eyes of the unthinking multitude. The grant of the boon of Free Primary Education would remove all difficulties, real or imaginary, and vindicate, as no other measure can, the righteousness of British policy in the governance of this country. The cost, initial and recurring of the extension of Primary Education should not deter the Government. By a stroke of the Opium Revenue has been written off. A Government that could do this admittedly for the benefit of a foreign people cannot be without financial resources adequate to confer the inestimable boon of Free Primary Education upon its own people.

MYSORE.

Friends' Union in Bangalore.—The Friends' Union celebrated their thirteenth anniversary recently in Janopakari Doddanna's Hall in the presence of a very large gathering with Mr. T. G. Tait, M.A., F.R.U., Principal of the Central College, in the chair. It was significant that Mr. D. Devaraj Urs was pleased to allow the special Reserve Police band to play at intervals at the request of the Secretary. The proceedings began with a Sanskrit benediction by Mr. L. Srinivasamurti, Secretary of the Union,

after which Mr. Ramachandra Rao, another student sang a Canarese verse, which was followed by an English recitation by Mr. B. D. Kelkar. The report was then read. The reading of the report being over, 3 prizes were distributed, all the three being won by students of the London Mission School. The Sanskrit prize was won by a Mahomedan student, Mir Mahomedali. A comedy was well enacted by 4 students, after which, the President made an interesting speech. It was a matter for congratulation that the Society had survived, as it was a common thing for societies of a similar nature to run out of existence the second year itself. The Union was in a very flourishing condition. The learned President was constrained to remark that there was a tendency now-a-days to suspect such societies of revolutionary ideas. The Friends' Union travelled slowly and they took one year to travel one mile and they erred on the safe side of conservatism. The programme was delightful and he had much pleasure in congratulating them on their success.

Professor F. B. Sell, M.A., thanked Mr. Tait for having presided at this "steaming point." While thanking he remarked that the year was a very unlucky one and as every body was being suspected it was very kind of Mr. Tait to have presided on such an occasion, for which the Union was doubly grateful. With customary thanks the gathering dispersed.

Science Reforms in Mysore—In response to the recommendation of the University Commission, the Mysore Government have sanctioned the appointment of three Demonstrators, one in Mathematics, another in Geology, and a third in Zoology. A grant of Rs. 10,000 has also been made for the purchase of Physical Science apparatus. The Library of the Central College also is to have additional books, for which another grant of Rs. 5,000 has been made.

BARODA.

Progress in Baroda.—The rapid progress that is being achieved in Baroda in the direction of the education of the masses amply justifies the title "model Native State" which is so often applied to it. The example of Baroda is one that may with immense benefit be followed in the other Native States; and knowing what we do of Native States in general the assertion will hardly be contradicted that there is as much difference between the methods adopted in Baroda and in other States as, well, between any two extremes. The other Native States religiously hold that any tasting on the part of their subjects of the fruit of the tree of knowledge would be fatal. The Government of India, again, is exceedingly slow to move in matters educational and seems still labouring under the impression that education is not good for the masses. The value of the example set by Baroda in initiating new departures can therefore hardly be exaggerated. Baroda

serves the purpose somewhat of an experimental station to the rest of the country where new schemes can be tested with a view, if successful to extend them all over the country. The latest idea in this go-a-head Native State is the formation in every village of free public libraries and to this end the Government of the Gaekwar have issued rules providing for a total annual grant of Rs. 100 to each village which has inhabitants sufficiently public-spirited to raise the like sum annually among themselves. It is also provided that "when the citizens of any village shall raise by subscription, donation or other means the sum of Rs. 25 and shall pay the same to Central Library Department, the same department will present them with Vernacular books of the value of Rs. 100 selected by a Committee of three gentlemen appointed by the Dewan." Similar rules provide for town libraries and Prant (district) libraries. Provision is also made for building grants to libraries. Other rules relate to the control and supervision of the libraries which, of course, are to be free. We note that the nervous dread of periodicals which some Native States display has found little encouragement in the sober soil of Baroda, for as much as 30 per cent. of the total income of libraries are to be expended on periodicals. The scheme is an excellent one and forms a necessary corollary to the greater step of free primary education which Baroda has already taken. Without an educated proletariat even the best of free libraries will be of little value and conversely once set on the way to knowledge it is only reasonable to provide the mental food necessary for them. The civilising influence of public libraries has, of course, been recognised for generations in England and America and form not the least potent agent in the diffusion of knowledge. If the abysmal ignorance which is the normal condition of the vast majority of our countrymen to-day is ever to be dispelled, it is certainly time that steps were taken to popularise means of knowledge. Want of funds hampers the action of the British Government in this respect, but no such plea can be urged on behalf of the great majority of Native States. Here eminently is a matter in which the Native States can take action and by the success of their methods compel the British Government to follow in their wake. A tithe of the vast sums which the rulers of the States expend on personal luxuries or adornments will serve to bring the light of knowledge to the minds of their subjects. It remains to be seen how many rulers are patriotic—we may add civilised—enough to follow the example set by Baroda.

TRAVANCORE.

The First Tamilian Conference.—The first Tamilian Conference was held on the 7th and 8th September 1911 at Borthepanda, in South Travancore under the presidency of Mr. L. S. W. Senathi Rajah, LL.B., Bar-at-law, and himself a well-known Tamilian of Ceylon. Nearly a thousand from Nanjunad, Trivandrum and other Taluks of Travancore

attended, of whom over 400 were delegates with some local officials. The President delivered the inaugural address which dwelt on the early history of the Tamils, the different stages through which they have passed that economical and local condition, how they have of late lost ground and on the present backward state especially in regard to English education and exhorted the audience to march forward in all directions. Mr. K. U. Kumaraswami Pillai, one of the chief organisers of the Conference and an able Tamil scholar, reviewed the work done for the formation of a Tamilian Sangham. A Committee with truly representative members of Nanjunad was formed to take steps towards registering the Sangham under the Joint Stock Companies Act. The second day was devoted to the reading of special papers on "Religion," "Education," "Agriculture," "Commerce and Industry" and Tamilian fine arts. With a feeling speech the President closed a successful session. In the night there was a musical entertainment in which Mr. Lakshmanan Pillai, the graduate musician of Travancore, also took part.

COCHIN.

Mr. J. V. Pope, M.A., Special Educational Officer, is granted privilege leave for two months and one day with effect from 23rd September 1911, and he is permitted to resign his appointment on the expiry of the privilege leave. The Durbar record their high appreciation of Mr. Pope's services to the State as Special Educational Officer. Mr. F. S. Davies, M.A., Principal of the Ernakulam College, is appointed Director of Education with effect from the date on which Mr. Pope enters on his leave. Mr. V. E. Venkiteswara Iyer, M.A., L.T., Senior Lecturer in the Ernakulam College, is appointed to act as Principal of the Ernakulam College.

Mr. Pope, during the short time he was in office, has done a great deal for the people. The opening of an Industrial and Technical School at Trichur to impart Technical education, the institution of a Model Training School for teachers, the opening of Night Schools and Day Schools where education is given free to the Pauchamas in different parts of the State, the institution of the School Final Examination on the British model, the holding of the Educational Exhibition and the drawing up of the new Educational Code for the guidance of teachers and students are some of his achievements in Cochin. There was a hue and cry in the State with regard to his appointment as Special Educational Officer. The cry increased when Mr. Pope served all the Managers of the Aided Schools with a notice to the effect, that they should set apart a sum of Rs. 30,000 as a fund for the school; failing which, they are to hand over the school to the Durbar. The Managers failed to provide a fund. As a result, we have for every Taluk in the State a model High School fully equipped at an enormous cost. After doing something substantial for the State, Mr. Pope will leave, carrying with him the blessing of

the people for whom he toiled. It is a matter of gratification to note that the Dewan has highly appreciated his work.

Mr. F. S. Davies, B.A., after handing over charge of the Principalship of the College to Mr. V. R. Venkataswara Iyer, M.A., L.T., the Senior Lecturer, has joined duty as the Director of Public Instruction on the 5th of Chingom. The choice is good and Mr. Davies deserves the encouragement shown to him. He is in service for the last 15 years or so and he knows more of Cochin and her needs than anybody else. We have every hope that he will give a finishing touch to the Educational Department of the State and will bring it on a level with that of other countries.

Foreign Notes.

GREAT BRITAIN.

Board of Education in England.—It is interesting for us in India to notice that the Board of Education in England takes great interest in the choice of employment by young men fresh from school. A circular just issued by it calls the attention of local education authorities to the very great importance of their exercising their powers under the Education (Choice of Employment) Act, 1910, in 'giving advice, information and assistance to boys and girls during the critical period covering the end of their school career and the beginning and earlier years of their employment.' The Board of Education is desirous that the machinery initiated by the education authorities for this purpose and the juvenile departments of labour exchanges should be linked up 'in such a way that the moral and educational influences, which naturally centre round elementary schools, should play their proper part in the transition from school-life to the life of adult employment.' The Board will make annual grants in aid of approved salaries paid to officers in respect of duties performed by them under the Education (Choice of Employment) Act of 1910.

Indian Institute of Social Science.—The following appeal has been published in aid of the establishment of an Indian Institute of Social Science:—

The objects of the Institute are to promote the study and research in the following subjects: Sociology, ethnology, politics, political history, history of civilisation, archaeology, philosophy, political economy and economic history, statistics, social and economic history of Indian literature and thought, philology, and other sciences connected with history, by establishing a good library and a museum for the purpose. Either some of the existing libraries or museums will be used or new ones created, as may seem necessary.

There will be a number of professorships, instructorships, and scholarships created for various

subjects, but there will be no sharp line drawn between students and teachers

Courses of lectures will be organised by the officers of the institution. These will be open to the students of the Institute, and some of them to the general public also.

The language of the official correspondence and records will be English.

The Institution will in the main be devoted to the instruction of the graduates of Indian Universities who desire to do research work. Graduates of foreign Universities of equal rank will also be admitted. Students who are not graduates of the Universities, but who in the opinion of the officers of the Institution are competent to undertake work will also be admitted.

The Institute will undertake to publish the researches of the teachers and the students in the form of bulletins.

After the completion of studies under the direction of the officers of the Institution, and after a satisfactory presentation of them, a degree, diploma, or other kind of distinction will be conferred on the students.

Special provision will be made for foreign students in the way of preparatory training to enable them to take advantage of the Institute.

The promoters will welcome advice from educationists and contributions from those who sympathise with the movement.

Communications should be addressed to Shridhar V. Ketkar, M.A., Ph. D., at 21, Cromwell Road, S. W.

AMERICA.

The Washington Bureau of Education.—According to the report of the U. S. Commissioner of Education for the year which ended on June 30, 1910, the Bureau of Education at Washington received reports from 602 Universities, colleges, and technological schools in the United States. Of these, 142 are for men only and 352 for both sexes. The entire teaching force of these 602 institutions of higher education numbered 27,279. The aggregate enrolment of students reached 301,818, including students in all departments—preparatory, collegiate, graduate, and professional. The aggregate of gifts and bequests reported by the 602 institutions for the year 1909-10 was 3,747,430l. Of this amount, 1,228,700l. was given for buildings and improvements, 1,954,200l. for endowment, and the remainder for current expenses. The largest amounts were received by the following institutions:—Columbia University, New York, 409,000l.; Yale University, Connecticut, 403,000l.; Princeton University, New Jersey, 342,000l.; University of California, 248,000l.; University of Chicago, Illinois, 239,000l.; and Bryn Mawr College, Pennsylvania, 142,000l. Twenty-seven institutions altogether each received 20,000l. or more during the year.

Chinese as a model language.—That the English language grows daily more like Chinese, and that the nearer we get to it the better will our speech be, are assertions made by Dr. Edward Sapir, of the Canadian Geological Survey, in a lecture at the University of Pennsylvania, printed in the *Popular Science Monthly* (New York, July). Instead of being a primitive form of language, as used to be thought, Chinese, Dr. Sapir tells us, is really the last word in a series of linguistic changes, ending in the total loss of inflection or of any way of distinguishing one part of speech from another, except by its position in the sentence. English is progressing rapidly toward this goal. We read:

'The simplest grammatical process in the juxtaposing of words in a definite order, a method made use of to perhaps the greatest extent by Chinese, to a very large extent also by English; the possibilities of the process from the point of view of grammatical effectiveness may be illustrated by comparing such an English sentence as 'The man killed the bear' with 'The bear killed the man,' the actual words and forms being identical in the two sentences, yet definite case relations being clearly expressed in both. . . . [This] type [of language] is characterized by the use of words which allow of no grammatical modification whatever, in other words the so-called isolating type. In a language of this type all relational concepts are expressed by means of the one simple device of juxtaposing words in a definite order, the words themselves remaining unchangeable units that, according to their position in the sentence, receive various relational values. The classical example of such a language is Chinese. . . .

'It was quite customary formerly to look upon the three main types of morphology as steps in a process of historical development, the isolating type representing the most primitive form of speech at which it was possible to arrive, the agglutinative coming next in order as a type evolved from the isolating, and the inflective as the latest and so called highest type of all. Further study, however, has shown that there is little to support this theory of evolution of types. The Chinese language, for instance, so far from being typical of a primitive stage, as used to be asserted, has been quite conclusively proven by internal and comparative evidence to be the resultant of a long process of simplification from an agglutinative type of language. English itself, in its historical affiliations an inflective language, has ceased to be a clear example of the inflective type and may perhaps be said to be an isolating language in the making. Nor should we be too hasty in attaching values to the various types and, as is too often done even to-day, look with contempt on the isolating, condescendingly tolerate the agglutinative and vaunt the superiority of the inflective type. A well-developed agglutinative language may display a more logical system than the typically inflective language. And as for myself, I should not find it ridiculous or even paradoxical if one asserted that the most perfect linguistic form, at least from the point of view of logic, had been attained by Chinese, for here we have a language that, with the simplest possible means at its disposal, can express the most technical or philosophical ideas with absolute lack of ambiguity and with admirable conciseness and directness.'—*Literary Digest*.

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INTRODUCTION AND NOTES

BY

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The Educational Review.

Though much has been learned within the last half century as to the methods which can be employed most profitably in the teaching of science, yet there is still much diversity of opinion as to the best method to be employed. It would therefore interest our readers to know what a well-known writer of text-books on physical subjects has to say upon this matter. "Followers of the heuristic school," says Mr. E. Edser, "maintain that a student should build up his knowledge of science by his own unaided exertions, the function of a teacher being to guide the student's mind insidiously toward the correct path. Has any teacher ever attempted to proceed severely on these lines? It may be doubted. So far as the teaching of physics is concerned, such an attempt would be so ridiculously futile that no one could have made it seriously. Ideas such as those connoted by the words "energy," "potential," "entropy," and a host of similar expressions could scarcely be derived by any student, even if he were of the type that might develop subsequently into a Kelvin or a Rayleigh. Quite apart, however, from the question of possibility, it may be argued that no student has received a satisfactory training unless he has learned to profit by the knowledge which has been accumulated by others. Dismissing, then, the claims of the heuristic system as enunciated by its most rigid adherents, the question arises, to what extent is a student necessarily dependent on personal observation, and to what extent is it profitable for him to imbibe ideas directly from his teacher? No general answer can be given to this question, since so much must de-

pend on the personalities of both the student and the teacher; but if it be accepted that science is the study of real phenomena, it must follow that the practical work done by the student must be sufficiently extensive to give him a clear idea of the phenomena which he investigates. Not only the nature of the experiments but the order in which they are performed, is of importance." We have quoted these remarks of Mr. Edser, especially to correct the false views that are held in many quarters about the utility of the heuristic method. The heuristic method is no doubt valuable to the trained investigator, who is always performing "fools' experiments," with a view to see if any thing new could be discovered. But to the beginner in science the method is entirely useless.

We have in these columns not infrequently called attention to the detrimental influence of examinations on education. No doubt examinations raise the average industry of some boys, but they stifle enthusiasm for real study and learning. We are therefore glad to note the warning that Sir William Ramsay gave in his presidential address at this year's meeting of the British Association at Portsmouth. "In England," he said, "we have made technical education a local, not an Imperial, question; instead of half-a-dozen first-rate institutions of university rank, we have a hundred, in which the institutions are necessarily under-staffed, in which the staffs are mostly overworked and underpaid; and the training given is that, not for captains of industry, but for workmen and foremen. "Efficient captains cannot be replaced by a large number of fairly good corporals." Moreover, to induce scholars to

enter these institutions, they are bribed by scholarships, a form of pauperism practically unknown in every country but our own; and to crown the edifice, we test results by examinations of a kind not adapted to gauge originality and character (if, indeed, these can ever be tested by examination), instead of, as on the Continent and America, trusting the teachers to form an honest estimate of the capacity and ability of each student, and awarding honours accordingly.

"The remedy lies in our own hands. Let me suggest that we exact from all gainers of university scholarships an undertaking that, if and when circumstances permit, they will repay the sum which they have received as a scholarship, bursary, or fellowship. It would then be possible for an insurance company to advance a sum representing the capital value, viz., 464,931, of the scholarships, reserving, say, twenty per cent. for non-payment, the result of mishap or death. In this way a sum of over six million pounds, of which the interest is now expended on scholarships, would be available for university purposes. This is about one-fourth of the sum of twenty-four millions stated by Sir Norman Lockyer at the South Port meeting as necessary to place our university education on a satisfactory basis. A large part of the income of this sum should be spent in increasing the emoluments of the chairs; for unless the income of a professor is made in some degree commensurate with the earnings of a professional man who has succeeded in his profession, it is idle to suppose that the best brains will be attracted to the teaching profession. And it follows that unless the teachers occupy the first rank, the pupils will not be stimulated as they ought to be.

"Again, having made the profession of a

teacher so lucrative as to tempt the best intellects in the country to enter it, it is clear that such men alone are capable of testing their pupils. The modern system of "external examinations," known only in this country, and answerable for much of its lethargy, would disappear; schools of thought would arise in all subjects, and the intellectual as well as the industrial prosperity of our nation would be assured. As things are, can we wonder that as a nation we are not scientific?"

In the same strain spoke also Bishop Welldon to the Educational Section of the same meeting. He said: "Here perhaps it is permissible, as it is certainly natural to enter a protest against the established tyranny of examinations. Examination was once the obvious remedy for favouritism. But a mere examination in knowledge can never test some of the highest qualities which fit men and women for the service of the State. In India even more than in Great Britain the failure of examinations is conspicuous. A facility for answering questions upon paper is easily associated with grave defects of intellect and character. In proportion, then, as favouritism ceases to be a public danger, examinations will, I think, lose something of their fatal authority. It is difficult to doubt that in the future the candidates for public office will be required to pass a qualifying examination, but that the election will, at least in some degree, turn upon qualities which are not easily tested by examination in writing."

These remarks on the evil effects of examinations apply with redoubled force to the system of education now in vogue in this country, as it is but a poor replica of what obtains in Great Britain. As to the status of teachers in India, the less said the better,

sound educational system; and any religious teaching, if it be but the belief in Almighty power, is far better than Secularism or Paganism." Many falsehoods have had a pragmatic value in the history of evolution of mankind, but it does not follow that these falsehoods should be taught in schools and colleges.

Under the chairmanship of Principal Miers of London University a Secondary and higher education committee was appointed last year to inquire into and report upon the Overlapping between Secondary Education and that of Universities and other places of higher education. The Committee has issued an interim report, in which the following are the more essential points. In the past few years many complaints have been made of the want of co-ordination between the work of secondary schools and that of universities and other places of education. The complaint from universities is that secondary schools are encouraged to retain pupils who should be continuing their studies in an institution of university standing and to present these pupils for such examinations as those of Intermediate Arts or Science of London University. The complaint from schools, on the other hand, is that universities and technical institutions are to some extent doing the work of secondary schools by admitting students who are unable to profit by the instruction given and ought to be taking school courses. As the educational institutions of England have grown up in haphazard fashion without proper inter-relationship between them, this alleged overlapping has naturally come into existence. Though much can be said in favour of auton-

omy in education, yet an attempt must be made to clearly define the work of each type of institution so as to avoid the undesirable competition and dissatisfaction noticed in some cases.

We may note in this connection that a similar situation exists in the United States at the present day and as the result of a detailed discussion of this question the President of the Carnegie Foundation for the Advancement of Teaching has submitted in the latest report his conclusions of which the following forms a summary:—

The President of the Foundation urges that this whole question be approached by secondary school-men and college-men in a spirit of co-operation. Neither the certificate method of admission nor the piecemeal examination method have in his opinion solved the problem. He urges that the college must find a solution which will test better than the certificate or the piecemeal examination the fundamental qualities of the student, and will at the same time leave to the high school a larger measure of freedom. He recommends a combination of certificate and examinations, the latter of a simple and elementary character, but calling for a high quality of performance without which the candidate will not be admitted. For example, under this plan the boy who can not write good idiomatic English would not be admitted to college at all, but would be sent back to the secondary school. The President of the Foundation urges a co-operation between the secondary school and the college not as unrelated institutions, but as two parts of a common system of education. He argues that the interest of the great mass of high school students must not be sacrificed to the interest of the minority who are looking

toward college. He insists on a larger measure of freedom for the secondary school, but on the other hand he argues that the interest of the boy who goes to college and of the boy who goes from the high school into business are alike conserved by learning a few things well, not by learning many things superficially. The boy who has obtained such intellectual discipline is a fit candidate for college, whether he has studied one set of subjects or another; without this intellectual discipline he is unfit alike for college or business. It is, therefore, in the opinion of the President of the Foundation, the plain duty of the college to articulate squarely with the four-year high school and to leave to secondary school the largest freedom so that it may educate boys not coach them; but at the same time to require of the candidates for admission tests which rest upon high performance in the elementary studies and mean mastery of the fundamentals.

These views of the President of the Carnegie Foundation deserve the attention of the principals of our colleges, as they indicate the principles which ought to guide them in admitting students from the high schools to the Intermediate class.

There have been in various quarters many doubts as to the ideals underlying the present movement for a Hindu University. We are

therefore glad to have a clear pronouncement on these ideals by such a well-known representative of the Hindu community as Sir Gurudoss Banerjea at a recent meeting in Calcutta. He said: "Though Hinduism has certain eternal and unchanging features, there is no fear of its being opposed to progress. What then are these permanent features and unchanging ideals of Hindu life and thought? They are not mere matters of ritual and dogma important as these may be for disciplinary purposes, but they rise above ritual and dogma and concern the spirit in man. They are on the theoretical side, a firm living faith that life is not a scramble for the transitory good things of the earth but is a struggle for the attainment of spiritual good, and on the practical side, the leading of a life of cheerful self-abnegation and devotion to the performance of duty regardless of reward for the service of humanity. These being the noble ideals which a Hindu University will inculcate, there need be no apprehension in the mind of even the most radical reformer that such a university will be antagonistic to progress." These indeed are noble ideals, but it ought not never to be forgotten that the true aim of a university is to make knowledge, to imbue its alumni with the spirit of adventure, the scientific daring which opens up new horizons. There can be no progress where people are content with the doctrines they have been taught and follow blindly the teachings of their masters.

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THE HISTORY OF INDIA IN OUR SECONDARY SCHOOLS.

THE History of India is the worst taught subject in our Secondary Schools. With regard to other subjects, *e.g.* English, Physical Science, Geography, there is in the more progressive schools, a feeble attempt at modernization in the methods of teaching them. But the old Guru-Sishya method is still steadily pursued in the History class. The words of wisdom contained in the "recognized" text-books, outlines or manuals or whatever other attractive name they go by, expounded in a delightful blend of English and Vernacular, sometimes variegated by blackboard summaries of lectures constitutes the only method of History teaching. The teacher is the only active human being in the class-room and the semi-somnolent school-boy, the passive recipient of knowledge. There is nothing for the pupil to do, but to listen to the lecture and go home to memorize the text-book.

And what is the matter taught in this anti-diluvian way? Firstly, Max Müller's exploded theory of two streams of Aryan migration from the Oxus valley, one to the West and another to the South, the myth of the Aryan invasion of South India manufactured from the Rānāyana by amputating

from Rama's followers their tails, a ridiculous theory of the highly complicated system of caste, as due to the machinations of priests, an account of Buddhism, wanting in historical perspective and imagining it to be a religion opposed to another semi-mythical entity, Hinduism, this used to go by the name of the Hindu Period of Indian History. Of late, writers of school history have attempted to boil down the results of Epigraphical research for the delectation of school-boys and the result is a confused babel of names and dates. S'is'unāgas and S'ungas, Cholas and Chālukyas, Guptas and Gangas, Pallavas and Pāṇḍiyas, Kshatrapas and Kshatriyas, Hoysālas and Haiheyas, S'akas and S'ātakarnis, pursue each other as in a whirlpool, in the pages of these recent books. Mostly names, with nothing for the imagination to hang on to, and even these names, belonging not to any one province of India but rushing with lightning rapidity from one corner of India to another; from a perusal of these books one rises dazed, the sense of time and space all but obliterated.

The average man, and more so, the average school-boy takes the printed word as Gospel truth. It is quite proper that the school-boy should believe so, for, otherwise,

why should his teacher, who is in the eye of the boy the repository of all wisdom, require him to read and memorize it at the point of his ferule? On the other hand, the writer of school books who wants to be up-to-date and who wants his book to be more full than that of his latest rival in the market, crams it full of the latest discoveries and latest guesses, whether they have any bearing or not, on the story he professes to tell in his book. His chief aim is to be full, not to leave out any name that might attract the perverse fancy of the dreaded examiner. It is not difficult to realize that such an ill-digested mass of fact and fiction is not a fit pabulum for the unsophisticated mind of the school-boy.

Indian History, in the abstract, must be an obligatory study in Indian schools; it is absurd to devise a scheme of study for the boys of any land and to leave out of account the history of that land; all the more so, as the History of Ancient India or as it is more usually called, the Hindu Period of the History of India, the story of the achievements of the people in the domain of Art and of Philosophy is one of which every one can be proud. But taking Indian History in the concrete, and understanding by it, the books that are placed in the hands of the school-boy in our schools, one cannot be blamed for condemning the dreary drudgery that our boys at school are made to go through in the name of historical education.

P. T. SRINIVAS IYENGAR

(To be continued.)

THE TEACHING OF ENGLISH COMPOSITION—IV.

VOCABULARY.

(Continued from page 190).

IN the enumeration of the *Elements of Style*, Professor Minto has appropriately enough given vocabulary the first place. Success in composition must depend largely on the ability and discrimination displayed by a writer in the use of vocabulary. In the earlier stages of composition two trying obstacles have to be surmounted. With regard to vocabulary, the difficulty is often its absence or inadequacy, rather than its improper use. The only remedy lies, in insisting upon a wide course of reading, by means of which the student might make a continual addition to his store of words from the most varied sources. The least contribution to his knowledge of words, will be found to be of use in developing his powers of expression.

Success in this department does not however consist in the mere command over a large number of words. Its benefits cannot be availed of to their fullest extent unless the writer possesses a knowledge of the exact significance of each word, and has an instinctive perception of the slightest differences in the shades of meaning. It is astonishing to see the defects in the student in ignoring fine gradations of meaning which exist between words of apparent similarity in significance. The baneful habit of associating as synonyms, words which ought to be distinguished by minute differences, is probably responsible for creating this lamentable weakness in the young mind. The student must acquire an instinctive perception of the difference in intensity of significance, between words for instance, take 'pain and agony,' 'fear, terror,

and horror,' 'gaiety, joy, delight and ecstasy' or 'annoyance, irritation, provocation and exasperation.' It is admitted that the capacity for this distinction, is by no means an easy accomplishment, and it becomes peculiarly difficult when the words are not in familiar use, but a study of the masters of literature, with special attention to the exact connotation of each word used by them, must obviate the trouble.

Referring to the wild confusion, that prevails in the *World of Words*, Professor Raleigh says:

'Here, among words our lot is cast, to make or mar. It is in this obscure thicket, overgrown with weeds, set with thorns, and haunted by shadows, this World of Words as the Elizabethans freely called it, that we wander, eternal pioneers, during the course of our mortal lives. To be overtaken by a master, one who comes along with the gaiety of assured skill and courage, with the gravity of unflinching purpose, to make the crooked ways straight and the rough places plain, is to gain fresh confidence from despair. He twines wreaths of the entangling ivy, and builds ramparts of the thorns. He blazes his mark upon the secular oaks, as a guidance to later travellers, and coaxes flame from heaps of mouldering rubbish. There is no sense of cheer like this. Sincerity, clarity, candour, power, seem real once more, real and easy. In the light of great literary achievement, straight and wonderful, like the roads of the Ancient Romans, barbarism torments the mind like a riddle. Yet there are the dusky barbarians!—fleeing from the harmonious tread of the ordered legions, running to hide themselves in the morass of vulgar sentiment, to ambush their nakedness in the sand-pits of low thought.'

These two essential conditions being fulfilled, there are a number of principles regarding the use of vocabulary, which have to be inculcated by a long course of training and practice. The rules which should be held up for appreciation before the young student, even at the risk of his adhering to them with a blind rigidity, might be enunciated after the manner of the writers of that excellent manual of composition, *The King's English*:

- (i) Prefer the familiar word to the far-fetched.
- (ii) Prefer the concrete word to the abstract.
- (iii) Prefer the single word to the circumlocution.
- (iv) Prefer the short word to the long.
- (v) Prefer the Saxon word to the Romance.

All these principles, will on a little thought, appear to be framed, only with the view of making the composition, simple and clear—and thus possess two of the most valuable characteristics of a good style. The usual practice in the correction of composition papers would seem to be the mere condemnation of palpable errors in the use of words, nothing less than an actual malaprop evoking the literary perception of the tutor. A large part of the tutor's correction, must be directed to what are not actual errors, but mere lapses in this direction which must however find no place in a piece of good composition. A very successful means of eradicating all weaknesses in this line, will be to confine the attention occasionally, to errors of this class, when returning the composition papers to the students. When pointed attention is drawn to a large number of such misuses, as all of them pertain to a single department, there is

bound to be a vivid impression on their understanding.

It is hardly necessary to add that no encouragement must be offered to any form of verbosity. It must call for unqualified condemnation, and there ought to be no hesitation in viewing it with the severity shown to actual blunders of grammar or idiom. There is an unfortunate tendency to look upon it with some indulgence, and there can be no progress in composition, till its disappearance.

Another essential of success in the use of vocabulary lies in avoiding various classes of words, which can never presume to enter serious literary composition. The student must not be allowed to use colloquialisms and slang expressions like 'hard up,' 'give him a dressing,' 'terribly bad,' 'awfully nice,' 'rot,' 'there is the rub' and so on. All the beauty of poeticisms and archaisms must form no temptation for their use. 'The breezy blue,' 'the buzzings of the honied hours,' 'the threshold of day,' 'the light fantastic toe'—these have no place in vigorous prose composition. The cant of journalism or science and expressions wrongly supposed to be smart, have only the effect of marring the purity of literary composition. No attempt is made here to praise any affected dignity in composition. As Hazlitt points out in his delightful essay *On Familiar Style*, the avoiding of these words will not tend to pedantry. 'A fine tact is shown in adhering to those which are perfectly common,' he writes about words 'and yet never falling into any expressions which are debased by disgusting circumstances, or which owe their signification and point to technical or professional allusions. A truly natural or familiar style can never be quaint or vulgar, for this reason, that it is of universal force and applicability, and that

quaintness and vulgarity arise out of the immediate connection of certain words with coarse and disagreeable or confined ideas. The last form what we understand by *cant* or *slang* phrases. I should say that the phrase *to cut with a knife*, or *to cut a piece of wood*, is perfectly free from vulgarity, because it is perfectly common; but *to cut an acquaintance* is not quite unexceptionable, because it is not perfectly common or intelligible and has hardly yet escaped out of the limits of slang phraseology. I should hardly therefore use the word in this sense without putting it in italics, as a license of expression to be received *cum grano salis*. All provincial or bye-phrases come under the same mark of reprobation—all such as the writer transfers to the page from his fireside or a particular *coterie*, or that he invents for his own sole use and convenience. I conceive that words are like money, not the worse for being common, but that it is the stamp of custom alone that gives them circulation or value. I am fastidious in this respect, and would almost as soon coin the currency of the realm as counterfeit the King's English.'

P. SESHADRI.

(To be continued)

EDUCATIONAL EXHIBITIONS AND CONFERENCES.

THOUGH educational exhibitions have now become quite common and are being organised in every circle, the benefits derived from such exhibitions are not being fully realised. This is chiefly due to defects in organisation. The exhibitions, though not originally intended to be *tamashas*, turn out to be no better than they and the assembled

teachers return to their native villages with the pleasure of having seen a huge display of educational exhibits and of having met some of their old friends and teachers. The village teachers are not up to the mark. They do not understand the present curriculum. They have no faith in hand-work and have no knowledge of nature study. Their powers of observation are not developed. Correlation has no meaning to them and they have to be educated in the preparation of cheap apparatus for class use. As exhibitions and conferences aim at remedying the above defects and improving their methods of teaching, it is highly desirable that at the most no more than forty teachers should be brought together. When the numbers are small, the questions of individual teachers may be answered, and after the preparation of an important piece of apparatus is explained, the teachers may be asked to prepare the same under the guidance of the lecturer and the necessary help given to them. When the teachers are assembled in large numbers, when they are sent through the show-rooms and are being constantly reminded of the fact that it is time for the next batch of visitors to enter, and when it is with difficulty that in the rush one manages to elbow his neighbours and reaches his exit door, one can imagine what notes a village teacher can then take with a view to improve himself and better his methods of teaching. Moreover, the majority of the exhibits have no explanatory notes, and even where it is announced that the ladies and gentlemen in charge will explain the significance of the exhibits they are perhaps either no better than the teacher-visitors or have no time to do this piece of duty, being either engaged in talking to their old friends whom they may happen to

meet or in preventing the rough handling of the exhibits by the visitors and in making the latter move forward. I had a hand in organising more than one exhibition, and notwithstanding the precautions that our committees took, the village teachers were not benefited much by these organisations. This is chiefly due to the large numbers of teacher-visitors we had, and my experience therefore suggests to me the desirability of limiting the number of teachers to be assembled for an exhibition. To intelligent and well-educated secondary-school teachers new exhibits may suggest new ideas which may enable the teachers to work for themselves and make their teaching more realistic. But to the majority of our poor village teachers, no such ideas are suggested of their own accord, and an exhibition, if unaccompanied by detailed explanations in vernacular regarding the methods of preparation and the usefulness of the exhibits, is no better than some sight-seeing.

Secondly, it is desirable that only one branch of work should be arranged to be exhibited at a time. Detailed notices regarding what is expected of the teachers in the Sub-Range or Taluq may be circulated previously and ample time given to the teachers to work up that branch of study. If the scope of the exhibition is limited and if the time given be sufficient, every school should be able to produce something and send it up for the exhibition. At the next exhibition, the same school may attempt to show some other kind of work, and in the course of a few years all the schools will have learnt to produce some hand work relating to the different branches of study. As exhibitions are now being organised, some schools know to prepare clay models alone and some fibre

work only, and some teachers are masters in composing action-songs and some others in preparing rain-fall maps alone. This kind of individual work, coupled with the ignorance of the relationship which one branch of work has to another, will not be of much value in improving the methods of teaching in schools. No doubt a fine display may be organised at a short notice and loan exhibits from these schools may bring about the success of neighbouring exhibitions also, but the object of exhibitions may not be realised by the encouragement of this kind of work. The committees who organise the exhibitions may make their circulars instructive and guide the teachers to some extent in the preparation of the work expected of them.

Thirdly, the prizes proposed to be given should be given to schools and not to individuals. Absence of this ruling has, I know, interfered with school work in many cases as the individual teachers and pupils were set to work for the exhibition and allowed to neglect their ordinary legitimate duties. Further, the mania to get a medal may induce individual exhibitors to receive help from a professional man and send to the exhibition work which is not their own. Some village teachers who sent in some relief maps were asked to prepare them in my presence when I visited their schools, and I learnt with much regret that to some friends of theirs the credit of the preparation of the maps in question should have been given. I know also that some teachers prepare some work and continue to send the same forward to different exhibitions with the view of getting fresh medals. Though the committees insist on certificates that the work is *bonâ fide*, the rule is honoured more in the breach than in the observance, and even where certificates are

sent in, the committees have no time to check them or have no means to question the correctness of the certificates produced. The work produced is not done on one day nor in schools, and those who issue the certificates implicitly believe in the assertions of the teachers and affix their signatures to the certificates.

Fourthly, strict arrangements should be made to see that the work done by pupils during class instruction and that prepared by the teachers to illustrate their lessons should alone be exhibited. It is desirable that the inspecting officers should so arrange their programmes that they may be able to pay a visit to the schools, the teachers of which are to be assembled for the exhibition, personally inspect the exhibition work in progress, guide the teachers wherever necessary and see that the work done is *bonâ fide*. Teachers should not be encouraged to prepare work which has no value in class teaching. At the Madras Exhibition a post card containing 63 lines of closely written matter was one of the exhibits. Imagine the educational value which that exhibit can have! A huge card-board model of a railway station with a card-board engine and carriages standing on rails in front is, to my way of thinking, not of the value commensurate with the time, energy and money spent in preparing it. The inside mechanism is not understood nor are the majority of the pupils in the class well up in preparing it. The scientific principles underlying the working of the steam-engine, the exhibitor himself does not understand. The educational advantages of working on card-board may be realised by a graduated series of simple lessons in a few weeks and it is a waste of time to set pupils to prepare this huge mechanism. In some of the exhibition stalls I happened to observe some manual work which should have been

THE TEACHERS' PROFESSION.

(Continued from page 368.)

Headmaster's private life, its value and its relation to, or influence over, the school work:— The intelligent public will always judge of a person both from his public and private life. The value of his public life is always heightened by the intrinsic value of his private life. If the private life is not exemplary and praiseworthy, then the public life loses its full value and is thrown in the background. Just as Education includes several aspects, intellectual, physical and moral, so an educated man is bound to be tested from all the three standpoints of view. The last standpoint of view will predominate over others (and is the only touch-stone for judging) if he has had education in its proper sense, *i.e.*, sound education.

None are so quick in finding out faults or dark points in a teacher as his students. However deficient they may be in other respects, yet they are quick in detecting loopholes in a master. Their intelligence is generally perverted. Hence there is a greater necessity for the Headmaster to watch himself first before he proceeds to watch others. He should protect himself on all sides and place himself in a solid square arrangement so that his opponents might not find out any point of weakness to strike against. For this he should surround himself on all sides by the bulwark of character. He should, in the first place, manage his family in an ideal manner, for he is an ideal, both to his assistants and his pupils on one hand and to the outside public on the other, perhaps to a smaller extent. Whoever fails to manage a house is surely to fail in managing any department, institutions or the like. Incapacity in one would mostly show inability to

transferred to the show-rooms decorated by Hindu girls on 'Navarathri' days. Work done by teachers and pupils should have some educational value, and all work which has no such value should strictly be proscribed. Arrangements should also be made to see that as far as possible the whole class work is exhibited. The organising committees have such a ruling, but very rarely is the ruling rigidly enforced. It may also be borne in mind that the charts, &c., exhibited should not be above the comprehension of the teachers who are expected to attend. Exhibits got from different countries may well advertise our show, but if their significance cannot be comprehended by the teacher-visitors, or if no proper arrangements are made to explain in vernacular the purpose of these exhibits, the money expended in obtaining the exhibits, will have been spent in vain.

Fifthly, the work proposed to be done in the conferences held on the exhibition days should relate to the department or departments of work exhibited. There should be more model lessons and discussions on methods of teaching than lectures. The teacher-visitors should be encouraged to ask questions and clear their doubts. Opportunity should be given to take notes. The defects observed by inspecting officers during their tours of inspection may be made the subject of talk and remedies suggested. Useful circulars and pamphlets may with advantage be distributed.

M. SUBRAHMANYAM.

manage other things. It is incorrect to suppose that he may be weak in one and yet he would be strong in any other; for a man's nature must remain the same. The force of nature and habit is tremendous and cannot be easily shaken off. Shakespeare's 'King Lear' would prove the disasters that arise out of the inability to manage one's household affairs. When he is an expert in managing house business smoothly and amicably, he enjoys considerable mental happiness and peace of mind, he could devote his full energy in furtherance of the cause of education and he would place the community at large in a debt of deep gratitude. If he is a failure there, then naturally all his sane utterances in the class-room and on the public platforms will fall flat on the ears of his audience for they know he is a preacher and not an actor. Example is always better than precept and this is indispensable to the Headmaster. Children might be talking within themselves, Oh Sir! We know you, your house, and how you treat the members of your family. There have been instances where during class teaching some boys, sufficiently grown-up, indifferent to study and in well-to-do circumstances, and bold at the same time, might put some questions regarding the subject-matter the Headmaster has been teaching, where the Headmaster might be driven to the corner and made to admit his weakness either openly or inwardly. The Headmaster should take special care that he does not place himself in such a predicament. A wiser Headmaster would in prudence avoid dwelling at length on those topics; if he does so in prudence, he does no longer discharge his duties quite well. If he preaches one thing and does another thing, he is no longer truthful.

This is a worse sin. When this weakness is known to all, his life is not worth living. 'Death before dishonour,' says the proverb. He can be considered only as doubly dying. Still he goes on moving with the outside public, but he is aware of the fact that he is being ridiculed by the public, and the public also try to move with him, for they have not the courage to bid good-bye to him. So they move outwardly and hypocritically, but there is no genuine love and heartfelt and affectionate movement amongst them. We find from history that only those men exert vast influence over the community that come in contact with them, whose outward behaviour is only the expression of inward feelings and thought, but not those coming under the lines, 'For the man is practised in disguise, he cheats the most discerning eyes.'

Punctuality and regularity:—As students have to acquire these two important qualities the Headmaster should set an example by his going to school both regularly and punctually. As a rule he should be in the school a few minutes before time, and should leave the school only after the school work for the day is over. There is also another reason for doing so. The charge is very often laid at our door, not without foundation, that Indians are not punctual, and hence when an invitation is sent to a gentleman he generally puts the question Indian time, or English time? This disgrace should be wiped off. He should aim at showing to his Western brethren, that the people of the East know the value and importance of punctuality. Again, punctuality and regularity in attendance make him carry on the school work in a systematic manner. There would be no necessity to do the work in a hurried way. Hurried work does not, as a rule, produce that result achieved by

work done in a calm and systematic manner. There should be a pre-conceived plan to turn out a definite quantity of work within a prescribed portion of a year. The plan should not be merely ideal, but also practicable. Men of average ability should be able to finish the work within the prescribed time. When the Headmaster goes late invariably, this contagion will affect other teachers of the school. The Headmaster has no doubt power to check others, but such a check would fail to secure the desired result. The work done by one in irregularity and without punctuality would seriously interfere with the work of other teachers, and this would upset the work of the school as a whole. If the Headmaster would leave the school earlier, then some teachers would practically stop their work when they know that the Headmaster had gone home. Hence it is necessary that the Headmaster should be first to come and last to go.

Leisure periods:—It has often been complained that the Headmaster is given, or he appropriates to himself, a larger number of leisure periods than what may be deemed necessary for him. The assistants should not complain of this, if they rightly understand his functions and responsibilities. The object of the framers of the Code is this:—If I am not mistaken in my view, every Headmaster should have an hour or so for his correspondence. This is real work but should not be mistaken for leisure. An intelligent Headmaster would minimise his written correspondence and would not multiply it unnecessarily. If he remembers this, he would be in a position to save his own energy and that of others into the bargain. Just like other teachers he is entitled to certain periods of leisure. In addition to

this, he may also take five periods of leisure. The Headmaster should afford to work for 15 periods of regular work at the least in all schools. He should in justice give model lessons for three periods out of the five of extra leisure referred to, and might thus enable them to follow better or rational methods of teaching. This plan he would do well to adopt when all his assistants are present in the school. When some teachers are necessitated to stay at home on account of illness or any other proper cause, the Headmaster should also engage those classes, if possible, so that he might know and judge of the nature of the work done in those classes. It is enough if he does this in lieu of the model lessons he is expected to give. When teachers, who have only one period of leisure a day, are made to sacrifice even this single period, after a heavy and honest work during the day, they generally murmur, go to the class with reluctance and do little or no work. This is a serious drawback to be guarded against. As it is, masters do generally discuss such questions in their private rooms or from outside. The Headmaster's work in itself should put an end to such a murmur on the part of his assistants.

Temper:—This is a quality that should be carefully governed by the exercise of will power. If not kept in restraint the results are far-reaching in their consequences. The head of an institution should on no account lose his temper, but should always be calm and collected. He should never allow his judgment to run away with his feelings. He should be just like the captain of a ship however violent the storm might rage round him. In an angry mood he should not pass hasty and rough remarks. Remarks once passed without sufficient justification would be really a

dagger to sensitive men, and the effect cannot be removed by any amount of regret or apology on the part of the Headmaster. Further, repentance only shows his weakness. Remarks should be few and far between. He should have such a control over his tongue that the assistants should naturally fear the remarks of their Headmaster. There should be a grace in the matter of remarks. The mode in which remarks are being passed has a grace of its own and deepens the effect of remarks. If the Headmaster is easily irritable by nature, then some artful assistants would easily gain their objects by upsetting his temper. In fine, he should create in the minds of his assistants an impression that he would always keep his head cool and calm under any circumstances. He should be still more careful in his dealings with pupils, for, if he loses his temper and does harm to them, then he places himself in a false position. He is not in a position to tender an apology or rectify the mistake for, he fears, he would lower himself in their eyes if he does so; hence he desires to maintain a false dignity in spite of his honest conviction to the contrary. Thus he places himself in a false position and becomes more miserable. Hence he should not lose his temper.

Other precautions to be noted:—The head of an institution should always aim at lofty and noble things, and the words that fall from his lips should be chaste. His tongue should shudder of its own accord at uttering vile and slang words, and feel as much delicacy as Desdemona felt and refused to repeat the vile expressions that Othello used, imputing unchastity to her. In the next place he should not incline his ear to tale-bearing persons and he should frown at such persons at the very first instance so that their attempt might be

the first and the last. He should not speak ill of one assistant to another. If he suspects his assistant of any fault and believes that he (the assistant) has offended him in any way, the moment he entertains such an idea he should ask his assistant about it without reserve. Then each can open his heart to the other, and then there will be hardly any chance for misunderstanding on either side. The Headmaster must also be careful not to give room to any public scandal about him, and at the same time he should not demean himself by spreading scandals about others. He must rise above the ignoble qualities of jealousy, spite, malice, envy, double-dealing, boldly denying his previous statements, and other kindred vicious qualities. He should not take shelter under the words "I do not remember that." In fine, every inch of him should be a gentleman.

Value of heredity in the choice of Headmasters:—Heredity plays a conspicuous part in the lives of all men. It should be admitted on all hands that men born in a very noble family should always adorn the highest posts in all departments. The advantages of having such men at the head of all departments, though they have not secured the highest University honours, would far outweigh the disadvantages that arise when upstarts, with honours and medals, occupy such posts. A careful student of history would find that serious calamities have been the result of having ill-bred and inferior sort of men at the head of departments. Upstarts will generally forget their previous position in life and assume new qualities for the first time, but their true nature will always show itself out. Most of the vices that were enumerated above, would not be found in the case of men born

in a noble family, though poor. It should be distinctly borne in mind, that nobility of birth has nothing to do with poverty; when men born in a noble family or tarwad are reduced to straitened circumstances, the nobility of birth will still be felt in all their actions, thoughts, and feelings. They would naturally soar high, search after noble qualities and bright characteristic features in others, and would magnanimously forgive the dark points that may be casually found out in others. It is not in their nature to hunt after blemishes in others. They would take broad and humanitarian views of life and the spirit of sympathy will pervade all their actions. They would often look only at the bright side of nature. They would not allow their minds to be occupied with filthy and unhealthy thoughts, but their minds would be ever occupied with lofty and sublime ones. They would naturally elevate the condition of inferior people that might come in contact with them. There is always a grace in the case of hereditary beggars, even in the matter of begging. There is always a difference between the behaviour of men who have been rich from generation to generation, and that of those who have recently risen to fortune. An upstart would do considerable mischief and the sphere of his action will be very narrow. Hence Managers should exercise great wisdom in choosing men who can boast of noble and respectable parentage. Such a choice is a safeguard against several possible evils and dangers. Hence high class men should be placed at the head of departments.

Educational qualifications:—From what has been said till now, it should not be imagined that educational attainments are less important. The value of such attainments will be heightened when the Headmaster is rich

in other qualities. Educational qualification is only one of the factors that go to make a man perfect. It is a very good thing if the Headmaster has a bright University career. Brightness in the University career does not necessarily ensure one's success in life. Success in life depends upon many factors such as sound study, careful observation of the ways and means of the world, adaptability, etc. Others whose career might not have been as bright as could be desired, owing to some unforeseen accidents in life, need not despair. If they only do not give up the habit of regular study, they can make it up very easily. Here is a marked difference between Englishmen and Indians. Generally speaking, Englishmen begin serious study after their University career is over, and during the course they cultivate the habit of taking a good deal of physical exercise, and thus store up sufficient strength to bear the strain of hard work in after-life. Whereas Indians work very hard in gaining intellectual excellence during the course, mostly at the expense of their physical exercise. At the time they finish the University career, they are like a jaded horse and their constitution is completely broken down. Hence there arises a natural aversion to hard work and consequently their knowledge becomes stagnant. When once this disease of indifference catches hold of any person, he becomes a victim, as it were, and has a very chequered career in his life. The fault lies in the system of education that obtains in India.

The Headmaster should be well informed, be in touch with the outside world and move abreast with the time. To be brief, he should be a worthy example in himself, from whatever standpoint of view he may be

judged, intellectual, physical, and moral. In order to reach this goal he should have studied under excellent set of teachers, and should have had a very liberal sort of education in a noble *Alma Mater*. His heart should beat high whenever he thinks that it was a great privilege and honour to him that he sat at the feet of such and such eminent men. A thought, nay, a momentary glance, of his teachers and of the ideals that they held out before him, should fill his heart with extreme joy. Those that had not the good fortune to study under such eminent men, should at least make themselves well-acquainted with the life history of such illustrious men like Messrs. Porter and Gopal Rao of Kumbakonam College, Mr. Thompson of the Presidency College, and the Hon'ble Mr. Gokhale, the ex-Principal of the Fergusson College. When the Headmaster has before him such lofty ideals, and honestly walks in that direction, he is sure to approach the goal, and in doing so he himself becomes a worthy ideal to his assistants and students.

V. RAMACHANDRA AIYAR.

(To be continued.)

SUPERVISION IN SECONDARY SCHOOLS.

NOW that the Headmaster has been relieved of his teaching work and his chief business is to supervise the work of his assistants, most lay-men seem to entertain the opinion that the present day Headmaster has not enough work to do. In order to remove this illusion, it is but necessary to describe the difficulties of doing the supervision work in addition to his other onerous duties.

Of course, the most important duty of the Headmaster is to supervise the work of his

assistants. This is by no means an easy task. There is an impression in some quarters that supervision consists in going to a class, attending to the lesson given by the teacher and making some remarks whether in the class-room itself or outside. Some Headmasters have another way of doing this work. They conveniently place themselves at a position whence they can gauge the work of his assistants, without the latter knowing that the Headmaster is playing the part of a spy. My humble opinion is that neither is the right way of doing the thing. He should make no remarks about the teaching of a particular assistant in the presence of the pupils, however well intentioned he may be. Nor is he to create an impression in the minds of his assistants that his methods savour of cunningness and duplicity.

In order that the Headmaster's supervision might be effective and wholesome, he is expected to be an all-round man. The Headmasters are generally believed to be good especially at English and they teach English for the highest class. Sometimes they know little of other subjects than their own optionals in the B.A. Degree Examination. Of course there are headmasters and headmasters. Even though he happens to be a Philosophy Graduate, he sets up to work like an ardent student and in no time fits himself for the responsible work that is entrusted to his charge. Therefore, the Headmaster, not to speak of the assistant masters, should be constantly reading books and thus improve his own knowledge.

Then he should be conversant with the up-to-date principles of good teaching. He must read standard authors on the methods of teaching and also the various journals connected with education, such as *The*

School World, *The Practical Teacher*, *The Educational Review*, etc., etc. He should freely take part in all educational movements, such as Conferences and Exhibitions, and try to increase the utility of such movements. In all these things, he should be all earnest and enthusiastic and should not give room for others to think that his enthusiasm is only feigned and not sanguine.

Granting that he fulfils the two conditions, how is he to do this important work? Firstly, at the beginning of the school year, he should convene a meeting of the assistant masters, select the Text-books to be used, and draw up a neat syllabus in each subject for the portion to be done during the year. Then he should organise periodical meetings of the assistants (a teachers' association is highly useful), at which, model lessons should be given by himself or by an assistant, principles of teaching should be discussed, or there should be some Demonstration lessons. After the Model lesson is over, there should be a lively discussion on the merits of the lesson and care should be taken to avoid all criticisms which are likely to be destructive.

The Headmaster then should very cautiously move the question of 'teaching notes.' He should write notes himself, and then see if his assistants write notes or not. If they do not, he should suggest to them in a friendly way the desirability of writing notes and convince them of the utility and importance of such work. But under no circumstances is it desirable that the Headmaster issues a mandatory notice calling upon his assistants to write notes, for, however resolute and firm-willed he may be, it is likely that he may meet with one or two 'refractory' assistants who would give him some cause for anxiety

and unpleasantness. In this connection, I should like to say a few words on the relation that should exist between the Headmaster and his assistants.

He should always remember that he was once an assistant-master and that he is not a super human being. He should have a genial temper, kindly disposition and affable manners. It is not desirable that he always assumes an air of superiority over his assistants. His assistants are but his colleagues, inasmuch as he is also a teacher. His object can be better achieved by earnestness, free mingling with his assistants, and by a policy of 'give and take,' than by false zeal, a policy of keeping himself aloof and by his attempt to enforce his own views on his assistants whether reasonable or not. He is quite at liberty to have his own views, but if the majority of his assistants have a different view, he should freely discuss with them about it, correct his own opinion if wrong and enforce it if right. He must so conduct himself that he is always respected by his assistants, who should be made to think that their Headmaster can be trusted and would try to promote their welfare.

Then coming to our subject, he might occasionally go to a class, observe the teaching and suggest some improvement. He should pay particular attention to the inexperienced and untrained members on the staff.

Some other points may be mentioned in this connection, but as it would occupy more space, it is thought desirable to omit them and bring this article to a close.

(AN ASST.-MASTER IN A SECONDARY SCHOOL).

PRACTICAL METHODS IN NATURAL SCIENCE.*

"Come forth into the light of things
Let Nature be your teacher."

THE problems that engage the enquiring spirit of a man are those of life and of the earth of which he is an inhabitant. The science that enquires into the nature of life and of the past natural history of the earth is called Natural Science; and those who devote themselves especially to the pursuit of such a science are commonly called "Naturalists." The science relating to the world of non-living such as rocks and minerals, came to be known as the "Physical Sciences," which also include Chemistry and its allied branches.

The phenomena of life are to be met with only in connection with plants and animals. The science of plants is called "Botany" and the science of animals, "Zoology." In our every day life we meet with some living thing or upon living things which have once been alive. Even in our rooms the wood of our furniture and our doors could never have been in existence without the timber of a tree which once had life; the paper that forms our book and the carpet that forms our flooring are made of materials which life has produced for us. Nay, the air we breathe is full of invisible germs of life. There is scarcely a spot where we cannot see some insects creeping or flying or spinning so long as the hand of man does not destroy them. Since we live in this world with all these numerous companions that had many of them curious lives trying like ourselves to make the best of their short time here, is it not worth our while to learn something about them? May we not gain some useful hints by watching their contrivances; sympathising

* A paper read by Mr. V. Thiagarajan before the Natural Science Association, Madras.

with their habits and studying their history? Do we not learn from the bee that we ought not to be very busy and that we should spend our time very usefully? Do we not learn from the ants that we ought to save something against adversity?

"Go to the ant thou sluggard
Learn her ways and be wise!"

so said Solomon.

Thus we find how immensely mankind may profit by a study of even the most insignificant of creatures found in nature. So we should cultivate a reverence for the mysteries lying about us. "This could be only done by striving after a knowledge which would explain such mysteries and make us wiser for having lived in this world." The study of Biology (Zoology and Botany) demands a very prominent place in any scheme of education worthy of the name. If such a course is not taken up in schools and colleges, we are only launching the student into the world, undisciplined in that science, whose subject matter would best develop his powers of observation, blind to the richest sources of beauty in God's creation.

In the study of a plant or an animal we have to know two things:—

1. The nature of its structure or build.
2. The work it is capable of doing.

Their structure and their work can only be studied with a rudimentary knowledge of physics and chemistry. "Though the phenomena of life is dependent neither on physical nor on chemical, but on vital forces, yet they result in all sorts of physical and chemical changes, which can only be judged by their own laws."

Although the study demands an elementary knowledge of physics and chemistry, yet the study by observation alone is possible even to young boys in elementary and secondary schools in a miniature scale, for, boys are

naturally active and have abundant curiosity to learn things from nature. They would become best naturalists, when they are fit to learn more, if only we create in them a taste for collecting, preserving and studying natural objects. We would not only develop this science by doing so, but also keep them out of mischief and give them healthy employment for mind and body.

Success in the study of science depends upon the methods employed. The methods that are generally employed in all sciences are five in number—observation, experimentation, generalisation, deduction and verification. These methods are applicable not only to sciences in general, but also to Natural Science, even though the subject-matter of biological science is different from other sciences. I shall by means of an illustration prove that the methods employed in Natural Science are identical with the methods of other sciences.

We learn by observation of the existence of blood in a sheep when a butcher uses his keen knife. We also learn by experiment that the large veins when tied near the heart of a sheep, the heart becomes flat and that the arteries when tied near the heart, the heart swells as though it would burst. The experiments teach us of the circulation of blood by the heart. Supposing we also observe the same thing in the case of a horse when we experiment upon the heart of a horse. Then we state as a proposition or generalisation that horses and sheep have a blood circulation. This proposition is as true as the propositions in Euclid. From this we may deduce other things. When we meet with an ass, we may suppose he has a circulation. Suppositions are not always secure and reliable. So, in order that our deduction may be confirmed we ought to experiment upon the ass and this process is called verification.

The mathematicians are busy with deductions from general propositions. It is because that the general propositions in this science have been done long ages ago by mathematicians like Pythagoras.

A biological science is still in infancy and has only some record of observations done by great men like Darwin, Huxley, Wallace, Herbert Spencer, Lubbock, those who have a special aptitude to this branch of science must try to increase the records, which can only be done by observation and experiment. In order to observe nature and learn her secrets, one must cultivate the powers of observation from his youth. English school boys realise the value of out-door excursions and during holidays they go out on trips to hills, rivers, sea sights and woods, to learn much from nature herself. Their teacher is nature as Wordsworth puts it:—

"Come forth into the light of things
Let nature be your teacher."

More often they are taken by their school-masters at school cost and the school gets valuable specimens for their museum. In India most of the boys have a bad notion that holidays have been given them only to revise their old lessons. Even the teachers burden them with heavy homework for holidays. So, what they learn at school is bookish and not practical. Moreover, very few people take to studying this branch of science, and among those who study, very few devote themselves to researches. In America and Europe, there are many hundreds of students who devote themselves to research work and the science is rapidly improving owing to them. Recently our Director of Public Instruction, Dr. A. G. Bourne, lately Professor of Biology in the Presidency College, Madras, has introduced nature study in elementary schools. It is a boon to us.

The study of Natural Science may very well be begun by preparing a nature

calendar, month after month, by going out on walks and excursions with a note book and by jotting down what we observe.

*Specimen of a nature calendar
(prepared by me).*

April	4th	Lilies in blossom.
"	8th	Butterflies seen.
"	10th	Aquatic insects in ponds.
"	11th	Tadpole hatch.
"	15th	Skylark, Thrush and other birds arrive.
"	20th	Melons in fruit.
"	22nd	Palms in fruit.

Such a calendar may be prepared for our future guidance. Preparing nature calendar is just like learning the alphabets of a language.

Having acquainted ourselves with objects during excursions and having now formed a calendar, we ought to begin collecting whatever that is procurable. Whenever we go out for collection we ought to take with us a knife, a lens, a blotting pad, a sketch book and a few bottles. It might seem to be a burden to take all these equipage. Nevertheless, we ought to take them in a satchel. One might think that a pad and a knife will do when we enter a garden. He is thoroughly mistaken. The flower that he loves to enjoy and preserve may contain an insect peculiar to that flower. How then could he have the insect without bottles?

The preservation of specimens collected needs particular care. If the specimen be a botanical one it ought to be preserved in blotting papers. In preserving them care ought to be taken so that one leaf or petal does not overlap the other. If the specimen be one of edible succulent fruit, it may be preserved in honey.

Zoological specimens would either require to be stuffed or kept in mytilated spirit to which some acid formalin is added. The

bones of an animal unearthed must be articulated. The art of stuffing and articulating should be learnt by every Zoologist and the science which treats of them is called Taxidermy.

Alfred Russel Wallace in explaining the delay in publishing his book on Malay Archipelago after his travels there writes thus:—"When I reached England in the spring of 1862, I found myself surrounded by a room full of packing cases, containing collections. These comprised nearly 3,000 bird skins of about 1,000 species; and at least 20,000 beetles and butterflies of about 7,000 species; besides this some quadrupeds and land shells. Unpacking, sorting and arranging such species occupied me seven years." This would give us an idea of the collections that could be made.

The collections that we make ought to be classified and a label should be attached to each. In classifying them a book like "Furieux's Out Door World" would be of immense value. In arranging them we ought to arrange them in sections—Botanical, Zoological and Geological.

"A museum is like a living organism; it requires continual and tender care." In order to ward off the invading pests we ought to keep naphthalene balls or corrosive sublimate in our museum.

Closer observation of the study of animal life needs rearing them under artificial conditions. We ought to rear pets at home such as parrots, cock, hen, dog, cat, rabbit and deer. Great attention must be paid to the pets. They ought to be properly fed, properly washed and kept in proper cages. In rearing pet animals we ought to rear them in pairs so that breeding might be promoted. Insects such as wasps and butterflies may be reared and their wonderful metamorphosis of their offspring may be noted,

In order to be thoroughly acquainted with aquatic life in all its phases, an aquarium is absolutely necessary. An aquarium is a glass jar with a wide mouth or a rectangular glass trough. Before we put our pets in them, it ought to be filled with washed sand and then water and water-weeds from the pond or stream from which we capture the animals. The aquarium should be covered with a wire gauze shutter, so that the captives might not leap out and perish. The water of the aquarium should often be replaced, for the dissolved air in water would be exhausted. If we keep in them many aquatic plants the water may be replaced once in 15 days. If we do not replace the water, our pets would float in it showing that they are dead. Great attention ought to be bestowed in placing the aquarium in a proper place. The aquarium should be placed where there is strong sunlight; but not under the direct rays of the sun. By taking such cares fishes, tadpoles or any other aquatic animal can be reared in pairs and breeding may be promoted. In doing so we may note their eggs till they reach the adult or full grown condition. The development of the frog may be particularly noted as it would excite our wonder.

The structures and peculiarities in the formation and build of plants may be studied with the help of dissection. To examine dissections a hand lens is very useful. If the thing we intend to examine be very minute as not to be seen even by a hand lens—say for instance the "stomata" of a leaf—then we should have recourse to a microscope costing about 4 or 5£.

An important adjunct to nature study is garden. Particularly in towns where the best type of nature study is difficult a garden is very helpful. If at all plots are not

available, pots may be extremely useful. Seeds may be sown in pots and the germination may be noted. "Water culture" may be prepared and plants may be reared in them to show that plants do not take earth as their food, but the salts of the earth. The sight of such pots inspires us with a feeling of holy calm and soothes our nerves. If we possess a garden, it would be an immense source of pleasure to us. Cowper when he was not engaged in literary work and at his poems used to attend his garden and indeed it had a soothing and ennobling effect upon the unhappy poet.

Every one of the items described above such as nature calendar, excursion, museum, pet animals, aquarium, dissections and gardening are indispensable adjuncts to the study of natural science.

The practical methods go a long way in the development of this science. The results of this science cannot be realised in a short time. So in working at the methods enumerated we would be able to complete this science in the long run. Although the results (true) are far from us we would not be hampered by any disinterest, for, the more we study this science, the more interested we become.

V. THIAGARAJAN.

SIR GURU DOSS BANERJEA ON A HINDU UNIVERSITY FOR INDIA.*

The Resolution which I have been called upon to second runs in these words—"That this meeting approves of the foundation of a Hindu University." In commending this resolution for acceptance I think I shall have to satisfy you on three points:—

1. Whether denominational Universities are desirable?
2. Whether multiplication of Universities is desirable?
3. Whether a Hindu University is desirable, and what is the true idea of such a University?

The third point really involves the other two, but I shall consider them separately for convenience of discussion. I take the first point first.

Some opponents of the Hindu University movement, who are friends of India, say that the establishment of denominational Universities is opposed to principle generally, as education should ignore differences of caste and creed and proceed on a cosmopolitan basis, and that it is opposed to the interests of India particularly, as it will tend to accentuate and perpetuate differences in religion, and will stand in the way of the union of the Indian peoples and their formation into one united nation. These friends of India say, we are Indians first then Hindus or Mahomedans, I admire this broad-mindedness, indeed, I would go much further and say, I am a man first, and then an Indian, and then a Hindu or a Mahomedan. For even though all India is united as one nation, if it is not united with the rest of the world in the common bond of humanity but is in conflict with other nations outside India there will not be that peace on earth and good-will towards man which are necessary for the progress and happiness of the world. But I do not admit that this establishes the objection against denominational Universities.

One obvious answer to the objection of these friendly critics is that the fact of our Muslim fellow countrymen having come forward for a University of their own alters the situation, that it is no longer possible to have a common Indian University under Indian control in addition to the existing Universities, and that if an additional University which is to be a teaching University

* A speech delivered on a resolution on the subject at a recent public meeting in Calcutta.

imparting religious education is to be established for the benefit of the vast majority of the Indian population, it must be a Hindu University. But I will not ask you to base your action upon this narrow ground sound though it be. Nor must I omit to mention here that the question of a Hindu University has not been mooted for the first time after the Muslim University movement was started. Long before that time, the idea of a Hindu University had been a cherished idea with our distinguished countryman, the Hon. Pandit Madan Mohan Malaviya. But let us examine the point now before us a little more deeply. True it is as our critics say that education should be based upon a cosmopolitan basis, and that we should remember that we are Indians first and then Hindus or Mahomedans, or rather as I have put it, men first, then Indians, and then Hindus or Mahomedans. But that is not the whole truth. It is only in our advanced stage of progress, after narrow self has gradually expanded itself and learnt step by step to extend its sympathies from the family to the sect, from the sect to the nation and from the nation to humanity, that true breadth of sentiment which influences life and conduct, and is not merely lip deep, can be attained. But in the earlier stages of progress things must stand very differently. We are born with the narrow, selfish instinct of self-preservation. We are bred in infancy amidst concrete domestic surroundings with all their religious and social peculiarities and not amidst abstract humanity or on abstract Indian nationality. And we commence our school and college career not as men nor as Indians but Hindus or Mahomedans, or rather as Hindus or Mahomedans of some particular sect. Every student when entering school carries with him besides his outfit of language, his stock of ideas and sentiments, the gift of his family, his sect and his nation; and the teacher should utilize and improve that stock instead of ignoring it. Teaching generally, and moral and religious teaching specially in order to be successful and productive of speedy results, must take particular note of the mental and moral temperament of the student, just as sowing in order to be successful and productive of speedy harvest, must take particular note of the soil. The Government Universities and Government colleges and schools following the laudable policy of religious neutrality, are obliged to abstain from providing religious education; but in doing so they leave the spiritual side of the student to lie fallow and lapse into jungle. The highest aim of education must, no doubt, be to free the mind from the fetters of sectarianism but we must not attempt to reach by a sudden bound a

light which is attainable only by gradual steps of laborious ascent.

If a non-denominational school under a non-denominational University has the advantage of keeping the students free from all religious bias, it has the disadvantage of leaving his spiritual nature altogether neglected and of sending him out into the world unprovided with spiritual strength to bear the ills of life which may fall to his lot. And that disadvantage far outweighs the advantage gained.

The objection that denominational Universities will tend to accentuate and perpetuate religious differences is easily met. If there be, not one denominational University but two, a Hindu University and a Mahomedan University, each standing face to face with the other, and both working before the jealous eye of a strictly impartial Government, a salutary spirit of emulation will be sure to inspire each with an earnest desire to bring out its best not only, in knowledge but also in character and religious toleration, so that the spirit of conciliation between Hindus and Mahomedans will be better encouraged here than it would have been if they had been students of a common non-denominational University, just as mutual good feeling among brothers in a Hindu family is well-known to be better fostered after partition when they begin to live separate.

But it will be said that though all this may be true yet when once denominational Universities are allowed to be established, their number will soon become inconveniently large in a country like India which is the abode of the followers of so many different creeds. This brings me to the second point stated above.

My short answer to the objection that the establishment of one denominational University will lead to the undue multiplication of such Universities as this. Though the number of different religious communities in India is large, the number of persons belonging to most of these communities is small, the two really large religious communities being the Hindus and the Mahomedans. And these small communities, with the exception of two or three, will not be able to raise funds which Government will require as a guarantee for proper working before sanctioning the establishment of a new University. But even if the matter stood differently what then? India is a large continent with a vast population and has at present only five Universities. The addition of a few more will not be an inconvenient increase in their number. The point is fully discussed in the learned pamphlet of the Hon. Pau-

dit Madan Mohan Malaviya to whom the Hindu community will ever remain deeply indebted for his earnest exertions for the foundation of a Hindu University. But it might be urged next, that though India may be large enough to have many Universities, she is not rich enough for that luxury, that it will not be judicious to go after new universities when the old ones which are already well organised are unable to do that they could do for want of funds, and that the proper application of any funds that may be available will be to increase therewith the resources of the existing Universities.

The answer to this is two-fold. In the first place the funds that are forthcoming are being contributed for the foundation of a University under Hindu control for imparting instruction in Hindu religion as an integral part of education and for training students to live according to the highest Hindu ideals of life. Hindu sentiment is an important factor here; and the funds which are promised for carrying out these definite purposes would not have been forthcoming for any other purpose. In the second place, these purposes, as I shall endeavour to show presently, are justly entitled to claim the appropriation of funds. The existing Universities are organised on a certain basis and work within certain scope. The proposed University is intended to be organised on a somewhat different basis which is better adopted for its work and to work with in a wider scope, as it will impart religious and technical education in addition to education in arts and science; or in other words, to have a classical as well as a modern side, and each developed more fully than it is in the existing Universities. And it is certainly desirable that such a University should be working side by side with the Universities now in existence.

I come now to the third and the last point, namely, whether a Hindu University is desirable and what is the true idea of such University. This is the really important point for consideration here to-day; and what I have said before does not dispose of this point, though it helps to clear the way. For it might be said that even if there be no general objection to the establishment of a denominational University and to an increase in the number of Indian Universities the foundation of a Hindu University would still be open to objection, and partly on the ground of its being an attempt to revive dying though time-honoured ideals of life and thought and thereby obstructing the path of progress, and partly on the ground of its being likely to create aloofness between Indians and Europeans and being therefore politically

inexpedient. The former ground may be urged by a certain section of our countrymen, the latter by a certain school of Anglo-Indian politicians.

To obviate these objections it becomes necessary to consider the second half of the third question, *viz.*, what is the true idea of a Hindu University? I shall try to place before you the idea of a Hindu University which the promoters of the present movement have in view; and when that idea is rightly understood our critics will find that all their objections are removed.

As a member, though an unworthy one, of the Hindu community, I have naturally ardent admiration for the true Hindu ideals of life and thought which to my mind constitute the real landmarks of Hinduism, and which have enabled Hinduism, to resist those mighty religious, social and political revolutions that have swept over the country. These ideals form the permanent and unchanging features of Hinduism. Round them have grown certain other features which are transitory and changing and they must be allowed to change with time. Standing erect and keeping firmly attached to these permanent ideals without any oblique leaning one way or another we must move on with the onward march of time.

I say this on the highest authority. For Mann himself hath said:—

“One set of duties (is prescribed) for the ‘Satwa’ age; different sets for the ‘Treta’ and ‘Dwapar,’ and again a different set for the ‘Kali,’ according to the decrease in those ages.”

Thus though Hinduism has certain eternal and unchanging features, there is no fear of its being opposed to progress. What then are these permanent features and unchanging ideals of Hindu life and thought?

They are not mere matters of ritual and dogma important as these may be for disciplinary purposes, but they rise above ritual and dogma and concern the spirit in man. They are on the theoretical side, a firm living faith that life is not a scramble for the transitory good things of the earth but is a struggle for the attainment of spiritual good, and on the practical side, the leading of a life of cheerful self-abnegation and devotion to the performance of duty regardless of reward for the service of humanity. These being the ideals which a Hindu University will inculcate, there need be no apprehension in the mind of even the most radical reformer that such a University will be antagonistic to progress.

While aiding spiritual advancement a Hindu University will give all due attention to technical and industrial education for serving humanity in attaining material progress. For none feels more keenly than the Hindu that exclusive devotion of attention to things spiritual to the utter neglect of the physical side of creation has brought about the lamentably backward material condition in which we are.

It remains now to consider the objection against a Hindu University on the ground of its supposed political inexpediency. Beyond certain restrictions on inter-marriage and inter-dining Hinduism does not recommend or encourage any aloofness from the running race. On the contrary, loyalty to the ruled is strictly enjoined by Hindu religion and is deeply ingrained in Hindu nature. The Hindu is by instinct and habit law-abiding and peace-loving. And the ideals of Hindu life and thought which I have just referred to and which a Hindu University will inculcate, namely, cheerful self-abnegation, performance of duty regardless of reward and submission to the inevitable with calm resignation will be the best safeguards not only against discontent and unrest, but also against that fierce conflict between capital and labour which threatens every moment to disturb, if not destroy the peace and happiness of Western society.

The foundation of a Hindu University is not therefore open to any objection on the ground of political inexpediency.

The promoters of the present movement fully appreciate the reason for the Government's demanding adequate guarantee that the proposed University will work well and without detriment to any interest in the country; and they are ready so to frame the constitution of the University as to afford every reasonable guarantee to that effect.

From every point of view, then, it is desirable that a Hindu University should be founded; and I would beg of all persons interested to merge their minor differences and co-operate earnestly for the attainment of that desirable object.

EDUCATION IN THE MAGAZINES.

Elementary Education in India.

It is amusing to see the *Spectator* writing against the introduction of Elementary Education in India.

It is now proposed to make education universal in India by the same means which have made it universal among ourselves. It is doubtful perhaps whether even in England the gigantic effort has given us all that its authors promised. Political intelligence is not yet universal, and elementary schools have not in all cases been able either to impart it or to supply the want of it. But, at all events, the conditions which have been described were really present, and if education failed to meet them there was no other expedient that promised any better. We had exchanged one set of masters for another, and to qualify our new rulers for the duties entrusted to them was only a matter of common prudence. But India offers no parallel to the England of forty years since. The people of India are not our masters, and it is not at present suggested, except by Mr. Keir Hardie, that we should make them so. Even Mr. Gokhale, who is the apostle of compulsory education in India, does not yet propose that it shall be accompanied by the concession of complete self-government to the vast multitudes who are at present held together by British rule and by that alone. When he first raised the question in the Imperial Council at Calcutta he did, it is true, mention the admission of large masses of men “to a participation in Government” as one of the movements which had combined to give the education of the masses a place among the duties of the State, but he laid most stress upon the industrial movement which has brought home to nations the truth that the general spread of education means ‘the increased efficiency of the worker.’ And Mr. Chirol, from whom we take this quotation, tells us that this is the consideration which ‘carries most weight with moderate men in India.’ Stimulated by the general support which this feeling secures him among his Mohammedan as well as among his Hindu colleagues Mr. Gokhale has converted his abstract resolution into a Bill, which is just one of those measures which sometimes slip into a Statute Book because no one has thought enough about the subject to think them worth opposing. There is no question here of educating our

masters. Mr. Gokhale does not propose to hand over India to the millions whom he desires to educate by force. But we do not doubt that Mr. Chirol judges the situation more accurately, when he says that ‘in the minds of disaffected politicians’ the Bill is valued for quite another reason—‘the hope that the extension of primary schools may serve, as has that of secondary schools, to promote the dissemination of seditious doctrines especially among the ‘depressed castes’ to which the political agitator has so far but rarely secured access.’ Besides the inflammatory action of education in certain stages of political excitement, there is another consideration to be taken into account. Even in this country we know something of the power that the teachers can exert both by organization among themselves and by the influence they have over the parents. There are already over 100,000 teachers engaged in giving elementary education in India, and if education became compulsory it is calculated that this figure would be multiplied by five. As their salaries at present average only just over 10s. a month they would have every reason to be discontented with their lot, and in this way we should secure the presence of an army of agitators largely of our own raising. Added to this would be the new grievance of the Indian taxpayer. He now pays, Mr. Chirol tells us, less than £650,000 per annum towards elementary education. He would, if Mr. Gokhale's proposal were carried out, pay not less than £15,000,000. Mr. Gokhale does not, indeed, propose to raise this sum wholly from the tax-payer. The parent would also contribute part of the cost so far as his means allowed. But in view of the known and excessive poverty of the Indian peasant, to lay another burden upon him cannot be seriously proposed. Indeed, if such a project were carried out the volume of vague discontent with which we have to deal at present would be greatly swollen. ‘To start by making elementary education compulsory in the first instance and afterwards to think of means whereby it may gradually be made free is to place the cart before the horse.’

Honorary Degrees at the Universities.

It is an ancient and laudable custom of our Universities from time to time to confer degrees, *honoris causa*, on famous men, men who have added to the renown of their race and nation by their achievements in any of the various departments of human activity. The ceremonial observed on these occasions is venerable, picturesque, and symbolic. It illustrates the larger hold which in theory at any rate the Universities have always sought to establish, and even in practice have never wholly failed to maintain, on the mind and life of the nation. One of Oxford's poets has sung of the famous men of the past—the lines were quoted only the other day by her present Professor of Poetry in his inaugural lecture:

'The famous orators have shone,
'The famous poets sung and gone,
'The famous men of war have fought,
'The famous speculators thought,
'The famous players, sculptors, wrought,
'The famous painters fill'd their wall,
'The famous critics judged it all.'

To all these in their turn and age and to many others, not forgetting the famous statesmen and rulers of men in all the wide dominions of the Crown, the Universities have always been eager to offer the honorary freedom of their citizenship and to recognise them as worthy of academical distinction in that they have been in the words of Ecclesiastics, 'such as did bear rule in their kingdoms, men renowned for their power, giving counsel by their understanding and declaring prophecies; leaders of the people by their counsels, and by their knowledge of learning meet for the people, wise and eloquent in their instructions.'

There is nothing incongruous or anomalous in this association of academical distinction with public eminence and position. On the contrary, there is something peculiarly fitting and appropriate in it. The Universities confer the highest honor they have to bestow—that is, a degree in one of their superior faculties—just as an ancient and venerable city may confer its freedom on men of high achievement. The degree being conferred *honoris causa* is not, of course, a certificate of proficiency in the particular faculty affected—it has not, indeed, always been that in the case of ordinary degrees—but a patent of honorary citizenship in a great and famous republic of learning. Universities exist for the purpose of fostering all that is humane and civilizing in the energy, knowledge, and culture of the world. The Humanities at large are their special province, and now-a-days the domain of the Humanities has been so vastly extended that no University worthy of the name need hesitate to take as its motto the word *Humani nihil a me alienum puto*.—*The Times*.

English and Scotch Universities.

The *Saturday Review* writes.—In Scotland anything connected with a University has far more popular interest than it would have in England, where the separation between University and ordinary life is more marked. There is hardly any division between the classes who do and those who do not go to the Universities. St. Andrews University has been celebrating this week the five hundredth year of its foundation; and the event may quite properly be described as a national one. It has been international, because most of the European Universities have been represented at the celebrations, and imperial as the Universities of the Overseas Dominions have sent representatives. Such a festival as this is brilliant as a spectacle. The multi-coloured gowns of the European Professors, most of them of mediæval cut and brilliance, are only to be seen on such an occasion. The graduates and students, too, of St. Andrews wear scarlet gowns. St. Andrews is the most mediæval of Scottish Universities; and it is a fitting scene for such pageantry.

"Scottish Universities have blended the ancient and the modern development of the University more effectively than the old English Universities; though both arose in the age of classical and mediæval learning. In respect of University corporate life the Scottish Universities have not been so successful. There are no residential colleges; the reason being that as the bulk of the students are poor they have had to continue the open mediæval non-residential University as opposed to the collegiate system. Lord Balfour of Burleigh, the Chancellor, referred to the social defects of this non-residential system; though much has been done of recent years to remove it. The Scottish people are determined on their Universities approaching as near as may be a high ideal, and if poorer students cannot have the advantage of a residential system on account of cost, provision will be made for them, as has already been done by the payment of fees. Lord Balfour's remark that there is no more pauperism in students living on new endowments than on the old strikes a very different note from that of a characteristic passage in the brilliant pictorial address of Lord Rosebery about a spoon-fed nation."

Dr. Miller in Retirement.

The following is from a recent account of Dr. Miller in retirement, from the *Christian College Magazine*, by one of his old students:—

That beautiful village, the place of his residence—they call it a town because it has two thousand inhabitants—is about an hour's journey from the capital of Scotland. An early train on the 3rd of July last took us there, myself and my nephew; and as soon as we alighted from the train, a well-dressed man, driver of a bus, seeing that both of us had the Indian garb on, addressed us saying—"One shilling a head to 'Burgo Park.'" I suppose it was a foregone conclusion with him that the two Indians had come there on a visit to Principal Miller residing in "Burgo Park." A drive of fifteen minutes brought us to the very entrance of the building, and in another instant I was face to face with Dr. Miller, whom I had last seen on the 14th of March, 1907, when he left India for good, after a service of well-nigh half a century. He made many enquiries of my voyage and of my doings in France, London and Edinburgh. We were given comfortable rooms in the building, which is a substantially built one, having about ten or fifteen large rooms, and fit to be the living place of one of Scotland's living worthies. It is one of the best, if not the best, in the village. An Indian would certainly call it palatial. The grounds are neatly kept and are about seven or eight acres in extent. After I had breakfasted, Dr. Miller took me over his orchard and vegetable garden and the whole of his grounds where he knows every tree and by-path, and subsequently for a walk in the village, whose streets and houses he knows intimately. He is able to take his morning and evening walks unattended and to put into the post-box his letters. The village has three places of worship, two banks, a goodly number of shops and many elegant residences with little gardens well looked after. Years ago it was considered a

health resort on account of its mineral waters, but it has not the same reputation now. The climate is mild; the low range of hills on the back of the village protects it from the cold piercing blasts of winter.

"Burgo Park," by which name Dr. Miller's residence is called, is about three furlongs from the Wallace monument, on a plain near which the great battle of Stirling Bridge was fought on the 11th of September, 1297; about two miles from Stirling, whose castle, situated on the top of a hill, is certainly more interesting than Edinburgh castle; and about three miles from the field of the battle of Bannockburn, which was fought on the 24th of June, 1314. The 'slow-footed' Forth winds slowly and loves perhaps to linger longer on this classic spot, where every field and plain has some historic association connected with it.

The neighbourhood of "Burgo Park" may, therefore, be said to be the most historic part of historic Scotland; and no patriotic Scot who has spent his life-time abroad could wish a better place to spend the evening of his life than Bridge of Allan, rich in traditions of a stirring past and fit to keep fresh the memories of chivalrous and perfervid Scotland.

In this spot, then, Principal Miller lives, though he still loves to speak of his 'Eachinkadu Bungalow,' on the Shevaroy. His time is divided between carrying on correspondence with his "old boys," which is still very considerable, and reading newspapers and books with the aid of his private secretary and receiving guests that constantly go there to spend a day or two. His life on the whole is a happy one, and, I would add, an enviable one, for the consolations of a well-spent life are his, and every well-wisher of that good man could not wish a better solace for him in his present circumstances.

Oriental Academic Titles.

The following rules are prescribed for the conferring of Oriental Academic titles upon students of the Sanskrit College, Calcutta :—

I.—Certificates conferring the title of Sastri, and bearing the joint signature of the Director of Public Instruction, Bengal, and of the Principal, Sanskrit College, Calcutta will be to students of the Sanskrit College, Calcutta, who, as such, pass in the First Division the M.A. Examination of the Calcutta University in Sanskrit provided that they have previously completed at the said College a course of studies extending over a period of not less than six years, during which they passed with credit the Lower grade Senior and the Higher Grade Senior Scholarship Examinations of the Sanskrit College, Calcutta.

II.—Certificates conferring the title of Vidyaratna, and bearing the joint signature of the Director of Public Instruction, Bengal, and of the Principal, Sanskrit College, Calcutta, will be issued to students of the Sanskrit College, Calcutta, who as such pass in the Second or Third Division the M.A. Examination of the Calcutta University in Sanskrit, provided that they have previously completed at the said College a course of studies extending over a period of not less than six years, during which they passed with credit the Lower Grade Senior and the Higher Grade Senior Scholarship Examination of the Sanskrit College, Calcutta.

III.—Other appropriate titles, such, for example, as Vidyalkar, Vidyavagisa, Vidyandhi, Vidyavinode, etc., will be conferred by the Principal, Sanskrit College, Calcutta, in consultation with the Professors of that College on such students of the said College as pass the Junior or Senior Scholarship Examinations of the College with credit, but do not satisfy the examiners at the M.A. Examination of the Calcutta University in Sanskrit.

Cecil Rhodes at Oxford.

The educational career of Cecil Rhodes, as a student at Oxford is probably not very well-known. The Provost of Oriel however gave an account of that period of his life on the occasion of the recent opening of its new buildings, which are part of the outcome of the benefactions of the philanthropist.

It is less than 40 years ago when Cecil Rhodes applied for admission at Oriel. The circumstances of his coming to us were somewhat unusual. He had sometime before entered his name at another college. When he appeared for admission there he was told for the first time that he would be required to read for honours in the schools. He respectfully pleaded that he could not give such a pledge. No such promise had been asked for when he first applied, and he had already made engagements which would prevent him fulfilling such a condition. The college notwithstanding, adhered to its decision and he was driven at a late hour to apply elsewhere. Thereupon he waited on the Provost of Oriel, Dr. Hawkins, and pleaded his case. The Provost was then more than 80 years of age and was contemplating an early retirement from Oxford, but his judgment was still sound and clear and he soon discovered that he had before him an applicant of more than usual maturity of mind, and he consented to accept him at Oriel. Rhodes was admitted and he was very soon recognized by the authorities and by his fellow students as one who will make his mark in the world.

Before very long the affairs of South Africa, in which he already had interests, obliged him to take frequent absences from the college, but he never wavered in his determination to complete his University course. From time to time he returned to Oxford to keep residence for a term or more and from time to time to pass an examination in the school. Even when he was away for long intervals he found time to read up his books, and it is reported that while riding over the veldt he had the Thirty Nine Articles before him on his saddle bow. It took him more than seven years to complete his necessary residence and to pass all his schools, and he took both his Bachelor's and Master's degree on the same day.

Reviews and Notices.

CORIALANUS, BY A. W. VERITY. (CAMBRIDGE UNIVERSITY PRESS). 1s 6d.

Mr. Verity has always enjoyed quite a reputation as a Shakespearean commentator and his books have found extensive popularity. The Cambridge University Press has now brought out an abridged edition of his *Corialanus* which must be found highly useful to students of Shakespeare in our colleges. The editor's usual thoroughness and scholarship are displayed in this volume, and it is perfect not merely in the elucidation of textual points but also in the critical portions relating to characters in the play. The valuable introduction comprises a discussion of the date and source of the play, an analysis of the characters and two interesting notes on the Elizabethan colouring in *Corialanus* and the *Tragic Element* in the play. The most striking feature of Shakespeare's trilogy of Roman plays is their indebtedness to *Plutarch* and a study of *Corialanus* cannot be complete without a comparison of the play with the corresponding passages in North's *Plutarch*—the version which Shakespeare must have used. We are glad to see that Mr. Verity has enabled study in this direction, by an appendix containing extracts from North's *Plutarch*. He has also drawn pointed attention to the resemblances, by italicising the portions used by Shakespeare. Under *Volumnia's Pleading* we find :

"If we held our peace, my son, and determined not to speak, the state of our poor bodies, and present sight of our raiment, would easily be urged to see what life we have led at home, since thy exile and abode abroad ; but think now with thyself, how much more unfortunate than all the women living, we are come hither, considering that the sight....."

And the passage is seen to correspond closely with Shakespeare's lines :

Should we be silent and not speak, our raiment
And state of bodies would bewray what life
We have led since thy exile. Think with thyself
How more unfortunate than all living women
Are we come hither.....

We have great pleasure in recommending the volume to students of Shakespeare in Southern India.

SIR WALTER SCOTT'S *WOODSTOCK*, EDITED BY A. S. GAGE, M.A. (CAMBRIDGE UNIVERSITY PRESS). 2s. 6d.

In the whole cycle of *Waverly Novels*, there is probably no story which is of greater interest to the reader of Romance, than *Woodstock*, a merit which it acquires by the Romantic Associations of the scene of the story, as well as the pathetic circumstances attendant on its composition. We are glad to see the Cambridge University Press bringing out an edition of the novel. Some valuable features of the edition are, a critical introduction, a table of the principal events of the period, a reproduction of the folklore relating to the Devil of *Woodstock* and notes wherever necessary. The edition is well got-up and is priced only at 2s. 6d., though it extends to more than six hundred pages.

A STUDY OF INDIAN ECONOMICS, BY PRAMATHNATH BANERJEA, M. A. (MACMILLAN & CO. LTD.) 3s. 6d. net.

We have long lamented the absence in this country of any attempt to study the problems of Political Economy in relation to Indian conditions. The student of the University classes engaged in a study of Economics in this country is unfortunately better acquainted with the conditions of Europe and America than those of his own land. Before real economic research is attempted, the preliminary work of applying Economic laws to Indian conditions has to be attempted. We desire to congratulate Mr. Pramathnath Banerjea on his venture in this direction. The volume does not profess to be anything more than a mere introduction to the study of Economics, and the author has discharged his task with commendable ability. The advanced student of Economics will probably be disappointed with the volume if he expects anything new or original, but we have no hesitation in saying that it must serve a very useful purpose as an elementary course in the subject. There is an absence of any reliable information regarding the economic phenomena of this country—at least in popular textbooks—and the author has therefore had to deal even with the geographical features of the land, and convey to the reader a knowledge of subjects like agricultural and economic products peculiar to this country. The author has shown adequate recognition of the peculiar, social and religious conditions of the land in their influence on the economic tendencies of the people. The indifference of the Indian Universities to this subject

has long been a notorious fact, and we hope that with the recent establishment of a chair of Indian Economics in the University of Calcutta and the production of text-books like the one under review, this grave evil will be remedied to some extent.

THE CAMBRIDGE HISTORICAL READERS: INTRODUCTION, PRIMARY, JUNIOR, INTERMEDIATE & SENIOR, EDITED BY G.F. BOSWORTH, F.R.G.S. (CAMBRIDGE UNIVERSITY PRESS).

History must command very wide popularity with the young, if it could only be presented with all the vividness of a real master of the subject. The days of dates and lifeless historical details have vanished, and this interesting series of readers is a proof of the genuineness of the attempts made at the present day, to rouse the attention of young minds to the attractions and benefits of historical study. The numbers have been graduated according to their difficulty; there has not been a sacrifice of historical truth in the pursuit after liveliness and romance; the readers appeal to national pride and enthusiasm without fostering insular bigotry. The illustrations are admirable. A large number of them are coloured ones and it is with extreme pleasure that we recommend the books to the attention of our educationists for introduction into the forms of our Secondary and High Schools.

IVANHOE (IN TAMIL) BY V. RAJAGOPALA AIYANGAR, SUB-EDITOR, 'SWADESA MITRAN,' MADRAS. Price Rs. 12.

We are very glad to notice that the recent educational changes in our presidency have given a fillip to the movement for the production of vernacular literature, especially stories adapted from English in a simple, straightforward, modern style. The two books before us, containing the story of Scott's *Ivanhoe* in two parts, form the latest specimen of Tamil Literature for Secondary Schools and Colleges and are likely to serve a very useful purpose. Unlike the "Readers," now in use in our schools, these books are written in idiomatic Tamil, without many anglicisms. There is besides an attempt to avoid rare forms of words unknown to actual, living Tamil speech. We wish this attempt to make the language approximate to the living speech were more pronounced. As illustrations of failure to do this we may quote the words விருத்தினர் for விருத்தாடிகள், புறலாயினர்

(an inexplicable form) for புறலாயினர், பரிஹலிக்க for பரிஹாஸம்செய்ய and numerous others. Tamil writers have been slaves of pedantry for so long that the process of moksha therefrom must necessarily be slow. Hence we are not surprised to notice a reproduction of the conventional moon-face, crescent-moon-forehead, conch-neck, creeper-waist and other similes hoary with age. These are dull enough anywhere and specially absurd in the adaptation of an English novel. Side by side with this old world flavour of description occur modern foreign words like உருமால் and the effect is not pleasant. The ordinary defects of old-fashioned Tamil writing, e.g., (1) the attempt to imitate the English passive voice by the verb + படு, for instance, எழுதப்பட்டிருக்கிறது, when எழுதிவிடுகிறது says the same thing, is idiomatic and saves space; (2) sandhi run mad as in ஆட்கள், தன்னறைக்குட் சென்று, etc.; (3) pedantic forms like அல்லன்; (4) words used without a proper consideration of their meaning, as ஆகேற்பித்து which means 'objecting' for வாதிடி ('arguing' perhaps was intended), these and similar blemishes due to the transitional stage of Tamil composition just attempting to burst fetters forged in the past will, we hope, disappear in a revised edition when the books will become an irreproachable model of Tamil Prose.

"A LABORATORY SKETCH-BOOK OF ZOOLOGY FOR INDIAN STUDENTS," BY A. D. IMMS, D.Sc., B.A., PROFESSOR OF BIOLOGY, MUIR COLLEGE, ALLAHABAD, pp. 219 (LONGMANS, GREEN & CO., BOMBAY, CALCUTTA, LONDON AND NEW YORK. 1911.) Price Rs. 4.

This Zoological Laboratory Sketch-book, the first of its kind, is intended for the use of the Indian student. Altogether nineteen types, twelve Invertebrate and seven Vertebrate, are dealt with in the book and blank pages are left for additional types. The types included are:—Amœba, Vorticella, Paramœcium, Hydra, Obelia, Earthworm (Pheretima), Polychæte (Nereis), Leech, Crustacean (Panulivus), Cockroach, Scorpion, Freshwater Mussel, Balanoglossus, Cliona, Amphioxus, Dog-fish (Chiloscyllium), Frog, Pigeon and Hare. Most of these types are described in the practical manuals which, though originally intended for the English student, are in ordinary use in Indian Laboratories. But these practical manuals, as the author says, do not help the Indian student at all with regard to certain Indian types and full directions regarding

these latter are given in the book under review. The book which is primarily intended for the students of the Allahabad University is sure to be cordially welcomed by them. But, unfortunately, there is no uniformity as regards the types selected for practical work in the different Universities, and it cannot be said that the book will be of the same value to the Madras as to the Allahabad students. For example, of the two Indian types—Earthworm and Crustacean—about which the ordinary practical manuals are silent, while the rather vague directions regarding the earthworm may be of some slight use to the Madras student whose earthworm types are, however, not precisely the same as that included in the sketch-book, he will not get any special help on his Crustacean. Possibly similar differences exist in the case of other Universities also. Nevertheless, the book which contains full directions on the several types systematically arranged and in a convenient form and with sufficient spaces for drawing will be found useful by Indian Zoological students generally. The get-up of the book is all that can be desired and the paper is excellent. The Indian student might be inclined to grumble a little at the price, perhaps.

MACMILLAN'S REFORM ARITHMETICS: BOOKS I-VII.

We have great pleasure in welcoming this series of booklets evidently prepared on the modern principle that Arithmetic should not be altogether unconnected from Algebra, Geometry and Mensuration, but should from the first be correlated with these subjects. The set is to consist of seven books of which the first five have been already published. The treatment is thoroughly methodical and scientific, and the examples which are simple and graduated are concrete throughout and calculated to interest the pupil and to create in him a taste for Mathematics. Altogether the set fully meets modern requirements and may with advantage be used in Elementary Schools and in the Junior Forms of Secondary Schools.

It must be added that each of the seven books for the pupil is to be accompanied by a Teacher's book, containing *Scheme of work for each term, additional oral exercises, Answers to examples, Term examination tests, and Detailed instructions to the Teacher, and that Book I for the Teacher is already out.*

Indian Educational Notes.

MADRAS.

Departmental Notifications.—The Acting Director is pleased to make the following appointments:—
(1) Mr. T. A. Swaminatha Aiyar, Sub-Assistant Inspector of Schools, Mayavaram range, and Acting Assistant Inspector of Schools, Coimbatore district, to act as Sub-Assistant Inspector of Schools, Mannargudi range, *vice* Mr. L. Venkatasubba Aiyar on other duty or until further orders—to join on relief.

(2) Mr. V. Vembu Sastri, Head Clerk, Office of the Inspector of Schools, Fourth Circle, and Acting Sub-Assistant Inspector of Schools, Mannargudi range, to act as Sub-Assistant Inspector of Schools, Tirupati range, in the probationary class, *vice* Mr. S. N. Venkatarama Aiyar on leave or until further orders—to join on relief.

Mr. M. Ramaswami Aiyangar, Assistant Inspector of Schools, Kistna district and Acting Assistant Inspector of Schools, Tinnevely district, to be Assistant Inspector of Schools, Tinnevely district, *vice* Mr. T. J. Venkatachala Aiyar, retired.

(3) Mr. S. Swaminatha Aiyar, Sub-Assistant Inspector of Schools, Trichinopoly range, and Acting Assistant Inspector of Schools, Kistna district, to be Assistant Inspector of Schools, Kistna district in the Subordinate Educational Service, *vice* No. (1).
(4) Mr. S. T. Venkatarama Aiyar, Drawing Master, Medical College and Acting Sub-Assistant Inspector of Schools, Sankaranainarkoil range, to be Sub-Assistant Inspector of Schools, Trichinopoly range, *vice* No. (2) in the probationary class without prejudice to his present acting appointment.

Mr. N. R. Krishnamma, Assistant, Teachers' College, Saidapet, and Acting Assistant Inspector of Schools, South Arcot district, to be Assistant Inspector of Schools, South Arcot district.

(5) Mr. G. S. Ragunathachari, Assistant, Teachers' College, Saidapet, to act, on relief as Assistant Inspector of Schools, Coimbatore district, in the first class of the Subordinate Educational Service *vice* Mr. V. R. Venkatarama Iyer, on leave, or until further orders.

Note.—Appointments (1) to (4) will have effect from 12th September, 1911.

Mr. P. Appalanarasayya Pantulu, Assistant Inspector of Schools, Kurnool district, is granted privilege leave for three months with effect from the 19th September 1911. Mr. V. Sayanna Sastri, Sub-Assistant Inspector of Schools, Kurnool range, is to act as Assistant Inspector of Schools, Kurnool district, with effect from the above date during the absence of Mr. P. Appalanarasayya Pantulu on leave or until further orders.

The following transfers of Sub-Assistant Inspectors of Schools have been ordered:—

Mr. B. Raghunatha Das, from the Balliguda range to the Aska range—to join on relief.

Mr. S. Cantayat, from the Aska range to the Balliguda range—to join after handing over charge to the Supervisor at head-quarters.

Mr. A. Venkanna Pantulu, Sub-Assistant Inspector of Schools, Adoni Range, is granted privilege leave for one month with effect from the date of relief and Mr. M. Seshagiri Rau, Supervisor of Elementary Schools, Bellary, is to act for him in the probationary class during his absence on leave or until further orders.

The privilege leave granted to Mr. M. Parvatesam Pantulu, Sub-Assistant Inspector of Schools, Berhampur range, is cancelled.

Shaik Muhammad Abdulla Sahib, Headmaster, Government Muhammadan Training School, Madras, and sub *pro tem* Sub-Assistant Inspector of Schools, Bellary Muhammadan range, is confirmed in the latter appointment in the Probationary class, with effect from the date on which he joined the post.

Mr. C. O. Mahomed Keyee, Sub-Assistant Inspector of Schools, South Mappilla range, sub *pro tem*, is confirmed in his appointment in the probationary class with retrospective effect from the 5th May 1908.

Mr. S. Panchapakesa Sarma, sub *pro tem*, Supervisor of Elementary Schools, Tirumangalam, will be considered to have acted as Sub-Assistant Inspector of Schools, Tirumangalam range, in the probationary class, in addition to his own duties, from the 11th July to the 13th August 1911, both days inclusive.

The Chancellor of the University of Madras is pleased to nominate Mr. F. S. Davies, B.A., to be an Ordinary Fellow of the Madras University:—

The privilege leave granted to Mr. T. A. Ramachandra Aiyer, Sub-Assistant Inspector of Schools, Periyakulam range, is extended by ten days.

The privilege leave granted to Mr. S. Duraiswami Aiyar, Sub-Assistant Inspector of Schools, Wallajah range, is extended by one month.

The Acting Director is pleased to grant Mr. Ch. Suryaprakasa Rau, Sub-Assistant Inspector of Schools, Bunder range, privilege leave for one month and fifteen days with effect from the date of relief and to appoint Mr. K. Suryanarayana, Headmaster, Government Training School, Ongole, and sub *pro tem* Supervisor of Elementary Schools, Guntur, to act for him in the probationary class, during his absence on leave or until further orders.

Distribution of Government Grants.—It will be recollected that in the Provincial Budget Estimates for the current year, a provision of one lakh was made for subsidies to District Boards so as to enable them to open more elementary schools in villages where there are no schools at present and another provision of one-and-a-quarter lakhs also for building grants to District Boards of the Presidency for the construction of elementary school buildings. These grants have now been distributed to the several District Boards by G. Os., dated the 6th and 9th instant.

NEW SCHOOL GRANTS.

Ganjam, Rs. 6,000; Vizagapatam, Rs. 4,000; Koraput, Rs. 2,000; Godavari, Rs. 6,000; Kistna, Rs. 6,000; Guntur, Rs. 6,000; Nellore, Rs. 6,000; Bellary, Rs. 6,000; Anantapur, Rs. 6,000; Cuddapah, Rs. 6,000; Kurnool, Rs. 6,800; Chingleput, Rs. 6,000; North Arcot, Rs. 5,800; Chittoor, Rs. 3,600; South Arcot, Rs. 4,500; Tanjore, Rs. 6,000; Trichinopoly, Rs. 6,300; Madras, Rs. 4,000; Ramnad, Rs. 6,000; Tinnevely, Rs. 3,000; Coimbatore, Rs. 4,500; Salem, Rs. 5,400; Malabar, Rs. 6,000; South Canara, Rs. 3,100.

BUILDING GRANTS.

Anantapur, Rs. 11,630; North Arcot, Rs. 5,152; South Arcot, Rs. 3,395; Bellary, Rs. 3,791; South Canara, Rs. 5,810; Chingleput, Rs. 3,000; Chittoor, Rs. 2,653; Coimbatore, Rs. 2,530; Cuddapah, Rs. 3,203; Ganjam, Rs. 2,415; Godavari, Rs. 3,088; Guntur, Rs. 6,182; Kistna, Rs. 12,357; Kurnool, Rs. 2,972; Madras, Rs. 3,060; Malabar, Rs. 1,470; Nellore, Rs. 3,922; The Nilgiris, Rs. 315; Ramnad, Rs. 1,886; Salem, Rs. 1,400; Tanjore, Rs. 7,855; Tinnevely, Rs. 3,493; Trichinopoly, Rs. 4,130; Vizagapatam, 4,291.

The payment of the subsidies for opening new schools is subject to the conditions—(i) that they are utilized solely for the purpose of opening new schools in important villages where there are no schools at present; (ii) that they shall not be devoted to the conversion of aided schools into board schools or to the starting of schools in villages where aided schools already exist; (iii) that the number of teachers to be employed on the opening of a school shall not exceed two in any case; and (iv) that the amount not actually expended during the current year shall be re-allotted for the same purposes in the budgets of the District Boards concerned for expenditure during 1912-1913. Presidents of District Boards will also be informed that the Government hope to be able to continue permanently the grant of 1.60 lakhs which they have undertaken to pay during the next two years, and they will be requested to see that special efforts are made to utilize the subsidies now sanctioned as far as possible during the current year. In regard to the building grants, all Presidents of District Boards have been requested to make special arrangements to utilize the grants as far as possible before the close of the current financial year. "The buildings to be constructed need not be of a uniform design for all districts, but should be in the style proved by experience to be most suitable for the locality so as to serve as models for the future. They should preferably be constructed in the villages recommended by the Director of Public Instruction but it is not intended absolutely to fetter the discretion of the Boards as to their location. The Government also have no objection to the devotion of a portion of the grants now made to the completion of buildings begun in previous years but left unfinished for want of funds or to the extension

of existing buildings or to the construction of a larger number of school-houses than that specified in the annexure, provided that this can be done without any sacrifice of efficiency. A careful record should be maintained of the manner in which these grants are utilized and the expenditure thereof should be specially noticed in the annual Administration Reports."

The Muttalpet High School Literary Association.—The second anniversary meeting of the Muttalpet High School Literary Association was held in the school premises, with the Hon'ble Mr. T. V. Seshagiri Aiyar in the chair.

The proceedings opened with the reading of the report of the Association for the year ending 30th June 1911, by the Secretary. The report showed that fairly good work had been done by the Association during the year.

A series of recitations then followed and Mr. V. C. Seshacharyar delivered an interesting address on "The Hindu Ideal of Student Life." He pointed out that a student should in the early days devote his undivided and undistracted attention to studies. The spirit of true enquiry and humiliation must be embodied in them. After referring to the four different stages of manhood, according to Hindu Puranas and Shastras, he observed that the one great evil in social life was that relating to marriages. He pointed out that the one great virtue prescribed by the Puranas, was the virtue of "Brahmacharya." In this connection he asked those assembled not to marry before they had completed their portion of student life. He advised the young students to try and practice the habit of self-sacrifice, to try and establish a conquest over their senses and emotions and then to culture and cultivate their thoughts.

The Chairman in the course of his remarks complemented the lecturer on the erudite and able address delivered by him and said that he had no doubt that they would ponder over and realise the importance of the truths embedded in the literature of this land. He was exceedingly glad to see that one of the items before the address was the singing of an ode on the unity of India and England, and he was glad to see that it had been so well rendered. He wished that every one of the students learnt it by heart. As had been pointed out by Mr. V. C. Seshacharyar the ideal was threefold, viz:—

1. Great devotion to Guru.
 2. Attachment to fellow pupils.
 3. The intensely religious training.
- Looking at the ideas of training in English Schools, the ideas were, the Chairman said:—
1. Teach self-reliance almost on the point of self-aggrandisement to try to better his own interests at the expense of the others.
 2. The spirit of adventure.
 3. The thinking of the unexplored knowledge and regions.

The question, the Chairman said, was, shall there be a blend of the two ideals. Whereas the East made a man realise how little he was, the West

trained the man to think how great he could be. Here, the Chairman asked his young friends not only to realise the Hindu ideals but to go into the European ideals also and he pointed out to them that if they did not mind what was before them, their end would be in the near future.

Before concluding, the Chairman laid stress again on boys marrying during their studentship, and said that this should be avoided.

The meeting then terminated with a vote of thanks to the Chair.

The Pudukottah College.—The Annual Prize-distribution of the Raja's College came off on the 26th ultimo. The Political Agent, the Chairman, was taken round the buildings of the college. Among others there were present Mr. and Mrs. Bracken, Mr. V. R. Dorai Rajah, the Dewan, the Judges of the Chief Court, members of the bar, other Heads of Departments, the teachers and pupils of the college. Songs in praise of His Highness were sung by the students of the Training School. The acting Principal then read the report for the academical year ending on the 30th June last.

The report showed that the number of pupils on the last day of the previous year was 466 against 562 in the preceding year, though the average strength showed an increase of 11.1 over that of the preceding year. There was a gratifying decrease in the percentage of absentees from 7.9 to 5.3, which was due partly to the vigorous measures being adopted to put down cases of wilful absence and partly to the growing recognition on the part of pupils of the higher forms of the importance of a character for regularity in the Secondary School Leaving Certificate. About 82 per cent. of the strength was contributed by Brahmins. In spite of the liberal encouragement afforded them by the State in the shape of remission of fees, partial or entire, the Muhammadan and Panchama classes of His Highness' subjects have been rather slow to avail themselves of the boon of Higher education which is given here comparatively cheap.

The expenditure incurred on account of the College was Rs. 21,760. The receipts from fees amounted to a little over Rs. 11,820, and covered over 54 per cent. of the outlay. The two outstanding features of the academic year under report were: (i) the introduction of the School Leaving Certificate scheme of the British Government and (ii) the visit of the University Inspection Commission.

The first is a well-conceived scheme which has for its objects the taking of the teachers into partnership on a footing of trust and responsibility and the regulated control of the pupil's study and conduct throughout the entire period of his education in the Secondary classes. He would be deemed rash, the report stated, who should, from the single year's experience of its working, pronounce anything about its merits or say whether it is better or worse than the Matriculation course which it has displaced. On one side, it has appeared to be salutary in its effect, inasmuch as it has improved the work of the

pupils who found working with greater regularity and uniformity from year's end to year's end than under the old regime.

The prizes were then given away to the successful candidates by the Chairman, who then made a speech which contained valuable remarks for the benefit of students.

The Chairman was then garlanded and the proceedings were brought to a close with three cheers to the King-Emperor, and three more to His Highness proposed by the State Superintendent.

Mr. Radhakrishnaiyar, the Principal, has taken leave. The senior lecturer Mr. Ramachandra Sastri, is acting in his place and Mr. Tyagarajaiyar has been appointed to act as senior lecturer.

The Pudukottah Industrial and Educational Exhibition.—The Sri Marthanda Industrial, Agricultural and Educational Exhibition will be opened this year in the Maharajah's Town Hall, Pudukottah, on Tuesday, the 12th December 1911, the day appointed for the Imperial Durbar at Delhi and closed at the end of the month. The portion of the competition relating to girl pupils will be conducted in the Sirkar Girls' School building and that for boys, in the College.

Subject to the control of the Darbar, the organisation and general management of the business relating to the Exhibition is vested in a Committee of 12 members styled "The Sri Marthanda Industrial, Agricultural and Educational Exhibition Committee." The Dewan Peishkar is the President of the Committee. The Superintendent of Schools will be a member and Vice-President of the Educational section.

Mr. N. Thiagaraja Aiyar, M.A., L.T., is the Secretary and N. Rangachari, the Assistant Secretary.

The Exhibition has been organized for the promotion of agricultural interests, for the encouragement of indigenous industries, and for putting education upon a more scientific and enlightened basis. The Committee are making vigorous arrangements to get down competent English lecturers from the outside, and to provide for a series of demonstrations for the edification of those whom it may concern.

A Prize-distribution at Pasumalai.—The sixty-sixth Anniversary of the American Mission High School and Training Institution, Pasumalai, was celebrated in *Washburn Hall* on Friday, the 13th instant at 6 P.M. The Hall was well decorated and among all, the two trophies won by the School in *Gymnastics* and *Football* attracted the audience very much. The meeting was well attended and among those present were: Rev. J. S. Chandler, M.A., N. M. Zumbro, Esq., M.A., Rev. L. C. Powers, B.A., Stanley Esq., J. J. Baninga, Esq., Mr. Peter Isaac, Mr. Ananatarama Aiyar, Mr. Mahadeva Aiyar, Mr. J. V. Thomas, M.A. and many others.

The proceedings of the day began with a prayer by Rev. J. S. Chandler, M.A., followed by the song

of "Greeting Glee" by the choir. There was then a dialogue of "Where there is a Will, there is a Way" by three members. The trial scene from Shakespeare's *Merchant of Venice* was enacted by some ten students. This was followed by a song by all the school students. Then nine young students recited selected pieces on 'The Choice of Trades' viz., Farmer, Carpenter, Blacksmith, Mason, Doctor, Minister, Shoe-maker and School Committee. The boys and girls below seven made some exercises which were very amusing and these were followed by the recitation of "They say" by A. Eddy.

Mr. J. V. Thomas, M.A., read the school report for the past year.

The song of "Do not Worry" was sung by the choir; the names of several prize-winners being read by Mr. J. J. Baninga, the Principal, the prizes were distributed by Mrs. Lawson at the request of the chairman, among the various prize winners.

After a few remarks from the Chair the meeting came to a successful termination with the National Anthem.

A Teachers' Association.—A meeting of the Teachers' Association, Kulitalai, was held in the Board Secondary School with the Rev. A. F. Gardiner, M.A., Principal, S. P. G. College, Trichinopoly in the chair. A model lesson was given in Geography to the V Form by Mr. T. S. Krishnaswamy Iyengar, B.A., L.T., Headmaster of the above school. Another model lesson was given in Arithmetic to the III class by Mr. M. Narayanasawmy Iyer, an assistant. An Essay was then read by Mr. P. S. Madhava Rao on "The Teaching of Languages." The Chairman in a very learned and instructive speech discussed the several methods to be adopted in the teaching of Geography, Arithmetic and Languages. He very warmly appreciated the model lessons and the essay. The Chairman was then garlanded, and with a vote of thanks to the chair, the meeting was brought to a close.

Saidapet Teachers' Association.—At a meeting of the Teachers' College Teachers' Association, Saidapet, an extremely interesting and comprehensive paper on 'The School Leaving Certificate Scheme' was read with Mr. Sivakumara Sastriar in the chair. The lecturer, Mr. K. S. Ramakrishna Aiyar, an L.T. student, spoke about the good points of the scheme. The two most prominent reasons, for the initiation of the scheme, he said, were the desire on the part of the Government to remedy the evils of the Matriculation examination and the desire to effect a change of policy whereby the Government wanted to assume entire control over Secondary Education—policy undertaken in the best interests of education. Two more speakers followed him. In the end, the Chairman congratulated the essayist on the interesting paper he had read. He offered a few remarks pointing out the most important advantages of the scheme. Regarding the difficulty felt in marking, he said much

more justice could be done by dividing each class into three groups—those above the average, those who were middling and those who were below the average. At the end of a term, he could very easily verify whether the marks given by him agreed with the impression he had formed of them during the period. Marks need not be given every day but at convenient intervals. With a hearty vote of thanks to the Chairman, the meeting came to a close.

The Mayavaram Municipality.—A correspondent writes to us: The present Headmaster of the Municipal High School is to be retained, with the consent of the Council, as First Assistant. The Government, it would appear, say they are not prepared to insist on Mr. Narayanaswami Aiyar being retained as Headmaster; that a young man, preferably an M.A., L.T., may be appointed Headmaster and that the petitioner may with the assent of the Council be retained as First Assistant on his present pay. The Government have further upheld the view of the Council that the Collector's act in suspending its Resolution regarding the supersession of the Headmaster, was *ultra vires* and have accordingly declared his proceedings illegal, and cancelled the same.

Calicut Teachers' Conference.—Under the patronage of Mr. Braithwaite, the Inspector of Schools, Mr. Kuruvala, the Headmaster of the Government Training School, Calicut, invited all the past and present pupils and teachers of the Institution to attend the Conference as was done in the last year and the invitation was readily accepted and pupil teachers from every corner of the district assembled in great numbers Mr. Braithwaite (the President) in his opening address after dealing with the present educational problems concluded by saying that they should all aim to have solid foundation and steady progress in all their doings and to bear in mind at all times the little they had done in the model institutions as the mother and source of all information in their work. Mr. Raghavendra Rao then spoke about the need for manual occupations in Elementary Schools, while Mr. Krishna Iyer gave an interesting discourse on model lessons. The Hon'ble Mr. J. H. Stone, paid a visit to the Association in the afternoon, and spoke a few words of encouragement and said that Associations like this would be very useful generally to the teaching profession.

P. S. High School Literary Society.—The third anniversary of the above Society was celebrated at the Ranade Hall, Mylapore, with the Hon'ble Mr. P. S. Sivaswami Aiyar in the chair.

The proceedings commenced with a prayer. This was followed by the reading of the annual report from October 1910 to October 1911. A programme of recitations in English and the staging of certain scenes from Mr. P. Sambandam's "Bandit Chief"

and from Shakespeare's "Much Ado About Nothing" was gone through very successfully.

A LECTURE.

Mr. C. P. Ramasamy Aiyar was then called upon by the Chairman to deliver his lecture on "The School—a nursery for future citizens." Mr. C. P. Ramasamy Aiyar in the course of his short, interesting and instructive lecture said that the influence of the Teacher in the school was the paramount thing to be considered in relation to the character of the students under his care. The influence of the Teacher was always a matter of abiding inspiration to the students in after life. The sense of devotion to duty and high-mindedness of the noble Teachers would always exert a wholesome influence on the life of the students when they come to occupy responsible positions in life. In this connection he made mention of the notable examples of Dr. Arnold of Rugby and Messrs. Thompson, Powell and Gopal Rao of the Madras Presidency that had greatly contributed to the mental and moral elevation of those fortunate students that came under their fostering care and guidance.

He then observed that the class-room was the best place for the training necessary for the political and civic life. The class-room levelled down all distinctions of rank and position and the feeling of comradeship which would be useful in after life had its origin there. The Debating Societies and Sporting Clubs were the most powerful institutions in school life where character, co-ordination system and habits were generally formed. He was of opinion that the "Oxford Union" had moulded the History of England. Intellectual equipment for unification and spirit of comradeship were the natural outcome of the boys' taking part in the Debating Societies and the Recreation ground. The 'sportsmanlike' qualities of fair play and subordination to a leader were generally formed in the play ground which was an excellent adjunct of the school. In a cricket match one could see easily how the individual was merged in the team. He concluded by saying that in the region of sports all manly qualities were brought forward and those qualities would go a great way in enabling students to lead a noble and useful life after their schooling was over.

CHAIRMAN'S REMARKS.

In winding up the proceedings of the meeting the Chairman said that it was unnecessary to make any speech at that late hour of the day. He had only to express his thanks to the Teachers of the P. S. High School, the members of the Literary Society and the students and members who had acted the various scenes that night for the very interesting and pleasing performances they had given. He hardly thought it necessary to say anything about the subject of Mr. C. P. Ramasamy Aiyar's lecture. They all knew how well the High School was staffed. Under the guidance of the teaching staff, he had no doubt, that the students of that institution would surely become useful citizens and lead lives of usefulness to the country. Much had been said

about the importance of the development of character. It was one feature of the institution that it paid very great attention to moral instruction and under the influence of gentlemen like the Principal of the School and Mr. Kasturiranga Aiyar, the character of students would be well attended to, and they would all be fitted in their after lives to fulfil the parts which they may be called upon to fulfil with credit to themselves and to the institution in which they had been brought up.

The Chairman and the lecturer were next garlanded.

With a vote of thanks to the chair and the lecturer, the meeting terminated.

The Madura College Day.—The ninth celebration of the Madura College Day came off this month. Owing to the unavoidable absence of Mr. S. Srinivasa Iyengar, High Court Vakil of Madras, an old student of the College and a native of this district, the chair was taken by another old student and a local pleader, Mr. P. N. Nagasudha Iyer. The Chairman proposed the toast of His Majesty the King Emperor George V, and dwelt on the good qualities of our much-lamented Queen Victoria and on the short but happy reign of Edward VII, and on the sympathetic and benevolent spirit of our present King-Emperor, of his recent travels, and of the coming Darbar. The toast was lustily responded to, and "God Save the King" was sung.

Mr. Gopala Menon, Barrister-at-Law, proposed the toast of the "University," and this was responded to by the Hon'ble Mr. T. V. Seshagiri Iyer, of Madras, who happened to be here on professional business, in a lengthy speech. The toast "Sister Institutions" was proposed by Mr. C. S. Antony, of the Madura College, and seconded in an equally lengthy speech by the Reverend J. S. Chandler, of the American-Madura Mission and the proceedings came to a close.

These were also sports, in which the junior students of the College and its branches took part. In the evening a football match was played between the old boys and the present students, which lasted only about a quarter of an hour owing to the rains. On Sunday morning sports for old and present students came off. Mr. V. Ramachandra Iyer, M.A., Personal Assistant to the Superintendent of Police, in distributing the prizes, regretted that the teachers and the public do not evince a proper interest and enthusiasm for sports and games as they ought to do. In the evening those assembled were treated to light refreshments, and Sessa Bagavathar entertained the audience with "Sita Kalyanam," and the celebrations for the year came to an end to revive again next year.

BOMBAY.

Poona General Library.—Members of the Poona Native General Library foregathered together on the evening of the 7th instant in the City of Poona in order to celebrate the Diamond Jubilee of their institution. His Excellency Sir George Clarke and Lady Clarke attended. There was a large gathering assembled in the somewhat circumscribed space of the hall on the upper floor whither the distinguished guests were conducted by Dr. Bhandarkar, the newly-elected President of the institution to the upper floor, where the President in a few words welcomed Sir George and Lady Clarke to this 52nd year's celebration.

At the conclusion of the President's speech His Excellency proceeded to the unveiling of a life-size portrait of H. I. M. King-Emperor George V. painted for, and specially presented to the institution by Mr. S. K. Pimpalkhane. Before unveiling the portrait, Sir George Clarke read the message which His Imperial Majesty had sent to the people of India.

Afterwards His Excellency addressed those present and concluding a very fine speech he said as follows:—

THE CHOICE OF BOOKS.

In a public library like this the choice of books is a matter of vital importance. I wish that responsibility for the written and the spoken word were more seriously regarded than it is. Who shall say how greatly human progress is hindered by neglect of a scrupulous respect for truth in speech and in writing, Byron wrote that:—

"Words are things; and a small drop of ink
Falling, like dew upon a thought produces
That which makes thousands, perhaps millions
[think]."

Since Byron's days there has been a vast increase of the powers of communication. A truth or an inspiring thought, and alas a falsehood or a mean suggestion also, can now be flashed round the world in a few hours. Heavy is the responsibility of those who set the telegraphs in action to spread what is untrue or the half truth which may be even more harmful. Grave is the offence against humanity of writing and speaking without ascertaining facts and weighing words. Thus are misconceptions circulated, embittered feelings stirred up, nations estranged, and wars or acts of violence encouraged. The Managers of a library which caters for the literary needs of the public have to ask themselves: Does this book or newspaper convey truth? Is its tendency to elevate or to debase? Will it help to make good citizens and to promote brotherly love, or to foster dissensions and inter-communal jealousies? Will it assist or retard progress? If critical, is it just and constructive, or unfair and uselessly destructive? Good books are happily numerous in most languages, and quality in a public library is of the first importance. "Reading maketh a full man," said the wisest of Englishmen; but he added this pregnant advice

"Read to weigh and consider." It is certain that books, however sound and true, will strengthen our character and develop our intellect only if we "weigh and consider," or in other words if we bring our own thinking faculties to bear on their contents. Many good things have been said about books; but I know nothing better than the following which summarizes in few words all that I wish to say to you. "It is chiefly through books that we enjoy intercourse with superior minds; and these invaluable means of communication are in the reach of all. In the best books, great men talk to us, give us their most precious thoughts, and pour their souls into our ears. God be thanked for books. They are the voices of the distant and the dead, and they make us heirs of the spiritual life of past ages.

THE TRUE LEVELLERS.

Books are the true travellers. They give to all who faithfully use them the society, the spiritual presence, of the best and greatest of our race." These advantages are not within the reach of the masses of India at present; but the number of readers increases largely every year and a time will come, not so soon as we may wish but certainly, when the people will be able, through books, to realize "the spiritual presence of the best and greatest." The importance of what the people read now is evident; but in the future that importance will be vastly increased I trust that they will learn from the West the scientific facts which are necessary to material progress; but it is most desirable that they should not neglect their own poets, sages and thinkers who have contributed to the spiritual life of the world. The West has in recent years, awakened to "the voices of the distant and the dead," which sound from this ancient land European students are doing work which ought to be done by Indians, and are giving due honour to such rare scholars as Dr. Bhandarkar of whom Poona cannot feel too proud. This library, the jubilee of which we have met to celebrate, can play its part in disseminating truth and scorning falsehood, in spreading the knowledge which is power not only in the material world, but in the development of the spiritual qualities without which there can be no true nationhood. "Restraint and discipline, examples of virtue and justice; these are what form the education of the world," said Burke. Contact with lofty souls, attained through the medium of books, can help us all to acquire education in this the truest sense, and to cherish those high ideals of life and conduct of which to the end of time mankind will continue to stand in supreme need.

A vote of thanks to Their Excellencies was then proposed by Sardar Kaikobad Dastur, after which distribution of flowers and *pin* concluded the ceremony.

Poona Engineering College.—The designation of the Poona College of Science will be changed into that of "College of Engineering, Poona," with effect from the 1st November, where lessons will

only be given in pure and mechanical engineering. The present curriculum will, however, be continued till the opening of the Bombay Institute of Science.

ALLAHABAD.

Government Scholarship.—The Government of India State Scholarship of £200 per annum tenable for three years for the completion of University education in England, has, this year, been awarded to Pandit Girja Sankar Bajpai, B.Sc., of the Muir Central College, Allahabad. The young man has had a brilliant University career and is going to Oxford with a view to qualify himself for the Indian Civil Service. He is the son of Pandit Sita Prasad Bajpai, Subordinate Judge of Lucknow, and belongs to a high caste family of Kanunja Brahmins in Oudh.

New Industrial Schools.—It is stated that the Secretary of State has now made appointments to the three new special schools recommended by the Industrial Conference which sat at Naini Tal in 1907. These include a School of Design at Lucknow, Carpentry School at Bareilly, which is already the seat of a flourishing industry in cabinet making, and an experimental Weaving Station at Benares. Buildings have been ready for some time and now that Principals have been appointed and are actually on their way to India, the opening of the schools may shortly be expected.

MYSORE.

A memorial to the late Mr. J. Weir.—It is proposed to perpetuate the memory of the late Mr. J. Weir, Inspector-General of Education in Mysore, and for twenty years Principal of the Maharaja's College.

Several suggestions as to the forms which the proposed Memorial should take have been made of which the following have been adopted, *vis.*, a drinking fountain to be erected in the newly-formed quadrangle of the College; a memorial stone over Mr. Weir's grave in Bangalore; a University gold medal or a scholarship.

It is the strong desire of the Committee that the subscription list should be closed by the end of the present year, and intending subscribers will therefore greatly oblige by sending in their donations as soon as possible.

Subscriptions will be received by either of the Hon. Secretaries in Mysore, or by Mr. Tait of the Central College in Bangalore.

The following subscriptions have been already promised:—Messrs. T. Ananda Rao, B.A., C.I.E., Dewan of Mysore, Rs. 100; M. Kantharaj Urs, Rs. 100; R. A. Campbell, I.C.S., Rs. 50; T. Denham, Rs. 50; P. Mahadeviah, Rs. 50; B. B. Plumer, Rs. 50; B. M. Sreekantiah, Rs. 50; M. Srinivasa Rao, Rs. 50; J. G. Tait, Rs. 50; T. R. Venkataswami Naidu, Rs. 50; H. R. Krishna Murthi, Rs. 25; B. Subba Rao, Rs. 25; A. Mahadeva Sastri, Rs. 20; M. C. Rangaiengar, Rs. 20; M. Hiriyanah, Rs. 15; K. R. Sessa Char,

Rs. 15; G. Subbaswamy Iyer, Rs. 15; S. Krishnama Char, Rs. 10; D. Venkatananjappa, Rs. 5.

Education for the Deaf and Dumb.—The decennial anniversary of the Deaf, Dumb and Blind School at Mysore, which is being maintained partly from public subscriptions and partly from Government and Municipal funds, was celebrated last week with Mr. Visvesvaraya, Chief Engineer, in the chair. The school is well-conducted and serves, as the President said, one of the higher purposes of civilization. The inception of this school is due to Mr. Srinivasa Rau, who was heartily thanked by the President.

The school has been the recipient of many medals and certificates from various Exhibitions in and outside Mysore. The financial position, as shown in the report, is not very strong, the expenditure being higher than the income. We trust the leading men of Mysore will show their patriotism by creating a permanent fund for the working of this school.

COCHIN.

A Farewell Address.—Mr. F. S. Davies, B.A. (Lond.), F.M.V., late Principal of the Ernakulam College, and lately appointed as Director of Education, Cochin State, was recently given a farewell address in the College Hall on the eve of his departure for Trichur. The College Hall was tastefully decorated for the occasion and there was a large gathering, including a number of Princes of the Cochin Royal Family, the local officials, Vakils, Teachers and others. Exactly at 4.30 P. M. the Princes and Mr. and Mrs. Davies arrived and took their seats on the dais. The chair was occupied on the occasion by one of the Princes and proceedings began with an introductory speech by the Chairman. This was followed by the reading of the address by one of the Princes, a student of Mr. Davies. The address speaks for itself and shows the esteem in which Mr. Davies is held by the College. After it was read it was presented enclosed in a beautiful casket. Mr. Davies then made a suitable reply. The next item was the concluding speech by the Chairman, after which the Chairman and Mr. and Mrs. Davies were garlanded. The evening's function terminated with the distribution of flowers and the sprinkling of rose-water, and cheers for His Majesty the King-Emperor and H. H. the Raja. In the night from 8.30 to 11.30 there was a variety entertainment in the College Hall in honour of Mr. Davies.

A Teachers' Conference.—A Conference of the teachers in Groupe II of the Cochin State was held on the 13th and 14th of this month in the Ernakulam College under the guidance and control of the Acting Principal, Mr. Venkateswara Iyer. It was on the whole a success and Mr. Venkateswara Iyer deserves to be congratulated on that account. A very interesting and instructive

programme was gone through. Model lessons in English and Arithmetic and English papers on Kindergarten, Observation and Moral Training formed the chief items and they were all splendidly carried out. But most of the teachers who had been invited to the Conference were of the Vernacular Primary Department and as such expected only to possess very little knowledge in English, though several of the items of the Conference were gone through in English.

BARODA.

Education in Baroda.—Mr. A. M. Masani, M.A., B.Sc. (Minister of Education, Baroda State) writes to the *Pioneer*—

SIR.—I feel it my duty to contradict the irresponsible statement made in the letter appearing under the signature of "I. F. S." in your issue of the *Pioneer* of the 27th September, 1911, on the subject of education in Baroda State, and to point out that it is not only false but highly misleading. In pointing out the inaccuracy of Mr. Rameay Macdonald as regards the annual expenditure on education incurred by the Baroda State, the writer himself stands charged of the more serious offence of not only inaccurate but false and absurd declaration that the fines raised for non-attendance cover the greater part of the expenses on education. To use his own words, I really marvel at the information he made bold to give and wonder from whence it came I cannot help saying that, discovering no natural way of accounting for the large expenditure of education in Baroda, he drew upon his imagination and ingeniously devised a preposterous hypothesis intending to play upon the credulity of the reading public. To disillusion him I beg to point out that the estimated expenses this year on account of education in Baroda have gone up to Rs. 16,00,000. As regards the three points raised in his letter, which he wishes to be cleared up for the information of the educationist and the supporters of free compulsory primary education, I have to observe:—(a) That there is no amount raised from fees, primary education being free in all its grades, and no fees charged; (b) that the amount received in fines for non-registration and non-attendance this year is Rs. 45,000; the fines diminishing as the laws of compulsory education are better understood by the people; and (c) that there is no direct tax upon the people on account of education.

The above correct information should tend to show that the condition of education in Baroda is a typical example to quote contrary to what the writer would have us believe. I hope the writer will have the moral courage to confess honestly his sheer ignorance of the subject he ventured to write upon, and in the interest of fair play and justice will express his regret publicly for the gross misrepresentation of the facts and figures about the educational policy of the Baroda State.

INDIA (GENERAL).

Government Servants and Sectarian Universities.—The *Tribune* publishes a Government of India Circular, dated Simla, the 8th September, 1911, signed by the Joint Secretary to the Government of India, Education Department, and addressed to all Local Governments and Administrations. The Circular runs thus:—

"The Government of India consider it undesirable that Government Servants should preside or take part in meetings for the promotion of the Hindu or the Mahommedan University, or participate in the actual collection of subscriptions. For various reasons non-intervention is desirable. They desire that orders be issued accordingly, if not already."

The *Tribune* says:—The actual scope of the circular has been greatly exaggerated, as the circular has filtrated downwards to subordinate employees in Government offices. Regarded from a strictly disciplinary point of view the circular was not to be open to objection but the circular has been not rightly timed. As regards the two Universities, the Mahommedan University is all but complete and all preliminaries including the consideration of the constitution by the Government of India has been finished. For the Hindu University, everything remains to be done and signs are already noticeable that the directions of the Government of India may be strained to hamper the scheme."

Hand-book of Information for Indian Students.—The following account of the book has been published. The National Indian Association, in conjunction with the Advisory Committee at the India Office, has issued a new (i.e., thirteenth) edition of the *Handbook of Information for Indian Students*. Every fresh edition of this useful work adds to its practical value. The information which it contains is for the most part drawn from official publications either of Government Departments, Inns of Court, Colleges and Universities and it is now an authoritative encyclopædia upon all those questions which an Indian student, or an Indian parent who is thinking of sending his son to England, most wants to know. In addition to the technical information under the several heads, there is a most valuable preface, entitled "Advice to Indian Students," which deserves most attentive consideration. It contains in a concentrated but readable form the advice which every one of us would like to give to Indian parents, for the lack of which so many promising careers are shipwrecked, and so many visits to England end in disappointment. It is impossible not to be struck with the appositeness of the advice given, and with its practical quality; it is obviously the distillation of very large experience; all the familiar causes of trouble are foreseen, and the best means of guarding against them explained. If parents in India could generally be persuaded to read through the first eight pages of the *Handbook*, together with the pages containing special information regarding the approaches to the

career which they desire their sons to follow, the lives of Indian students in the United Kingdom would be happier and more satisfactory to their families. The problem which is before the compilers of this *Handbook* at the present time is how to make the information they have collected more widely known. Copies of the *Handbook* should be on sale in every college in India, and it ought not to be impossible in the course of time to have at least one copy in the headmaster's room in every High School.

The *handbook* very wisely lays stress upon the difference in the methods of admission to educational institutions which prevail in England and in India. In India, as every Principal or Headmaster knows to his cost, no student ever dreams of notifying in advance his wish to join a college or school. On the first day of term he simply turns up and claims to be enrolled; indeed, it is only the more serious students who turn up on the first day of term; the rest straggle in days, weeks, and sometimes, if the Principal will accept them, months after the term has begun. English institutions have been successful in stamping out this slipshod habit. A boy's name is entered for a public school years before he actually joins, and few are the Colleges of Oxford or Cambridge which have not made up their lists of first-year students six months before the opening of term. Very few Indian parents are aware of the system that prevails in England and if they send their son to this country in time for him to put in an appearance on the first day of term, they imagine they have taken ample precautions to secure his admission. The consequence is that very many excellent students from India are refused admission to Oxford or Cambridge Colleges who, had they applied earlier, would have been welcomed. If the *Handbook* is successful in warning Indian parents of the necessity of getting the names of their sons entered in a good college a year in advance, it will, by this alone, have conferred a great boon upon them and upon Indian students. There is much advice upon other subjects which is of equal value and importance, but which it is not possible to mention here; the work to which every body should lend a hand is to get this advice brought to the notice of the parents in India.

Improvement of Vernacular Education.—We understand that the Government of India have addressed Provincial Governments as regards the improvement of Vernacular Secondary Education and the starting of Vernacular Secondary Schools. This measure was urged on the attention of the Government of India at the last Budget Meeting of the Imperial Council by the Hon'ble Mr. N. Subba Rao Pantulu. He pointed out that the Court of Directors in their Educational Despatch of 1854 as well as the Government of India during Lord Curzon's time had laid down the principle of the diffusion of European knowledge among the masses by means of Indian vernaculars. No steps, however, had so far been taken to place higher Vernacular

education on a solid and enlightened basis. Mr. Subba Rao pleaded that this should be given a proper place in the scheme of education in the country, 'correlated on the one hand to indigenous institutions and on the other to English Colleges; for after all it is the basis of all industrial or commercial occupation.' He recommended that the courses in this system of higher Vernacular education should be so arranged that a student, after being educated in a Vernacular Secondary School with English as second language, should be provided with facilities to appear for the School Final or the Matriculation Examination and thus become eligible for admission to the Public Service or to Arts or Professional Colleges, with, if necessary, additional training.

Foreign Notes.

GREAT BRITAIN.

Educational Statistics—The volume published by the Board of Education in England entitled "Statistics of Public Education in England and Wales, Part I, Educational Statistics 1909-10," a summary of which is given in the *Times*, shows the progress made in respect of all grades of education. We learn that on July 31, 1910, there were in England and Wales 21,199 schools providing accommodation for 7,082,800 children. Voluntary Schools numbered 13,044 will 3,114,708 places, and there were 8,155 Councils 'accommodating 3,968,092 children. The denominational schools and their accommodation were as follows:—Church of England, 11,008 schools and 2,468,062 places; Wesleyan, 242 schools and 81,477 places; Roman Catholic, 1,073 schools and 391,864 places; and Jewish, 12 schools and 10,554 places. Classed as "Undenominational and other schools" were 522 schools, with accommodation for 130,177 scholars. In the certified schools for the blind there was accommodation for 2,213; deaf, 4,167; mentally defective, 11,689; physically defective, 4,418; and epileptic, 464. In England, 316,581

girls attended cookery classes, while 174 boys attended similar courses. Other special classes were attended as follows:—Laundry work 118,160; housewifery, 24,920; combined domestic subjects 6,768; dairy work 130; gardening, 1,022 girls and 32,276 boys; handicraft (other than light woodwork), 223,591; and light woodwork, 882. The number of grant-aided secondary schools in England was 841, with 8,825 teachers and 141,149 pupils. There were also 35 recognized technical institutions, the number of teachers being 736 and the number of students on account of whom grants were made 2,584.

The Royal Geographical Society.—The new session of the Royal Geographical Society, of which Lord Curzon is President, will be opened on November 6, when Dr. Fridtjof Nansen will give a paper on the Norsemen in America. Dr. Nansen has had in preparation for some years a great work dealing with North Polar exploration. He has come to certain conclusions with regard to the so-called discovery of America by the Norsemen, which will be rather surprising to many, and these conclusions he will deal with in the paper referred to. On November 20, Dr. Tempest Anderson will give a paper on Volcanic Craters and Explosions. At the next meeting, on December 4, Sir Alfred Sharpe, who has recently retired from the Governorship of Nyasaland, where he has been for many years, will deal with the geography and economic development of British Central Africa. On December 18, Dr. T. McDougal, of the Carnegie Institute, who has been studying on the spot for a considerable time, along with Mr. Edsworth Huntington, the desert conditions of Arizona, will give a paper on American Deserts. In the new year other interesting papers may be expected. Sir William Willcocks, whose paper on Mesopotamia last session created so much interest, will deal with his further researches on the Garden of Eden and its restoration. Dr. Mackintosh Bell, late Director of the Geology Survey of New Zealand, has promised a paper on an Unknown Corner of South Island.

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The Educational Review.

The technological training that one can get in

Technological
Education in
India.

India is not of a very high order. The Government has done very little in the way of imparting superior

technological training. The Industrial Conference held some years ago at Ootacamund recommended the establishment of a good College of Technology at Madras for this Presidency. The Industrial Conference held at Naini Tal in 1907 made a similar recommendation for the establishment of an Institute of Chemical Technology at Cawnpore to do higher kind of work. For some reason or other these recommendations did not receive the approval of the Secretary of State for India, and our technological students are still compelled to resort to foreign lands for their training. We are glad to note that Sir Thomas Holland, formerly the Director of the Geological Survey of India, and now a Professor in the University of Manchester, states as his conviction that the existing system of sending Indian students to foreign countries is a mistake. "My argument has always been," says he, "that in India you must not cover the whole realm of technology at one centre. You should have advanced and distinctive schools in a number of centres, the main purpose of each being in relation to the main local industries. A certain amount of this kind of specialization has been done in Liverpool, Leeds, and elsewhere in the United Kingdom, but more of it needs to be done. There is too great a tendency even in this country, for institutions to spread themselves out and the growth of the number of universities has led in some instances to a sort of competition for students, with

the result that the universities run the risk of doing cheap and nasty work. The need for technical schools to take the colour of the local industries is much greater in India, where areas are so great and climatic conditions so varied, than in Great Britain. But the principle is of general application." He points out how it is often advantageous to be limited in funds. As an illustration of this he cites the case of the Sibpur Civil Engineering College, where for lack of funds a great deal of the apparatus, plant, and even furniture have been made by the students themselves and the teaching staff and students have been compelled to exercise considerable ingenuity in turning to account buildings and materials at Sibpur which were never intended for anything like a technological college.

Sir Holland is of opinion that even as things are the student trained in India ought to be a better man than the average State technical scholar from Europe. There is a great deal of truth in this. We have seen many cases of students trained in Europe and America, who have not been any the better for their training. He accounts for the Indian student's difficulty in finding admission to English factories to gain practical experience as follows. The man sent out to India from a factory in England is more or less of an agent for the business in which he has been taught. The manufacturer does not want the trouble of teaching an Indian, if he is to go back to India without being in a position to assist the interests of the firm. The manufacturers and managers have their own friends to look to and there are always many young Englishmen waiting to be trained. Even if access to factories were easy, the position in respect to the Indian student would not be satisfactory.

For, first of all he is distracted by the totally new conditions of life which he finds on arrival in England and it takes him a long time to adjust himself to these conditions, even if he does not come to moral or material wreckage in the process. Further, when a professor is talking to a class of mainly English students he takes for granted that they know something of the methods to which the principles of which he may speak apply and are acquainted with the conditions under which they would be tested. An Indian student has usually a great deal to unlearn when he goes back to India and is for the first time brought into touch with actual conditions.

These weighty opinions of Sir Thomas Holland deserve serious consideration, and the sooner the activities are provided in India for the higher technical training of its sons the greater would be the benefits both for the people and the Government.

At the last meeting of the British Association many papers were read before the Educational Science Section on the important subject of examinations in their bearing on teaching and efficiency. There appears to be serious dissatisfaction on the part of parents, teachers and the public generally with the existing examination system. Vague criticism is easier than the suggestion of possible reforms. Consequently in many of the papers read attempts have been made at constructive work. Mr. P. J. Hartog, who has devoted much attention to the question of examinations, has tried to point out what subjects are suitable for test by examination and what are not. "There are some things in life in regard to which there is a general agreement, some things that we must do as

other people do them, no doubt better or worse, but still after a general model. Originality in adding, in multiplying, in grammatical usage, in the recognition of a familiar animal or a familiar disease, is, shall we say, undesirable. These are examples of the kind of processes that can be tested by examination and that can be efficiently tested by examination. But in those deeper things which concern more nearly the individual heart and mind, I suggest to you that examination has no part to play. You will not be able to prove by any of the ordinary examination methods that a candidate has the historic sense, the literary sense, the poetic sense, the moral sense, that he is sensitive and responsive in these regions of human feeling and thought. And I put it to you that it is one of the chief problems, and one of the most urgent problems of our day, to secure efficiency on the whole of the culture-side of our education without applying tests that tend to destroy the very sense that they are meant to stimulate. I have already indicated the solution partially. For these subjects, and especially for history and literature, we must secure the most capable and enthusiastic teachers, and give them time and opportunity to do their work. And we must reduce examination requirements so as to ensure that only part of the average pupil's time is needed to satisfy these requirements."

Dr. Percy Nunn thinks that examinations have often exerted a strong and beneficent positive influence upon teaching, and therefore pleads for the directive or normative use of school examinations. If the examiner is a man of exceptional ability, he would at least give enthusiasm and definite pedagogical inspiration to teachers of kindred intellectual temperament. As real individuality is rare

among teachers, and as close imitation is a necessary first stage in the development of spontaneity, it would be an excellent thing for a young teacher to be compelled to form himself upon the pedagogical personality of an older teacher, if only as a necessary stage in the discovery of his own. If the examiner is a fine and original teacher of his subject with a critical and philosophical knowledge of it, possessing a wide experience of the teacher's work, he may in a few years be expected to raise the level of instruction in his subject. Though an examination conducted by an expert in his subject is likely to do much positive good, Dr. Percy Nunn does not maintain that it would be advisable to give the command of the examination to a single expert, however eminent. If the use of an examination is to develop pedagogical individuality, then the examination must take different forms to suit the needs of different schools and the mental outfit of different teachers, and must play a definite part in aiding pedagogical progress in all its branches. The examinations must be designed to correspond to, and to aid in developing the form and individuality of each type. Not only should teachers have a voice in determining the syllabuses of these examinations, but teachers of special ability should play a specific part in the evolution of the examinations. A teacher who is recognized by the Inspectors of the Department or the Universities, to be developing work of notable originality and value in any subject should, on the application of his or her school, be added to the board of examiners in that subject and should be permitted to determine the general character of the papers set to his own pupils.

Miss Sara A. Buntall, a past President of the Headmistresses' Association placed before

the meeting the views of her association on the place of examinations in education. The association feels strongly that the English system of external examinations is now no longer required, and that it is doing harm to girls' education, and, in some cases, to the detriment of the future powers of the girls themselves. The association feels that for universities like Oxford and Cambridge to examine mere children of twelve and thirteen as they do in their preliminary examination is an act unworthy of their great place in English National life. With a view to make examinations, which are likely to go on for years yet in England, as harmless as possible, it is recommended that the co-operation of acting teachers should be recognized and allowed in all school and Matriculation examinations, that schools should be allowed and invited to present their own syllabuses for school examinations, that in the testing of science teaching inspection should be more prominent than examination, and that the note-books covering a definite and consecutive course of work of the candidates should be taken into consideration in the awards of examinations.

Mr. Walter D. Bentliff, Vice-President of the National Union of Teachers, discussed the place of examinations in education from the point of view of the primary teacher. Hot-foot examination of the pupil by himself or by his teacher is essential to good teaching, and in education it has a place in every good lesson. But the teacher alone can so examine the pupil as to satisfy himself that his object has been attained. Hence the place of examination in education, if it is to test each course as child-building proceeds and also the stability of the edifice of education from the foundation, is in the teacher's scheme of work and in the hands of the teacher himself. Ex-

amination by outsiders, that is, by those not responsible for the actual plans and teaching hampers the teacher by necessarily tempting him to bend his efforts to satisfy the examiner, and to that extent prevents concentration on what he deems actually necessary to the education of the child. In other words, the teacher's personality, his aims and his ideals, are over-shadowed by those of another, and these, however excellent and desirable, if pursued by the owner, fail as factors in educating if pursued by another. Hence external examinations can have no place in education as education. Such examinations do not advance or carry on the education of the child but only retard it. We must resort to them only whenever and wherever there are really grave reasons to doubt the educational health of any particular school.

The general effect of all this discussion was to strengthen the plea for the appointment of a strong commission of inquiry into the very difficult and wide questions raised. The sectional committee finally decided to appoint a committee to investigate "the aims and influence of examinations."

Football is growing in popularity among the student population in this country. We are therefore justified in asking ourselves whether it is a possible inter-collegiate sport. A sport is defined in the dictionaries as that which diverts and makes mirth and a game is defined as an institution to furnish sport, recreation or amusement. Judged by these definitions football is neither a sport nor a game. The whole scheme of football as a game—practice, coaching, conduct of the game, schedule, trips, and rules—is entirely opposed to the very spirit

of true sport. Practice is not sport or fun but it is labour, work. Any recreation connected with college life should be conducive to the development of mind and character. Football does not fit men to study more but is not infrequently an end in itself which, temporarily at least, makes all study impossible. No doubt we recognise that it is the duty of the college course to provide for every student the proper physical training to fit him to carry on his severe intellectual work, which is the first business of college life. But football as a college sport gives physical benefit only to a small proportion of the average institution, and these few are of all the men in the institution, those who need it least. In England frequent fogs and rains keep the turf as soft as a cushion. In India, on the other hand, the ground is soft only in the rainy weather. Players have been sometimes killed at football and many often sustain injuries. In last year's match between Oxford and Cambridge, one had his collar bone broken and the other had a badly twisted knee. Football brings playee directly against playee and this is inherent in the very nature of this game and as such makes it an impossible inter-collegiate sport.

The School Final Examination makes it incumbent upon those who are connected with colleges to be posted with what is being done in other countries to make the colleges co-operate with the high schools. Recently the University of Chicago appointed a committee consisting of five members of the faculty and five teachers of secondary schools to investigate the qualifications for college entrance. There are five points in the report which are of value to educationists

in India: (1) The specification by the college or university of specific subject matter and methods of presenting it no longer helps the high school, on the contrary, it decidedly hampers it. In like manner examinations of the ordinary type hamper the work of the high schools. (2) The best test of the efficiency of a high school is the way in which its students do their work in college. The secondary schools welcome this kind of a test, provided they are left free to develop efficiency in their students by their own methods. (3) In order that secondary schools may be free to experiment and find the methods and subjects best adopted to develop socially efficient and scholarly students, at least one-third of the work accepted for college entrance should be entirely free from restriction of any kind; the remainder should be unrestricted by details of subject matter or method of treatment. (4) The colleges can strengthen the high schools much more efficiently by the adequate preparation in college of prospective high school teachers, than by limiting the freedom of these teachers by specifications of requirements which the graduates of the college are not always able to satisfy. (5) In order that there may be real co-operation between high school and college and real co-ordination and coherence of the work in both, high school principals and teachers should visit and inspect college classes and discuss freely their opinions of the work done in college with college instructors who have visited high schools and are familiar with conditions there.

At the last meeting of the Senate of the University of Madras on the 27th instant an important matter connected with the powers of the Syndicate formed one of the subjects of discussion. According to

the existing regulations the Syndicate as a body has the power of nominating candidates to vacancies in their body. Such a privilege has not been given to the Syndicate in any other Indian University. The members of the Syndicate are all Fellows of the University, and as such each one of them has the right to nominate one candidate for every vacancy. Why these Fellows of the University should have plural powers in preference to the other Fellows is not clear. From statistics and from confessions made by mofussil Fellows it is evident that the nominations of the Syndicate carry great weight with them. It has been argued that the members of the Syndicate are experts and their recommendations must carry weight. We should like to know whether their character as experts in special subjects can impart any special weight to their nominations to fill up vacancies in the Syndicate. It is an undeniable fact that heads or professors of colleges desire to get into the Syndicate not because they desire to serve the University but because membership in the Syndicate carries with it some weight and influence. It is absurd to say that the nomination of the Syndicate carries with it no undue influence. Fellows of the University are neither better nor worse in point of character than any other body of men, and it would therefore be unnatural to expect them to show more independence than others. Caesar's wife, they say, should be above suspicion. Similarly the Syndicate should be above criticism and give no room for being regarded as a packed body. Though the attempt to amend the existing regulation has not met with the success which it rightly deserves, we hope that six months hence the question will again be brought up for discussion before the Senate.

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A COMMON ALPHABET FOR INDIA.*

THREE questions may arise in connection with this subject :—

- (i). The necessity of a common alphabet for all Indian languages.
- (ii). The feasibility of the introduction of such an alphabet.
- (iii). What alphabet ought to be thus adopted?

I shall assume that there cannot be two opinions with regard to the first question, that even sentimental considerations will not induce any man to advocate that the present babel of alphabets should hold on for ever. The second question, too, need not be discussed at length. There are at present in India special facilities for the substitution of one alphabet in place of the many that are in vogue. I admit that as in the case of a great Asiatic nation that has recently become famous, our corporate life is not sufficiently elastic to let us borrow a constitution from one country, an army organization from another, an educational organization from a third, and engraft them as a whole on our body politic. But if we agree to have a common script, we can easily induce the Government to use it in all Government notifications intended to reach its officers and others that are willing to use this alphabet; and this will give rise to a natural struggle

for existence which will in time drive out of use all but the common alphabet. The Christian Missionaries, too, will, I am sure help on the movement, for a common alphabet for India will very much facilitate their work in this country. The only serious question that remains for debate, is this, what is to be the common alphabet?

The preliminary discussion of a few general considerations will serve to clear the ground. No alphabet in use in any country is or can be perfect. The sounds of a living language are always steadily, though slowly, changing. "Our so-called 'standard' pronunciation is ever imperceptibly but surely changing and never continues in one stage"—(SKEAT). Whatever be the cause of this variation, there it is and the fact cannot be ignored. This is one reason why the spelling of every language will always be an imperfect representation of its speech. Hence the alphabet, i.e. the symbols that represent its ultimate sounds should be such as to admit of additions and alterations. The Tamil and Telugu alphabets are very imperfect representations of the Tamil and Telugu speeches. There are two i sounds in Tamil, viz., that in கி, வி (kī, vī), and that in கீ, வீ (kī, vī); the first is a back i sound peculiar to Tamil and the second is the same as the Southern

* A paper read at a meeting of the English Association (South Indian Branch), Madras.

English long i sound in 'feel.' There are similarly two e sounds, the one in எ, ஏ (ēr, ēva) and the one in எடு, ஏடு (ēḍu, ēḷu); the first is a front sound, and the second a back one; in fact there is a third e sound in என் (ēn), in which word the e almost merges into a nasalized æ sound. Unaccented final u in Tamil an obscure vowel, called in Tamil grammars குற்றியலுகரம் (kurriyalugaram), though no separate symbol is provided for it. K has in many words changed into g, later into a weakly voiced ḥ or v connecting the vowels thus brought together. Thus Tamil pukaiyilai, became pogayile. (cf. Tel. Poga); it next became pohele and ultimately po(v)ele. The same vanishing series is observable in Telugu. Thus mukham gradually becomes mogam, moham, (cf. Hindi, muh) and also mo(v)am. Similarly ika become iga, iḥa; Telugu grammars note this tendency so far as to recognize the change of non-initial g into v, as in mugguru, muvvuru, pagalu, payalu, etc. Like Tamil, Telugu presents many specimens of imperfect visible representation of speech. Thus there are two e sounds, one in மெ, మె chedu, చె and another in మే, మే chēda చే. Final unaccented a has become an obscure vowel, as in పా, పా after s' has become æ as in సా, సా s'āpam; tya has become tsa in and dya has become ja in modern Telugu speech; thus patyam is now pacham and madyam is majjam. Similarly ksha, as in pakshi, kaksham, has become tsha, these words being pronounced respectively paṭshi, kaṭsham. This word paṭshi is pachi in Prakrit, pañchi in Hindi. The change of dya into ja is recognized even by those unaccustomed to phonetic investigation, for the popular derivation of the name Vijayanagaram is from vidya and not vijaya, though the other changes pointed above and well established phonetic

phenomena like the change of taṭiaku into taṭaeku, kaṭṭu into kattu, are set down to original sin and most often attempted to be avoided in moments of self-conscious reading or speech. I need not go here any further into the question of the defects of Tamil and Telugu spelling, for I am concerned only with illustrating the proposition that in the case of all living languages, an inelastic alphabet like those in use in all countries to-day and a system of spelling fixed for all time will inevitably lead to a very wide breach between writing and speech. I do not hold that writing should be a faithful photograph of speech; such a record is useful only to the phonetician and not the common man, but an alphabet should be such as to admit of new symbols for well-established new sounds and registering permanent phonetic changes.

Another general characteristic necessary in alphabets is that they should be easy to read and easy to write and easy to print. An alphabet is not an end in itself; it is an instrument for enabling speech to appeal to the eye. It is a tool and like all tools should be simple of construction and easy to handle. Hence it is a prime necessity of a reasonable alphabet that its acquisition should be easy. The symbols should not be unnecessarily profuse, and should not require the sacrifice of a precious year of a child's school-life before they could be mastered. They should be clear-cut and no two symbols should be so nearly alike in form as to make the unwary reader trip. They should not be over-elaborate, too full of details, for this would stand in the way of rapid reading, and also cause an unnecessary expenditure of time, of paper, of ink, and of muscular energy. The writing of the Middle Ages was elaborately ornate, but clerks in those days had very little to

write and plenty of time to write it in. Simplicity of symbols also makes for good printing. Writing and printing should of course be beautiful but ease and speed should not be sacrificed to beauty, because writing and printing are not primarily fine arts as painting is. Hence the choice of scripts is primarily a question of common sense and not one of aesthetics or of sentiment.

These general considerations point to the desirability of our adopting the Romic alphabet as the common script of India. By the Romic alphabet I mean not the English alphabet many of the symbols of which have more than one value, but the modified Roman with fixed values, such as that used by Orientalists or the International Phonetic Association. This possesses all the characteristics abovementioned. It is simple, easy and elastic. It is based on an accurate analysis of sounds into their ultimate elements. Its consonant symbols are practically the same as those adopted by modern Orientalists for Sanskrit. The alphabet of the International Phonetic Association is richer in symbols than any other existing alphabets, because the differentiation of sounds by modern phoneticians is more accurate than that by the ancients on which these alphabets are based. But for ordinary purposes we do not need to register subtle shades of difference among allied sounds, and we may therefore adopt for our purpose a slightly simpler system of symbols than that of the International Phonetic Association.

The only objection that has been brought against the adoption of the Romic script in India, is that it is foreign and hence likely to offend the sentiments of the Indian people. This is not a good objection, because all the

alphabets used in India were originally borrowed from foreign countries. Nor do the Indian people seem to be such fools as to refuse to borrow useful foreign institutions because they are foreign. On the contrary we hanker for more of foreign methods of conveyance like the railway and the motor-car in preference to the bullock-bandy, foreign methods of transmission of news like the telegraph in preference to the cooly messenger, foreign methods of distribution of news like newspapers in preference to bazar rumours. We have taken kindly to foreign manufactured goods of all kinds, and I therefore think that sentiment need not be taken into consideration in discussing this question.

Of late a society has been formed for advocating the adoption of the modern form of the Nāgari alphabet as the ekalipi, common script, of India. The advocates of the Nāgari have striven to enlist passion and prejudice in its favour. Because it is sometimes called Devanāgari, there are some ignorant people who believe that the Gods use this alphabet. Others believe that it is an Indian alphabet, in the sense that it was invented in this country; but "all the present available evidence tends to show that the Indian alphabet is not Aryan at all; (and) that it was introduced into India by Dravidian merchants."—(RHYS DAVIDS). As a matter of fact India borrowed alphabets twice* for besides the "Indian alphabet" referred to by Rhys Davids, whose Indian name was the Brāhmi lipi, there was the Kharoshthi also, introduced from Persia, which died out after a few centuries of use.

* I drop out of consideration two local scripts modī and vatteluttu.

Another argument in advocacy of the Nāgari professed to be based on reason and not on sentiment is this, that the Nāgari is a perfect, scientific alphabet. As this argument is frequently repeated even by educated people, it behoves us to find out whether this is true. Now an alphabet is perfect or imperfect, not in itself, but only as the representation of the sounds of a language. It has already been shown that it is not possible for the alphabet of any living language to be perfect nor have the sounds of the two living languages—Maharatti and Hindi—that use the Nāgari alphabet, yet been analysed by any trained phonologist. But, in passing, I may mention one illustration of the defects of Hindi. The word written *keḥko*, (to whom) is pronounced with *e* short and clipped, whereas *e* in Nāgari is a long sound and it is impossible to guess this sound from the spelling. Therefore it is not right to say that the Nāgari alphabet is perfect or scientific, as a representation of these languages. But it might be urged that when the Nāgari is called a perfect alphabet, the reference is to Nāgari as a Sanskrit alphabet. If so, we must first remember that no one alphabet can be called a Sanskrit alphabet, for not less than ten alphabets are used for Sanskrit in India and each one is as good or as bad as the Nāgari. All these alphabets have acquired some special defects on account of association with Sanskrit. The Brahmins of India are divided into two great groups, the five Gauḍas, (Sārasvatas, Kānyakubjas, Gauḍas, Utkalas and Maithilas) and the five Drāviḍas, (Drāviḍas, Āndharjas, Karnaṭas, Mahārāshtras and Gūjaras) and this division is due to this, that where a Gauḍa pronounces 'kh' the Drāviḍa pronounces 'sh' and where a Gauḍa pronounces 'j' the Drāviḍa pronounces *y*, e.g. *khatrī*, *kshatrīa*, *jagñā*, *yagñā*. Besides these great points of difference there are many minor ones, e.g. the

first sound of the name of Siva, is pronounced in at least three different ways *s'*, *s*, *sh*. This sound was developed from a palatal *k* of the parent Indo-Germanic tongue and the distinction of the Indian people into the Gauḍas and the Drāviḍas was perhaps connected with this change of Idg. *k* into *sh* sound among some tribes. The nasal of the 'ch' series, the vowel 'ri', the initial 'a' and final 'a' are each made in two different ways in different parts of India. These facts prove that as an alphabet the Nāgari, suffers like every other Sanskrit alphabet, from uncertainty as regards the sound value of several of its symbols.

Considering Nāgari, as a mere alphabet, i.e. independent of the sound value of the letters which compose it, it possesses very many irremediable defects. The first prominent one is that the bulk of the Nāgari letters are not symbols of the ultimate elemental sounds of a language, i.e. its vowels and consonants, but are representations of syllables, so much so that the word 'Akshara' means 'syllable' and not 'letter'. In this respect, the Nāgari and other Indian alphabets occupy a position midway between Chinese where a whole word is marked by a symbol and Romic where ultimate sounds are indicated by symbols. Hence the number of symbols one has to remember before mastering these alphabets is very great; and as if this were not enough, some conjunct consonants are marked by symbols which do not remind the reader of their constituent parts, e.g., *क्ष*, *ज्ञ*.

This unnecessary profusion of symbols in the Nāgari is a serious defect from the point of reading but the defect assumes immense proportions when it comes to printing. Most Indian languages including Sanskrit can be printed in Romic from a font containing 40 to 50 types, whereas Nāgari requires a font of more than 500 types and Telugu nearly 1,000. Therefore unless these alpha-

bets are abandoned, the development of good and cheap printing in India will be impossible. While on the subject of printing, it must also be pointed out that some vowel marks, e.g., the marks of *u* and of *e* are written above or below the consonants and in some conjunct consonants the component parts are written one above the other; the result of this is that the number of lines to a page that can be printed in an Indian alphabet with reasonable space between the lines is much less than in Romic. A vernacular book containing the same number of words as an English one is double the size of the latter. That is the chief reason why printers cannot afford to print vernacular books on good paper.

Another defect of the Nāgari alphabet is the over-elaborateness of each symbol. An ancient Indian writer on Mantra Śāstra says that all letters are made of the straight line and the half-moon. The straight line and the semi-circle may be taken as the ultimate elements or units of the letter-forms of the Romic as well as of the Indian alphabets. Thus the English 'a' consists of 3 semi-circles, 'b' of a straight line and a semi-circle and so on. Analysing thus, it will be found that almost every Romic letter or syllable contains many units less than the corresponding Nāgari ones. Hence one can write much faster in Romic than in Nāgari with the same degree of practice. Moreover a few Nāgari letters are similar to a few others in form, e.g. *ब*, *व*; *प*, *फ*, *भ*; *इ*, *उ*; *य*, *र*; *ल*, *व*, *ध*; *द*, *ड*, *ढ*, etc., thus causing difficulties in reading printed and more especially manuscript matter written with ordinary speed.

In all these respects Romic is superior to Nāgari and it has this additional advantage that it is the alphabet adopted by almost all civilized countries. Its adoption will bring us into line with these countries. It will make good and cheap printing possible and

will thus act as a great stimulus to the spread of education among the masses.

The adoption of Romic as the Common Script of India will prove advantageous to every man living in the country. The European officers in India are frequently charged with ignorance of the languages of the country—but as a matter of fact everyone of them does pick up at least one of the languages of the country—but is prevented from extending his knowledge because it is very difficult for any grown-up man to master a complicated script for he cannot afford to waste a year or two over the acquisition of an alphabet as a primary school boy is forced to do in India. The Indian officer who is transferred from district to district is also in the same position. He too cannot be expected to spare time from his heavy daily duties for such dreary work. The diaries of the Police and other subordinate officers that have to be written in the vernacular, petitions, depositions of witnesses in the Law Courts of every grade, if written up in the Romic, would allow of easy inspection by the superior officers and would thus bring them into direct touch with the people concerned, instead of their having to depend on translations which even under the most favourable circumstances are bound to be unsatisfactory. The Christian Missionary too will find that with the adoption of the Romic Script he comes into much closer touch with the Native Christian all over the country. The problem of vernacular short-hand and type-writing will also be solved at one stroke. It will facilitate trade all over the country; by making it possible for people ignorant of English to communicate with each other by telegrams. Hence the adoption of the Romic as the common alphabet of India will help in all ways the advancement of the prosperity of the people of this country.

P. T. SRINIVAS IYENGAR.

Main heading.	Matter.	Appliances, diagrams, reference to books, etc.
Spherical Mirrors :— Concave and Convex.	Spherical mirror :—A reflecting surface, which is a portion, generally very small, of a sphere. Concave mirror :—Here, the reflecting surface is on the hollow side (facing towards the centre of the sphere.) Convex mirror :—The reflecting surface is on the outer or bulging side, away from the centre. The meaning of the following terms should be clearly impressed on the pupils' minds :— Diameter or aperture of the mirror.. AB (Fig 21). Pole or apex... O. Centre of curvature ... C. Radius of curvature ... CO. Principal axis (simply, the axis) ... XCO. Secondary axis ... MCN'.	
Terms in connection with spherical mirrors.	When rays, incident on the mirror close and parallel to the principal axis, are reflected, they converge or appear to converge to a point F, called the Principal focus, situated on the principal axis, midway between the centre of curvature and the pole of the mirror. Focal length or the distance FO is half the radius of curvature CO. or, in symbols, $f = \frac{r}{2}$. Note. i. The geometrical proof of the relation $f = \frac{r}{2}$ may, with advantage, be elicited from the pupils. ii. Reflection from spherical surfaces takes place according to the same laws as in the case of plane mirrors. iii. The normal at any point in a spherical surface is the line joining the point with the centre of curvature. This cannot be too strongly impressed on the memory of the students.	
Principal focus and focal length.	The position and the nature of the image formed vary with the position of the object before the mirror. Six typical positions may be considered :—	
Position and characteristics of Images in concave mirrors.		

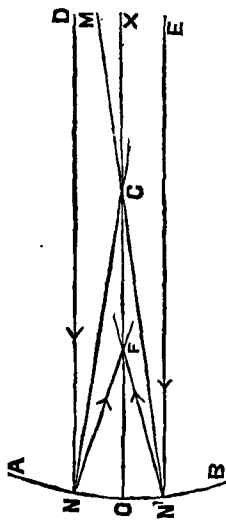


Fig. 21.

Incident rays will, after reflection, meet at a point, only if they are close to the principal axis (i.e.) N and N' (See Fig. above) should be very near O, so that CN or CN' may be taken equal to CO. Thus, the aperture of the mirror is assumed to be small when compared with the radius of curvature and the approximate relations based on this assumption are sufficiently correct for most practical purposes.

Vide 'Heat, Light and Sound,' by D. E. Jones.

Pupils should clearly bear in mind the distinction between a real and a virtual image.

(1) To illustrate case i, use a concave mirror covered

- i. Object at an infinite or very great distance, so that the rays coming from it may be considered parallel, when incident on the mirror.
Image : at the principal focus :
Object, beyond C (at a measurable distance).
Image : between F and C.
Object : at C.
Image : at C.
Object : between F and C.
Image : Beyond C.
Object : at F.
Image : at infinity, the rays being parallel after reflection.
- ii. Object : between F and the mirror.
Image : Behind the mirror :
Virtual, erect and enlarged.

with black paper except a small part in the middle, the aperture thus being made small. Hold the mirror to the rays of sunlight and move a very small paper-screen up and down in front of the mirror so as not to cut off the incident rays. A clear, small image of the sun is formed at a certain point, which is the Principal focus and probably, the screen will be burnt.

Instead of sunlight, light from a lamp may be allowed to pass through a narrow hole in an opaque screen and fall on a convex lens placed at its focal length from the aperture, so that a parallel beam of light falls on the mirror. Vide 'Practical Exercises in Light,' by Clay.

(2) To illustrate cases ii to v, the following apparatus will be found useful :

- (a) An optical bench (already referred to).
- (b) A concave mirror of 20 to 30 cms. radius of curvature or a plano-concave lens, the plane side being blackened.
- (c) An opaque screen in which a circular aperture, about 7 or 8 mm. diameter is drilled, with a fine cross-wire stretched across it; or, a screen with a triangular aperture closed by wire-gauze. Behind the screen is placed an incandescent lamp or any other powerful source of light, so that the small aperture illuminated by it forms the luminous object.
- (d) A white screen on which the image of the aperture can be got, to be placed between the aperture and the mirror :

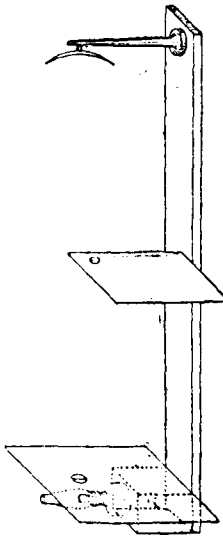


Fig. 22.

Arrange the apparatus as noted above, on the optical bench, slightly tilt the mirror so that the image may be received on the screen and move the latter until the image is distinct.

Note : i. If the aperture is circular, move the point of a pin or the end of a pencil across the aperture in any direction and notice that, in the image, the motion is in the opposite direction, showing that it is inverted.

Graphic construction of images.

ii. For most experiments, the source of light referred to above is better than a candle flame which does not give so distinct an image, and may, with advantage, be used for *demonstration purposes*, if not for students' practical work.

iii. It will be noticed that as the distance of the object from the mirror increases, that of the image decreases.

Case vi. If a lighted candle or our face be held very near a concave mirror, the image will be erect, enlarged and behind the mirror; it cannot be caught on a screen and is virtual.

The students should exercise themselves at drawing diagrams for different positions of the object. The object taken should be small and placed on the principal axis in a plane perpendicular to it. The graphic representation may, with great convenience and accuracy, be done on squared paper.

Conjugate foci and their relation to focal length.

Vide 'Heat, Light and Sound,' by D. E. Jones.

Besides the experimental proof, there is a convenient method of constructing graphically the image formed, in a mirror, of a small object: The construction depends on the principle that a small pencil near the axis of the mirror gives, by reflection, a pencil with a definite focus, the latter being found out, if the paths of any two different rays of the pencil can be geometrically constructed. There are three rays of the incident beam, the paths of which after reflection can be easily followed up and drawn.

1. The ray which passes through the centre of curvature: this strikes the surface normally, and is reflected through the centre.

2. The ray that comes in parallel to the principal axis: this is reflected through the principal focus.

3. The ray that goes through the principal focus: this is reflected parallel to the axis.

The position of the image depends, as has been seen, on the position of the object.

If a luminous point, in any given position A on the principal axis, be considered, rays from it diverge to the mirror and after reflection, converge or diverge to form an image real or virtual at any other position B. The diagram will indicate that the rays from B will, after reflection, converge to A, so that A and B are positions (on the axis) at which an object and its image may change places.

Any two points so connected are called conjugate foci. This can be shown also experimentally:

There is a fixed relation between the distances of the conjugate foci from the mirror and the focal length.

The sum of the reciprocals of the distances of the object and the image from the mirror is equal to the reciprocal of the focal length.

$$\frac{1}{\text{distance of object}} + \frac{1}{\text{distance of image}} = \frac{1}{\text{focal length}} = \text{radius of curvature}$$

$$\text{or, in symbols, } \frac{1}{u} + \frac{1}{v} = \frac{1}{f} \left(= \frac{2}{r} \right);$$

where u = distance of object,
 v = " image.

i. The values of any two of the three quantities being given, that of the third can be easily found out from the equation above: but, in applying this formula, it is necessary to have a convention with regard to the algebraical signs of the distances, the latter being measured from the pole of the mirror and along the principal axis.

Distances measured towards the direction from which light is coming (i.e. in the direction opposite to the incident light) are reckoned positive (+), and those measured in the direction of the incident light are negative.

ii. It will be interesting to notice that, if u be given values corresponding to the six typical positions mentioned already, the values of v as deduced from the formula will agree with those given by experiments: thus, if $u = \alpha$, $\frac{1}{u}$ becomes zero; $\frac{1}{v} = \frac{1}{f}$ or $v = f$, i.e. the image is at F.

If $u = \infty$, $\frac{1}{u} = 0$, $\frac{1}{v} = \frac{1}{f}$, i.e. the image is at infinity, rays after reflection proceeding parallel.

iii. The formula may be used to show the interchangeability of the conjugate foci.

When the image of a small object is formed in a mirror, the ratio of any linear dimension of the image to the corresponding dimension of the object, (both being measured at right angles to the axis on which they are placed) is called the Magnification (m) produced by the mirror: This ratio is equal to the ratio of the distance of the image from the mirror to that of the object;

$$(1) \ m \left(\frac{\text{size of image}}{\text{object}} \right) = \frac{\text{distance of image}}{\text{object}} = \frac{v}{u}$$

Magnification produced by a concave mirror.

(1) For geometrical proof, vide 'A Class-book of Physics' by Gregory and Hadley, and 'Light' by Emtage.

(2) With the apparatus and arrangement mentioned in Fig. 22 above, it may be experimentally proved in a number of cases that the sum of the reciprocals of the conjugate focal lengths, i.e. $\left(\frac{1}{u} + \frac{1}{v} \right)$ is constant and equal to $\frac{1}{f}$.

(3) The truth of the formula can be verified by graphic representation on squared paper (vide p. 286. Gregory & Hadley's 'A Class-book of Physics'). It should be noted here that the object should be very small, when compared with the radius of curvature; otherwise, the values got do not closely agree, the formula $\frac{1}{u} + \frac{1}{v} = \frac{1}{f}$ being strictly true for points on the principal axis.

To verify $\frac{1}{u} + \frac{1}{v} = \frac{1}{f}$, in the case of virtual images the method of parallax may be employed. In front of a mirror held upright, place pin (or a knitting-needle) nearer than the focal length. Behind the mirror, place upright a pin of greater height than the mirror, and move it until the image of the first pin coincides with it, as seen by parallax method. The distances of the two pins are then measured.

Vide 'Practical Physics' by L. M. Jones.

(1) The geometrical proof of this follows readily from the properties of similar triangles; it can be verified, to a great degree of accuracy, by graphic representation on squared paper and by experimental illustration.

Determination of the focal length.

$$(2) \quad m = \frac{\text{distance of image from F}}{\text{focal length}} = \frac{v-f}{f}.$$

The following methods may be employed for determining the focal length of a concave mirror :

1. By directly determining the principal focus and measuring its distance from the mirror :
Although this method may appear the simplest, this is not the best or the most convenient.
2. By finding the centre of curvature and halving the distance between it and the mirror. This method is the most accurate. It has the further advantage that the image and the object can be kept practically on the axis of the mirror :
- (3) By determining the conjugate foci and applying $\frac{1}{u} + \frac{1}{v} = \frac{1}{f}$ or $\frac{2}{r}$.

Uses of concave mirrors.

Concave reflectors are made use of :—

- (1) In Light-houses and 'search-lights' (projectors). A powerful lamp is placed at F and the reflected rays form a parallel beam.
- (2) In the 'ophthalmoscope' by which a physician examines the interior of a patient's eye.
- (3) In many optical illusions, e.g. a flower-vase appearing on a support : see Fig. 23.

Convex mirror : Images.

- (1) For all positions of the object, the image is virtual, erect, diminished and situated behind the mirror :

A virtual object (such as one formed by the rays passing through a convex lens, before they converge) gives rise to a *real* image :

- (2) $\frac{1}{u} + \frac{1}{v} = \frac{1}{f}$ is applicable here too ; but f is negative :

- (3) For graphic representation, the same method as in concave mirrors is employed, the only difference being, that the ray parallel to the axis is reflected such that, when produced backwards, it passes through F.

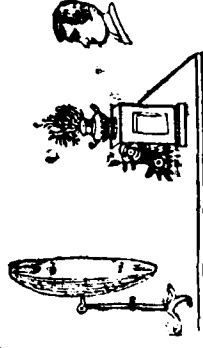


FIG. 23.

The nature of the images can be seen in the convex surfaces of spoons, tea-pots, and the silvered glass balls used for decorations. When the object is big, the image appears distorted and this is made use in the 'Laughing gallery' shown on occasions like the 'Park Fair' at Madras, and temple festivals.

The pupils should exercise themselves at diagrammatic representation on squared paper, for noticing the relation between u , v and f and for verifying the law of magnification.

- (4) Use parallax method :

Vide 'Practical Physics' by L. M. Jones.

5. (1) *Apparatus* :—Optical bench, cross-wire and receiving screens ; convex mirror ; a short focus convex lens :

— Vide page 284, 'A Class-book of Physics' by Gregory and Hadley, and p. 72 'Practical Exercises in Light,' by Clay.

- (2) *Apparatus* :—Optical bench, convex and plane mirrors on stands, needle and knitting needle on stands.

Vide 'Practical Exercises in Light,' by Clay.

NOTE.—For students' practical work, if an optical bench is not available a metre-stick, or a chalk-line on the table, divided into cm. or inches, may be used.

A. VARADACHARIAR.

(To be continued.)

TEACHING OF LOCAL HISTORY—
WITH A SPECIMEN SYLLABUS
OF THE
HISTORY OF TRANQUEBAR.

IT is a fact well-known to the Educational world that the teaching of History, like every other subject, has, during recent years, undergone a thorough change. The object of teaching History is to impart certain valuable truths—truths which have stood the test of ages and countries. Everyone will readily concede that mere book-knowledge divorced from actual experience counts little in life. It is something like a body without soul. Considered in this light, History may be regarded as a record of experiences not only of individuals but also of communities and nations; hence the importance of History as a school-subject. Two methods are adopted in the teaching of the subject. One is the time-honoured *chronological* method—which consists in teaching the subject in the order of *time* and the other is teaching it from the *present*, working backwards to the *remote past*. It is only the former of the two methods that has been so largely adopted and almost all the text-books hitherto written on the subject have been arranged in the chronological plan. The advantages that accrue from such a treatment are no doubt great; and probably this is the only arrangement suitable for adults. But, for children who are eight or nine years old, this mode of treating the subject appeals to no *apperceptive* mass in their minds. Even though the subject is taught in the form of easy stories, as recommended in the earlier classes, still there is some difficulty felt in rousing their interest for the subject. The personages and incidents related in the stories bear no semblance to the living present and they consequently

convey no meaning to their undeveloped brains; and so in the majority of cases, this only leads to fruitless cramming. The only beneficial result that this method could produce is the development of their imagination. But this advantage would be more than counterbalanced by the tendency to cramming.

The other method, namely that of working up the subject backwards from the present, while removing the defects noticed above, tends to develop not only the imagination of children but also their *observation*, which it is the supreme duty of the educator to develop at this early stage of child's life. The subject can be taught purely in the form of *object lessons*. This method possesses the advantage of rousing a keen interest in the subject and is capable of stimulating enquiry. This will give ample scope for their originality and will eventually make the children *understand* History and enable them to *write* History from observation. Hence the importance of teaching local history in the earlier classes. But it should not stop with local history. The teaching of the subject should be so worked out that it should proceed step by step from the present to the remote past. Some rudimentary ideas of History (civics) may be given in the 3rd class and taught as object lessons. In the 4th class the teaching of the Geography of the locality with special reference to monuments and relics of historic interest (if any) may well serve as a ground-plan for the teaching of History. Then a detailed knowledge of the history of the place may be taught with a general survey of the history of the district or province. In the I Form the history of the locality and a detailed knowledge of the history of the district or province may be given, with a general survey

of the history of the country of which the district or province forms a part. In the II Form, the study of History, according to the chronological order may be begun with advantage and the whole ground of Indian History may be covered in the II and III Forms.

But the real difficulty in the teaching of this subject in the earlier classes is that no suitable books could be obtained in which this arrangement is followed. Besides, as History should start from *each locality* and then proceed step by step to the country, text-books could not be written, which would suit each locality in which the school is situated. Thus the teacher is thrown entirely on his own resources; and he must first gather information about the locality and write its history before he devises the methods of teaching it to the classes. It therefore becomes necessary that the teacher engaged in teaching History to the lower classes must be one who has got a real taste for the subject and who is capable of doing research work. He must have sufficient energy and enthusiasm to go about collecting old coins, and other relics of historical value. The children in this connection, should make as many excursions as are necessary to places of historic importance and they must be encouraged to collect as many relics as they can. All these should form part and parcel of the school museum.

Syllabus for History of Tranquebar.

Fourth class:—

1. Our Emperor George V; his illustrious father, our late beloved Emperor, and his grand-mother Victoria 'the Good,' of happy memory.

2. *India of the present day*—The English

and how they rule India, as deduced from a study of the public offices of Tranquebar—The School, the Post and Telegraph Office, The Union Office, The Police Station, The Sub-Magistrate's Court, The Hospital, etc.

3. A brief outline of the *Geography of Tranquebar* with special reference to monuments and relics of historic interest:—The Coromandel Coast (சோழமண்டலக்கரை); Virasholanar (வீரசோழனார்); The Siva and Vishnu temples (their *inscriptions*, etc.); The Dansborg Castle; The Old Cemetery; The stone monument in the maidan; The churches; Mint Street; The old Zilla Court, &c.

4. The History of Tranquebar as woven from the relics described in Section 3.

Early history.—600 years ago, Tranquebar formed part of the Chola Kingdom. Their capital at Tanjore. Fall of the Cholas and the advent of the Nayak Rajas in their stead. (*Vide* inscriptions in the temples; and copper grants).

5. The Danes—a sea-trading nation in Europe—sent Admiral Ove Gjedde—his arrival at Tranquebar—obtained Tranquebar, &c., from the Nayak Rajah for an annual rent of Rs. 3,111—built Dansborg and Church 1620 (see *marble tablet* and King's *monogram* C₄ inside the Dansborg); subsequently built the Fort: Tranquebar grew into a prosperous town: change of dynasties in Tanjore—Tanjore seized by a Mahratta Chief, Ekoji, brother of the famous Sivaji—but the Danish trade not affected.

6. The *Danish Mission*.—Frederick IV, King of Denmark, sent two missionaries Plutschau and Ziegenbalg for propagating Christianity in India in 1706—Founders of the Protestant Mission in India. (*Vide* *stone monument*; *church tombstones*, &c.)—built churches—opened schools—compiled Tamil

Dictionary—patronised and treated with favour by Danish Government.

7. The Danish trade not affected by the constant wars all round. One cause of anxiety due to the inroads of the sea (explain the term *தரக்கம்பாடி*—town of billows)—a portion of the fort and the front walls of the Siva temple washed away by sea.

8. Wars between the English and the French; Denmark began to take sides. The English send warning but fruitless. An English army sent—and the Danish Fort taken by the English in 1808.

1808 to 1815—Tranquebar in the hands of the English. No good Government owing to the unsettled state.

9. In 1815 Tranquebar restored to the Danes. But trade declined—Revenues went down—Danes unable to pay the rent to Tanjore Raja. Tranquebar sold to the English in 1845.

10. The English brought the *Zilla Courts* and other offices to Tranquebar—but subsequently removed them. The town now abandoned—now frequented only as a health resort.

11. *The Danish administration*—Treated kindly its Indian subjects—regulated everything by laws—settled caste disputes—established separate Courts—the Black Court—the High Court, &c.—had a Registration office—allowed Hindu customs—struck coins in copper, silver, &c., bearing the monograms of their kings C₄, C₅, C₇, &c. (Show coins of the Danish time from the museum).

12. *Sources of Revenue*—Land—trade in tobacco, salt, liquor, &c., a royal monopoly—levied profession taxes—customs duties on all imported and exported goods.

R. KALYANA SUNDARAM AIYAR.
(To be continued.)

SALARIES OF SECONDARY SCHOOL-MASTERS.

EVERYBODY knows that, in the course of the last few years, a great revolution has been effected in matters educational. Old and out-of-date methods of instruction have given place to up-to-date and rational ones. Practical work is the cry everywhere, whether in the case of Science, Mathematics or Geography. If we compare the Question Papers set in the Public Examinations with those of some years back, we can realize what a great change has taken place. The old Matriculation is replaced by the Secondary School Leaving Certificate Public Examination conducted by the Government. Probably this is due to a desire on the part of the Government to have the entire control of the Secondary Education in their own hands, in addition to others. So every thing has been changed. Methods of instruction, Examinations, and methods of inspection by Inspecting officers have all been changed. All these changes are recognized to be for the better. Spacious accommodation, large play-grounds, splendid libraries, well-equipped laboratories and hostels are all demanded by the Department. But, alas, the status of school-masters has not been bettered. Their salaries are constant, as it were, even though the school fees have recently been enhanced. Under such circumstances, one is naturally inclined to compare his own position with that of his brethren elsewhere. Then go to the Continent of Europe. What is the scale of salaries obtaining there? The minimum salary of a Secondary School-master is not less than £100 per annum (i.e. Rs. 125 per mensem) and the maximum is, in almost all cases, £300. If you go to the United States

of America, you find there that the maximum sometimes reaches £500.

Then how is it that the Secondary School-master is paid so ridiculously low here? The reasons are stated to lie in the comparative poverty of India, the absence of endowments in our schools, the stringent Grant-in-Aid Code and lastly in the lack of union and concerted action on the part of the school-masters themselves. India is, of course, poor. None can, for a moment, think that the Indian School-masters should be paid so liberally as those of the United Kingdom or of the United States. But that is no reason why the school-master alone should be so ill-paid when his brethren in other walks of life are comparatively better off. The apathy of the richer classes is not of a real nature. India is a land famous for her charity. History tells us that and tradition confirms the same. Even now are there not many rich men in India who spend thousands and thousands in other charitable objects? Is it a very difficult task to induce them to spend a portion of their wealth in the cause of education which is at least equally charitable? The other reasons are all flimsy. Therefore we may say that there are no satisfactory reasons for fixing the salary of a school-master at such a low minimum.

Let us take the case of the Headmaster at first. Ordinarily he is a B.A., L.T. In a majority of High Schools he does not get more than Rs. 100, and there are some schools which pay the Headmaster from Rs. 120 to Rs. 150 per mensem and it is very rarely that he gets Rs. 200 or so and such schools can be counted by one's fingers. The Headmaster of a High School is expected to teach the highest class some important subjects, to supervise the work of his assistants, and to do all correspondence and other miscellaneous

work. Besides he is responsible for the character of the boys and the public opinion of the school. He is to do such responsible work and yet his salary is only Rs. 100 or so. I know a High School, rather a big High School with more than 500 boys on the rolls where the salary of the Headmaster has never been a figure of three digits since the school was established.

Then coming to the Graduate Assistants, they are generally graded as First Assistant, Second Assistant and so on. The salary of the First Assistant is a little higher than that of the Second who gets a little more than the Third, and so on. In some schools, where there are more than one section in a class, the teachers who are in charge of several sections of a class are given the same salary or are placed in the same grade. Invariably the VI Form teacher is paid more than the V Form teacher who, in turn, is paid more than the IV Form teacher. Really I do not understand why there should be any difference at all. Nowadays it is the 'Specialist' system and not the 'Class teacher' system that is followed. Sometimes it so happens that the last assistant in the High School department works for a greater number of hours in the VI Form than in his own class, the IV Form. This is quite enough to illustrate the force of my argument. I do not mean that he should draw the same salary as the First Assistant who is surely to be his senior. What I want to urge is that they should be placed on the same grade and the difference in their salaries, if any, should be only due to service.

What are the prospects that are generally held out to a qualified Graduate teacher? He is generally started on something between Rs. 50 and Rs. 60. Of course the start is decent enough. He is even envied by his

friends who have entered the Collectorate or the Board of Revenue on Rs. 20, who seem to think that their teacher friend is considerably more fortunate. In almost all schools under public management the pay of the IV Form teacher is Rs. 50 rising to Rs. 60 by five biennial increments of Rs. 2. From this it is evident that under ordinary circumstances he takes ten years to reach the maximum which is only Rs. 60. In a majority of private schools, there is no fixed grade at all. This is clearly seen from advertisements in the Newspapers, where we find "salary according to qualifications." Generally it is not the qualifications that decide the salary, but the needs of the school, the number of qualified applicants, the circumstances of the selected candidate and other considerations. Therefore an assistant master in a private school gets his increment periodically, occasionally, or never at all. When the long expected increment season comes, the work of the assistant, the favour or disfavour into which he falls with the headmaster, the financial condition of the school and the attitude of the manager all play a considerable part in settling the increase of salary to be given to him. Sometimes there arise differences in the increments granted to the various assistants, although they are of the same qualifications, and sometimes a few are left out of consideration. This is sure to create a good deal of dissatisfaction. In this manner the assistant master pulls on for some years and then finds that his prospects are not a bit bettered, but his family grows and with it his expenses. It is now his turn to envy his friends in the Collectorate who, though they started on Rs. 20, are now on their way to become Sub-Magistrates with the prospect of becoming a Tahsildar or a Deputy Collector

in the near future. He now finds that such of his friends as were able to secure an appointment in Government Training Schools, even though it be on Rs. 30, are really fortunate for they can hope to become at least a First Grade Sub-Assistant Inspector or an Assistant Inspector of Schools, on the evening of their career. Government servants enjoy their pensions after their retirement, but teachers employed in schools under private management have no such advantage. Further there is no Provident Fund to benefit them, for our Madras Government has deemed it fit not to favour the poor teachers with such a benevolent institution. Therefore his position after some years of service is almost the same when he began his life. I know of teachers who have worked with credit for more than 20 or 25 years and are yet drawing a salary of Rs. 70 or Rs. 80. What am I to say about this state of affairs? Therefore his position, rendered worse by contrast, makes him discontented. Even his enthusiasm for work wanes. He is determined to go elsewhere for he is convinced that he can better his prospects only by so doing. Then he makes it a point to look to the leading Newspapers for advertisements. He has no objection to go to Vizagapatam, Mangalore or Tuticorin. Generally he succeeds in securing an appointment elsewhere, of course, on better terms. The Manager too is not unwilling to relieve him, for he thinks that he can obtain a substitute on less pay. It is a well-known fact that in almost all our schools there is a frequent change of staff. It is recognized on all sides that frequent change of staff causes a great dislocation in the school work and is detrimental to the interests of the school. Then what is it due to? One can unhesitatingly say that this evil is a direct result of

the low scale of salaries. Another important result of this is to drive away distinguished graduates of the University from the noblest of all professions.

Therefore there can be no two opinions on the question that the salary of the school-master is very low and should immediately be raised. In this connection I should like to impress that I am one of those who are convinced that the teacher's work is such as cannot be measured in Rupees, annas and pies. If any one should say that the teacher's salary should be made commensurate with his work, I emphatically say that no amount can be an adequate return for the work which should be done only out of pure love for it. Yet it is necessary, in the interests of both the teachers and the taught, that there should be an immediate revision of the scale of salaries. So I propose to give below a scale of salaries which may, with advantage, be adopted in all our schools, and which will, I am sure, considerably allay the present discontent without touching the Manager's pockets very much.

We shall first take the case of the Headmaster. It would be reasonable to fix his minimum salary at Rs. 120 and the maximum at Rs. 150, the latter being reached by six annual increments of Rs. 5 or five biennial increments of Rs. 6. But in the case of very big High Schools, like the Town High School, Kumbakonam or the Hindu High School, Triplicane, it is desirable that he should be paid more and his salary is fixed as Rs. 150—10—200 (biennial).

Then let us take the case of the Graduate Assistants. In some of our schools, the Headmaster is paid decently while the senior Assistant is paid so low that his salary is sometimes half that of the Headmaster. At any

rate this sudden fall is to be deprecated, for it is not the Headmaster alone that is responsible for the good of the institution. He can do nothing by himself, without the co-operation of his Assistants. The latter have an equal share of the credit or discredit. Hence we should see that they are paid in proportion to what the Headmaster is paid. As I have already stated, there should be only one grade of salary for all qualified graduates and they should be placed on that grade. Their starting salary should not be less than Rs. 60. It would be desirable if their maximum is fixed at Rs. 120, the minimum salary of the Headmaster, but at any rate, the maximum should not be less than Rs. 100 and should be reached in ten years by annual increments.

The status of the Assistants of lower grades is more miserable. They are counted as non-entities in our schools. They are not treated properly in the school. In addition to according proper treatment to them, their salaries should be raised. Qualified F.A.'s should be made to start on Rs. 30. Their maximum salary may be fixed as Rs. 45 or Rs. 50 and may be reached in 15 years. Qualified Matriculates should be placed on one and the same grade, irrespective of the class they teach. Their starting salary should be Rs. 20 and not Rs. 15, as in some of our schools. Our Government have thought it necessary to raise the pay of the low-paid clerks in the Collectorate and the Judiciary to Rs. 20. Then why should the trained Matriculates alone start on Rs. 15? Of course there are only a few schools which start Matriculates on Rs. 15. I hope they will soon find their way to raise it to Rs. 20. A progressive scale should be fixed and Rs. 20—1—35 (annual) is, I think, suitable. It is always good to omit the fractions of a Rupee from the salaries of

school-masters, even to the advantage of the Manager.

In proposing the above scale, I have been very moderate. My only object is to formulate a feasible scheme and to recommend its early introduction in our schools. I beg to assure that it is very necessary in the interests of education and even our Managers cannot but think it reasonable.

A mere revision of the scale of salaries will not do to better the prospects of the poor hard-worked school-masters. A Provident Fund should be started. The advantages that would result therefrom are well-known to all. Earnest endeavours should be made to realize this object. In this connection, the teachers can do no better than lend their hearty support to the South Indian Teachers' Union. This is the only Presidency movement of the teachers. Yet it is greatly neglected by the teachers who are in duty bound to render all possible help to its becoming a success. Therefore they should not allow it to die, for they would thereby deprive themselves of the means of expressing their concentrated opinion and ventilating their own grievances. What a mighty influence do such Unions wield elsewhere? Is it not right to expect that this Union also will have its own time and will then become a powerful factor in the country? Wake up, brethren, and do the needful.

If my recommendations are to be carried out, there can be many advantages. First of all, the lamentably frequent change of staff is sure to be avoided. The teachers would have no desire for a change, and even if they should think of changing, the prospect of being started on only Rs. 60 will prevail upon them to continue in the same institution. Thus one great evil can be averted. There

can be no discontent, for they know their prospects in the Department. These two are sure to result, besides many other advantages.

A SECONDARY SCHOOL-MASTER.

THE UNIVERSITY OF MADRAS.

CONVOCATION ADDRESS.

At the Convocation of the University of Madras held on the 23rd inst., the Address to the Graduates of the year was delivered by the Hon'ble Mr. V. Krishnaswamy Iyer. We give below the full text of the Address:—

MR. CHANCELLOR, LADIES AND GENTLEMEN:—In obedience to the command of the late Chancellor, and in accordance with the statutes of the University, I stand before you to-day to exhort you to conduct yourselves suitably unto the position to which you have attained by the degrees conferred upon you. It is more than two and thirty years since I sat for the first time in the body of this hall, beyond the rows of graduates of the year, watching with eager eyes the solemn procession of Chancellor, Vice-Chancellor and Fellows in robes of purple and crimson, wending its way to this platform, to perform the academic function of placing their hall-mark of approval on hundreds of my seniors pronounced to be duly qualified. At the close of the ceremony, I saw the venerable figure of Bishop Caldwell weighed down with age and bearing the marks of forty years of strenuous work in the service of his adopted country, stepping forward to make an impassioned appeal for research in the domain of the natural sciences, and for the earnest and fruitful study of the history, literature and archaeology of the land. If somebody had told me then that I should one day be

privileged to stand where he stood and to address an audience, a great deal larger than his, on themes similar to his own, I should have listened with absolute incredulity. My wildest dreams would have fallen far short of the reality of the present situation.

THE CHOICE OF WORK.

All of you have turned the point in your lives beyond which "what was once a task becomes a pleasure." Some are at the threshold of technical studies for which their general culture has laid the foundation. Others are about to face the grim realities of life, faculty and training being sometimes in ill accord with the career about to be chosen. More often, perhaps, the guideless choice of a profession will harmonize with latent aptitudes. There is a growing variety of occupation at the present day, whether in official or business life, though the number of eager applicants jostling one another for the hand of Fortune is ever on the increase. It rarely happens that the adaptation of talent to vocation fails to achieve success in life. I have sometimes asked myself whether the time has not come for the creation of an Employment Office similar to the one attached to Harvard University, whose business it is to procure suitable positions for under-graduates and all past members of the University seeking employment of any sort and to recommend the best available Harvard candidates for vacant positions made known to the Secretary.

Many of you have probably been disporting yourselves in the flowery fields of miscellaneous studies. But the time has come when the demands of general culture and the distractions of multifarious knowledge should occupy a subordinate place in your minds and the needs of your occupations in life should claim your best energies. It is a thing of common

experience, whether in the learned professions or in the official or commercial line, that the aspirant for success and future advancement does not give to his calling the best of what is in him. Dilettante labour is foredoomed to failure. If you follow the lives of the great ones of this or any land you will be impressed by the truth of the poet's word:—"No profit grows where is no pleasure taken. In brief, study what you most affect." Study and work both in full measure adapted to your calling in all its stages is the least price you have to pay for certain success. Thomas Carlyle has said:—"All true work is sacred. In all true work, were it but true hand-labour, there is something of divineness. Labour, wide as the earth, has its summit in heaven." I would ask you to make what has been called working-power a matter of habit. The time when all knowledge was one's province is a past which can never return. Master thoroughly the fraction of possible things which you have marked for your own. But let it not be said of you in after-life that your minds have been "cribbed, cabined, and confined," by the narrowness of your bread-winning pursuits, or the "specialism that leads to pedantry." Nor let the lot be yours of those who spend the evening of their lives in vain regret that their early years had no second interest, no field of intellectual labour or enjoyment other than the chosen occupation, to cheer and sustain, when it no longer holds them. I have known distinguished Indians who have died in harness, unwilling to face the blank and joyless stretch of a vegetating life, but whose span of physical existence might have been lengthened for the benefit of the public by retirement from salaried office or professional race.

A mercantile view of education is inconsistent with the traditions of this country. Learning in this land has always had an exalted place. It marked out a whole class for pre-eminent honour and distinction. *Arthakaricha vidya*, learning which brings in gain, has doubtless been one of the aims of life. But a higher ground for the acquisition of knowledge was the Upanishadic teaching:—"Whatever one does, if done with knowledge, yields greater results." "*Yadeva vidyaya karoti tad viryavattaram bhavati.*" The transcendental ideals of the Indian systems of philosophy which scorn the delights of a material world, the doctrines of Karma and Reincarnation dominating Indian thought and life, which reconcile the student to the indefinite postponement of all recompense for labour, and the overwhelming accumulation of ritual as a part of religion, have assigned to learning and its votaries a place in national life almost unapproached in the history of other ancient lands. The early period of life, extending over twelve to twenty-five years, was in the case of every man of the regenerate castes, ordained for study with the teacher. The sciences and the arts were open to all, though on the Sudra their cultivation was not binding. The Goddess of Learning, wife of the Creator in the Divine Trinity, has an annual festival in her honour, observed by all Hindu castes and communities. "Knowledge for knowing's sake, and not for the gain it gets, the praise it brings and the wonder it inspires," has been held aloft as the highest end and aim of education. Let not modern conditions of life darken the splendour of the ancient ideal of learned poverty, before which even the diadems of kings have rolled in the dust.

The University as a community of teachers and scholars and a nursery of lofty ideals and large aspirations is not a modern idea or one peculiar to the West. The *Parishads* of post-Vedic times like the one in which Svetaketu Aruneya was, according to the *Brihadaranyaka*, confounded by King Pravara's questions propounding problems of philosophy, the priestly congregations, in *Sangharamas* of Buddhist days like the great halls of Nalanda spoken of by Hsien Tsang, the *Sangams* of the Tamil country whose fame lasted many centuries and the last of which sang the praises of the immortal *Kural*, the *mutt* organizations of more modern time dotted all over the country, were all gatherings of the most learned and thoughtful men of the day, engaged in religious, philosophic and scientific studies or discourses and centres of the highest culture.

RELIGION AND LEARNING.

Religion has always fed the lamp of learning. Cathedral and monastic schools pioneered the way to the mediæval *studia generalia* of Europe, parents of Universities like those of Bologna and Paris. So in India the first born caste and the monastic orders in their quest of God and their search into the mysteries of the universe, gathered in groups in forest or mountain solitudes to learn and to teach. The temporal power stood aloof for many centuries from the cloisters of learning in Western lands. But it was the privilege and the boast of kings in India to make their courts the arena of intellectual combat amongst the learned of the land and to proclaim themselves the patrons of poets, philosophers and sages. It often occurred that Brahmins who had sought retirement and Kshatriyas who had renounced their sceptre, *Vardhaka munivrihayah*, in the words of sweet Kalidasa, attracted disciples by the boldness of their

speculations and the sanctity of their lives. It has also happened that individual teachers of great renown established themselves in historic places of pilgrimage and gathered students around them from various parts of the country, who lived with their teachers and served them in humble ways during the period of studentship. Benares, of all cities the most sacred in the world, with a longer record as a centre of thought and learning than "Athens, the mother of arts and eloquence," or imperial Rome, long the seat of unparalleled temporal and ecclesiastical power, or historic Paris, of varied interest and widest culture, or London, the gate of the world's commerce, Benares has exercised the most powerful charm on the Indian mind for ages, not less for her illustrious roll of teachers than for her being the gateway to heaven for the pious Hindu who heaves his last breath on the holy ground enriched with numerous temples. The tragedy of King Harischandra's life which has indelibly impressed upon the hearts of Indians the Vedic formula that there is no religion higher than truth. (*Satrat nasti paro dharmah*) was enacted there. Gautama, the lord of the Sakyas, abandoning his royal heritage, sought within its precincts the way to salvation through all the learning of the age gathered on the spot which marked the confluence of the Ganges with the Asi and the Varuna. Sankara, perhaps the most profound of philosophers, ancient or modern, carried to Benares his daring speculations and the truths he saw "with vision divine" for the approval of the mighty intellect. Learning and knowledge have for centuries shed their radiance around from other famous seats as well, like Madura and Navadvip. The inheritors of a past so glorious, the descendants of gen-

erations to whom the cultivation of knowledge was a religious dedication, can need no other incentive to literary, scientific or philosophic pursuits than the conviction that knowledge is its own reward.

But the East had long to bear the reproach that its philosophy was unpractical and its religion a negation of beneficent activity. Matthew Arnold has aptly portrayed the quietism of India in verse:—

"She let the legions thunder past and plunged in thought again."

Sadasivendra, the poet-sage of Padukottah, sang the ecstatic experience of the liberated soul "that feels no wonder at the cold rays of the sun or the burning beams of the moon or the downward flame of fire as mere illusion." The profound philosophy of the Gita has, however, told us that action is greater than inaction, *Karma jayohyakarmanah*. You cannot lose your soul, it is true, even if you gain the whole world. But these are empyrean heights to which the many cannot ascend. They need the life giving waters of practical knowledge which fits them for happy lives, honest citizenship and wordly distinction.

DEVELOPMENT OF INDIAN UNIVERSITIES.

The Universities of India were founded a little over fifty years ago to develop youthful capacity, to promote many-sided culture and to form, in the language of Lord Haldane, "that priesthood of humanity to whose commands the world will yield obedience." Great work has been done, but far greater yet remains. The Universities Act of 1904, which came into force seven years ago, heralded the change from the purely examining and degree conferring University to a partially residential and teaching corporation, though the change was only an accentuation of features not altogether absent from the earlier type. There is no conceal-

ing the fact that the new legislation was received by the Indian community with a considerable feeling of alarm, which I shared, as to its ultimate effects on the products of University culture and discipline. What were supposed to be dangerous elements in the changed constitution were doubtless present in the earlier enactments which regulated the Universities. But rhetorical emphasis of defects in the older constitution and its numerous progeny exaggerated the popular fear of possible consequences to higher education. The strength of the Senate was reduced to a maximum of 100 and this gave rise to vague suspicion, though there was no statutory safeguard against indefinite reduction under the older law and, though the present number of Ordinary Fellows of the Madras University, which stands at 92 exceeds that of the London University by thirty-seven. Collegiate discipline that is painful to undergo but qualifies for command by teaching to obey is more in evidence now.

Perhaps, the one feature which has a dark as well as a bright side was the limitation of the term of Fellowship to five years. If one were, however, to take stock of the beneficent changes wrought by the new Act and the Regulations framed under it, one would feel bound to record the increased efficiency of teaching, inspections of Colleges and equipment of laboratories, the institution of University lectureships and studentships for research, the greater specialization of studies in the Intermediate and B.A. courses to suit the needs of the country and the provision of greater facilities for the recognition of proficiency in oriental learning. The registration of graduates and the grant of the privilege of election to the Senate have drawn its *alumni* closer to

the University in bonds of intellectual companionship. Larger grants of money than before have been made by Government, a University library of considerable dimensions, the first condition to original research at the present day, has been founded in close association with the Connemara Library and new degrees and titles have been created to mark the distinction attained in particular departments of knowledge. Schemes of University extension which are a modern feature of some of the Universities of the West, like London and Cambridge, have not been lost sight of, for provision has been made for men engaged in the business of life to attend University lectures with a view to widen their mental outlook.

Changes like these will bear fruit in the fulness of time. After-generations will reap the harvest. But there are other directions in which the University needs expansion. There are no travelling Fellowships as in the case of the older Universities of Aberdeen, Edinburgh and Harvard or the more modern ones of Sydney and Tokyo. The Khan Fund of 99,000 francs endowed for the purpose of enabling "Professors, Assistant Professors and Meritorious Graduates" of Tokyo to observe the general conditions of foreign countries as well as the customs of their peoples, is an example of a foundation valuable in this country even if limited to the study of the variety of Indian conditions. But private benefactions, which aggregate only to a sum of rupees two lakhs and fall far short of the princely donations to European and American Universities in some cases yielding an annual income in excess of our capital, have to be largely supplemented by diversion of the time-honoured channels of philanthropy, to meet the growing wants of

our University. I am sure that some of you will, in your days of official or business eminence, remember your *Alma Mater* in your Wills that your successors may have greater facilities for intellectual training. To the Hindu world of orthodoxy, the *Smritis* of Yama and Brihaspati have proclaimed in no uncertain terms the spiritual merit of endowing learning. The Prophet of Arabia has told the Muslim:—"Whoso honoureth the learned honoureth me." Thomas à Kempis has taught the Christian:—"Books speak alike to all, though all are not qualified to be taught by them alike." Is it too much to hope that the wealthy men of culture in the country may follow the example of the founders of the excellent lectureships attached to the Universities of England like those bearing the names of Halley and Romanes? I trust I may be permitted by the authorities of the University to make a humble beginning in that direction by endowing a lectureship of the annual value of Rs. 250 in the honoured name of Sir S. Subrahmanya Iyer, the only Indian on whom the University has conferred the degree of Doctor of Laws for eminent services to the country.

THE NEW UNIVERSITIES.

There are signs of dissatisfaction with some of the results of University training, which are manifest in the cry for new Universities. That demand has been received in some quarters as "a menace to the academic monopoly" of existing foundations. In others, where a material civilization sets the sole standard of human progress, it has evoked uncompromising dissent. The followers of particular creeds have in modern times developed a breadth

of vision and a charity of feeling which admit alien faiths to possess some saving virtues. But the men to whom all spirituality is bondage and civilization can be only of one type profess to see in the proposed Universities merely the recrudescence of superstition. Opposition to Hinduism or Islam and the nightmares to which it gives birth are perhaps but a phase of their general attitude towards all religion. We can well afford to leave them in the company of their own reflections. The area of ignorance to be combated is so great, the historical conditions favourable to culture are so widely present, the departments of knowledge now are so infinite in variety, that we may regard with complacency and even satisfaction the brilliant success so far achieved by the promoters of the new Universities with ideals which cannot but be complimentary to the culture aimed at by the foundations already in existence. If over a dozen Universities are now engaged in drawing to a focus in centres of learning the intellectual and moral forces of the younger generation of the United Kingdom, how can the addition of two Universities here to the present five, if adequately safeguarded from becoming "gloomy fortresses of sectarianism," be denounced as unsuited to the area or population or the varieties of Indian conditions, thought and culture? There are vast fields of historical, archaeological, agricultural and industrial research or experiment in which little more than spade work has been done, and which demand the assiduous labour of graduates trained along lines differing perhaps in part from those of existing institutions. Religion, morality and philosophy, dearer to the Indian mind than the natural sciences need more attention than is bestowed in the existing schemes of studies framed on

a too close adherence to the letter of the rule of religious neutrality. Let us hope, however, that the possible danger of narrow culture or dreamy studies may be avoided by Regulations which I confess may appear at first sight to be quaint, though none the less justifiable in the conditions of the country, prescribing six months' travel to the various seats of learning in India as preliminary to the receipt of the University degree.

Universities are not merely halls of learning and culture. They are centres of research. Each batch of graduates leaving the portals of the University must put the question to themselves what shall be their addition to the sum of human knowledge. Our duty is to do not merely for our own benefit and that of those around us, but also for the good of those who shall come after us. The Buddha attained perfection that he might profit others. Fleets and armaments, a world-wide commerce, liberal political institutions and general material prosperity are as nothing to the conquest of new realms of knowledge. There are promising fields for study and untrodden regions to explore. The fraternity of knowledge constitute a free masonry of mutual understanding which will, as the years increase, become the mainstay of universal peace greater than Hague Conferences and World's Race Congresses.

THE FUTURE OF INDIAN SCHOLARSHIPS.

The curse of intellectual barrenness is not upon us. But you cannot seek repose on faded laurels. The land that has produced in the realms of poetry Valmiki, Vyasa, Kalidasa, Tulasidas and Kamban, to name only a few, in the region of abstract thought, Kapila and Kanada, Sankara and Ramanuja, and in the practical sciences Panini and

Patanjali, Charaka and Susruta, Aryabhatta and Bhaskara, the land on whose breast have walked the blessed feet of Krishna and Buddha and a host of lesser saints and sages has no need to fear comparison with any quarter of the earth's surface. The illustrious roll is not exhausted. The fruitful womb may yet bring forth children of genius, the stalwarts of coming generations. The mighty stream of master minds which filled the land with plenty may in a season of drought have thinned to a tiny channel, but signs are not wanting that it may swell again to a flood.

Original work in this country on modern lines has many impediments. The difficulty of acquiring a foreign language of irregular grammar and more irregular orthography with a wonderful adaptability to the multifarious demands of modern knowledge and culture, a language which is our only medium for the advanced thought of the world, has got to be grappled with during some of the best years of the plastic period of youth. Costly libraries and laboratories and learned leisure which the needs of worldly comfort do not invade are lacking. The seats of learning in the Madras Presidency are not yet fully permeated by the intellectual atmosphere which generates creative thought. The Hindu mind has always been wanting in the historical sense, the first instrument for the true interpretation of the records of the past. The achievements of former ages of varying merit differing by virtue of differences in time and the local colouring of geographical distribution have obtained an authority destructive of perspective and freedom of thought. It stands to reason that under conditions such as these the output of the golden ore should at present be meagre. The contribution of the East to the world's thought, the world has,

however, not fully realized. In the words of Professor Macdonnell:—"The intellectual debt of Europe to Sanskrit literature has been undeniably great. It may, perhaps, become greater still in the years that are to come."

We seem to be in the throes of great births, though the process is slow that brings them to the light of day. Groups of learned men devoted to one or other branch of knowledge are forming organized bands of workers, like the English Association, the Telugu Academy, the Tamil Sangam, the Mathematical Association, and the South Indian Association which remind one of the celebrated academies of Europe for the advancement of knowledge. The Tata Institute of Research, that noble monument of high-souled philanthropy, is rearing its head on the hospitable soil of Bangalore. The summons has gone forth in every direction calling upon all to rise to the full height of their manhood. What you achieve depends less on the amount of time you have than on the use you make of it. Therefore, study and work and organise with the aid of reason. The greatest book of wisdom yet known to the world, the Mahabharata, which threw out the bold challenge:—"What is not here is nowhere." *Yat nchasti na kutrachit* has said that even Scriptures are not Scriptures if they cannot stand the test of reason. Some of you may take your place amongst the glorious band that with uplifted torch illumine the recesses in which the treasures of Nature lie buried. Let your motto be what the Emperor Asokavardhana proclaimed:—"Whatever I understand to be right I desire to practise." With brains enlarged and hearts expanded, with character ever more valuable than intellect with trained capacity greater than knowledge, "Go ye, O brethren," in the language of the Mahavagga, "and wander forth for the gain of the

many, the welfare of the many, in compassion for the world, for the good, for the gain, for the welfare of men." Go where you may and do what you will, treasure in your hearts that priceless refrain of Hindu sacred literature thrice repeated on every occasion to secure its virtue on three different planes of human endeavour:—"Peace! Peace! Peace!" (*Santih! Santih! Santih!*)

CRITICISM ON THE CONVOCATION ADDRESS.

THE University Convocation Address of the year delivered by the Hon'ble Mr. V. Krishnaswamy Iyer is unique of its kind, both in its conception and the lofty ideal it set before the listening graduates. It rightly impresses upon the minds of the young gentlemen just entering the arena of life what great advantages they possess as the inheritors of the vast heritage of about two thousand years as summed up in the accumulated store of Aryan civilization, art and literature. At a time when the nations of the West were rude tillers of a soil, exhausted by the rigors of a bleak and cold climate, the Eastern branch of the Aryan race had advanced to a high degree of civilization and reared large cities and lofty temples which still command the admiration and wonder of the world. This fact the Hon'ble Mr. Krishnaswamy Iyer places in the forefront of his address by his allusion to the Convocation Address of Bishop Caldwell where that distinguished orientalist inculcates the necessity of Indian graduates for "the earnest and fruitful study of the history, literature and archaeology of the land." Nothing produces more stimulating effect, nothing conduces more towards the advance of

material prosperity of a people than their consciousness of the great and glorious achievement of their forefathers and this, ought indeed find a foremost place in any exhortation which is calculated to lead to the rejuvenation of the dormant forces of the land. The greatness of a nation as remarked by the late Sir Henry Maine depends upon the good faith it practises towards its neighbours; and if there is one thing which ought to be pressed on the minds of the young graduates eager to enter life, it is the moral rectitude and truthfulness which should stamp all their dealings in life that would lead them to any success, and there could be no more striking, forcible, or vivid appeal to this important trait in the character than a reference to the national hero of truth, self-sacrifice and denial of worldly greatness, the famous Harischandra whose name is vividly imprinted in the imagination of every Hindu from Cape Comorin to Nepaul. The happy allusion to him deserves to be stated in the words of the Hon'ble speaker himself. "The tragedy of Harischandra's life," says the Hon'ble Mr. Krishnaswamy Iyer, "which has indelibly impressed on the hearts of Indians the Vedic formula that there is no religion higher than truth (सत्यं नास्ति परा धर्मः) was enacted there." Could any impartial critic deny the educative and elevating effect of the moral as taught in the above life of the glorious Chandra. Nor does the Address lose sight of the important fact that India, now more than at any time stands in sore need of industrial and technical development of its resources and the appeal to the wealthy and well-to-do to divert their philanthropic donations to the advancement of those efforts which will tend to exploit the natural resources

of the land will, we trust, be not made in vain. In short, India's foremost place as the pioneer of world's civilisation, and its early perfection of the dramatic and epic poetry which finds expression in the most felicitous and beautiful language that has attracted the wonder and amazement of such European scholars as Max Müller and Goldstucker, and has drawn a band of workers of European fame whose labours have fructified in the immortal series of the "Sacred Books of the East," do indeed require to be told to our young men on whom are our hopes and aspirations to revive everything that is best, noblest, holy and everlasting in the literature of the past. In short, the impassioned eloquence which the address breathes, the lofty ideal which it presents, the happy and the graceful diction in which it is clothed, the depth of erudition it displays, the apt and well-chosen citations of Sanskrit lore with which it abounds, the instructive and ennobling references to the doings of saintly kings and sages, last but not least, the musical cadence of its periods, all these remind the reader of late Lord Tennyson's estimate of John Milton that "his soul was a star and dwelt apart." May all those that have heard the soul-stirring words of the Hon'ble Mr. Krishnaswamy Iyer try to contribute their mite towards the evolution of the destinies of this great and glorious land and thus approximate more and more towards the fulfilment of the purposes of God.

S. VENKATACHARI.

UNIVERSITIES AND SECONDARY SCHOOLS IN FRANCE.

The Twenty-fourth volume of the Special Report on Educational Subjects, periodically issued by the Board of Education, consists of a series of exceedingly interesting and instructive papers on the conditions, characteristics, and tendencies of Secondary and University Education in France. The two subjects of Secondary and University education are necessarily treated together because in France the whole system of public education, primary, secondary and superior, is now organically articulated together, the whole of France being divided, for the purpose of public instruction, into Academies, and the centre of each Academy being the local University. Of these Universities there are fifteen—those of Paris, Aix-Marseilles, Besancon, Bordeaux, Caen, Clermont, Dijon, Grenoble, Lille, Lyons, Montpellier, Nancy, Poitiers, Rennes, and Toulouse. There is also a still closer relation than this between the schools and the Universities. Not only are the schools the sole avenue of access to the Universities for students—since no one is admitted to the Universities without the *baccalaureat* which is obtainable only at the schools—but nearly all the teachers at the schools aspire to become ultimately teachers of various grades at the Universities. There is the organic relation between schools and Universities established and maintained: and for this reason the two must be studied together, although we propose to confine ourselves mainly in this article to the consideration of secondary education.

SUBJECTS TREATED IN THE VOLUME.

In this we are merely following the example of the writers in the volume itself, nearly all of whom deal mainly with secondary education under various aspects. There are eight separate papers in all. The first, which is the work of Mr. P. J. Hartog, consists of 'Translations of the Curricula of French Secondary Schools,' and this is followed by a very instructive commentary, also by Mr. Hartog, on 'The Aim of the New Curricula of French Secondary Schools for Boys.' Next comes a masterly paper—the longest and most impressive in the volume—entitled 'A Comparison between French and English Secondary Schools,' by Mr. Cloudesley Brereton. Mr. Brereton is a *Licencie es Lettres* and an *Officier de l'Instruction Publique*, and has also 'had the exceptional privilege'..... of passing more than a year in a well-known *lycee*, first as an *eleve de rhétorique*, and afterwards *de philosophie*, at the mature age of thirty-two. He has turned this very exceptional privilege to excellent account, and his paper is entitled to the attentive consideration of all who concern themselves with secondary education in this country; but it suffers some slight disadvantage from the fact that it was originally written in 1903, when the system it describes had only lately been inaugurated, though it has been carefully and thoroughly revised by means of notes taken in 1909.

Next comes a 'Report on an Inquiry into the Method of Teaching the Mother-Tongue in France,' by Mr. Hope from which, as well as from Mr. Brereton's remarks on the same subject, we have certainly a great deal to learn in this country. This is followed by a paper from the pen of Mr. James Oliphant on 'The Secondary Education of Girls in France,' and by 'Notes on the Teaching of Mathematics in the French Lycees for Girls,' by Miss A. E. Metcalfe. These two papers, especially the former, would well repay detailed consideration. Lastly, we have an admirable survey in French of the whole scope and purpose of 'L'Enseignement Supérieur en France,' by M. Louis Cazamian, of the University of Paris, followed by an appreciation from the pen of Dr. E. R. Edwards of the present functions and *status* of that famous and characteristic French institution 'L'Ecole Normale Supérieure.'

ORGANIZATION OF THE SCHOOLS.

We extract from Mr. Brereton's paper an account of the different kinds of secondary schools in France:—

The secondary schools of France are divided into two categories, the *écoles d'état* and the *écoles libres*. The State schools are divided into *lycée* and *collèges*—the former, which only exists in the large towns, are entirely at the charge of the State, the *collèges* are supported in part by the town, but the position of the teacher as a State servant is the same in both types of schools with the exception of one or two schools in Paris. All *lycees* and *collèges* take day-boys, many also have a boarding-house attached. The *lycees* and to a great extent the *collèges* are managed direct from the Ministry, which inspects all State schools through its *inspecteurs généraux* or through its representatives on the spot (*recteurs* or *inspecteurs d'académie*). It settles everything from the appointment of teachers to the fixing of fees in the day and boarding departments, except that in the case of the *collège*, the towns in which they are situated have also a voice in the matter. The *collèges* are in fact divided into two categories, those *en régie*, in which the State and the locality are severally responsible in certain agreed proportions for the financial conditions of the day and boarding departments. About 14 per cent. of the *collèges* are under this *regime*, the rest, some 200 odd, are *à la charge du principal*: that is to say, the State and town are responsible as heretofore for the finances of the day department. They also decide the *maximum fee* that may be charged in the boarding department, which is handed over to the *principal* of the school to be conducted at his own risk, the town being ultimately responsible for any deficit that may occur. In general there is a separate agreement between the town and the *principal*, which deals specifically with these matters. Except for these financial arrangements the locality has but little part in the management of the school.

The greater number of *établissements libres* are schools which were formerly conducted by religious

orders, but have been transferred to private owners or to companies, as a result of the Law on the associations. The others consist of 'free schools' like the *école alsacienne*, or of ordinary private schools, including those which have been recently founded on more or less English lines. In all these schools the right of the State is restricted to a sanitary inspection of the buildings and to an inspection of the text-books and note-books of the pupils. The object of this last-named safeguard is to prevent anything being taught which is *contra bonos mores* or against the Government. The inspectors have no right to be present at any of the lessons. The schools must possess the degree of *bachelier*, but no professional qualifications are required for the rest of the staff. Compliance with similar conditions is *a sine qua non* for opening a private school, in fraction in their maintenance may entail the compulsory closing of the school either for a time or definitely. Every French parent knows that to whatever school he sends his son, that establishment possesses the Government guarantee that the sanitary conditions comply with a certain definite *minimum*, and that the head teacher is at least a qualified person. This regard for quality and standard is carried to such a pitch that no free school can call itself a *lycée*.

In 1906 there were 98,963 pupils in the State schools—the numbers have since somewhat declined—as against 35,049 in the *enseignement libre séculier*, and 20,850 in the *quondam* religious schools, which have lost greatly in numbers of late years. It will be seen at once that the contrast between the English and French school systems is very strongly marked, and it is further accentuated not merely by the diverse history of the two systems and the difference of national genius, but by the difference now to be noted between the organization and curricula of the two. At the head of the French school organization is the *proviseur* if the school is a *lycée*, or the *directeur* or *principal* if it is a *collège*. But the *proviseur*, to take the more common title, is by no means a headmaster in the English sense. He has two official assistants, one the *censeur*, who looks after the discipline, and is responsible for arranging the hours in the time-table, and the other the *économiste*, who acts as bursar or steward. His pay does not exceed, including free quarters and allowances, £500 a year. As for his functions, responsibilities, we may quote Mr. Brereton again:—

'He has no pecuniary interest by way of a capitation fee or otherwise in the financial success of the establishment if it be a day school, and he can make nothing out of the licensed victualling if it be a boarding school, unless it be a *collège au compte du principal*. At the time of Matthew Arnold's visit to France in 1859 the position of *proviseur* was looked on as one of the prizes of the profession. Since then the position has apparently lost many of its advantages. Its present unsatisfactory state was brought out in a startling way by the Parliamentary Commission of Inquiry into the condition of Secondary Education, of which

M. Ribot was chairman. In the volume in which he summed up the general conclusions of the Commission he writes:—"Every effort has been made to deprive the *proviseurs* of what freedom of action was left to them." A *proviseur* whom he quotes says:—"A mournful uniformity reigns in our schools." There is no solidarity between the different officials. Each one shuts himself up in his special compartment in his restricted sphere of duty. The *proviseur* entrenches himself too much within his administrative functions. His freedom of action is extremely limited. He cannot decide on a piece of scientific apparatus. He cannot give the smallest tip to a school servant out of the money at his disposal. The boarding fees, the tuition fees are fixed without his being even consulted. He has been deprived of the right he once possessed of reducing the fees under certain conditions. The programmes in all their details are settled for him by the consultative council (*Conseil Supérieur de l'Instruction Publique*). The number of his masters is fixed without his having a voice in the matter. If he wishes to form classes in any particular subject he has neither the right nor the means to do so.'

The *proviseur*, moreover, has no voice in the appointment of his staff, and he is himself transferred from post to post far too frequently. The average stay of a *proviseur* in a *lycée* is three years—in a *collège* or other free school the stay of the *directeur* is much longer—and at the *lycées* of Nantes there were 25 *proviseurs* in 24 years. In fact the *proviseur* is, as M. Ribot said in his report, 'the head of an administration much more than the director of a house of education.' It is only with difficulty that he learns to know his staff by sight, nor can he even attempt to know the bulk of his pupils. On the other hand, the *proviseur* of a large *lycée* has been known to receive no fewer than 30,000 visits from parents and other persons having business to transact with him in a single year. As the result of the report of M. Ribot's Commission, however, the French Ministry of Education has of late years created in certain University regions the so-called *lycées autonomes*, in which the *proviseur* has a much freer hand and the whole organization is of a more elastic type. Of Lakanal, one of these *lycées autonomes* established just outside Paris, Mr. Brereton gives a very interesting and encouraging account.

THE TEACHERS.

The staff in a French State School is divided into *professeurs*, who teach, and *maîtres répétiteurs*, who look after the boys in preparation and out of school. The line of separation between the two classes of masters appears to be much too deeply marked and to cause many anomalies and much dissatisfaction. There is, however, now a tendency towards a more liberal policy of fusion, and 'the true remedy,' says Mr. Brereton, 'clearly lies in uniting the dual functions of discipline and teaching.' In a note added in 1909 Mr. Brereton points out that the

gap between the two grades is now considerably less than it formerly was, and 'it would appear to be merely a matter of time as to when the *répétiteurs* will one and all receive the title and functions of *professeurs adjoints*.' This, however, will scarcely suffice by itself to solve the problem of the fusion of teaching with discipline, and this is a point at which the contrast between French and English schools is still very strongly marked.

The standard of attainment in the *professorat* is now a very high one. Except in the purely preparatory classes the candidate for a post in a State school must be at least a *licencié*, that is, he must not only have passed the *baccalauréat* or entrance examination for the University, but must also have obtained the *licence* which roughly corresponds to a degree in honours at Oxford or Cambridge, or to the London M.A. If the candidate aspires to become a professor, he must also have passed a very severe competitive examination called the *agrégation* in some special 'School,' such as Philosophy, Letters, Mathematics, or the like. Success in this examination definitely entitles the teacher to permanent Government employment. He has also to undergo a certain amount of training, the nature and amount of which has varied in recent years, in the art of teaching. Recent changes in the *École Normale* such as are described in the paper of Dr. Edward have in some measure been directed to this end, though the *École* is still rather a school of advanced study than a veritable pedagogical institution. Further, if the secondary school teacher aspires in the end to become a full University professor, he will submit to a purely voluntary examination called the *doctorat*, the title being awarded mainly on the merits of a thesis involving original research. This is not essential to the school professor as such, but as all the ablest of the school professors aspire to get employment at the University it follows that the *doctorat* has a very marked influence in maintaining the high standard of attainment among the school professors. The standard of the *répétiteurs* is similarly affected in so far as these masters aspire and are encouraged to aspire to become *professeurs* in their turn. They are appointed in the same fashion as the professors. They must be at least *bacheliers*. More than one-third are *licenciés*. They have fixity of tenure and the right to a pension after 30 years' service. They are charged with the duty of maintaining order at 'preparation,' at meals, in the playground, and in the dormitory, but they take no other part in the teaching.

Of the status and pay of the professors Mr. Brereton gives the following account:—

'The average teacher is appointed about the age of 25. He becomes there and then a State servant with the ordinary fixity of tenure, with a right to a pension after 30 years of work or 60 years of age. He can at his own request be continued on until 65. He is appointed by the Minister. Promotions are made in the proportions of one on the grounds of seniority and two at choice. As we have seen, the

headmaster has no voice in his appointment. The latter has but little more in the matter of dismissal. In the case of disagreement between *proviseur* and *professeur*, an *inspecteur-général* makes an inquiry into the rights and wrongs of the case and distributes his criticism accordingly. If the relations between the two are very strained, the *professeur* is removed to another school.'

The following is the scale of pay in the *lycées* and *collèges*:—

LYCÉES (SEINE AND VERSAILLES).

Professors in the preparatory classes—initial	£120, rising to £200
Professors in the other classes—initial	£200, rising to £300
Professors <i>Charges de cours</i>	£180, rising to £240

LYCÉES DE PROVINCE.

Professors in the preparatory classes—initial	£100, rising to £200
Professors in the other classes—initial	£125, rising to £218
Professors <i>Charges de cours</i> (all classes)—initial	£92, rising to £192

THE COLLEGES.

Class I. (<i>licence</i> or <i>certificat d'aptitude</i>)—initial	£100, rising to £136
Class II. (<i>bachelier</i>)—initial	£76, rising to £103
Class III. (<i>brevet</i>)	£64, rising to £83

The *répétiteurs* are paid at practically the same rate as the *professeurs* subject to certain deduction. The teaching hours of the *professeurs* are comparatively short. In the *lycées* in Paris they vary from twelve to fifteen hours per week and in the provinces from twelve to sixteen. In the preparatory classes the hours are nineteen and twenty a week. In the *collèges* the hours vary from eighteen to twenty and twenty-five for the preparatory classes. Extra pay is given for overtime. There is, moreover, a great deal of out of class work in the form of preparation and of correction of exercise. Great importance is attached in France to the limitation of the hours of teaching. The following is an extract from a circular of the Minister of Public Instruction issued when the new curricula were introduced:—

'Headmasters are to be economical of the time of their staff. The masters require a large amount of spare time, not only for mental and bodily rest, not only for the preparation of their lessons, but also for the more independent work by which they maintain and renew their intellectual capital (*leur fonds*). The pupils profit by this no less than the masters, and it may be asserted that University teaching derives its highest value from the fact that the independent work of the teachers continually gives it new and fresh life, and saves it from lapsing into routine. Hence every possible facility in the arrangement of their time-table, and every economy of time consistent with the interests of the work should be assured to the teaching staff.'

THE NEW CURRICULA.

In 1902, after much previous discussion extending over several years, a revised and reformed plan of studies was introduced into the State schools of France. Its character as compared with that which it superseded is described as follows by Mr. Hartog in the second paper of the volume:—

'Until 1902 French public secondary schools, including the *lycees* (financed and administered wholly by the State) and the *colleges* (financed and administered partly by municipalities, partly by the State), gave education of two distinct types, known as *l'enseignement secondaire classique*, including Latin and Greek, and *l'enseignement secondaire moderne*, including neither. These two types of education were given concurrently in certain *lycees* and *colleges* and also in separate institutions. In the secondary schools not under State control those types of education, though not enforced, were also followed very largely.'

'Excluding the preparatory classes (*dixieme*, *neuvieme*, *huitieme*, and *septieme*) the *enseignement classique* comprised seven classes for boys of from eleven to eighteen (*sixieme* to *seconde*, *rhétorique*, and *philosophie*); the *enseignement moderne* comprised six classes for boys of from eleven to seventeen, with two divisions in the highest class (*sixieme* to *seconde*, followed by *premiere-lettres* and *premiere-sciences*).

'By the new programmes the nominal distinction between the *enseignement classique* and *enseignement moderne* is abolished, and the variety of curriculum required for different types is obtained by establishing different types, within the same general study-plan.

'In order to provide both for boys leaving school at fifteen or sixteen and for those leaving school at eighteen or nineteen, the whole course of secondary studies is divided into two Cycles: a First Cycle of four years (*sixieme* to *troisieme* inclusive), at the end of which a Junior School Certificate (*Certificat d'études secondaires du premier degré*) may be obtained by deserving pupils, and a Second Cycle of three years (*seconde*, *premiere*, followed by either *philosophie* or *mathématiques*).

'In the first Cycle there are two Divisions, Division A including Latin, with Greek, as an optional subject from the *quatrième* (age, 14) onwards, and Division B without Latin.

'In the Second Cycle there are four sections for the *classe de seconde* and *classe de premiere*:—

A.—Latin-Greek (*Latin-Grec*).

B.—Latin-Modern-Languages (*Latin-Langues vivantes*).

C.—Latin-Science (*Latin-Sciences*).

D.—Science-Modern-Languages (*Sciences-Langues vivantes*).

The effect of the new study-plan is that both Latin and Greek are made optional from the outset of the school education, and further, that a boy

who has studied either Latin or Greek or both up to the age of fifteen may abandon either or both at that age, if he desires to do so. But the alternatives provided are not so designed as to make the attainment of the *baccalauréat* easier for those who abandon the classics, and the whole purpose of the new scheme is defined as follows in the official instructions issued in connexion with it:—

'The masters are reminded that the essential aim of their work is not only to teach their own subject, but above all to develop their pupils, so as to make them thoughtful, straightforward, and sincere, to bring them into sympathy with, and to make them understand, the life of their time and country.'

As the result of inquiries made in Paris and of discussions held with competent persons in 1909, Mr. Hartog has come to the conclusion that 'in regard to some points the success of the new programmes is indisputable and undisputed,' but that, 'in regard to others the controversy which raged when they were in course of preparation still continues.' These several points he enumerates and comments on as follows:—

(i) The substitution of the classes of one hour for classes of two hours has led to continued protests but the new system has been maintained.

(ii) The valuable report by Monsieur Liard on the teaching of Greek contained in Appendix IV shows that owing to the fact that it is no longer necessary to study Greek in order to enter one of the liberal professions the number of boys studying Greek fell in 1908 to 18½ per cent. of the number who studied it in 1901. But of those, say, 50 per cent. are good, 25 per cent. very fair (*très passables*), and only 25 per cent. really weak. The level of Greek which previously was unsatisfactory is now satisfactory. The only change desired in this respect is that some latitude should be provided for boys to study both science and Greek, a combination impossible at present.

(iii) A significant feature in the statistics is the popularity of Latin, which is no more compulsory than Greek. In the secondary schools in Paris the number of boys studying Latin has increased from 4,121 in 1902-3 to 4,442 in 1908-9.

(iv) The introduction of the direct method in teaching modern languages has been wholly successful in its immediate object.

(v) The introduction of practical teaching in Science has been successful.

(vi) The changes in mathematics still leave the non-mathematical pupils somewhat behindhand and certain minor changes have recently been introduced.

(vii) In regard to the teaching of French there is acute difference of opinion, which has found expression in the pages of the *Enseignement secondaire*, the *Revue universitaire*, and the daily Press, chiefly under the heading *la crise du français*. There seems to be a consensus of opinion

MADRAS STUDENTS' ADVISORY COMMITTEE.

OXFORD AND CAMBRIDGE.

Circular No. XII.

The attention of Indian students who think of going to Oxford or Cambridge is drawn to the following:—

(1) The Secretary of the Advisory Committee should be consulted at the earliest opportunity, and a personal interview arranged.

(2) No Indian should dream of joining a College at either of these Universities unless he can command an income of at least £250 a year. He will more probably find it necessary to spend £300 a year or even more. As a non-Collegiate student he may manage on less, but he will then probably miss the peculiar advantages that these Universities offer, and if he cannot afford to join a College, it would be well for him to consider whether he would not profit more in every way by going to one of the more modern Universities.

(3) The Colleges are sensitive corporate bodies with long and honourable traditions, and expect of those who have the privilege of joining them something of the same spirit of devotion that was rendered of old by the Hindu to his Guru. In particular the student's heart should be wholly set upon academical distinction, and in no way distracted by examinations outside the University curriculum. The utilitarian attitude that treats the College as a mere convenience destroys the value of Collegiate training and is rightly resented and discouraged.

(4) One of the main and essential features of the Collegiate idea is based upon the corporate life which the members of a College enjoy. In the playing fields, in debating and literary societies, in hall and chapel and common-room, in the circle of intimate friends, as much as in the class and lecture-room, is drunk in the spirit which marks the alumni of a particular society. Indians go as strangers into this corporate life. They need not leave it as such. If, but only if, they are prepared and anxious to enter largely into the social life of the College and University, can they gather from a University career a harvest commensurable with their outlay.

(5) Admission to a College is a privilege which it is by no means easy even for English parents to obtain for their sons. Applications are frequently made three, four or even more years in

that the level attained in French by the pupils has sensibly declined during recent years. As was pointed out above, the masters of the *classe de rhétorique* disliked the reform of 1902, and they regard the *crise du français* as its direct consequence. Their leading spokesman is Monsieur, Henri Bernes. The defenders of the reform, whose chief protagonist is Monsieur Lanson, take up the attitude that the decline in French style is due to social changes which have nothing to do with the changes in time-table, and that it must be dealt with by a reform in method, a reform which they deem desirable *per se*.

Ample information concerning these and many other points and illuminating comments on them will be found in the several papers which make up the volume. More especially we would refer to Mr. Hope's paper on 'The Teaching of the Mother-Tongue,' to M. Liard's report on the Teaching of Greek under the new system; to M. Cazamian's survey of the whole subject; and to the account given by Mr. Brereton of certain 'New Experiments in Secondary Education,' undertaken by the late Père Didon, by the late M. Demoline, author of the well known book, 'A quoi tient la supériorité des Anglo-Saxons?' and by M. Duhamel.

CONCLUSION.

Such is a brief outline of the system of secondary education now established in France. As the conclusion of the whole matter, we would cite the following appreciation from the anonymous but official Prefatory Note to the volume:—

'The Universities have remained State institutions, performing definite duties for the State and in the name of the State, but at the same time they are bodies engaged in scientific work and here they are independent, subject only to the needs of the country they seek to serve. The newer conceptions of democracy which have arisen since the Third Republic was established have thrown new duties on the Universities—duties which they have gladly accepted. In France, where the feeling of personality is so strong, and the desire for self-expression so insistent, it has been found possible to reconcile the claims of individuality with self-forgetful service in the cause of science. It is now hardly possible to doubt that France has found in its new Universities those centres of intellectual elevation and sources of moral inspiration without which any democracy must fail, and which have helped to secure for their country the most stable Government she has known since the Revolution of 1789.'

advance; and every year a number of applicants have to be refused.

In view of the above considerations, Indian students who wish to join a College at Oxford or Cambridge are advised as follows:—

- (1) They should make their applications through the Secretary of the Advisory Committee at the very earliest opportunity.
- (2) Testimonials to their character and ability should be submitted at the same time as they apply.
- (3) They should request the educational adviser in London to kindly undertake their guardianship while in England, as Colleges generally insist upon this requirement.
- (4) They should go to England at least six months before the October term in which they desire to join.
- (5) They should spend these six months with a respectable English family so as to learn the conventions and usages of English Society.
- (6) They should expect to undergo a personal interview with the College authorities before admission is promised.
- (7) They should be prepared for disappointment, and should have an alternative course mapped out in case, as is very possible, their applications cannot be accepted.
- (8) If they obtain the admission they apply for and subsequently find they cannot after all join, they should give the earliest possible notice to the College of their change of plan.

ARTHUR DAVIES,
Secretary.

OPINION OF THE COUNCIL OF NATIVE
EDUCATION SUBMITTED TO THE
MADRAS GOVERNMENT re THE HON.
MR. GOKHALE'S ELEMENTARY
EDUCATION BILL.

I am directed by the Council of Native Education to submit the following observations on the Elementary Education Bill referred to them for opinion under G. O. No. 108, dated 1st April 1911.

2. The Council greatly regret the inability to forward their opinion within the time allowed by the Government as most of the members had gone up country during the recess of the Courts, Colleges and Schools.

3. The Council are of opinion that the Bill of the Hon'ble Mr. Gokhale has been conceived on correct lines though they venture to think that some of the provisions are not altogether adequate to meet the necessities of the case, so far, at any rate, as this Presidency is concerned.

4. The provisions of the Bill are based largely on the Irish Education Act of 1872 and 1876. The Council of Native Education at Madras which was established in 1900 have been endeavouring during the last seven years, following the general principles of the English Act of 1872, to create public opinion in this Presidency for the establishment of School Boards in Villages or groups of villages for the spread of education. In these circumstances, the Council, while approving of the formation of the School attendance Committees for working the provision of the Bill, are of opinion that the formation of School Boards having control over particular villages or groups of villages, one of whose functions will be to work the provisions of the Bill, is desirable so as to better provide for the satisfactory spread of education in rural areas. This will have the merit of getting local gentlemen interested in education to take a legitimate interest in School work and thus promote the cause of the spread of education.

5. In the Council's view the imposition of an educational cess is called for with the limitations provided for in the Bill, namely, that only a certain portion of the total cost shall have to be met by the local bodies concerned where the general revenue of the local body is not enough to defray the additional cost entailed and the Council are of opinion that the imposition of an educational cess in the circumstances contemplated by the Bill will not be felt as a hardship by the people concerned as the people have the assurance that the cess thus collected is to be devoted entirely to elementary education in the local area.

6. The Council are of opinion that the principle of compulsion is necessary to be enforced where the people have already become familiar with the value of education and if, as the Council are distinctly of opinion, education should become universal, it is necessary that the education should be made compulsory in at least some portions of the country. The Council therefore believe that it is not a day too soon that efforts should be made for legislation in this direction.

7. The Council, however, think that the Bill proceeds on far too cautious lines (a) when the education is made compulsory for boys only from

EDUCATION IN THE MAGAZINES.

Pupils entering High School Classes.

Mr. James Mickleborough Greenwood, Superintendent of Schools, Kansas City, Missouri, puts this question in the October number of *Atlantic Educational Journal*. How can the beginner in High School, fitting from teacher to teacher each day, be made to feel more at ease in his studies and general surroundings? The change from the atmosphere of the Elementary Schools makes it desirable that instructors should be thoroughly acquainted with the pupil's previous development. The following lines from the pen of Mr. Greenwood will greatly interest the teachers in our Secondary Schools: "I am thoroughly convinced that all the High School teachers of first-year pupils should be entirely familiar with all the text-books the pupils in the Elementary Schools have ever studied in Arithmetic, Geography, History and English Grammar in order to make the proper connections between the lower studies and the higher studies less difficult. Frequently I have observed that pupils beginning Elementary Algebra or English were at a great loss to understand what they encountered in the new texts or those terms used by the teachers, because there was no bridge for them to pass over from the old nomenclature to the new. To illustrate, the pupils in the Elementary Schools know well enough what the parenthesis is in Arithmetic, but when they encounter the brace or vinculum in Algebra they do not see at first, unless an explanation is made, that an old acquaintance with a new name is used, or that a coefficient is only a concrete name for a certain number of things that can be counted or measured." The same line of reasoning applies with stronger force to the terms used in all other subjects taught. "In my judgment it is foolishness to swing a class of pupils away out somewhere into space, clear off on to a patch of some size, and on it begin to erect some sort of an educational structure. Herbert Spencer is entitled to great credit for one thing he emphasized, namely, the relativity of knowledge. Hence all progress must begin where the learner is, and he is to start there with what he knows, and work out from this as a central point, thus forming his connections so that he can go out and always return by a direct route to his base of operations." "The High School teacher should know all the subjects the pupil has ever studied, or at least the main outlines of each subject, so that he may be able to help the pupil always see a general truth in the light of other truths. True teaching should have breadth of view as well as intensity and narrowness."

six to ten years of age, (b) where exemption from payment of fees is provided by statute only for the children of parents whose income does not exceed ten rupees. In the Council's view a pupil may be compelled to stop in school until he is of 11 years of age without any hardship to his parents and that 20 rupees may be the maximum income of the parent, which will procure exemption from payment of fees.

8. The Council agree that it is expedient that the provisions of the Bill should in the first instance apply to boys though it is desirable that certain specific directions may be given to bodies like the Municipalities as to the circumstances in which compulsory provision might be extended to girls as well.

9. Section 19 of the Bill does not clearly indicate on what lines the education of the country should be shaped. In all these matters it is wise to have some ideals. The Council would wish that the Government place before each local body the German ideal in the shaping of the education of the children of the country. "A boy born under certain conditions, it is only reasonable to suppose, will live and die under somewhat similar conditions in after life. This being so, the educational system should be so designed that it would make him as happy, prosperous, and valuable as possible in his particular walk of life. The education must be planned to make each student the most efficient economic unit, so that whatever walks of life he is destined to follow, he shall contribute his utmost to the strength, riches, the power and the fame of his fatherland." It is not a matter of detail and the Council would welcome different types of schools to suit different localities and different classes of people. The Council would welcome a syllabus to be definitely laid down so as to include Elementary Agriculture, Elementary Sanitation, and lessons in Morals.

10. The Council are of opinion that village schools should be secular and that religious education in them should be looked after by voluntary agencies. Such instruction should be given in the school building out of school hours by teachers selected by parents and approved by proper authorities. Religious teachers should be paid honoraria out of the educational cess.

Moving pictures as an important factor in Education.

It is a known fact that much of the history of many nations is found in the illustrative as well as in the written records. In looking back at the early beginnings of education, one can but be strongly impressed with the mighty part the picture has played in the progress that education has made in the history of the world. The cinematograph with its compelling reality, its unlimited sources from which to draw subject-matter, and the remarkable progress which its manufacture has made in overcoming the defects in its mechanism, represents to-day the most highly evolved instruction-giving instrument the world has ever produced: when exhibited under the direct supervision of a recognized able educator, it is difficult to prophesy the vast amount of actual good that can be accomplished. We would direct our readers to the valuable contribution of Mr. Pierce J. Fleming, A. M., on "moving picture and its usefulness as a factor in education" in the September number of *The Pedagogical Seminary*, from which we extract the following:—"Prof. Frederick K. Starr, Chicago University, expresses his appreciation of the educational advantages to be derived from the moving picture in this passage. I have watched a Queensland river under the white light of an Australian moon go whirling and swirling through strange islands, lurking with bandicoot and kangaroo; I have watched an English railroad train draw into a station, take on its passengers and then chug away with its stubby little engine through the Yorkshire dells, past old Norman abbeyes, silhouetted against the sky line, while a cluster of century-aged cottages loomed up in the valley below, through which a yokel drove his flock of Southdowns; I have beheld fat old Rajahs with the price of a thousand lives bejewelled in their monster turbans and the price of a thousand deaths sewn in their royal night-shirts as they indolently swayed in golden howdahs, borne upon the back of grunting elephants; I know how the Chinaman lives, and I have been through the homes of the Japanese. No books have taught me all these wonderful things; no lecturer has pictured them; I simply dropped into a moving picture theatre at various moments of leisure and, at the total cost for all the visits of perhaps two performances of a musical show, I have learned more than a traveller could see at the cost of thousands of dollars and years of journey. Neither you nor I fully realize what the moving picture has meant to us, and its value cannot be measured."

"The Bengalee" on Sectarian Universities.

It is interesting to read how *The Bengalee* views the principles underlying the schemes and the causes which have been at work in maturing the schemes of Hindu and Mahomedan Universities and bringing them within the range of practical politics. "They must be very powerful reasons, or they would not have converted a Government committed to absolute religious neutrality into an active supporter of Universities which will make the imparting of religious instruction one of the main planks in their platform; or politicians of the Congress School, some of whom have devoted the best part of their lives to the effacement of all distinctions in secular matters between one community and another, into ardent advocates of institutions the distinctive feature of which would be the recognition of racial and religious distinction. Are both the Government and Congressmen, then, convinced that their past ideals are visionary and impracticable? No. On the other hand both, while lending their powerful support to the new movement, still profess their old faith. May it then be that the new is only a development of the old? So far, as the popular side of the question, at any rate, is concerned, only a moment's reflection will show that this is so. When the idea of nationality first dawned upon Indian minds, it appealed to them mainly in the political aspect and that, to acquire common political rights and to secure a recognition of their common political status. But as time rolled on, men began to feel that the old idea of nationality was an imperfect idea at its best and that the aspiration after national life could not be satisfied merely by a certain common attitude towards the Government, or the concession by the Government of certain common rights to the people. It is this feeling which is at the bottom of the movement to establish the Hindu and Mahomedan Universities. The new national life, it now became clear, must be adjusted to such life as the people had so long lived and as they must largely continue to live. We cannot efface our past if we would; we would not efface it if we could. If our future is to be built upon a solid foundation, it must be based upon the life we have lived in the past. The nation in India must, indeed, be a composite nationality, not ignoring, nor vainly seeking to efface, the past of the several highly developed races and religions, but seeking to fulfil them in a higher life. The Hindu and Mahomedan Universities are not so organised as to hinder the growth of a common nationality. There is nothing to show that our Universities have any such narrow, suicidal end in view."

"The Pioneer" on communal Universities.

The promoters of the schemes of the Hindu and the Mahomedan Universities claim that they will provide something which does not at present exist in India, namely a Residential and Teaching University. *The Pioneer* criticises this ambition of the promoters of both the schemes and says: "The truth is, deceive themselves how they may, the promoters of communal Universities are not, in so far as teaching and residence are concerned, about to establish anything very different from what we already possess in India. 'Things are what they are,' said Bishop Butler, 'and the consequences of them will be what they will be; why then should we desire to be deceived?' The idea of establishing in India a University with its colleges clustered round it on the model of Oxford or Cambridge is one which has proved attractive to most educationists, but the difficulties in the way of its realization have on examination always proved insuperable; and indeed the claim, made on behalf of these new Universities, will not bear examination, for those responsible for launching them, have found it necessary to include in their draft schemes provision for affiliating colleges at a distance. Since the communal Universities will not restrict their operations within the confines of their University towns—or even within the provinces in which they are situated—will they be able to go further than existing Universities in checking and guiding their affiliated institutions, indeed will they be able to go even so far in respect of those institutions which are in distant provinces? If either of the new Universities were likely to do for India what, for instance, the Tokio University is doing for Japan, no one surely would grudge them any success which they gained at the expense of provincial Universities; but unfortunately, the promoters do not propose to confine their Universities to higher studies and thus give to professors and advanced students leisure and opportunities for learning and teaching 'the best that is known and thought in the world' and for advancing the confines of knowledge still further into the unknown. They propose on the contrary to compete with existing Universities in the training of under-graduates and to gather as many as possible into a common centre. Such a scheme, if realized, would swamp the Universities with low-grade work and make teaching and research well nigh impossible. The experience gained in more than one American University should be a warning against making any such attempt."

Kipling as Historian.

Mr. Kipling has lately lent his hand to the preparation of a history of England for children. He shares responsibility with Mr. O. R. L. Fletcher and his is likely the minor part since his name stands second of the authors. For all that his reputation has attracted to the volume an unwonted attention, some of it of a nature that cannot be called entirely flattering to Mr. Kipling. In the *Manchester Guardian* Mr. John Maxfield, the well-known dramatist, declares that "as a work of history it is nearly as worthless as a book can be; as a work designed to influence the minds of children it is the most pernicious we have seen." For these reasons: "It is little more than a glorification of bloody and violent deeds, and an exhortation towards conscription, a strong navy, an army that 'could bite by land,' tariff reform, the suppression of liberal ideas, the dislike and distrust of foreigners; in fact, the general programme of cowardice and bloodiness which delighted the national heart twelve years ago." Mr. Maxfield says: "The authors seem to become aware, from time to time, that they are talking nonsense. Whenever this happens they sit upon the fence." Thus: 'A monster of cruelty and selfishness? Yes Henry was just that... He was a great patriot, a great Englishman.' The language used is the hysterical picturesque. An army does not 'defeat' but 'smashes' its opponents: A British warship could not have 'sunk' certain boats, but 'pounded them into a red rice-pudding in a few minutes.' Our Stuart Sailors 'were itching to cut Spanish and Popish throats far away in America and Portuguese throats far away in India, but the fleet was kept hanging about in the channel while the flag was insulted... So at last men were unwilling to serve in such a navy, and had to be 'imprest,' that is, compelled to serve.' 'Charles was a martyr... a martyr for our beautiful and dear Prayer-book.' Cromwell... strove to make people righteous and God-fearing... All that, however, was a dismal failure; it only disgusted all moderate people with the whole Puritan creed."

"Of intellectual, inventive, thinking, and feeling England there is scarcely any mention. Our noble generations of divines, our jurists, our poets, painters, historians and the like, are ignored, presumably as 'Idealogues' by these historians with their rah, tah, tah. And on page 29 we read that England should always beware of the north-east wind: It blows her no good; from which he concludes that the valient knees are really knocking and the great hearts turning to water."

Lord Rosebury on New Universities.

On the occasion of the Commemoration of the Joyful Union of the Universities of Dundee and St. Andrews on the 15th September last, Lord Rosebury delivered a speech in the Gymnasium of the University College in the course of which he beautifully outlined the differences between old and new Universities. The following extract is timely when so many new Universities are being attempted in India:—

"I cannot imagine a union more beneficial to both parties concerned than the union between Dundee and St. Andrews. I do not think we shall ever see any more Universities founded on the lines of St. Andrews, a secluded place chosen for its seclusion, where study may be pursued uninterrupted by the grosser joys and temptations of a great city. All Universities of the future will be situated in great industrial communities where the want of Universities is keenly felt and where the funds for founding them are most likely to be discovered. I think, therefore, that we may regard the era of shrines of learning like St. Andrews as past. It is wise, then, when a University of a new kind is found at a great centre of population, that it should try and unite itself to what is becoming so scarce—an ancient University and its traditions. Here in this union, you bring to each other what the other wants—St. Andrews as a retreat for study, with its matchless traditions, its ancient buildings, its history and its renown, as a glorious centre in which a new University like this, representing its practical and industrial spirit of one of our great communities can best ally itself. I feel myself extremely fortunate in being allowed by the casual position of authority in the ancient University of St. Andrews to be brought once more to Dundee to see how well this union has prospered and how great is the development which may be hoped for from the University College of Dundee in connexion with its ancient foster-mother of St. Andrews. The Union is a blessing for both, and I regard it as an honour to come here to-day to witness the first fruits of the Union, and I do so for one reason which is egotistical. I have now served in the Rectorship of all the Universities of Scotland; I have squared the circle. This is my fourth and last Rectorship. No wise man would ever undertake another Lord Rectorship. It is especially gratifying to me for many reasons that the very last stage of my manifested Rectorial career should be spent in the city of Dundee on this occasion."

Mr. Justice Sankaran Nair on the Hindu University at Benares.

The following are extracts from Mr. Justice Sankaran Nair's letter in reply to Mrs. Besant on the subject of the Hindu University:—"I am not satisfied that there is any need for a separate Hindu or a separate Muhammadan University. The objects aimed at, in so far as they are desirable, can be attained under the present University system and by the existing Universities. A sectarian University in India is bound to widen the gulf between its own community and the other religious communities, including Christians; those who encourage this movement are therefore playing into the hands of those others who would intensify the bitter feelings that unfortunately already subsist among the religious communities of India. A Hindu University for the teaching of the Varna Asram Dharmas, etc., will tend to destroy such harmony as exists between caste and non-caste Hindus and intensify any surviving social bitterness between them. It may possibly lead to the ultimate succession of the non caste Hindus—a step already contemplated by more than one important community among them. This no doubt to some persons may be a strong recommendation in favour of the proposed University."

"Hinduism is still in that low stage of civilization marked by the belief that divine right belongs to the priestly class, the sentiments of that class itself being the absolute standard of right. It teaches obedience to the King or State only when the State adopts the views of the Sastras, i.e., of the priestly class. It enforces subordination of the King to the priest. Progress, by the common consent of civilized mankind, is identified with, and in India in particular it is dependant upon, the unqualified recognition of the supremacy of the State: upon willing obedience rendered to the State, even where it has passed laws opposed to the dictates of any religion or to the recognized and declared interests of the priestly class. On the other hand, civil allegiance must be precarious when it is avowedly at the mercy of a religion of which the members of the priestly class are alone the authorized expounders."

"A sectarian University will foster a feeling of exclusiveness and of hostility to the Western civilization; and to the British race and Government, as the representatives of that civilization. It may even create an atmosphere of dislike and ill-will and may breed sedition."

The Payment of the Assistant Teacher.

In a paper on Secondary Schools which appears in the *Parent's Review* for September, Mr. J. C. Thorpe says that one of the most urgent questions in Secondary education to-day is the payment of the Assistant-teacher. The following extract from *The Leader* may prove useful to those interested in education in our Presidency:—"While those in authority are willing to expend money lavishly on building and equipment, and are sometimes, but not always, willing to pay the Headmaster handsomely, the Assistant-masters as a rule are underpaid. If we leave out the ten greatest public schools, the average salary of all secondary teachers (and there are over ten thousand) living out is only £120 per annum; but if we include the great schools it is £135. Some years ago when Mr. Thorpe was at Lancing College, over £80,000 had already been spent on an incomplete chapel, while the masters were paid £100 a year. As science master Mr. Thorpe received £150 but he left of his own free will because he refused to have his salary reduced to the £100 which his colleagues were receiving. He also refers to a school where the Headmaster has £5,000 a year, while no man on the staff gets for his teaching more than £400, and most considerably less. Small wonder, the writer says, that so many teachers in England drop out of the profession. In the Paris *lycees* the salaries of the masters begin at £200 and rise to a maximum of £340, and when the teachers retire they have a pension. On the continent we are told, the Assistant-master has altogether a more independent position."

Student Life in other Lands.

The Magazine of the Scottish Churches College is publishing a series of papers on "Student Life in Other Lands," which should be of much interest to the Indian student. In the most recent of the series Mr. F. W. Steinthal gives from personal recollection an account of student days at the University of Copenhagen. We have a fine extract in *The Statesman*. The article would indicate that the distinguishing feature of the Danish University is that it takes for granted that the student's object is to study and also that before coming to College he has acquired the habits of study. There is no regular arts course which all must pass through; a preliminary examination in mental and moral philosophy, passed a year after Matriculation, is the only course common to all students; after that they choose the classes and lectures which best suit their purpose. A large measure of freedom is left to the student, and although the professors are always willing to give him advice regarding his course of study he is under no compulsion to follow it. But if he is to present himself for a degree he must produce certificates from the Professors that he has attended a certain number of lectures in the subjects of that degree. All the lectures are free; official tutors are unknown, but those who need it can get private coaching from graduates known as "manuductors." There are no residential colleges, and a few hostels founded by benevolent persons accommodate only a few hundreds of the 2,500 under-graduates. As a rule the cost of living in a private room or boarding house, with examination fees, books and manuductors, came to from Rs. 750 to Rs. 1,000 a year, but probably the expenses are somewhat greater now. The University is more than 500 years old, but its aim is not to preserve the traditions of the past but to be a centre of scientific research and study.

"Literature and Thirst" by Mr. Filson Young.

In the course of an article on this subject in *The Saturday Review*, Mr. Filson Young remarks that this most interesting of all the minor literary studies has not been understood by some of the greatest authors. Dickens, he quotes for example, who was a master in the literary treatment of the more homely kinds of food never really understood drink. "Pickwick" is full from cover to cover of brandy and water, hot and cold, but chiefly cold,—a most nauseous drink, and what is more to the purpose, not one of the drinks which lends itself to true literary treatment. It is only the very simplest drinks that are suitable, because it is not appetite or the palate which can be appealed to by verbal hypnotics so much as the elementary sensation of thirst. Water is easily, therefore, the chief substance for which desire can be created by the literary method. And next to water, which really stands by itself as one of the elements, the best drinks for literary purposes are milk, tea, and coffee. Milk is a delicious drink, although many people do not like it. But it could be guaranteed that it may be made to appear delicious to any one in half a page of writing. The last word on tea was not Cowper's much quoted and rather artificial "cups that cheer but not inebriate;" but Lamb's simple phrase "whole goblets of tea" which in a quite incredible way can produce in the ordinary reader in an arm-chair all the sensations of fatigue, heat, and refreshment by tea. The proper group of words for coffee is "hot coffee and rolls" which will generally produce an overwhelming desire for coffee in the minds even of people who dislike it. The point is not so much whether you like these drinks above all others, as whether, if you read about them in skilful writing, you may be brought to imagine that you greatly like and desire them.

Reviews and Notices.

TENNYSON: FIFTY POEMS: 1830—1864. EDITED BY J. H. LOBBAN. (CAMBRIDGE UNIVERSITY PRESS). 2s.

We have great pleasure in welcoming this selection of poems from Tennyson. Mr. J. H. Lobban has discharged the task of editing, with his usual thoroughness and ability. The difficulties of copyright have prevented him from including in the volume the poems of the later period of Tennyson's career. We are in agreement with Mr. Lobban's opinion that it is possible to represent Tennyson at his very best, in every department of his work, within these two dates, though we are sorry the limitation necessitates the exclusion of such exquisite pieces as *Crossing the Bar*, *Lines to Virgil*, and *Locksley Hall Sixty Years After*. We have nothing but praise for the taste and critical discrimination displayed by the editor in the choice of the poems. It is easy to point out that some of the popular favourites have been omitted,—but such a criticism is likely to follow even the most satisfactory of poetic anthologies. We might however be allowed to remark that there was no necessity for the omission of *Oluribel* with its haunting music and *Dora*—the latter at least is worthy of special attention even in a superficial study of Tennyson's poetry. As an idyll of home-life it has few equals in English Literature and readers of poetry are sure to miss it. We recognise that the line has to be drawn somewhere, even at the risk of keeping out poems we love dearly, but the editor has not grudged putting the whole of *Elaine*, devoting to it nearly a fifth of the book. In *Memoriam* might have received a more adequate treatment than what the editor has been pleased to give it within the scanty limits of about seven pages. Without desiring to be hypercritical we would disapprove of a piece which Mr. Lobban has thought fit to include—the *Welcome to Alexandra* cannot lay any pretensions to be regarded as one of Mr. Tennyson's best poems. It was an effusion somewhat necessitated by his official position, and not inspired by any strong feeling of poetic inspiration. The selection of *Lyrics* from the *Princess* is again unsatisfactory—the poem certainly deserved more than three pages and there was no excuse for the omission of that touching song, with the beginning:

Tears, idle tears, I know not what they mean,
Tears from the depth of some divine despair
Rise in the heart, and gather to the eyes,
In looking on the happy Autumn-fields,
And thinking of the days that are no more.

Fresh as the first beam glittering on a sail,
That brings our friends up from the underworld,
Sad as the last which reddens over one,
That sinks with all we love below the verge,
So sad, so fresh, the days that are no more.

We have however no hesitation in saying that it is among the best anthologies of Tennyson we have seen and with the judicious notes at the end, the volume must prove invaluable to students in this country.

MACAULAY'S ESSAY ON CLIVE: EDITED BY VINCENT A. SMITH. (OXFORD CLARENDON PRESS). 2s.

This is the first time an eminent authority on the History of India has given the world the benefit of his criticism on this famous essay of Macaulay's on the Indian pro-consul. The essay has often formed the subject of violent controversy. It is refreshing to have it on the distinguished authority of Vincent Smith that 'Macaulay's Essay on Clive, unlike that on Warren Hastings, is essentially true history, to be prized not only as a masterpiece of English prose, but as a sober historical narrative and judicious criticism.' The introduction to the essay is of very great value indeed as there is a searching examination of the details in the light of recent historical research and the student is enabled to correct a number of errors which he has probably held for a long time. To how many readers of Macaulay's *Essay on Clive* will not this note appear as a piece of valuable criticism. The traditional account of Oomachand—Aminchand as Vincent Smith spells it correctly—is exploded, for we are told: 'Documentary evidence proves clearly that Orme was misinformed, and that the banker recovered from the shock of disappointment sufficiently to resume the transaction of business with Englishmen and to execute a will in 1759, bequeathing large sums to both Sikh and British charities, including £2,000 for the Foundling Hospital in London, established in 1739.' It is also a revelation that Aminchand was a Sikh and not a Bengalee as Macaulay thought. There is a commendable freedom from the prejudice, which is often seen to taint Anglo-Indian writers on Clive and Hastings. There is no attempt made to whitewash the foibles of Clive—the editor does not hesitate to remark: 'All biographers of Clive, except Sir John Malcolm, are agreed that this breach of faith to Aminchand cannot be justified..... However knavish and tricky Aminchand may have been, it is impossible to contest the justice of Orme's remark, that the

2,000,000 Rupees he expected should have been paid to him, and he left to enjoy them in oblivion and contempt.'

It is our pleasant duty to indicate several other directions in which Mr. Smith's edition displays striking excellence. The spelling of Indian names—a stumbling block to all English editors—is done with remarkable accuracy and a very successful attempt is made to indicate the exact pronunciation. The notes are thoroughly up-to-date, as may be seen from the fact that he takes note of even such a trifling circumstance as the recent change in the number of districts that compose the *Northern Circars*. The textual difficulties and allusions are explained in as simple a manner as possible so that even the young student will have no difficulty in following the comments of the learned professor.

CARLYLE'S HEROES: EDITED BY P. C. PARR. (OXFORD CLARENDON PRESS.) 2s.

The Oxford Clarendon Press has added one more useful volume to the literary classics which they have been publishing from time to time. The lectures on *Heroes, Hero-Worship and the Heroic in History* form probably the most popular part of Carlyle's work. *The French Revolution* is more talked about than read; the eccentricities of *Sartor Resartees* have repelled many a reader; and the scattered occasional pieces receive only scant recognition. The volume on *Heroes*, as it sums up the philosophy of Carlyle, and as it is associated with several popular favourites in History and Literature, must always attract a large number of readers and to them there is valuable guidance offered in this edition of the Oxford Clarendon Press. Mr. Parr has given a very exhaustive exposition of the life and teachings of Carlyle and has also shown the intimate relation of the book under review to the central doctrines of the Prophet's Creed. The Notes at the end of the volume ought to be enough, for an understating of the numerous allusions. We desire to offer a special word of praise for the excellence of the get-up and the comparative cheapness of the volume.

THE CAMBRIDGE MANUALS OF SCIENCE AND LITERATURE: (i) GREEK TRAGEDY, BY J. T. SHEPARD, M.A.; (ii) KING ARTHUR IN HISTORY AND LEGEND, BY W. LEWIS JONES, M.A.; (iii) EARLY RELIGIOUS POETRY OF PERSIA, BY J. H. MOULTON. 1s. net each.

We have great pleasure in welcoming these three valuable additions to the Cambridge Manuals

of Science and Literature. The series of books have acquired a well-deserved reputation for thoroughness of research as well as lucid presentation and the books under review will only enhance the value of this useful class of publications.

Mr. J. T. Sheppard gives a critical account of Greek Tragedy, tracing it from the earliest exhibitions in the festivals of Dionysius, through three of its greatest masters Æschylus, Sophocles and Euripides. The usefulness of the book is considerably increased by the large number of illustrations. There is a comprehensive account of all the important dramatic pieces of the early period of Greek Tragedy, the work of criticism being successfully blended with the narration of the plot in each case. We might however be allowed to point out that there might have been a deeper examination of the *spirit* of Greek Tragedy, and an effective contrast with the models with which we are familiar in English Literature. An exposition, on a smaller scale, of the ideas set forth in the early chapters of Bradley's *Shakespearean Tragedies* for instance, must prove invaluable to students of Greek Tragedy. The reader must have also felt thankful, if the author had made a freer use of the passages of fine poetry in the classical writers, by extracting some specimens from them.

The profound influence exercised on the stream of English romantic poetry, by the cycle of the Arthurian legends, must make Mr. Lewis Jones' volume highly interesting and valuable to students of literature. There has probably been an occasional sacrifice of liveliness of narrative, but only in the interests of sober scholarship and accuracy of detail. The chapter on *Arthur in English Literature* is reliable, but probably not sufficiently flowing with the enthusiasm for the Romantic Poetry in the line.

Mr. J. H. Moulton introduces us to a varied field of poetry and devotion, in the virgin world of early Persian poetry. Even a cursory reading of the volume will reveal the advantages of modern comparative study—Mr. Moulton has given an admirable exhibition of research. It is hoped that English readers will extend the sphere of their observation in Persian poetry somewhat beyond the *Rubaiyat of Omar Khayyam*. It is hardly necessary for us to add that it must prove of great value to the followers of the Zoroastrian faith and to students of History and Aryan civilization in general.

THE WANDERINGS OF PEOPLES, BY A. C. HADDON.
(CAMBRIDGE UNIVERSITY PRESS). 1s. net.

This little book gives a clear idea of the movements of the various races of the earth from the time of the Paleolithic man who chased the bison and lived on the reindeer down to the modern gold-rushers into America. The introductory chapter sums the different causes that might contribute to the migration of a nation, as sterility of the soil, religious enthusiasm or adverse climatic conditions. Each continent has a chapter devoted to it and those on Africa and America are particularly informing. We have got the theory that the absence of the anthropoid apes in America precludes the possibility of man ever having originated there independently. The bibliographies at the end of the chapters are exhaustive.

A TEXT-BOOK OF SANITARY SCIENCE AND ENGINEERING, BY T. MELVILLE DE CRUZ. (THE 'WEDNESDAY REVIEW' PRESS, 1911).

This book is intended for students of Sanitary Science and candidates for public examinations in that and other allied subjects. There are many treatises on various parts of the Syllabus of Study required for the Sanitary Engineering Examinations, there is none which gives all the information required in one book and in short compass. Therefore this book meets a real want and will, we hope, be used by those for whom it is intended.

The author, who is the State Engineer of the Pudukottai State, has compiled the book from various original sources. The 'Wednesday Review' has printed the little volume and its illustrations very well, though here and there the proof-reading has not been of the best.

ELEMENTARY TRIGONOMETRY, BY W. E. PATERSON.
(CLARENDON PRESS, OXFORD). 3s.

As remarked by us in the last number, the market is being flooded with books on "Elementary Trigonometry." But, Mr. Paterson's book is not of the ordinary type. It is conceived on right lines and is well-written. As the author rightly complains, it is customary to define the Trigonometrical ratios by means of an auxiliary right-angled triangle so as to encourage the mistaken idea that the ratios are fundamentally attached to a triangle. In this book, the Trigonometrical ratios are introduced as functions of the angle.

Again most books, aiming to be 'practical,' treat the subject as if the sole use of Trigonometry

were to solve triangles and to work problems on "heights and distances." Such a treatment, though useful to technical students, is not satisfactory from the point of view of College students who wish to specialise in Mathematics. In this book, the author has given many examples illustrating the application of Trigonometry to Geometry, Mensuration, Analytical Geometry and Physics, and consequently it can be recommended as a good text-book to the Intermediate students of the Indian Universities.

PROJECTIVE GEOMETRY, BY W. P. MILNE. (MACMILLAN).

In England the subject of Projective Geometry was hitherto totally omitted from the School curriculum and even in Colleges no great attention was being paid to it. Of late, however, some attention is being paid to the study of that subject in schools and colleges and consequently we are also having some very good Elementary English books written on that subject. Mr. Milne's book is one such and we are glad to find that the treatment is clear and lucid and that the book will form a very good introduction to the subject.

Chapter I deals with 'Projection' applied to figures involving straight lines only. Chapter II introduces the conics and contains a full treatment of the uses and properties of the circular points at infinity. Also the principle of continuity in Geometry is explained at considerable length. Chapter III deals with reciprocation and Chapter IV with the main projective properties of conics. The book will thus be found to be quite suited to the requirements of the B.A. (Honours) students of the Madras University who are now required to bring up Projective Geometry.

Indian Educational Notes.

MADRAS

The Board Secondary School, Kulitalai.—The annual prize distribution of the Board Secondary School, Kulitalai, was celebrated recently with Mr. Narayana Aiyar, I.C.S. in the Chair. After the reception of the Chairman at the gate by the Headmaster with a guard-of-honour, he was conducted to the pavilion with welcome songs of loyalty to Their Imperial Majesties by the girls of the Kindergarten section.

The annual report showed the improvements the school had gained during the year under report. A mock debate on "Female Education," Kindergarten action songs on "Disobedience to a Master" and a dialogue between "Alexander" and "the Thracian

Robber" were successively gone through before the prizes were distributed by the Chairman.

After distributing the prizes, the Chairman, in the course of his speech, congratulated the prize-winners and also the Headmaster and his staff, on the successful working of the institution, and said that the parents as well as teachers should realise properly the aim and tendency of the new scheme of education.

High School education, he said, was hitherto merely a basis of collegiate education, hereafter it was to be an end in itself. Parents and teachers had now been relieved of the tension and anxiety of submitting young boys to the rigour of public examinations which came gradually to be looked upon as a crime and a disgrace not to pass. At the same time, he asked the parents and teachers to realise that they had been deprived of what was fair and tangible standard, however inadequate and unworthy it was as a standard of the progress attained by pupils. The removal of a false ideal was apt therefore to lead to the setting up of low ideals and slack training. To the teacher, therefore, the task had become at once more light and more exacting-light because there was no arbitrary public examination, the percentage of passes in which would be the measure of his success, exacting because his ideals of teaching and training must necessarily be pitched higher. To the parent, the task had become even more important. If they reflected on the aim and tendencies of modern education they would find it was to make of every boy a good citizen. The home, quite as much as the school, was the best training ground of character and conduct. The whole programme of education was undergoing a radical alteration. When Public Instruction was first started in India, it was supposed that as collegiate and secondary education gained ground it would filter through to the masses. This hope was a legitimate one, but the history of the last 50 years had proved how illusory it was. Elementary education had advanced since the great Educational Despatch of 1854, but with slow halting steps and the men who received higher and secondary education, had, with some notable exceptions, failed to realise the responsibility that rested on them. It was only within the last few years, that the educated public in India had at all come to regard it as a trust reposed in them to diffuse "popular education."

He would ask the teachers to recognise it as part of their duty to foster and encourage a right feeling in the pupils under their charge in regard to teaching as a desirable vocation in life.

In conclusion he wished the institution all prosperity and every success. The proceedings were then brought to a close with a vote of thanks to the chair.

The Victoria Memorial High School Day, Periakulam.—The first celebration of this kind took place on the 5th instant amidst great rejoicing and festivities. In the morning, sports were held and prizes

were given by Rao Bahadur G. Srinivasa Rao, B.A., of Madura, who had gone over there to preside at the public meeting. In the afternoon, the business meeting was followed by the public meeting with Rao Bahadur G. Srinivasa Rao, in the chair. At 4.30 P.M., there were recitations in Sanskrit, Tamil and English. Then came the most important item in the programme, lecture by Rev. W. M. Zumbro, M.A., B.D., the Principal of the American College, Madura, on "Some essentials of a true education." The lecturer dwelt at length on the scientific method of training the youth, the need for the cultivation of the powers of observing and doing the preservation of health, the fostering of the spirit of love, enthusiasm and devotion to God. Then began a series of toasts, the first of which was to the High School, proposed by Mr. S. Ramamoorthi Iyer, B.A., B.L., a leading member of the local Bar and responded to by Mr. K. Subramania Siva, B.A., L.T., the Headmaster. Mr. E. S. Sankara Aiyar, one of the Joint Secretaries and an old student, proposed a toast to the Manager which was responded to by the Hon'ble Rao Bahadur C. Ramabhadra Naidu Garu, F.M.U. Mr. P. N. Ramaswami Aiyar proposed a toast to the young friends there and met an appropriate response from Mr. T. Bhaskara Rao, a present student. The most important of the toasts, the toast to our King-Emperor, was proposed in a learned and lengthy speech by Mr. T. Krishnaswami Naidu, B.A., District Munsiff. The Chairman then stood up and the whole audience with him by way of response to the toast while the National Anthem was sung. In his concluding speech, the Chairman dwelt on the merits of the Hon'ble Rao Bahadur V. Ramabhadra Naidu Garu, F.M.U., the Zemindar of Vadagarai and Doddappanaickanoor and the Manager of the High School. The latest recognition of his services was his appointment as a Fellow of the Madras University which was announced in the meeting to the great rejoicing of the audience. At the close of the meeting, Mr. I. R. Muthusawmi Aiyar in a short and brilliant speech thanked the lecturer, the Chairman, the audience and Mr. T. S. Ramasubbu, B.A., B.L., The Chairman, the District Munsiff and the Zemindar were then garlanded and after the distribution of *pan supari*, the proceedings came to a close.

The Madura College.—The prize distribution at the Madura College took place on the 14th instant with great *elal* with the Hon'ble Mr. P. S. Sivasawmy Iyer, Advocate-General to the Government of Madras, in the chair. After a series of interesting dialogues, recitations and songs, the report of the Principal, which is the 22nd Annual Report in the annals of the Institution, was read and it showed marked progress in almost every direction. It was evident from the Report that the extensions of the college buildings which are being made under the new regulations of the Madras University have caused great expenditure all round. Religious and moral instruction received due attention. In the course of his report the Principal laid great

stress on the necessity for funds which was keenly felt under the new regulations, and stated that according to those regulations an endowment calculated to yield an annual interest of Rs. 3,000, was necessary for the college.

Then the President distributed prizes to the successful pupils.

The Chairman made a long and interesting speech. After referring to the important features in the Report of the Principal, he availed himself of the opportunity to reply to the criticisms which have lately appeared in the papers from the pen of a well-known Madras official about the Hindu University proposed by Mrs. Besant. He discussed the question of moral and religious instruction at some length by dividing it into two heads: (1) as to whether it is desirable to give such instruction, (2) whether it is desirable that such instruction should be imparted. Both of these questions he answered in the affirmative. He advocated the necessity of certain Hindu customs being altered and adopted to modern requirements. Incidentally he dealt with the question of the sea voyage and said that he was glad to note that Rao Bahadur G. Srinivasa Row, who had been lately to Europe, had set a unique example worthy of imitation by his fellow countrymen and had met with a warm reception on his return among the educated community in Madura. He pointed out that the tenets of the Hindu religion were the least militant of all religious systems and did not at all tend to promote sedition. On the other hand, Hinduism inculcated obedience to and reverence for the Powers-that-be, besides instilling feelings of loyalty. On the question of funds he observed that each district had a duty to perform in the matter of maintaining a college and as such the people of each district had necessarily to look to the local pecuniary help available and that, so far as Madura was concerned, there were in it many rich men who could afford to subscribe liberally and generously to the college funds and hoped that the people of the Madura town and district would respond to the appeal of the Principal in this respect in a manner worthy of the ancient traditions of Madura which enjoyed the reputation of being the seat of learning from time immemorial.

Mr. A. Rangasamy Iyer thanked the President for the kindness and readiness with which he had accepted the invitation to preside over that day's celebration. He also made the pleasing announcement that the Sir S. Subramania Iyer Memorial Committee had resolved to place at the disposal of the College Board from out of the collections of that fund a sum of eight hundred and fifty rupees and odd from the interest on which to award a gold medal for that boy who stood first in English with Mathematics and Science as his optional group, in the Intermediate Class.

The proceedings terminated with the National Anthem and with three hearty cheers proposed to our beloved King-Emperor, the distinguished President and the worthy Principal which were lustily responded to.

Madras Sanskrit College.—Their Excellencies the Governor and Lady Lawley accompanied by the Hon'ble Rev. A. G. Lawley paid a visit on the 1st instant to the Vencatramana Dispensary and the Madras Sanskrit College in Mylapore—institutions which the public owe in a larger measure to the generosity of the Hon'ble Mr. V. Krishnasawmi Iyer. At the Dispensary His Excellency spent a few minutes in company with Mr. Krishnasawmi Iyer in going down and making enquiries as to the scope of the work. While there His Excellency received an address of welcome from the students of the Vencatramana Medical School. From the Dispensary they drove to the Sanskrit College where a large gathering of the friends and well-wishers of the Institutions headed by the Hon'ble Mr. Justice Sundara Iyer and Mr. Ramaswami Iyer welcomed Their Excellencies. Mr. Justice Sundara Iyer and the Hon'ble Mr. Krishnasawmi Iyer introduced the Professors of the College to H. E. the Governor whom they next conducted over the premises, the library, etc. Their Excellencies then came into the pandal where the gathering was assembled and took their seats when an address was presented in Sanskrit to His Excellency and was read by one of the students of the College:—

Mr. Justice Sundara Iyer, the President of the College Committee, then gave a short memorandum on the College, in the course of which we have the following:—

The annual expenditure of the College is at present about Rs. 6,400 of which the cost of the establishment including contingencies is about Rs. 3,400, and the expenditure on the hostel and stipends Rs. 3,000. The permanent funds of the institution amounting to Rs. 69,000 are made up of the following benefactions:—

1. Rs. 45,000 given by the Hon'ble Mr. V. Krishnasawmi Iyer.
2. Rs. 5,000 given by Mr. C. P. Ramaswami Iyer in memory of his father the late Mr. C. R. Pattabhirama Iyer.
3. Rs. 19,000 given as already noted above by the executors of the estate of the late Mr. S. Swaminatha Sastrial.

Since 1907-1908 the Government are making an annual grant-in-aid of Rs. 1,000 towards the maintenance of the College. Since 1908-1909 Mr. A. Anniah Pandit of Mysore is making an annual contribution of Rs. 200 for the maintenance of two students.

His Excellency then presented diplomas to passed students of the College and made a long speech from which we extract the following:—

"I am very glad, ladies and gentlemen, that though on the very eve of my departure, I have been able to see for myself the work in this College. I thank you all once again for your kind expressions of goodwill to my wife and to myself, after we have reluctantly bid you good-bye, and I cordially hope that this College may flourish and prosper long after my name here is forgotten and buried in the dust heap of time."

Sir S. Subrahmanya Iyer then proposed a vote of thanks to His Excellency, and Their Excellencies were garlanded by the Hon'ble Dewan Bahadur R. Raghubatha Row.

A Prize Distribution at Ellore.—The anniversary of the Church Mission High School, Ellore, came off recently with the Divisional Officer Moulvi Muhammad Habibullah Khan Sahib Bahadur, B.A., in the chair. The *elite* of the Ellore Town was present. The Headmaster's report showed that the fee receipts came to Rs. 11,000 while the expenditure stood at Rs. 13,000. It will thus be seen that the school was worked at a loss of Rs. 2,000 to the Church Mission Society and the Society richly deserves the thanks of the townsmen for the help which it has rendered to the school. The results of the School Final are not as satisfactory as might be desired but it is a consolation to notice that some of the students who have not been able to secure the Presidency average, could secure admission into the Intermediate class. The programme consisted of a series of items, the most important of which, was the enacting of a scene from Shakespeare's "Merchant of Venice" by the students of the High School department. The performance was greatly admired by the audience. The Rev. W. C. Penn, M.A., Manager of the School, happened to be there and his presence gave life to the meeting. After the concluding speech of the President, Mr. Penn rose to propose a vote of thanks to the Chair and the ladies and gentlemen, whose presence contributed to the success of the meeting. In the course of his remarks, he said that it was a pleasure to find the Government officials of high standing taking so much interest in educational matters. He also gave sound advice to the students. As usual two prizes were allotted for English and Telugu composition and the prize offered by Mr. V. Rama Rao, a member of the local Bar, for proficiency in Telugu, was won by a student of the VI Form. The prizes were given away by the President and the meeting was brought to a close with three cheers to His Majesty King-Emperor, proposed by Mr. Penn.

Study of Indian Languages and Literature.—A largely attended meeting of those interested in the progress of Indian education was held on the 7th inst. at the Hindu High School, Triplicane. The object of the meeting was to adopt a memorial to Government with a view to make the study of Indian languages and literature more general among undergraduates than at present, and, secondly, to give more full and ungrudging encouragement to the higher study of Indian languages and literature in the Presidency College. Dewan Bahadur M. Andinara-yaniiah occupied the chair, and having explained the object of the meeting, Mr. T. Rangachariar made a lengthy speech. He had no doubt that H.E. the Governor would give his best consideration to their representations, and he moved the adoption of the memorial, which was read and carried.

The late Mr. L. C. Williams Pillai.—It is with deep regret that we have to announce the death of Mr. L. C. Williams Pillai, B.A., retired Inspector of Schools, at Vaddukodai near Jaffna, after a short illness. He was one of the most successful educationists in this Presidency and was widely known for his wide culture and scholarship, as well as for his integrity and independence in work as an educational officer. His gentle and winning manners combined with his broad and liberal views made him widely popular, and he leaves behind him, besides his widow and a large family, a large circle of friends and old students to bemoan his loss.

Annual Scholarships for Women students.—The following Order of the Madras Government has been issued in order to encourage women, desirous of entering the medical profession, to obtain the degree of M.B. and C.M. of the Madras University. The Governor-in-Council has resolved to award annually three stipends, each of Rs. 25 a month, to young women who undertake to study for that degree. The stipends will be allotted each year by the Provincial Committee of the Countess of Dufferin Fund and may be awarded either to the students who have already passed the Intermediate Examination in Arts, or to those who are reading for it. The maximum period of tenure of a student will be seven years and the Committee may attach to it such conditions as they think fit. His Excellency in Council is of opinion that, as a further inducement to obtain this higher qualification, enhanced salaries should be given to those passing it to enable the Committee to meet the expenditure on stipends and to assist by Grant-in-aid those local bodies which are unable to defray the cost of giving the enhanced salaries to medical women possessing higher qualifications than those now employed. The Governor-in-Council directs that a grant of Rs. 12,000 per annum be made to the Provincial Committee of the Countess of Dufferin Fund with effect from the 1st April 1912.

BOMBAY.

Higher Education in Bombay.—The subject of fees in the High Schools of the Presidency formed the subject of a memorial which has been submitted to the Bombay Government by the Maratha Aik-yechoo Sabha. The Society protests against the decision to raise the fees on the ground that the change may not affect well-to-do classes of people, but will prove highly detrimental to the interests of the backward classes. The Sabha contends that the argument that Government have provided a number of free scholarships for the backward classes does not meet the case. The Government, in a reply, say that the free scholarships already available for these classes are often vacant through lack of suitable pupils, that the institution of free scholarships at secondary schools is a suitable object for private benefactions, and Government commends it to the attention of the Sabha.

The Elementary Education Bill.—The Report of the Committee of the Bombay Corporation regarding the measures for the spread of Primary education has been published. The Corporation approve of the principle that Primary education should be free and compulsory: that they are in favour of the ultimate introduction of the principle throughout the country: that the distinctive principle of the Hon'ble Mr. Gokhale's Bill is not a question of the introduction of free compulsory Primary education in itself, but it is a particular method, among various others, which may be suggested, proposed in the Bill to attain that object: that the method which is advocated in the Bill and is thus its real principle and the distinguishing feature is embodied in Sections 3, 4, 8 and 18, by which every Municipality or Local Board is empowered, with the previous sanction of the Local Government, to introduce compulsory and partially free education in its area and to levy special education tax or its education rate, for that purpose power being given to Governor-General-in-Council prescribing the proportions in which the cost should be divided between Municipality and Board and Government: that the Corporation are of opinion that the method embodied in the Bill is not likely to attain the object in view in a practical and satisfactory manner and they consider that at present the great need of the country is the strenuous acceleration of the policy of the Government to push Primary education as rapidly as possible and to adopt a definite policy, by which the number of schools can be increased from year to year, within a definite period, and thus to pave the way for the proposed measure.

The Corporation, however, are not in favour of the methods incorporated in the Bill for carrying out the object and they do not approve of the Sections, dealing with the levy of fees, and that generally speaking, the Corporation are unable to approve of the way in which the burden of taxation would be distributed as calculated to be unjust and unequal in its incidence on different parts of the country or Province. The Corporation are afraid that the initiative, which is left in the hands of District and Local Boards, and even to some extent of smaller Municipalities, will work spasmodically, unsatisfactorily and unequally and will in practice be without any real guarantee of the desire and willingness of the people to be taxed. The Corporation desire to express the opinion that the system of voluntary notification embodied in the Bill is not likely to be embraced to any very large extent and that the probable result will be that, on the one hand, it will not serve to hasten the pace of the introduction of compulsory Primary education, and on the other, the Government may be induced to delay their efforts in this direction on the plea that the people to whom it was left to take the initiative in the matter, did not desire it. That the Bill is seriously defective regarding the provision of several minor but important points of detail, especially as regards Section 9 which is likely to be unjust and unworkable in practice. The provision in Section 7 is also indefinite that the whole object

of the notification under Section 3 may be practically frustrated.

CALCUTTA.

Scholarships by the Bengal National College.—The Bengal National College has awarded scholarships of Rs. 500 a year each to seven of its bright students who have with this help proceeded to America to prosecute their higher studies in the famous universities of that country. Four of them are at Harvard, two at Yale and one at Michigan. The authorities of the College have received from Professor Lanman, the editor of the Harvard Oriental Series, an encouraging report of the progress of the four Harvard students in their studies.

Calcutta University Institute.—Prof. W. C. Wordsworth, M.A., of the Presidency College, delivered a lecture on "Mendelism or the new theory of heredity" under the auspices of the above Institute on the 15th instant. The meeting was well-attended by the Junior members of the Institute as well as the students of different colleges. Among the senior members the following were present: Professors Manoharlal, J. C. Cowasjee, B. N. Sen, K. N. Mitra, P. C. Ghosh, M. M. Basu, M. M. De, S. C. Vidyabhusan, M. M. K. P. Bhattacharyya, and Dr. I. M. Mallick. Prof. S. C. Mahalanobis, who presided over the meeting, introduced the subject of the lecture in a neat little speech, after which Prof. Wordsworth delivered his lecture which took nearly an hour. The lecturer spared no pains to make his subject really interesting and clear by means of diagrams and figures. After the close of Prof. Wordsworth's speech the President requested the gentlemen present to speak something on the subject, on which Mr. Lt. George Lane Fox Pitt of the "Moral Education League" delivered a short but interesting speech in which he supported what Prof. Wordsworth spoke. Prof. Manoharlal on rising to thank the President and the lecturer offered some criticisms on this "new theory of heredity." The President replied to these criticisms in an instructive speech and closed the meeting.

PUNJAB.

Foundation-stone of Queen Mary's College laid by Lady Dane.—Lady Dane performed the laying of the foundation-stone ceremony of Queen Mary's College on the afternoon of the 16th instant before a distinguished and representative gathering. The proceedings began with a report read by Sir Pratul Chandra Chatterji, President of the Managing Committee, in which he gave the history of the school, the proposal of which was put forward by certain Indian ladies who attended the *purdah* party given in Lahore in November 1905 in honour of the Princess of Wales, now our gracious Queen-Empress. The possibility of putting that proposal into effect was attained by the munificence of the Phulkian

States who placed rupees one lakh as *sarwara* at the disposal of their Royal Highnesses, half of which was made over by the Princess of Wales as the nucleus for founding this school which was named Victoria May Girls' School, Lahore. The aim of the school was to give the girls of noble and respectable families education suitable to their positions, special attention being given to preparation for home duties and the ideal of the Indian mother and wife in her home. The school was opened in December 1907 in a rented bungalow under the charge of several European and Indian mistresses. The question of a permanent habitation presented difficulties. At last the local Government gave six acres of land on Durand Road in the Civil Lines where the school would be built. The cash and property in the hands of the Committee stood at Rs. 90,000 and the Government of India grant amounted to another Rs. 50,000. The buildings, of which Sardar Bahadur Ram Singh had made designs, would cost a lakh and a half.

After Sir Pratul's report Lady Dane laid the foundation-stone by placing a marble slab bearing an inscription which was lifted by a pulley. Sir Louis Dane then addressed the gathering in Urdu. His Honour announced that the Maharani of Patiala had paid a donation of Rs. 10,000, the Begum Saheba of Bhawalpur, also Rs. 10,000, the Rani of Kalsia Rs. 5,000, the Rani of Jhind Rs. 5,000, while the Rani of Faridkote had promised to pay up the deficit. There were minor donations also. His Honour appealed to the public for another sixty thousand rupees to maintain the efficiency of the College. His Honour then explained that the name of the Institute had been changed from Victoria May Girls' High School to Queen Mary's College as the presence of another institution Victoria Girls' School in the city gave rise to confusion. His Honour then read a letter from Major Wigram, Private Secretary to the Queen-Empress, in which he expressed Her Imperial Majesty's consent to the naming of the school as Queen Mary's College and indicating Her Majesty's interest in the Institution and good wishes for the success of the foundation ceremony. His Honour said that no better name could be chosen nor better occasion available for laying the foundation.

Education in the Punjab.—The Report of the Director of Public Instruction, Punjab, just issued says:—Judged by the figures of school attendance the year was one of considerable progress, the total increase being one of 12,901 pupils in public institutions and 4,573 pupils in private schools. The proportional increase was greatest in high schools and arts colleges, but there was an addition of 6,024 pupils in private schools. The increased attendance in high schools and arts colleges was accompanied by larger fee receipts, the total income from fees having exceeded that of the previous year by no less than Rs. 1,88,707. Sir Louis Dane, therefore, draws the inference that the present scale of fees does not operate as a deterrent. The number of pupils in

recognised Gurmukh schools rose from 1,756 to 2,038, but even this total represents less than one in every hundred of pupils in public institutions. The use of the Nagri script as a medium of instruction is believed to be confined to the schools conducted by the Arya Samaj. The Director states that in the Lahore, Jullunder and Rawalpindi divisions the expenditure of District Boards on primary education was not such as to satisfy the inspecting officers. Formerly district boards were supposed to spend 25 per cent. of their income on education, but the standard was never enforced and its recent abolition can hardly be supposed to have influenced the lowering of expenditure on education. The Director is convinced that there has been no slackening of effort on the part of the officers of the department in championing educational interests. So far as the cessation of activity in opening primary schools is concerned the explanation is quite simple. The special recurring grant made by the Government of India in 1905 is now fully utilised in maintaining existing schools and the cost of any further increase has to be met from the limited resources of the Boards which are also drawn upon to provide higher pay for teachers. Until another large grant is made from Imperial or Provincial funds the Director fears there will be little appreciable addition to the number of Board primary schools. The Director thinks that a stimulus will be given to educational work by the scheme for systematically proportioning the Government grants to local expenditure on education.

Fees of Teachers in Primary Schools.—The minimum rate of salary for qualified teachers in the Primary Schools in the Punjab has hitherto been Rs. 12 in the case of Head teachers and Rs. 10 in the case of Assistants. A scheme has now received the approval of the Government, by which grants to the District Boards from the Imperial or Provincial Funds for Primary education will henceforward be mainly based on the salaries paid to teachers, and the minimum rate of pay has been raised from Rs. 10 and Rs. 12 to Rs. 12 and Rs. 15.

The new rates, it is understood, will come into force from the beginning of the next financial year, but many District Boards are already adopting them.

ALLAHABAD.

The Allahabad University Convocation.—At the Convocation of the Allahabad University, the Chancellor, Officiating Lieutenant-Governor, in reviewing the progress of education in the United Provinces, referred to the opening of a new Faculty of Medicine at the Lucknow Medical College, which had commenced work and was one of the most up-to-date and best equipped institutions in the East. The University had also recognised commerce as a subject for University education. The Chancellor also referred to the Agricultural College to be opened at Cawnpore and the Technological Institute at the same place. In conclusion, Mr. Porter made a

reference to the two denominational Universities that was proposed to establish in the United Provinces, his only reason for doing so, he said, being that an eloquent advocate of one of the schemes had put forward the argument that another University was needed because the standard of the Allahabad University was too high and a number of bright young lives were being sacrificed, because they could not obtain a University degree. That argument, said His Honour, was based on an entire misapprehension of the functions of a university and he significantly added:—"It has always been the aim of the Allahabad University to maintain a high standard. If other Universities with other aims come into existence, the duty of the Allahabad University is clear—it must hold by its traditions and I have no doubt that the Allahabad University will acquit itself of that duty as worthily in the future as it has done in the past."

Honorary Degrees conferred.—At a recent meeting of the Senate of the Allahabad University the Vice-Chancellor proposed and the Director of Public Instruction seconded the adoption of the Syndicate's recommendation that the Honorary Degree of Doctor of Laws should be conferred on Sir George Knox and the Hon. Pandit Sundar Lal and the Honorary Degree of Doctor of Letters on Mr. A. Venis, Principal, Queen's College, Benares, as being 'by reason of their eminent attainments fit and proper persons to receive those degrees.' The proposition received the unanimous assent of the Senate. Sir George Knox is the oldest High Court Judge in India and Pandit Sundar Lal, the acknowledged leader of the Allahabad bar, for many a long year. The honour to Pandit Sundar Lal will be specially appreciated by the Indian community, of which he is a distinguished leader, while no less satisfaction should be felt among Europeans not a few of whom are admirers of the hon. and learned gentleman. Mr. Venis is a great scholar and the degree of Doctor of Letters is specially appropriate in his case.

MYSORE.

The Institute of Science.—At a meeting of the Council of the Indian Institute of Science, held in the Institute premises, the following members were present:—The Hon'ble Colonel Hugh Daly, Resident in Mysore, Mr. T. Ananda Row, Dewan of Mysore, Mr. H. J. Bhabha, Mr. N. V. Gamadia (on behalf of Tata family) the Hon'ble Mr. Chatterton, Director of Industries, Madras, and the Director and the Staff of the Institute.

Business was of a purely formal character, being mainly to receive the Director's Report. The question of opening the two remaining Departments of applied science applicable to the Indian arts and industries has now been taken into consideration. During the term of work covered by the Report twenty-five students, twenty of whom are from Northern India, were in residence,

and have had most active time in the laboratories, broken only by the visit to Mysore during the Dussera week on the invitation of the Maharajah. All the students are graduates of Indian Universities, who have been attracted to the post-graduate study offered by the Institute entirely without the inducement of scholarships. They are Brahmans, Bengalis, non-vegetarian Hindus and Europeans, who are grouped in separate messes by which system they are enabled to use separate kitchens, servants, sleeping accommodation, and to enjoy complete freedom as to the dietary to which they are accustomed in the different provinces from which they come. The machinery and the apparatus of the Department of Applied Chemistry under Professor Rudolf is now complete and Dr. Hay's Department has the largest sized machinery illustrating almost every type of motor generator in use. The next term begins on the 1st January when the students will re-assemble, who are now mostly leaving for the North in connection with the Royal Visit.

Female Education in Mysore.—A large and representative audience gathered in the spacious Assembly Hall of the Maharani's College in Mysore when Miss C. A. Tennant, the Honorary Representative of the Hindu Marriage Reform League, delivered a long address on "The Growing Interest in Female Education and Early Marriage the Chief Draw-back" in the course of which she said:—"Mysore is considered to be one of the Model States in India and Their Highnesses have given their sympathetic support for the advancement of female education. It gives great pleasure to note that the Mysore Durbar has helped the educational institutions of the State most liberally and the recent official report gives encouraging statistics. As regards female education there are 294 schools established for girls. The number under instruction is nearly 22,000. The first among these institutions is the Maharani's College, where out of 350 pupils, as many as 300 I was informed belong to the Brahman caste. There are many widow pupils in attendance and no less than 40 scholarships have been awarded to them. It is pleasing to know that we are assembled in this College this evening to advocate and promote the cause for which purpose it has been built. It is most gratifying to learn that a deputation from this institution was most graciously received by Her Majesty the Queen, with expressions of great admiration and approval, when she was in Mysore on her Royal visit when Princess of Wales. One of the tests which determine the character and capacity of a community is its progress in education. Mysore State is entitled to congratulations as it has the reputation for giving higher education to girls."

"I fear that female education will never reach the desired standard until the marriageable age of girls is raised. In spite of the knowledge of the questions in issue, it is most surprising how parents continue to cling to custom. Although there are

restrictions and fines imposed through Infant Marriage Laws yet in the months of May and July, I read in the daily press where parents have been prosecuted for permitting the marriage of their daughters aged 5, 7 and 7½ years, respectively."

When Miss Tennant resumed her seat, Srirangamma, B.A., gave the lecture in full in Kanarese, after which she extended a hearty vote of thanks in words of appreciation and the meeting came to a close.

COCHIN.

Education in the Cochin State.—The report of the administration of the Educational Department shows that the Department has progressed considerably. The total number of Government schools rose from 93 to 102 during 1086 and the aided schools fell from 250 to 216. The opening of the new Sircar schools was the cause of the increase in the Sircar schools, while the fall in the number of aided schools was due to the removal of some of the inefficient institutions from the aided list.

Female education continued to make satisfactory progress. The total number of girls' schools in the State is 53, of which 33 are Sircar schools and the remaining aided. Special attention was paid during the year to the teaching of music and needlework, so much so that music and needlework mistresses in the various Sircar Girls' Schools in the State were subjected to a course of training in the Industrial section of the Victoria Jubilee Girls' Literary and Industrial School. Special text-books on music, according to curricula, were prepared. The total number of girls under instruction during the year was 15,139. The old Normal School was completely re-organised and was opened in June, 1911. The school now provides for training both men and women in the Lower Secondary, Higher Elementary, and Secondary stages.

The actual amount disbursed during 1086 as grants-in-aid to the schools comes to Rs. 30,060-14-8.

Mr. Pope, the Special Educational Officer, visited Trivandrum, and the following questions relating to the appointment of a Joint School Final Board for Cochin and Travancore and other educational matters were discussed with the Director of Public Instruction, Travancore:—

(a) The formation of a Joint School Final Board for Cochin and Travancore; (b) The revision of the Curricula in Travancore and Cochin for Elementary Mathematics; (c) The question of admission of pupils from Travancore, who have been up for the School Final Examination into the Ernakulam College; (d) The transfer of pupils between two schools in different States; (e) The admission of students to Madras Colleges with School-Leaving Certificates from Travancore and Cochin; (f) The irregularities that have come to light in the admission of pupils from Travancore and Cochin into schools in British territory; (g) The proposed Conference of the Directors of Public Instruction, Madras, Hyderabad, Mysore, Travancore, and the Special Educational Officer, Cochin,

to be summoned by the Director of Public Instruction, Madras, and the matters to be brought forward at the Conference by Travancore and Cochin jointly; (h) The question of the radius within which new schools should be recognized with reference to existing schools; (i) The contribution to the Madras University by the two States for loss on the Matriculation Examination, owing to the School Final Scheme, etc. The Dewan concludes his review of the report thus:—"The year's record of work shows progress in every direction. The Durbar are satisfied that by the adoption of the policy as laid down in the new Code there are already signs of marked improvement in all directions and a greater earnestness amongst the promoters of education throughout the State, and they hope that the system of liberal grants will be worked simultaneously with efficient control and adequate inspection. The new movements towards encouraging Industrial and Technical Education are full of hope for the future, but they require the constant care and diligent attention of the Director of Education. The Durbar regrets the loss of Mr. Pope's services before his term expired, but have every confidence that Mr. Davis, his successor, will administer the department with the same zeal, earnestness and success as his predecessor."

Important Educational appointments.—Owing to the resignation of Mr. J. V. Pope, the Special Educational Officer of the Cochin State, Mr. Davis, the newly-appointed Director of Education, has been appointed President of the Board of Examiners. Mr. V. R. Venkataswara Iyer, M.A., L.T., the officiating Principal of the Ernakulam College, has been appointed officiating Secretary of the Board.

The following five gentlemen have been elected as the non-official members of the Committee appointed to make the necessary arrangements for the ensuing Industrial and Agricultural Exhibition:—Messrs. Kurur Narayanan Nampooripad, Chengalloor Parameswaran Nampoor, Ambat Eachara Menon, Chethalam Pooranju, and K. Kochugovinda Marar.

The following are the members appointed by Government for the Text-Book Committee for the year 1912:—Messrs. K. Narayana Marar, B.A., B.L.; C. Achutha Menon, B.A.; C. Mathai, B.A., L.T.; V. R. Venkataswara Iyer, M.A., L.T.; S. K. Subba Iyer, B.A., L.T.; R. Devaraja Iyer, B.A.; S. Anantha-krishna Iyer, B.A.; T. K. Krishna Menon, B.A., M.B.A.S.; H. H. Rama Varma, the 14th Prince of Cochin; Mr. P. A. Stephen; Sister Beatrice; Miss D. Reilly; and the Rev. Fr. Dominic, Mr. F. S. Davis, the Director of Education, will be the President of the Committee.

Foreign Notes.

GREAT BRITAIN.

Universities in the United Kingdom granting Diplomas in Medicine.—From the Special Educational numbers of the medical journals that are published at this season, it appears that there are now four Universities in the United Kingdom that grant degrees or diplomas in Tropical Medicine—London, Cambridge, Edinburgh and Liverpool. In connection with London University, Tropical Medicine is one of six optional subjects in which the degree of M.D. can be obtained, but candidates must have taken the M.B., B.S. degrees previously. All the examining bodies insist upon evidence of practical work, either in a school of tropical medicine or on the staff of a hospital in regions where tropical diseases prevail. The University of London recognises the hospitals attached to the Medical Colleges at Calcutta, Bombay, Madras and Lahore, as granting certificates of appointments, and besides these no others are mentioned. The University of Edinburgh gives a diploma in tropical medicine, but only its own graduates are eligible. The diploma of the Liverpool University is also limited to the students who have attended the local school of tropical medicine. The University of Cambridge, however, grants a diploma to any one whose name has been on the Medical Register for not less than a year and who can pass the examination and produce certificates of practical work. The Colonial Office now expects all nominees for the Colonial Medical Service to pass through either the London or the Liverpool School of Tropical Medicine before their appointments are confirmed, and commercial firms now very often demand from medical applicants for foreign appointments similar evidence of special study. The Liverpool school has made a speciality of scientific expeditions for the study of disease problems in the tropics. Since the school was founded twenty-seven expeditions have been sent out. Until 1907 the results were published in special Memoirs but they now appear in the *Annals of Tropical Medicine and Parasitology*.

Imperial Conference of Teachers' Associations.—The date fixed for the Imperial Conference of Teachers' Associations convened by the League of the Empire is Friday, July 12, to Tuesday, July 16 (inclusive) 1912. A list of agenda drawn up by the Conference Committee includes the training of teachers (professional and University); the reciprocal recognition throughout the Empire of teachers' certificates; the migration of teachers for purposes of study generally and for temporary interchange of appointments; co-ordination in education (i.e., the connexion between the elementary and the secondary school in regard to curricula, as well as in regard to the placing of scholars and the promotion of teachers); and the working of the scholarship system in different parts of the Empire. Besides these and other general subjects educational

curriculum in various particulars will be discussed—namely, technical education in its relation to local industries as well as in its larger aspect as a preparation for general scientific and trade research; the place of history and geography in education; the English language and literature; and physical education; the best means of organizing a rural school, the teaching of local history and nature study, &c. The papers prepared will in all cases be taken as read, and the whole time of the meetings will be given to discussion, in which, by unanimous desire of the Committee, precedence will be given to the overseas visitors of the League.

International Commission on the Teaching of Mathematics.—At the 1909 meeting of the International Mathematical Congress, held at Rome, the subject of mathematical teaching was brought forward, and upon the initiative of Prof. D. E. Smith, U.S.A., it was decided to form an International Commission on the Teaching of Mathematics, this Commission to report to the next triennial meeting of the Congress, which will be held at Cambridge (England) in 1912. The Commission met at Milan on September 18–20 of this year to take stock of the work done so far. As regards the United Kingdom, the work of collecting and issuing reports has been taken up by the Board of Education, which has appointed as delegates Sir George Greenhill, Prof. E. W. Hobson, and Mr. C. Godfrey. A number of reports has already been issued (Wyman, price 3d. each), and when the international series is complete it will form the most valuable collection of material at present available for the use of teachers of mathematics. The Central

Committee consists of Prof. F. Klein (Göttingen), Sir G. Greenhill (London), and M. H. Fehr (Geneva).

Burmese Students in England.—Sir H. Thirkell White presided at the annual meeting of the Burma Society, at the Club Rooms, Charleville-road, West Kensington. The report stated that the grant of £150 per annum made by the Secretary of State in Council and his sanction of an initial grant of £400 by the Government of Burma for furnishing had enabled the Society to have Club quarters of its own. The Secretary of State agreed to increase the subvention to a *maximum* of £200 a year when the Society could guarantee an income of £150 from other sources. By July the full subvention was obtained. The Club had been greatly appreciated, and it was hoped that a more ample institution would be provided in the future. In accordance with a desire expressed by the young Burman members that they should bear a fuller share of the financial responsibility, the subscription was to be raised from 10s. to a *guinea*. The Chairman said the Society had a right to look for increased financial support from the Province of Burma, which had sent contributions amounting to £100 during the year. He wished to remove a misapprehension which might have had some effect in limiting the help given by English sympathizers. It was not the intention of the Society to encourage young Burmans to come to England in large numbers and without discrimination. But to all Burmans of character and standing who came to England the Society offered a warm welcome, provided opportunities for social intercourse, and afforded where necessary, guidance and encouragement.

In the Press.

INTERMEDIATE PRACTICAL PHYSICS

By Mr. P. LAKSHMI NARASU, B.A., F.M.U.,
Professor of Physical Science, Pachaiyappa's College, Madras.

Price—Rs. 1-8-0.

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SRINIVASA VARADACHARI & CO., TRIPPLICANE AND ESPLANADE, MADRAS.

The Educational Review.

The Convocation of the Madras University for conferring degrees was held on the 23rd instant with His Excellency the Governor of Madras in the chair. The task of addressing the graduates was entrusted to the Hon'ble Mr. V. Krishnaswamy Iyer. Unlike his predecessors Mr. V. Krishnaswamy Iyer did not indulge in addressing counsels of perfection to the out-going graduates. He confined himself to a few topics and expressed his views on some of the educational questions now occupying the attention of thoughtful Indians. He enumerated the beneficent changes, such as the registration of graduates and the grant of the privilege of electing Fellows to the Senate, introduced by the Universities Act of 1904, while pointing out at the same time that the Universities have become more officialised and that University education has been made more expensive. To expand the existing Universities in a useful direction he threw out some suggestions, such as the institution of travelling fellowships and special lectureships. With his usual liberality he has undertaken to endow a lectureship of the annual value of Rs. 250 in the honoured name of Sir S. Subrahmanya Iyer, and we hope that this lectureship would be productive of much benefit.

What the learned lecturer said about the impediments to original work in this country on modern lines are very true. "The difficulty of acquiring a foreign language of irregular grammar and more irregular orthography with a wonderful adaptability to the multifarious demands of modern knowledge and culture, a language which is our

only medium for the advanced thought of the world, has got to be grappled with during some of the best years of the plastic period of youth. Costly libraries and laboratories and learned leisure, which the needs of worldly comfort do not invade are lacking. The seats of learning in the Presidency are not yet fully permeated by the intellectual atmosphere which generates creative thought. The Hindu mind has always been wanting in the historical sense, the first instrument for the true interpretation of the records of the past. The achievements of former ages of varying merit differing by virtue of differences in time and the local colouring of geographical distribution have obtained an authority destructive of perspective and freedom of thought. It stands to reason that under conditions such as these the output of the golden ore should be meagre." But this is no indication of the barrenness of the Indian intellect. The land of India was in the past filled with the mighty stream of master-minds. No one dare deny the intellectual debt of Europe to Sanskrit literature.

We are not sure that knowledge for knowledge's sake can be the end and aim of education. We acquire knowledge because it can minister to our physical, intellectual or spiritual comforts. If knowledge did not effect this, knowledge would be of no use to mankind. The Hindu understood this when he sought knowledge for attaining peace. The end of education is not the possession of knowledge but the capability for action which knowledge confers upon its possessor. The end of education should be social effectiveness, power to serve the community rather than individual knowledge or individual culture.

We are not a little amazed at the many criticisms that have been assailed against the attempt to start a Hindu University at Benares. We believe that any body of intelligent men have the right to start a University if they can find the wherewithal for its proper working. The question of its being sectarian is beside the question. That the existing Indian Universities are too much officialised cannot be questioned. Any attempt to establish Universities free from the yoke of officialdom is a move in the right direction. In its initial stage there may be many pitfalls across the path of a newly-established University, but in the endeavour to cross these it will gain a strength of its own, which cannot be imparted to it from the outside. We do not see any dangers connected with sectarian Universities, other than those connected with existing sectarian colleges. We may boldly assert that many of the Universities now existing in Europe have had a religious origin. But they have all outgrown their sectarian character. The very nature of the spirit of research, which is the true spirit of a University, is to liberalise the mind, and we need not be afraid that any University, ostensibly sectarian, will degenerate into a centre for fostering narrowness and exclusiveness. Have not the Christian colleges of India bred up atheists and agnostics? If such be the case, why should not liberal-minded Hindus be produced even by a sectarian Hindu University? It is the men who make up a University and not the buildings or the courses. These are secondary. India wants more Universities. As we have often pointed out in these pages, the number of Universities now in India is too small for the work of its regeneration. As pointed out by the

Hon'ble Mr. V. Krishnaswamy Iyer in his Convocation Address, "the area of ignorance to be combated is so great, the historical conditions favourable to culture are so widely present, the departments of knowledge now are so infinite in variety that we may regard with complacency and even satisfaction the brilliant success so far achieved by the promoters of the new Universities with ideals which can not but be complementary to the culture aimed at by the foundations already in existence. If over a dozen Universities are now engaged in drawing to a focus in centres of learning the intellectual and moral forces of the younger generation of the United Kingdom, how can the addition of two Universities here to the present five, if adequately safeguarded from becoming "gloomy fortresses of sectarianism," be denounced as unsuited to the area or population or the varieties of Indian conditions, thought and culture."

It is an interesting report that the Rev. Mr. Western of the Cambridge Mission, Delhi, has prepared concerning the physical and mental development of the school-boys in the Punjab.

The report is based upon answers furnished by school-masters and inspectors to a questionnaire sent out by Mr. Western. Many interesting facts have come to light from this enquiry. Most school-masters agree that the physical development of nearly all classes of Indian boys is poor, and that this is especially the case from the age of 15 onwards. Country boys are reported to be generally stronger and healthier than town boys, and Mahomedans and Christians generally stronger than Hindus. Mr.

Western deplores that some teachers who answered his questions were so little accustomed to the idea of physical activity being a prime necessity for healthy boys' life that they understood him to be inquiring about energy in book work and ability to work long hours. An investigation of great interest and importance is that of the common ailments of boys. While measles and other similar epidemic diseases of childhood and coughs and colds seem common to the English and the Indian boy—the Indian boy, especially the town boy, suffers also from fever and resulting spleen, stomach troubles, such as constipation, indigestion and dysentery, and head-aches. The last ailment is said to be practically unknown among English boys, of town or of country, and in India, are much less common among country than among town boys. Mr. Western is of opinion that most of the stomach troubles of the average Indian boy are due to his not eating enough. "The eating of only two meals, both of which must therefore be very heavy, produce considerable strain on the digestion. Two pice worth of sweetmeats is not suitable, either in quantity or quality for the light midday meal which should be taken." Mr. Western has collected statistics as regards the physical energy and activity shown by boys at different ages. English boys show very great activity up to 15 or 16, after which, it is said, there is a decrease in their craving for continual motion and physical action, but none in their energy up to the age of 25 or 30. On the other hand, physical inactivity is the rule among Indian boys. In the crowded activities, early thrust upon our boys, physical activity is not included, and consequently they suffer. The statistics collected in regard to mental development are not complete. But there

seems to be general agreement among the school-masters consulted that the powers both of committing to memory and of retaining in memory decrease as boys grow up. Mr. Western points out that the growth of social and moral characteristics in boys should form one of the important objects of study by school-masters. They must find answers to such questions as these. Is it merely the lack of energy that makes Indian boys so slow to combine among themselves in little societies or clubs for various objects, in such striking contrast to English and American boys? Why are there so few of the close, heart to heart, individual friendships which play such an important part in the development of Western boys? The general conclusions of the whole report are that the Indian boy, and especially the town Hindu, does not develop either physical, mental or moral powers in a normal or satisfactory way, that while this is partly due to climatic conditions, very much can be done by parents, and schoolmasters to guard against physical weakness and illness and to encourage many-sided physical and mental activity.

The applications of scientific discoveries brought science into public prominence. Changes in the means of production, the establishment of factories and the consequent growth of great cities, changes in the means of communication by land, sea and air, changes in the methods of dealing with the problems of health, public and private, produced an immense change in mental and spiritual outlook. Man rules Nature by obeying her and to have any real dominion over her he must first discover and understand her laws. Naturally this affected men's views about education and brought

about a revolution. The improved social conditions produced by science made popular education possible and gave birth to an educational revival. Higher education was weaned from the influence of classical tradition. The older extremely individualistic theories were undermined. The mutual interdependence of different men and different classes came to be recognised. The study of science was considered to be better suited than any other study to produce in the student just the right habit of mind to enable him to cope intelligently and effectively with the difficult problems of modern life. Attention was directed not only to the content of science but also to the inculcation of the scientific habit of mind. The method of laboratory teaching was introduced. The mind is thus brought directly into contact with fact and is trained to draw conclusions from premises surely established by immediate observation. All the improvements in educational methods which characterise the present day are due directly or indirectly to the influence of

science. Now, science claims the whole world for its sphere and so far from contenting itself with work in the laboratory, it goes out into the market place and into public life and seeks to make its influence predominant in the world of business and of Government. It emphasises that the individual is not able to make the best of his life by his unaided efforts and urges a serious and organized effort to attack the complex problems of modern society in a scientific spirit and in the light of the best scientific knowledge. Hence, according to science, the true end of education is not individual knowledge or culture but social effectiveness. Hence the teaching of science must be made effective to this great end. This will make a heavy demand upon the teacher. His duty will not be so much to teach facts as to instil a scientific spirit. He can do this only when he is allowed to soar freely with a wide outlook before him. The foremost teacher will be the creator of the life that is to be, and as such must have a strong hold on the respect of the community.

Just Ready.

MAUD—A MONODRAMA

BY

ALFRED TENNYSON

WITH

INTRODUCTION AND NOTES

BY

E. H. ELLIOT, B.A.

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THE DELHI DURBAR.

(BY AN INDIAN EDUCATIONIST.)

THE Coronation Durbar at Delhi is part of a great movement that has been gaining strength in England during the past decade. And that is the attempt to educate people by means of pageants. The educational world has been for a hundred years dimly realizing the fact that words sometimes reach the ear but not the brain ; that no knowledge can be imparted to any appreciable extent except by appealing to the eye. Maps, illustrations and pictures abound in school-books and school-rooms though more often chosen for show and not for use. The larger world outside the school-room is just awakening to the appreciation of the great truth—that the imagination of boys, old as well as young, can realise facts only when they are placed in concrete form before the eyes and not when they are shouted into the ears. Hence within the last decade numerous pageants and festivals have been organized in different parts of England to bring home to English people the life of their forebears in notable periods of English history. The vividness which has distinguished these demonstrations is a sign that the English people are beginning to grasp the real function of ceremonial in social psychology.

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Not that the world has not been all along without ceremonial. On the contrary ceremonialism has sapped the vitality out of every new religious, social or political movement of the world. No new religion was ever promulgated but its fundamental teaching was smothered out straight off by the concurrent evolution of ritualism. No new phase of social amenity but was choked by formalism ; no new form of democracy but did immediately become a fetish and let all its reality die out. That is because, the instinctive love of ceremonialism that distinguishes the human animal was in these cases not directed into proper channels by common sense. That is because the ceremonial was dictated by an insensate dread of imaginary supernatural beings endowed with power for mischief or by a meaningless desire for repetition of precedent or a mechanical copying of what was done in the past without an intelligent appreciation of the why of things. It was moreover not realized that ceremonial is bound to degenerate into a rapid unreality unless directed for the purpose of influencing the collective mind of a mass of people and for enabling them to realize abstractions which cannot otherwise be brought home to them. Ceremonial display is silly vanity to highly-evolved intellects but, the only means of reaching the popular imagination. This

is the true inwardness of pageants like the Durbar of Delhi. The British Empire is an abstraction; personal loyalty can live long only if the person to which it is directed is constantly in evidence; but a spectacular display like what we had in Delhi and its far-off though necessarily feeble echoes in other places has certainly proved a splendid object-lesson to the people of India. It has enabled them to realize what till now has been mere words, the splendour and the power of the British Empire, the organic connection of India with the rest of the Empire and the midsummer madness of the few people who in the near past stirred a few ripples on the bosom of the Empire and imagined that a few whiffs from the lungs would raise a stir on the ocean.

India has been but a geographical unit till recently. It was one country merely because the seas and the high hills have enclosed it. But that it is one state, with interests and aspirations of its own, that its provinces and states are members of one body politic, that the various communities are but parts of one Indian people is another lesson that the Delhi pageant was intended to teach. The forces that bring about the concept of a unit state are more historical than geographical. The United States of America, the German Empire, nay even the Kingdom of Great Britain have been unified by political and not by physical causes. So the Viceroyalty of India and the occasional pageants of Royalty are the only real educative influences that will teach the princes and the people of India to regard the whole of the country as a political unit, that will stimulate their imagination to embrace the concept of India as forming a body politic of its own. The Government of India is an abstraction and Kings and

Viceroy are flesh and blood. Administrative measures do not appeal to the imagination but Royal pageants do.

Considering the question from the peaceful atmosphere of the school-room, we do not propose to discuss the relation of the "Coronation boons" to practical politics. We are not concerned with constitutional precedents and the policy of announcing ready-made administrative measures. But the transfer of the capital to Delhi is a question that can be discussed from the standpoint of geography. The geographic control of human affairs is being understood only in our days. Capitals cannot be made or unmade by the will of Kings or the sentiments of peoples. If Calcutta grew to be a big city, it was not because the Government of India stayed there for a few months in the year; but because it is a splendid entrepôt for the products of the rich Ganges and Brahmaputra valleys, on the one hand and the machine-made goods of Europe and America for which they are exchanged at Calcutta on the other. The capital may be changed to Delhi but as long as the Ganges clay and the Brahmaputra loam exist, Calcutta trade will not suffer. The outcry of the Calcutta merchants against the transfer of the capital is due to ignorance of the geographic control of human affairs.

Delhi or the region around it has been the site of royal capitals from time immemorial. The instinct of former rulers led them to fix their headquarters at this central point between the Indus and the Ganges valley between the mountains and the sea, between the desert and the forest land. The poetical and prose mantras of the Veda were edited in the royal courts of the district where Delhi is situated. The debates of Brahma-

vādis were held in the land of the Kurus. Elaborate sacrifices were performed there; all because the district was naturally fitted to be the centre of a thriving population and the headquarters of prosperous kings and not because it was the whim of a passing prince. Pre-historic Indraprastha, now represented by the village of Indarpat was the scene of the legends which do duty for the history of the far-off days of the past. At the end of the tenth century A.D., Tomara chiefs founded the city of Dhillika. In the eleventh century Anangapala built the Red Fort (Lalkot) and transferred the celebrated Iron pillar to Delhi and built a group of temples near it. In the twelfth century Delhi passed into the hands of the Chauhan King, Vighraharaja, uncle of Prithvi-raja. In 1193 A.D. it passed to the hands of Muhammadans. They built the Kutb Mosque where the Red Fort stood and embellished the city in various ways. It remained the capital of the Empire, till the last vestige of Muhammadan sovereignty was swept out fifty years ago. It was a sound instinct that led so many rulers to make Delhi the seat of Empire and it is sound statesmanship that to-day has recognized the importance of utilizing it, not only as a rallying point of Hindu and Muhammadan sentiment but also appreciated the definite geographical advantages that belong to the great city as the real centre of India. Only when the new Imperial city comes to be rebuilt, let us hope it will not be left to the tender mercies of the D.P.W. Engineer but a man with a soul to save and an eye for beauty and harmony will plan and erect public buildings so that the last traditions of Indian art may be kept up.

It was announced at the Durbar that fifty lakhs of rupees will be set apart for really popular education and further donations for the same purpose year after year. This announcement concerns the educational world more than others. Education of any kind is very valuable to the people of any country and under any circumstances, but the value of the gift can be more truly appreciated when it is known what is known by "popular education." The two magic formulae "Technical education" and "Elementary education" are frequently on the lips of people now-a-days; but most people have very hazy notions of what is desirable or possible in the present circumstances of the country. Factories, cottage industries, universal literacy, all these phrases are very much in the air. But the questions how far India has to take part in the world movement for the concentration of capital in a few hands of the organization of socialistic labour guilds to counteract the influence of capital, whether the artificial stimulation of cottage industries can enable hand-work to fight successfully with the machine-work and what the State can or ought to do with regard to the solution of these questions without a rational answer to these problems, it is idle to speak of "Technical education." With regard to "Elementary Education" Mr. Gokhale and those who belonged to his school of thought make a fetish of literacy. Literacy without a literature to read, strikes one as putting the cart before the horse and so long as what passes for vernacular literature is written in a dialect which cannot be mastered without years of hard labour, it is but juggling with words to talk of the benefits of universal literacy in India. Moreover to identify education and acquisition of

literacy, i.e. the training in reading and writing betrays a great misconception of education. Students of modern Psychology know that the brain grows not when the eye reads, but when the hand works—not scribbles but works with objects and tools. A training in clay-modelling, wood-work, etc., trains one in observation, in accuracy, in judgment, and in all other mental accomplishments necessary for the proper conduct of life. As in old times the spoken word was the charm to compel men and gods, so to-day we are under the spell of the written word. The writer and the speaker are our leaders to-day, the worker with the hand, be he the greatest artist in stone or metal or wood but the despised low caste-man. Hence has the wonderful skill for which our craftsmen were famous in the days when art-works were fashioned in India, deserted the fingers of our artists; will any one have the common sense and the courage to organize educational activity in schools on the basis of hand-work and relegate speaking and writing to the subordinate place which alone they are entitled to, in other words, will any one have the courage to seek the good of the many in preference to encouraging the success of the few?

AN INTRODUCTION TO THE STUDY OF COMMERCIAL SUBJECTS.

NOW that the School Final scheme has been taken up in hand, which includes many useful subjects in its C group, I have been induced to prepare a series of graduated lessons on the various commercial subjects included therein styled "Easy Lessons on Commerce." The scheme, after the completion of the course, expects the successful

candidate to possess only an elementary knowledge of these subjects, as will be clearly seen from the grouping thereof, and further from the syllabus prescribed.

Further, there is the higher course of studies in commercial subjects. This is taken up generally by students who have stopped their general studies in a school with or without passing a University or other examination. It is my intention here and in the subsequent lessons I am preparing to point out some of the existing defects in the teaching of these subjects in some parts of this Presidency under various heads. Before stepping into the subjects proper, I should like to say a few words in the shape of a preliminary lesson.

The four most important commercial subjects in which Government Technical Examinations are held in this Presidency are Book-keeping including the elements of accountancy, Theory and Practice of Commerce, Banking including a bit of political economy, and Commercial Geography and History. There is a notion current that Shorthand and Type-writing are also commercial subjects, but they are not so in as wide a sense as the first four are. These two are useful in any office where ready and easy despatch of business is necessary, whether commercial or otherwise, whereas the first four have got their full use and advantage only in a commercial or mercantile office, and hence the argument.

Taking specially the difficulty of the School Final students put to this test, a test indeed, because they have to face these subjects along with their literary studies, it is essential and this is no special case, and something really expected of the teacher too, that

the subjects should be made as palatable to the boys as possible. The way in which this can be accomplished practically in the class is by the teacher introducing the various stages of the subject in a natural way, thus creating a real necessity for the students applying their reasoning and thinking faculties as closely to the subjects as possible.

The subjects prescribed by the scheme are thoroughly practical ones and practical subjects can be best taught and learned only by adopting such a method of teaching as will leave room for no difficulties when the student puts what he has learned into actual practice.

There is a common idea even with some of the best educated men, that any man possessing an uncertain and shaky knowledge of English can successfully complete a course of studies in these subjects. Under the ugly shelter of this dogma of theirs, boys are not at all advised before they take up subjects, and hence, in many cases, the whole thing results in a deplorable failure—waste of energy, time, labour and everything.

Each of these subjects requires a kind of qualification in the student who takes it up. Generally, first, he must be able to write, at any rate, a clear legible hand, and preferably a beautiful hand. This does not mean he must be able to write ornamentally; but all that is meant is what is written must be legible and present a good and neat appearance.

Secondly, he must have a good working knowledge of English and be able to write without errors based on spelling, punctuation and construction. He must have the ability in him to express his ideas in plain chaste English in as concise a way as possible, so as to produce the maximum result with the

minimum work. In a word, he should show in all his actions that he has clearly grasped the true significance of the saying "In commerce, time is money." Specially, as to Shorthand, Type-writing and Commercial Practice with Banking, he must have a thorough knowledge of English in all its aspects, which only will enable him to understand the subjects fully and make a real and legitimate use thereof to the advantage of himself and his employer. I am sure there will be some among the numerous readers who may seem to differ from me on this point, as to Type-writing alone. But to them, I say that the so-called typists who go and sit up as such after a year's course or so, have not gone into the subject and seen what it contains. As regards Book-keeping, the primary qualifications herein given above applicable to all subjects alike must be accompanied by a quickness at figures and a capacity for a long spell of hard and patient work. As to Commercial Geography, the student must have a better knowledge of the important laws of nature and their correct application, and must be able to make out the why and wherefore of things to a certain extent.

The selection of teachers in these subjects is something that cannot receive too much attention. The teacher need not necessarily know much of Milton or Shakespeare, Tennyson or Wordsworth, but, he must be in a position to speak and write with ease and grace pure Anglo-Saxon English in a clear and enticing manner. He must always aim at simple and direct mode of communicating his ideas to others, must have great powers of illustration both oral and written, and should feel no difficulty in simplifying a hint given. Apart from this, he must be

an ardent supporter of practice, leaving it to work up the theory. He must be energetic and honest, and must have winning manners and tact in himself. Further, as regards his knowledge of the subjects, the authorities of some institutions are under the impression that a man who happens to have picked up a few points in a subject or two will do well as a teacher of these subjects. This is a mistaken notion, any how, so far as the purely commercial subjects are concerned. A good teacher of any of the four *commercial* subjects must have a good knowledge of all the four without which he will be greatly handicapped at one stage or other. To put this more clearly, one who knows something of Book-keeping alone cannot make a good teacher of Book-keeping and so on. Why this is so will be seen towards the end of this article. There is another point to be carefully noted in connection with the teacher of these subjects. Many are of opinion that a mere dry knowledge of these subjects will enable one to impart sound instruction to a class. This is a delusion. These are practical subjects and I should again emphasize the fact that they should be taught practically. This is possible generally only in the case of persons who themselves have had a complete course of practical training in a Business School or College—an indispensable requisite for a teacher. He should be up-to-date in his instructions. Experience has shown that the successful teacher should possess much more than what he is required to teach in each subject.

Many schools, taking income alone into consideration, admit students—innocent students—allowing them to take up whatever subjects they may have a fancy for. This is something that will go against, and even

undermine, the health of the institution itself in the long run. Every new-comer—I mean every new boy who comes for admission—should be carefully scrutinised both inwardly and outwardly, and as far as possible, a correct opinion will have to be formed of him as to his eligibility for a subject before he is allowed to take it up actually. This can be successfully done only by one who knows the ins and outs of the various subjects, because only he can find out the merits and demerits of the boy in this particular instance. Before the boys are admitted, it is always better if the nature of all the subjects and the use to which they are put are clearly explained to them little by little; and a few days spent in this operation before admissions will surely go a great way to improve the condition of the teachers in future converting their work into a real pleasure, instead of otherwise a hard, wearisome and useless task.

As soon as the class is formed, it should be the first duty of the teachers to give a series of general instructions. These will be the several ways and means of avoiding pitfalls and difficulties in the student's attempt to attain his goal, which will suggest themselves to the teacher who has had the required practical training already referred to. He should aim at making the class a place of great interest and ease, instead of a compartment of confusion, puzzles and riddles, as is the case in many institutions. This end can be gained only by a careful and wise selection of the teachers—an item requiring the greatest skill on the part of employers.

In many schools, the custom of blind preaching—for I should call it only by that name—prevails. This must have resulted first from the careless and indifferent way in which the teacher was selected, and

secondly, the slipshod way in which students were admitted. In both cases, the blame can be thrown upon the school authorities only; and it must be pointed out here that in the second case the innocent teacher cannot be blamed at all, if he has had no hand in the admission of students.

Having said so far, to proceed to open the class practically. The students must be divided for a day or two into a few convenient batches, and a good teacher having a wide and thorough knowledge of the various subjects should preside over each batch. His first duty should be to show to all, whatever may be the subjects taken up by them, the inter-relation existing among these subjects. This the teacher can do by taking a specimen mercantile transaction, such as a consignment of tea from Calcutta to be sold on commission in London. From this the teacher can give the boys an insight into the nature of the several subjects. He should proceed to trace the answers to the questions—why is tea sent from *India*? Why is it sent to *England*? How is it to take the same from *India* to *England*? What are the steps to be taken? How is it to ensure advantageous sales? How to remit the price of the tea sold to the owner in *India*?—in doing which the teacher should entirely make it a point to elicit as far as possible from the pupils and so arrive at the required point. This initial step, though seemingly unnecessary, is really a necessity and a great impulse to the boys at the beginning as will be seen clearly from their joyous faces at the time. This will enable the students to rightly follow the teacher in the class in future paying due attention to the various stages of the subjects they have taken up. The student must closely follow the teacher, the practical portion being

felt by him as if the class were to some extent a business office itself. This can be easily effected by the student only if the method suggested is properly followed. Then comes the subject-war division of the pupils.

In many institutions the various points herein pointed out are largely neglected, and as a consequence, much difficulty is felt by the students and the teachers alike. The writer would only wish that these suggestions were put into actual practice in all institutions alike, if they deserve such a treatment.

N. SUBRAMANIA AIVAR.

FOSSILS.

WHEN we unravel the incrustation of our Earth, formed by the two important agencies, namely fire and water, we are able to decipher the dark phases through which our planet (earth) has passed—phases which present to us the past living nature that inhabited our globe. The science relating to the history and the development of the earth's crust together with the plants and animals that successively existed on it is called Geology. To a biologist therefore the study of geology is necessary in so far as it can help him to understand the past organic nature. The organic nature varies with the several epochs of the geologists, and the remains of animals that are dug up from the earth are called Fossils. Such unearthed remains are devoid of the soft portions that clothed them while alive and the recognition of those remains were extremely difficult to those people who did not study the 'Science of life.' Therefore there had been many theories regarding them. The logicians of the 16th and 17th centuries thought that Fossils were the remains of plants and animals that were

entombed in rocks brought about by Noah's flood referred to in the book of Genesis. They confirmed the Deluge theory as they found some fossil shells on the tops of mountains only. Later on when people came to unearth the mighty giants of old, such as Mastodons, they long persisted in regarding fossils as only freaks of nature '*lusus naturæ*' and in the words of Huxley 'they were a mocking deity that rebuked the curiosity of man.' There were some who said that fossils were due to a 'formative quality' of the soil; to its 'lapidific juice'; to its 'plastic virtue' and so on. Again, there were others who believed that the change that has come over fossils were due to the action of volcanic and such like catastrophic agents. These theories were explanations offered to fossils before the advent of Bernard Palissy, who became the founder of geology. He was the son of a potter, who exploded the several fantastic theories, by virtue of his knowledge of the formation of soil by sediments at the mouths of rivers. He showed clearly to the theologians of Paris that along with sediments formed layer after layer in course of time by rivers and lakes, vegetable and animal matter often find their grave between the layers and when the layers of fine mud become hard and stony after some centuries such vegetable and animal matters undergo changes according to the soil in which they are imbedded, resulting in various kinds of fossils.

The organisms thus preserved can be classified as follows:—

(1) *The skeleton or entire organism preserved, almost unchanged.*—Under this head may be included the fossils of bones and the fossils that are dug up in ice. The preservations in ice resemble the mummy preserva-

tions of Egyptians. The woolly rhinoceros, mammoth, and Russian yelks found frozen in the North Siberia are examples of this kind.

(2) *Organisms replaced by other substances such as lime and minerals.*—In this kind the organic matter decomposes and passes off in a gaseous state and its place is substituted by carbon, lime or minerals. The coal and other fossils wherein lime is substituted are examples of the kind. The process by which mineral matter is supplied goes by the name of petrification. The petrified trees are simply the substituted Silica in place of woody matter. Such a tree is found in Pondicherry (Madras).

(3) *Cast or mould of the substance.* In this kind the skeleton disappears and only a mould of the sediment remains. The ammonite mould found in Southern India are examples of the kind.

(4) *Imprints of animals.* The foot-prints, leaf-prints, insect-prints, rain-prints, and other prints of animals such as jelly-fishes are examples of the kind.

(5) *Uses of Fossils.* Fossils are a key to the ancient forms of life and their modes of existence. We can tell from them "whether particular animal or plant lived in the waters or on dry land, in fresh or salt water, in a cold or hot climate, whether animals browsed upon plants or lived upon other animals" and so on. At the present day we are able to compare the Fauna and Flora of the past with the present. By such a comparative study the race history of the animal and plant world can be traced with certainty. We find that many groups of life have altogether become extinct and that some ancient forms of life serve to connect the groups of the present day. There are none extinct in

BRUSH DRAWING.

IT is not intended in this to create anything new or to diminish the value of what has already been written on the subject of brush-drawing by capable writers; but to endeavour to present it in a somewhat different light with the idea of reducing its real or imaginary difficulties, showing how they are derived and how they and others may be built up.

WHAT IS BRUSH DRAWING?

A child naturally sees an object as a whole, but the moment he tries to reproduce it in drawing, the object as a unit disappears and his attention is concentrated on the details. For example, the child may see a bird as a unit, but in an attempt to draw it he will separate the bird into many units; into the bill, head, tail, body, feathers, legs, feet, etc. These he will see separately and only imperfectly recognize their relation. To neutralize this tendency in children, and to lead them to represent the mass rather than the details, to see the whole rather than the part, to recognize and tell the larger truth rather than the lesser, is the chief value of brush-drawing; it is also excellent preparation for water-colour painting.

Many teachers will admit a certain amount of dissatisfaction with the results they have obtained, both with regard to facility in the use of the brush and the excellence of the finished drawings. They will also confess to a wearisome repetition in the work they have done—work which has never extended beyond the preliminary stages of brush-drawing.

The idea on no account must the pencil be used in connection with brush-drawing is not supported here. It should not be used largely,

mammalia and birds; but when we examine reptiles we find that out of the eight orders of reptiles, one-half are extinct. The fossils of the *Plesiosaurus*, the *Ichthyosaurus*, the *Pterodactyl* orders gives us a notion of some extinct reptiles. If we come to *Amphibia* there was one order called *Labyrinthodon* which is now extinct. In fishes and insects no order is known at present to be extinct.

The ammonite fossils are very much found in most of the rivers of India. They are either black or white in colour; within them are entombed ammonite shells which when cut into two halves have a spiral shell. Orthodox Brahmins struck with marvellous beauty in them attribute divinely quality to it and worship it as God. Buffon, the greatest of the French Naturalists speaks of an ammonite having the diameter of a carriage wheel used as a mill-stone in Europe.

In some parts of the world the dearth nature of the place is such as to force the people that inhabit those parts to take as food a certain kind of clay which possess some nutritive power. Of such people may be mentioned, the Ottomacs of the Orinaco, the tribes of the Amazon Valley and the Negroes of the forest of Carolina and Florida. Naturalists, struck with these accounts, eagerly made out the composition of such edible earths. To their astonishment they were able to find that those earths contained many hundreds of species of diatoms.

Fossils are also used as medicine. The fossilised crab is used as medicine by some people. The bones of bears found in the Caves of Franconia, passed in Germany for a sovereign antidote and were sold in all medical shops.

V. THIAGA RAJAN.

but in many cases, its presence is better than its absence.

GENERAL REMARKS.

Though brush-drawing is the subject before us, there is no reason why the brush should be advocated in opposition to the pencil. In making an outline with the pencil the child is apt to look upon the drawing as a series of lines, and to forget that the spaces enclosed by the lines constitute the drawing. The use of the brush will correct this fault, for it is essentially the instrument of breadth and mass. The pencil will be used all the more intelligently after some practice in the use of the brush. But it must be remembered that the pencil is a more handy and portable tool, and can be used at all times when any other method of expression should be impossible. The brush produces quick results. What is wanted is placed on paper at once, and does not leave so much to the imagination as an outline. Lines and masses of varying thickness and breadth can be made without moving it from the paper. The nerves and muscles of the hand and wrist are brought into more perfect condition by the variety and delicacy of touch required in the execution of any brush-drawing. The teacher should know something of the advantages or otherwise of this mode of drawing.

One of its features is that during its process there is no possibility of erasure, though, of course, a mass may often be extended in some way to cover an error which has been made. The knowledge of this may make the pupil nervous at first but he will exercise care and thought in his drawing which might otherwise be absent.

He must not be allowed to become timid and hesitating. He should be encouraged to

draw boldly and with freedom, even at the expense of a little accuracy.

HOW TO USE THE BRUSH.

The brush must not be "gripped" but held with only sufficient firmness to control its motion. The fingers should be well away from the point of the brush which should move easily, lightly, and with as much rapidity as is consistent with good drawing. Absence of stiffness and absolute freedom of hand, wrist, and body should be insisted upon. The body should be in an upright position, and the paper in front of the pupil and at a considerable distance. A great deal of harm is done by working too near the drawing; for only under these circumstances the particular portion which is being drawn can be seen, and much of it may fall outside the cone of vision.

THE BEST WAY OF TEACHING THE SUBJECT.

Modelling in clay, drawing in mass, and outline drawing may be made to assist one another. With young children especially, the most natural and most educational mode of proceeding would be to model the object in clay, represent flatly with the brush, and afterwards draw it in outline. The outline drawing would generally contain details that could not be seen by flat washes in mass; but the brush-drawing will have served the most important purpose of having given a better notion of the shape and space covered by the figure than could be obtained by the outline alone.

Infants and young children will naturally put a good deal of colour on their hands, on the desks, and on the parts of the paper where none is expected or required. The results may not be satisfactory from an

artistic point of view, but the teacher must have a little patience.

Practice will do a great deal to remedy this. It is considered of first importance. As a rule, the exercise-book should be spotless and neat. The teacher is often found to take this view in order to fall in with the higher powers and their methods of judging work. The book is not an exercise-book at all, but, when finished, is the product of excessive care and trouble in making something that shall not disfigure the beautiful whiteness of the drawing paper.

The teacher must keep the drawings so much within the powers of his pupils that there will be no fear of making a mess. Further advancement, except at a very slow rate, may mean spoiling these exercise-books. This kind of thing stifles the child. He is afraid to strike out as he would like to do.

Let the drawing be spoilt, if it is honestly spoilt; the child will have discovered something in his failure and will do better another time. A complete judge can see if any progress is being made, whatever may be the appearance of the exercise-book. This is not a plea for slovenliness. A teacher should be able to prevent anything wilful of that kind. Children naturally take as much pleasure as the teacher in producing their best work.

By all means cultivate order, appreciation of space, and beauty of form in the single brush stroke as well as in the highly finished or elaborate work.

Instead of using a variety of colours in the beginning it is better to have ordinary Indian ink. A grey colour may be made by mixing water with the ink. The violet, blue, warm-gray and sepia also make excellent mediums.

Common drawing paper may be used; white is preferable.

First show the pupils a drawing prepared by yourself, and then let them follow your example. For instance, give each pupil an *arasa* leaf in small size. Pin or tack a sheet of paper to the black-board or some other conspicuous place where the pupils can easily see it. Pin an *arasa* leaf to one corner of the paper, and with brush and ink attempt a painting on it similar to the leaf. Let the pupils do the same with their paper on their tablets. Do not outline the leaf with a pencil, but rather work from within, outward. To outline the leaf and then fill in the space with ink largely, defeats the end in view. It is best to work without an outline when the objects are not of rigid proportion and are of simple form. It is best in general not to use the outline in such objects, though it is not intended as an arbitrary rule. Often a few guiding lines, indicating directions and positions are necessary and helpful; but in general depend on the unaided brush.

Place a plant of simple outline in a prominent place where the whole class can see it plainly, and let the pupils draw it with brush and ink. Do not be content with one drawing but make two, three, and even four. This can be done in ten minutes. Many like to use a pen for very fine lines and details, and there is no objection to this, though with practice, the brush is capable of quite as fine work as the pen. Brush-drawing can be studied from pictures. Simple pictures cut from magazines and papers and pasted on cardboard may be used for this purpose.

T. S. ALWAR AIYENGAR.

INDIANS AND ENGLISH COMPOSITION.

THE English language stands on quite a different footing from all other languages. Its spirit is its own; it has peculiar forms and modes of expression; it obeys no rules or laws; it is irregular, even though an acute head can detect a certain shade of regularity even in its irregularities. But these irregularities are serious for one who wants to have a firm grasp of the language. Mastery over the language depends upon the mastery of the idiosyncrasies of the language. The latter, it is true, *appears* trivial to us, who are nurtured in quite a different soil and clime, but the maxim that appearances are deceptive holds good in this sphere as well as in other spheres of our activity.

But, as it is, we have an erroneous notion of what the English language is on the whole and this false notion tends to give birth to many mistaken impressions and endless difficulties. It is the mechanical view of supposing that language is but a collection of words which are isolated and independent and that every word in one tongue has its corresponding word in another. But this idea appears to be simple enough and seems to bid fair for system and regularity. But it simply mocks us with the view of system and, if we are to cherish this enchanted notion, it will land us into chaos; for the evils consequent upon this fallacy are the neglect of idiomatic usage and transliteration.

We are often told that our English is stilted, pompous and artificial; that our style breaks through all idiomatic and correct usage, that it is *Indian*, that it savours much of the disagreeable flavour of bad rhetoric, that it even goes to the length of violating all the avowed rules of Grammar and accepted usage.

True it is that some of our expressions are labelled as Indianisms. The term 'Indianism' carries with it the indelible mark of 'incorrectness.' Such phrases and sentences as a 'great deal of books,' 'escaped to inform,' 'I told him that I would come to his house' are flung in our teeth and branded with the stigma of Indianism. Although we meet with such expressions even in the writings of men who can boast of the proud privilege of having English as their mother-tongue, yet they are known as Indianisms. Certain educationists even go to the extent of thinking that every mistake in grammar and spelling is an Indianism, being blissfully ignorant of the fact that "to err is human." In season and out of season, they repeat *ad nauseam* the cry that our style is thoroughly vitiated with Indianisms; and for the matter of that one can turn the tables upon them by picking out such faults from their writings and speeches.

But, nevertheless, there is an element of truth in their remarks. Most of us pay no attention to idiomatic usage, to the correct turns and forms of English expression and to homely phrases and words. At school and college we naturally suffer from examination-catarrh; and in our hurry to get rid of this disease, we remain contented with the reading of a few books which get us no further than to a "nodding acquaintance" with, or passing glimpse of, the language. When we emerge from the college-portals, very many of us bury their talents beneath the desks, or in legal quibbling pass away their days. Especially in the varied struggle for existence—a struggle that is most keenly felt in this land, where grim-visaged famine and drought are of no uncommon occurrence—the serious study of the literature of a foreign language such as English is put on the shelf; and hence arises

our inability to feel at home in the language and to make it flesh of our flesh, and blood of our blood. Besides this serious drawback, there is in us a tendency to wear the mask and to walk on stilts, when there is no Greek Muse of the Theatre to demand these appurtenances—a tendency to become far-fetched and stilted in our writings. When some of us set their hands to write any essay or thesis, they rack their brains to recall all the phrases and words they have learnt and try their level best to surcharge their essays with idioms. Others soar above the skies, leaving what is natural and homely, and like some unskilled aviators penetrating high into the heavens, tumble down and suffer a headlong fall. There are others who revel in sentimentalism, but their sentimentalism instead of being fine and delicate, offends us with its coarseness, or rather crudeness and jars our senses.

It is a truism that some of us have not reached in his usage of correct idioms that mark of perfection which is possessed by an average educated Englishman. Very many of us use "by far better," where an Englishman would use either "far better" or "by far the best." Certain words have different shades of meaning and the speaker or writer must have an eye to these, when he uses them. We may call a person "Argus-eyed," only when he is jealously watching the movements of another, but not a man who has in him the powers of keen observation. Thus Esmond is credited by Thackeray to be Argus-eyed, when he was jealously watchful of Lord Mohun. If any one were to describe Gladstone as possessing the gift of the gab, how ridiculous it will appear! We hear even from the lips of our educated countrymen such expressions as "it is cruel in you" and "the whole thing has gone to dogs."

Another common, though not an universal,

feature of our style is that we often bundle together words which belong to poetic style or elevated prose with words ordinarily used in conversation. This feature is most conspicuous in the case of the beginners. Naturally one who strives after fine writing—hunts after certain sonorous and big words, and the leading passion in him is to write in the most exalted Johnsonese. In his enthusiasm and eagerness to produce a charming style, he scatters broadcast in his essay certain words that have got no propriety and significance in the context in which they are set and certain words that boom and sound, but signify no sense. Apart from tautology, redundancy and verbosity which, though not excusable in themselves, may be left out of consideration here, any violation of propriety tells upon the style as a whole and spoils the writing; for, it must be borne in mind that propriety is the very life of fine writing. Carlyle in his essay on Burns in a fitting paragraph speaks of "the cornucopia of enjoyments," but if our unfledged student uses the same word in a different connection and writes "cornucopia of trees" or "cornucopia of rain," it is but a verbal declaration of one's own ignorance. Similarly "cataclysm" or "deluge" is no fitting substitute for "flood." Nor is "concatenation" for "chain." Every word in this list has a peculiar meaning and, when used at random, makes for the worse. See how ridiculous it is to hear the following:—

It was a great *woe* to me. Govind *purchased* plantain fruits for half-an-anna. Will you come to my *residence*? If so, give me intimation as to the time of your *visitation*. I am *loth* to take my breakfast at a late hour. I live in a *forlorn* place. Since I have *commenced* to write this letter, I hope you would not *distrub* me. I asked my maid to *lave* this basin.

An ideal Englishman who is well-up in the

art of speaking correctly and properly his mother-tongue does not speak of the "great woe" to him, but of his sorrow. But he speaks of the "woe unto the city of Sodom." He buys fruits and purchases an estate. He does not call his house as his residence. He pays a visit to another and speaks of the visitation of an angel of God, of famine or of plague. He is not loth but unwilling to take his breakfast. He does not commence but begins to write a letter. His maid does not lave but washes his basin. He lives not in a forlorn but in a deserted place. He takes care not to say 'transpired' when he means 'happened.' The use of uncommon words which are, as it were, square things thrust into round holes, far from adding to the merit and beauty of the writings, seriously detracts from its value and exposes the beginner to the risk of being ridiculed for using words, the complete significance of which he is not fully informed of. Moreover to dally with out-of-the way words is like playing with edged tools and, for aught we know, one is likely to get the worst of it.

Not only big and uncommon words but also slang and colloquial expressions find their way into serious writing. Slang and vulgar expressions are a sign of unpolished manners and style—it may be held to a limited extent—is the mirror of the man. Slang is often looked upon as a vice and one seldom hears except from the lips of the vulgar mass such expressions as "bloody," "jiffy," "awfully bad," "too utterly utter." Language must be simple, short and sweet but simplicity and brevity must not be allowed to degenerate into the vice of slang and thereby to totally eclipse sweetness; for sweetness and slang are diametrically opposed to each other and whilst the latter is repellant to our senses, the former charms our ear, captivates our heart and wins the admiration of all. A simple style bereft of colloquialisms, slang and

childish words commends itself to the public attention more than any other kind of writing. It will be finer to state that he took a short nap during day time than to indulge in the abstruse colloquialism as "he had forty winks." A "great gun" is a colloquial and slangish expression for a man of some importance say a lecturer or an orator and may be better avoided in writing. "All of it ended in smoke" may be better expressed as 'Everything had no tangible result.' A limb of the law is quite an unwelcome phrase for a lawyer and "a green horn," for a raw, inexperienced person.

Another outstanding feature of our English as she is writ is that our style bristles with florid and flamboyant phraseology. It is highly coloured. We are apt to draw the long bow and we are not content to tell a simple fact in a simple way; we spin a yarn out of nothing and make it loom large in others' eyes. Even beginners who should ever keep themselves on safe ground very often indulge in grotesque emotionalism, preferring it to the ordinary, natural and unemotional style. Their goal in view is a flowery style, and to achieve this end they strain every nerve of theirs to infuse their writings with an emotional vein which, happening very often to be out of place, becomes maudlin and coarse and degenerates into a pompous affectation, being liable to wound one's fine susceptibilities; for, the grand truth that nature unadorned is adorned the most has not yet dawned upon them, and in their craze to dress even the most simple facts of ordinary life in a gay, gorgeous fashion, their feelings and emotions which can flow spontaneously only in response to the gravity and dignity of the matter dealt with are restrained to produce an emotional effect and the effect, as may be well imagined, is necessarily undesirable, unwelcome and unwished for. Faucy whether

there would be anything more exciting our laughter than a student of the Matriculation class describing, when asked to write an essay on "A Village on Fire," that "a Himalayan weight of paper and a Pacific Ocean of ink are too poor a material to adequately paint the sufferings of these villagers whose houses were now on fire." How funny and amusing it is to see one write "The uses of a coconut tree, words cannot describe," and to use a mixed metaphor as the following: "thirsty brains are fed"!

To sum up, the chief fault noticeable in the style of some of us and, especially, of our beginners is its unnaturalness. There are indeed instances of violation of the correct usage of idioms, phrases and certain turns of English expression, but these are faults incident to the fact that English is a foreign language to us. Educationists have come to feel that there is a great flaw in our educational system and have directed their efforts in this direction. The axe is now laid at the root, and the method of teaching the lower classes has undergone a change. The good old method of translation is elbowed out of the class-room and what is called the New or the Direct Method has been supplanted in its place. But apart from the mistakes as regards idiom and phrase which the New Method bids fair to provide against, there is that fault which the beginner, especially, is apt to lose sight of in his mania for fine writing—the unnaturalness of style. Fine writing, it must be remembered, is the necessary concomitant of simple and natural writing. But, as it is, we stifle the natural and sigh after the unnatural. We season our style with the sickening spice of affected sentimentalism, we like the pride, pomp and parade of artificiality; we wear the mask and hide our thoughts, wishes and feelings or make them obscure and thus strike at the root of the fundamental

function of language, which forms the grand instrument of conceptual analysis and synthesis and the grand medium by which we can exchange our psychical contents with others. The best way to get rid of the fault of unnaturalness and artificiality of style is to engage oneself in making a free use of the writings of Swift, Steele, Addison, Goldsmith, Freeman and Froude, always taking care to exclude those of Johnson and Macaulay. To imitate Swift, it is held, is rather an irksome task, but the best way to imitate him is to write in the natural way. So simplicity and naturalness must be the one great ideal which we must always set before ourselves, whenever we want to write in the foreign language, English, because the very authors who have cut a figure in this field of letters achieved their success with the secret of these three S's—simplicity, shortness and sweetness.

T. S. VENKATARAMA AIYAR.

THE KING AND QUEEN IN THEIR HOME.

1. Many a boy has an earnest desire that if he were a king, he might do what he would choose to do, but if he sees King George V. and Queen Mary in their home, the state of things will then appear to them quite different. If our King and Queen want to discharge completely the duties of looking after the state of their subjects, they have to do a good deal of work and that is the reason why their day's work is finished with much pains and labour. It is a saying of our Gracious King and Queen "Rise early."

2. All the Englishmen know very well that when our King lives in the Buckingham Palace, he very early rides out to the Row

for an airing and when he is at Windsor Castle even then he rides out to the Park and Her Majesty the Queen accompanies him. Her Majesty does not ride now but she used to do so when she was a princess.

3. Their Majesties' morning time is all spent in doing some work or other. The Queen receives every day a large number of letters and to dispose of them she has got a private clerk whom she gives necessary directions. Beside this, there are princes and princess whose education and private life, the King and Queen themselves look after. As the princes are now growing up, the King have to go out of doors to get their education, but the princess always remains with the Queen who does not like separation from her daughter even for a short time.

4. When His Majesty the King lived at Frogmore, Her Majesty the Queen used to take the princes and the princess to Virgiana Waters or any other beautiful rural place in the afternoon and there they took their seats among the trees and take their tea.

5. In spite of the press of work, the royal parents have almost always made it a point to mix with their children very freely.

6. In discharging the various duties of the State, our King and Queen lead the life of a middle class Englishman. They love their royal children extremely and like very much to enjoy their company in the evening. The Queen has no taste for card or other plays but prefers music, reading and needle-work to sports and plays.

7. The King is not fond of race as his royal father was. He is a very good shot and likes fishing very much, and that is why he likes Scotland so much, as the country affords a good chance for fishing.

8. Both the King and Queen love their country very much and if they could, they would spend all their leisure time in England and its united islands, but they have had to travel much, so much so that no other King had the good luck to make so many tours in his Kingdom.

AZAMGARH,
22—12—11. }

B. K. MUKHERJI.

EDUCATION IN BENGAL.

INCREASED EXPENDITURE OF 10 LAKHS.

900 NEW INSTITUTIONS AND 43,000 PUPILS.

The following is the report of the Director of Public Instruction for 1910-11:—

The year under report saw an increase of 900 educational institutions, and of about 43,000 pupils. Expenditure increased by about 10 lakhs, 7.9 per cent. of which was contributed from public funds, and 92.1 per cent. from private sources, such as fees, subscriptions, etc. During the year 1910-11, 32.6 per cent. of boys and 4.3 per cent. of girls of school-going age attended school as against 33.2 per cent. of boys and 4.3 per cent. of girls in the preceding year. These statistics represent a substantial increase in the numbers under instruction, as last year's figures were based on the census of 1901 and this year's on that of 1911.

The budget grant for the year 1910-11 under "22—Education" was Rs. 59,17,000, and the actual expenditure reported by the Accountant-General, Bengal, amounted to Rs. 55,21,384. Out of this Rs. 5,88,810 represents Government contribution to District Boards for education, and Rs. 6,84,518 fees, etc. in Government institutions. The net departmental expenditure from Provincial revenues thus stands at Rs. 42,48,056, to which is to be added Rs. 2,31,596 for the Medical College, Rs. 91,439 for medical schools, and Rs. 4,62,620 on account of educational buildings, which was spent through the Public Works Department; and the total works out at Rs. 50,33,711, which is Rs. 17,436 in excess of the grand total, Rs. 50,16,275 in column 34 of General Table IV. Steps will be taken to reconcile this small difference in consultation with the Accountant-General, Bengal.

There were three additions to the cadre of the Indian Educational Service due to the creation of two Professorships for the David Hare Training College and to the inclusion in the Indian Educational Service of the post of Professor of Mining Engineering of the Civil Engineering College. The number of appointments in the service thus rose to forty-seven.

Four new appointments were created in the Provincial Educational Service: one on account of the Professor of Chemistry for the Ravenshaw College, one for a Professor of English for the Sanskrit College, and two for Additional Professorships of English for the Presidency College. The Provincial Educational Service appointment for the Inspector of Hostels and Messes in Calcutta was, however, abolished. The number of appointments in the Provincial Educational Service, therefore, rose by 3 to 112.

Fifteen new appointments were created in the Subordinate Educational Service mostly in lieu of temporary ungraded appointments which had previously existed. Five Subordinate Educational Service appointments previously existing for the Serampore Weaving Institute were, on the other hand, replaced by ungraded appointments. The strength of the Subordinate Educational Service, therefore, rose by 10 appointments to 320.

Two new appointments were created in the Lower Subordinate Educational Service and one was abolished. The strength of the service, therefore, rose by only one appointment to 760. Government has already decided on the abolition of the Lower Subordinate Educational Service, and proposals in this regard will shortly be submitted.

THE INSPECTING AGENCY.

Financial considerations prevented the introduction during the year of the scheme which was administratively sanctioned in April 1909, for providing the Tirhut Division with a separate superior inspecting staff. The number of superior inspecting officers for the Province, therefore, remained unaltered. But the proposals about the redistribution of existing Additional Inspectors so as to post them to the divisions where high schools are most numerous were submitted to Government during the year. These proposals have since been sanctioned. Under the new arrangement there is no Additional Inspector in the Bhagalpur, Chota Nagpur, or Orissa Division.

There was no change in the special inspecting staff for the supervision of Mahomedan education.

Orders were passed during the year for the transference of all Deputy (35), additional Deputy (25), and Sub-Inspectors (310), including those recently provincialized, to a separate cadre. Definite proposals in this regard will shortly be submitted to Government.

COLLEGIATE EDUCATION.

While the number of Arts colleges remained stationary, the number of students attending them increased by 1,164. A feature of the year's working is that an increase of Rs. 1,04,371 is recorded under the head of fees, while the increase of expenditure from Provincial revenues amounted to Rs. 46,117.

The question of the proper residence of students continues to be a source of anxiety. The Calcutta Mess Scheme cannot at best be regarded as any more than a makeshift arrangement. Happily, however, the matter has attracted the attention of the Government of India, and after the close of the year under review a considerable sum of money was placed at the disposal of the Government of Bengal for the provision of hostels for students.

The year is memorable for the great advance made with the extension scheme of the Presidency College. A special Committee was appointed by Government to give final shape to the scheme of extension, the original draft of which was submitted in 1908. It has not yet completed its labours, but the main lines on which the project will proceed have been laid down, and with the help of the special grant of Rs. 8,00,000 from the Government of India, a substantial portion of the Committee's recommendations will soon be carried into practical effect. The new laboratory building for Physics, Physiology, Botany, and Geology will, it is hoped, be completed by July 1912.

The scheme for providing new laboratories for the Patna College has now been in suspense for six years, and I would commend the matter to the special consideration of Government.

SECONDARY EDUCATION FOR INDIAN BOYS.

The number of secondary schools of all classes for Indian boys increased by 32 or 2.1 per cent., while the number of pupils attending them increased by 11,980, or 7.2 per cent. The increase in the number of schools is due mainly to the increase recorded in the number of unaided institutions.

The total expenditure on secondary schools for Indian boys amounted during the year to Rs. 30,26,044 as against Rs. 28,99,795 during the preceding year—an increase of about 4.4 per cent.

All high schools are now systematically inspected on behalf of the University. The position, however, of many schools under private management is still unsatisfactory in all departments—staff, accommodation and equipment. It is entirely a question of funds, and until these are forthcoming there is little prospect of improvement. The same remarks apply with equal force to the case of middle schools under private management.

Particular attention has been paid this year to the systematic teaching of Drawing. The subject is compulsory in all secondary schools organized on the vernacular basis, and is also insisted on in the upper classes of Government and aided high schools.

A feature of the work of the year under review has been the laying out of gardens in connection with secondary schools.

The question of the residence of school-boys is receiving special attention in connection with the apportionment of the hostel grant from Imperial revenues.

PRIMARY EDUCATION FOR INDIAN BOYS.

The number of primary schools for boys increased by 233, and the pupils attending them by 6,362. The expenditure also on these schools increased by over half a lakh. The average cost of a primary school was Rs. 82.8 as against Rs. 81.9 in the previous year.

In the year under review the total number of pupils receiving primary education whether in primary, secondary or other schools, was 1,343,786 against 1,312,778 in the year previous. One in every 6 children of school-going age was, therefore, under primary instruction, the school going population, as recorded by the late census, being 8,253,501.

The total cost of imparting primary instruction was Rs. 55,41,592 as against Rs. 49,35,413 in the year before. This shows a substantial increase of Rs. 6,06,179 during the year under review; 41.4 per cent. of the total expenditure was met from public funds and 58.6 per cent. from fees and private sources.

Construction of buildings for primary schools showed little progress during the year.

The reports on continuation schools continue to be extremely unfavourable, and unless some practical scheme for their improvement can be evolved, they will have to be abolished.

There has not been any change in the system of examinations. It has, however, been decided that endeavours should be made to restore the old

Middle School Examination, and the Directors of Public Instruction of other provinces have been written to regarding the practice prevailing in their jurisdictions.

LAW COLLEGES.

As in the year previous, there were nine Law Classes in connection with the Pleaders' Examinations, besides the two Law Colleges at Patna and Calcutta.

The total attendance decreased by 152, though there was an increase of 72 students in the Government institutions.

The Calcutta University has recently prescribed a three-years' course for the B.L. Examination in place of a two-years' course, and the amended regulations have already come into operation.

The scheme for the Pleader's Certificates of Proficiency in Surveying came into force in April, 1910, and classes for practical instruction of six weeks' duration were opened at the Sibpur Civil Engineering College. For want of students no classes could be opened at the Bihar School of Engineering or at the Cuttack Survey School. The first examination under the scheme will be held in 1912.

THE SIBPUR ENGINEERING COLLEGE.

The new Professor of Tinctorial Chemistry arrived in November last, and classes for teaching dyeing and chemistry of colouring matters, both synthetic and natural, were opened. Five regular students have been attending lectures and doing practical work in the laboratory, besides two occasional students. The appointment of a Demonstrator in Electrical Engineering and another in Applied Mathematics were sanctioned during the year. Special lectures were given at the College by the Hon. Mr. B. K. Finimore, Chief Engineer to the Government of Bengal, and Mr. M. H. Arnott, Superintending Engineer, Sone Circle. The total expenditure of the College was Rs. 2,02,150 against Rs. 2,73,257 last year.

In the Mining classes there were sixteen students at the beginning of the session; of these, two dropped out, leaving eight in Course I and six in Course II. Five students were successful in gaining diplomas.

In accordance with the new arrangements sanctioned by Government, the Superintendent of Industries was appointed to the Secretaryship of the Mining Advisory Board, and mofussil Mining classes were opened in four centres, namely, Sijua, Jharia, Charanpur, and Deshergarh.

At the sessional examination 50 per cent. of the candidates passed. The examiners' report that the classes are performing a very useful work in the coal-fields.

BIHAR SCHOOL OF ENGINEERING.

The proposal for the improvement of the workshop was approved by Government during the year, and a sum of Rs. 19,000 has been sanctioned for the purchase of new machinery, etc., the expenditure to be spread over three years.

The new scheme for the reorganization of the Survey Schools at Cuttack and Patna has not yet been introduced for want of funds. 41 Survey Final Certificates and 17 Amin Class Certificates were issued in the year under review.

The scheme for providing Orissa with a school of engineering has been kept in abeyance.

AGRICULTURAL EDUCATION.

The Agricultural classes held in connection with certain high schools were abolished last year. "Nature study," however, forms an important part of the curriculum in most schools, and a scheme for awarding medals and diplomas in that subject to pupils in training, middle and primary schools is under consideration.

During the year under review Government approved of the revised syllabus for the Sub-Overseer and the Overseer courses and the new rules for the conduct of these examinations.

These Overseer and the Sub-Overseer Examinations were conducted by the Board as in the last year. The Secretaryship of the Board was transferred from the Principal, Civil Engineering College, Sibpur, to Dr. Denning, Superintendent of Industries.

THE SERAMPORE WEAVING INSTITUTE.

In the year under report the Central Institute passed out its first batch of students from the higher class. Eighteen students appeared at the examination, of whom 12 passed—9 in the first class and 3 in the second. Six of the candidates found employment almost immediately, and of the remainder, two having purchased land with the view of starting a small hand-loom factory, others are willing to follow their example if funds can be raised for the purpose.

As regards the Artisan classes, the Principal observes that these have been chiefly manned by local weavers of Serampore, the number of weaving students sent by District Boards having been very small. The majority of the students who

passed out have turned the instruction they received at the institute to profitable account.

Two new centres have been opened during the year, so that in all there are three outlying centres and a special weaving school at Sambalpur. Proposals have also been made for opening out fresh centres.

His Honour the Lieutenant-Governor of Bengal visited the institution during the year, and was pleased to sanction a grant of Rs. 1,000 towards the nucleus of a library.

SCHOOLS OF ART.

There were on 31st March last 4 Schools of Art—1 under Government management, and 3 under private control. The Government school had an accession of 47 pupils, but the private institutions lost 9. The Government School of Art is attended not only by students from Bengal, but also by several from Madras, Mysore, Ceylon, the Punjab and the United Provinces. The Principal feels that the school has improved much during the year under report and that the work done has been above the average.

In the year under review Government sanctioned the retention of the Government Commercial classes on a permanent basis, and changed the designation of the classes to "Government Commercial Institute." The Principal reports that the teaching on the whole is comprehensive and that the successful candidates of the institution are everywhere valued.

TRAINING COLLEGES.

The two institutions maintained by Government for the training of English teachers—the David Hare Training College, Calcutta, and the Patna Training College, Bankipore—have now entered upon the fourth year of their existence, and the progress achieved during that period affords ample evidence of the success of the experiment inaugurated in 1908. Measures are now in contemplation for placing them on a sound permanent basis.

Teachers in Government schools are now being deputed to one or other of the training colleges on full pay, and arrangements are being made to ensure that all existing teachers (at least those under 45 years of age) will eventually be trained. No teacher is now appointed in the Subordinate Educational Service or the Lower Subordinate Educational Service unless he gives an undertaking to undergo a course of training whenever required on the scale of remuneration that may be sanctioned for the time being.

FIRST-GRADE TRAINING SCHOOLS.

The year under review marks an advance in the history of first-grade training schools. The second-grade training school at Motihari has been raised to the status of a first-grade training school. A first grade training school is to be established at Bhagalpur as soon as funds are forthcoming.

The scheme for the introduction of a revised course of studies and the extension of the term of training was, with certain reservations, accepted by Government and given effect to from the beginning of the session 1910-11. A system of examinations has been devised to secure that as many of the students as possible shall undertake the full three-years' course—the grant of the final department certificate being conditional upon one year's approved teaching in a recognized school.

It is recognized that the scale of stipends given to students under training is much too low, and a definite scheme for improvement in this regard has been submitted to Government.

GURU-TRAINING SCHOOLS.

The most satisfactory feature of the history of *guru*-training schools during the year under report was the transfer of *guru*-training school buildings and building operations to the Public Works Department. This has relieved the officers of the Department of a work for which they were obviously unfitted owing to lack of professional knowledge.

The total number of *gurus* who obtained efficiency certificates in 1910 was 1,232. As was noticed in last year's report, however, a large proportion of the *gurus* after they have been trained take up more remunerative work than teaching.

The question of introducing a common divisional examination for *gurus* is at present engaging attention.

EDUCATION OF INDIAN GIRLS.

In the year under review the number of girls receiving instruction rose from 167,514 to 173,204. This increase has been shared more or less by almost all classes of institutions. The upper classes of girls' high schools are beginning to attract more pupils, and though fees have in some cases been raised, parents have shown no great opposition to the enhancement. The system of *pardah* examinations has aroused an interest in learning, and the girls under the care of the peripatetic teachers are reported to be growing studious in disposition.

Progress in the primary education of girls in village schools is naturally slow owing to the lack of trained teachers, the smallness of salaries, and the prejudices of conservative villagers.

The Badshah Nawab Razvi Training College has been working for more than two years, and may now perhaps be said to be safely over the experimental stage. Not only have all the stipends available for both Hindus and Mahomedans been awarded, but there are many candidates, both Hindus and Mahomedans, waiting for vacancies. The first lot of trained students have been sent out, and it is reported that all are willing to go short distances and work as teachers in other districts. The numbers in the hostels have also increased.

Miss Brock, Inspectress of Schools in the Presidency, Burdwan, and Orissa Divisions, submitted a report on the working of the Women's Training College, Calcutta, together with her proposals for its extension. These were considered by the Executive Committee of the College, which called for fuller information for submission to Government.

EUROPEAN SCHOOLS.

In the year under report the Inspector of European Schools, Bengal, assumed the position of General Secretary in this Province for the University of Cambridge Local Examinations, and two centres were recognised for holding these examinations.

Though two schools failed to submit figures, the annual returns show an increase of 200 pupils. The Government institutions experienced a substantial increase. Expenditure increased by Rs. 1,31,901, the increase coming mainly from private sources. In the year under review the municipalities encouraged European education by enhancing their grants from Rs. 2,574 to Rs. 12,348.

No High School and Scholarship Examination was held during the year, the old departmental examination having been replaced by the Cambridge Senior Local Examination. For want of qualified and eligible candidates only 6 out of the 8 scholarships of Rs. 20 a month could be awarded. The feature of the Middle School Examination was that not a single candidate succeeded in qualifying for a first class. In the Calcutta University Matriculation Examination there was a further drop in the number of candidates from European schools. The result of the annual examination test of the Government Training Classes for female teachers at Kurseong was

satisfactory, as 7 out of the 8 senior students and 11 out of the 12 junior students were successful.

Volunteering is reported to be very popular with the boys. Government paid a sum of Rs. 10,190 for cadets last year, as against Rs. 9,128 in the year preceding.

The revised and amended Code for European Schools has only been in operation since January last, and it would be premature here to say anything definite about its working.

MAHOMEDAN EDUCATION.

In the year under review an increase of 14,707 or 5.9 per cent., is to be recorded in the number of Mahomedan boys attending all classes of educational institutions. As in the previous year, the increase almost entirely took place in public institutions, the most noteworthy increase being under Arts and Professional Colleges. There was a decrease in the number of Mahomedan pupils attending primary schools, but this was more than counterbalanced by an increase in the number of those attending *maktabs*.

A sum of Rs. 6,477 was spent during the year 1910-11 as grants-in-aid to private *madrasas* to enable them to adopt the new constitution and curriculum prescribed for *madrasas* in Bengal.

The special course of studies designed for *maktabs* was introduced throughout the Province, and the new system of aiding *maktabs* described in paragraphs 279 and 80 of last year's report given effect to as far as funds would permit. The total sum expended as grants-in-aid amounted to about Rs. 45,000 as against Rs. 38,353 in the preceding year.

Towards the close of the year it was found possible to start 5 of the 17 training institutions to be reserved exclusively for the teachers of *maktabs*. The remainder will be established gradually as circumstances permit.

REFORMATORY SCHOOL, HAZARIEAGH.

The number of boys at the school on the 31st March last was 457. Of these, 280 were Hindus, 151 Mahomedans, 13 Native Christians, and 23 aborigines. Reading, writing, and arithmetic were taught up to the lower primary standard in Bengali to Bengali boys, and in Hindi to up-country boys. Since the close of the year an Uriya class has been sanctioned for the boys from Orissa. The appointment of a Maulvi for teaching Urdu to certain selected Mahomedan boys and for imparting religious instruction has been

recommended to Government for sanction. The English class was continued for Indian boys learning Composing and Type-writing. The Drawing Class for Freehand, Model, and Mechanical Drawing was maintained. The Night classes under the "Lancaster System" were also sanctioned permanently during the year. The Superintendent reports that good results were obtained at the half-yearly and yearly examinations as also at the annual examination in Physical and Sectional Drill, Gymnastics, and First Aid to the Injured. The boys were also employed as far as possible in their hereditary occupations. The principal industries taught are—(1) Blacksmith's work, (2) Carpentry, (3) Cane and Bamboo work, (4) Tin-work, (5) Weaving, (6) Tailoring, (7) Shoe-making (8) Book-binding, (9) Cooking, (10) Farming and Gardening, (11) Dairy-keeping, (12) Mason's work, (13) Band practice, etc.

A few specimens of the boys' work were sent to the Allahabad Exhibition, and one silver and two bronze medals were awarded by the Exhibition Committee. The total cost of the institution increased from Rs. 1,01,668 in 1909-10 to Rs. 1,27,631 in 1910-11.

The Committee of Visitors held 13 meetings during the year under review. Visits were paid to the school by individual members, the Commissioner of the Division, the Director of Agriculture and others. Dr. Gray, Advisor to Government on Physical Exercises, and a large number of private gentlemen also visited the institution.

HOSTELS.

The question of providing suitable and adequate accommodation under proper supervision has attracted the attention of the Government of India, and a sum of 12½ lakhs has been granted for the construction of hostel buildings not only for collegiate students but also for school boys in Calcutta and the mofussil.

The liberal scale of allowances to Superintendents of hostels and messes recently sanctioned by Government has enabled the Department to secure a superior type of officers for these appointments.

In addition to the Elliott *Madrasa* Hostel a new hostel for Mahomedans, called the Baker *Madrasa* Hostel, was started during the year. It provides accommodation for 100 students, and with easy extension may accommodate 50 additional students. The students of the Presidency College have a preferential claim on the accommodation provided.

The establishment of hostels in connection with High, Middle, and Training schools is proceeding gradually.

Dr. Gray, the Physical Director connected with the Young Men's Christian Association, visited certain districts last winter and submitted a report, which is now under consideration in this office.

EDUCATIONAL CONFERENCES.

Conferences and meetings were held in the office of the Director of Public Instruction, Bengal, to consider the improvement of the Presidency College, the distribution of the Imperial grant for hostels, and the improvement of the Women's Training College, Calcutta, and decisions arrived at. These subjects have been noticed in their proper places. Divisional and Deputy Inspectors also held Conferences on educational matters at their head-quarters.

A Circular.

THE HINDU UNIVERSITY.

For many years past schemes have been proposed for a Hindū University; the Maharājā of Darbhanga, as Head of the Mahāmandal, had put forward one; the Hon. Paṇḍit Madan Mohan Mālahiṇya had sketched a far-reaching plan, and had collected some funds; Mrs. Annie Besant, President of the Central Hindū College, Benāres, had also formulated a scheme, and had placed it before the Government in England. Now these three schemes are joined into one; the Central Hindū College is to be incorporated into the University; the Hon. Mr. Butler, Education Member in H. E. the Viceroy's Council, has agreed to receive an All-India Deputation on December 4th at Delhi; and there is no doubt that the Government will pass an Act, creating the Hindū University in Benāres.

So much, then, is done, but much remains to do; and that much can only be done by the Hindū community itself. Five crores of rupees should be raised to erect the necessary buildings and to endow the University in perpetuity. The University must include not only Arts and Science, but Agriculture, Industry, Commerce, and all that makes a nation rich and prosperous. It must train teachers for the peasant and the artisan, as well as professors for the lawyer and the statesman. It must revive the dying crafts of India, as well as introduce from the West all that is valuable in

science applied to industry and agriculture. It must utilise and improve Hindū Medicine, as well as study Western medicine and surgery, so far as they are consistent with religion and morality. It must spread and widen Samskr̥t learning, and raise and purify the Hindū priesthood. It must be the nursery of all that is useful to the country, and become the pride of the Hindū nation.

We, therefore, students of the Central Hindū College, make a special appeal to our fellow-students throughout the Motherland to rally to the support of this great cause. There cannot be a single Hindū student in any school or college whose heart has not been stirred by the thought of a national home for national culture, and who does not long to give what aid he can so that he may have his share—humble though it be—in laying the foundations of the Hindū University. How thankful will he not be in after years to be able to say: "I too, young though I was, contributed my small share and helped to gather aid from others," and we venture to think that one of the proudest traditions which will be handed down in centuries to come will be the tradition that among the ancestors of the family who lived in 1911 and 1912 were some at least who took an active part in establishing a University which has since become famous throughout the world.

We of the Central Hindū College are working our hardest, or we should not ask our fellow-students to join in this great enterprise. But we feel that if the elders of our race have agreed to sink differences of project and discrepancies of views in order to make manifest the unity of the Hindū people, we also, the younger—but still the coming-generation must take our part in what is after all a common work.

Numberless are the ways in which help can be given, but they all demand self-sacrifice. No great cause can ever hope to endure unless built and maintained by sacrifice, but sacrifice to the Motherland is joy, and he who would grudge his time, his strength, his heart, in work such as this is no true lover of his country's weal.

Give up some luxury, forego some pleasure, deny yourselves some longed-for object: but begin with yourselves. First give of your own store, and then your own example shall enable you to ask of others. And when you have yourselves done all you can, take counsel with your elders and your friends and make your town, your village, your district, famous for evermore in the annals of the history of the Hindū University.

EDUCATION IN THE MAGAZINES.

Dr. T. M. Nair on the Proposed Hindu University.

We extract the following from the very interesting article by Dr. T. M. Nair in the *Weekly Chronicle*:—

"From what I have heard so much of late about the necessity of giving religious instruction to the younger generation, I suppose that in the Hindu University every student to whatever faculty of studies he may be attached, will be given a certain amount of instruction in Hindu religion every day, say, for instance, an hour every day devoted to Hindu religious studies. In that case the religious study can only be of a general and superficial nature. The place for such general religious education is not in the University. My personal views are that the place for religious education is the home. If it is conceded that religious education should be given in public educational institutions, then I say that the school is the place for general religious education and not the University. A student does not come in the University till he is 16 or 17. At least he ought not to. Will any one contend that 16 or 17 is the proper age to begin religious instruction? The University will be hampered in its work if it has to deal with such crude and raw material. Prof. Huxley once said: "If the Universities are to be sanctuaries of the highest culture of the country, those who enter that sanctuary should not come with unwashed hands. If the good seed is to yield its hundredfold harvest it must not be scattered amidst the stones of ignorance or the tares of undisciplined indolence and wantonness. On the contrary, the soil must have been carefully prepared, and the professor should find that the operations of clodcrushing, draining, and weeding and even a good deal of planting, have been done by the schoolmaster." Quite so. The student who comes to the Hindu University is supposed to have received some education in the general principles of Hindu religion at school. If it is considered necessary to give Hindu religious education to Hindu boys, then all Hindu boys deserve to have such instruction imparted to them. Will the establishment of one Hindu University in Benares touch the fringe of that very big question? On the contrary, I should have thought that if the object of the promoters of the Hindu University was to spread the teaching of Hindu religion among Hindu boys and girls all over the country, they

Let not one Hindū refuse to help in rearing this splendid Temple to Sarasvatī Devī and let Gangā carry on her waves the message that a new jewel, more glorious than she has ever before worn, is decking the breast of Kāshī, the citadel of Hinduism.

*The Students of the
Central Hindū College, Benāres.*

THE ELEMENTARY TEACHERS' WELCOME—KUMBAKONUM.

We are desired by the Secretary of the Teachers' Association, Kumbakonum, to publish the following:—

From
THE PRESIDENT,
KUMBAKONUM ELEMENTARY TEACHERS'
ASSOCIATION,
Kumbakonum.

To
PRIVATE SECRETARY,
THEIR IMPERIAL MAJESTIES,
Bombay.

Accords hearty welcome Their Majesties King-Emperor and Queen Empress sincere rejoicings on safe arrival. Prays sound health, long reign. Ever rule Britannia.

King-Emperor's Reply.

CAMP—BOMBAY,
2nd Dec., 1911.

To
THE PRESIDENT,
KUMBAKONUM ELEMENTARY TEACHERS'
ASSOCIATION,
Kumbakonum.

The Private Secretary is commanded by Their Imperial Majesties to thank the Kumbakonum Elementary Teachers' Association for their loyal message of welcome.

would have directed their energies in the direction of establishing colleges all over the country, affiliated to the existing Universities, and at which Hindu religious instruction is given. In the absence of such colleges a single Hindu University at Benares will be absolutely useless for the purpose. A University will be the proper place for the close and exhaustive study of a religion such as Hinduism and for researches into the realm of Hindu Philosophy. That ought to be done in the faculty of Theology or Divinity of the new University. I will therefore presume that the establishment of a theological faculty for the exhaustive and scientific study of the Hindu religion is more the object of the proposed University than to impart a superficial religious education to all students who enter its portals. Let me assume that a number of young men have taken their degree in Divinity at the Hindu University at Benares. What are they to do after their graduation? Probably they will continue their religious studies all their life and become great, good, and learned men. But what are they to live on if they are to continue their religious studies and researches? Are there likely to be many aspirants for Divinity degrees of the Benares University if there are no prospects in life (from a materialistic point of view) after graduation? My own belief is that there will not be many.

Mr. Birrell and Sir John Simon on John Bright at the John Bright Centenary celebration on 16-11-11.

Mr. Birrell was the chief speaker at a town meeting at Rochdale. He said "Bright was always a Free Trader, a franchiseman on broad and simple lines, and he was always against church establishment, and always preached 'peace, retrenchment, and reform.' He hated Palmerston politically, he disliked Russell, and if he loved yet he differed from Mr. Gladstone. He stood alone, thinking for himself—a great and scornful Parliamentary figure, an orator, but no party man. He was a positive man with perhaps an unspeculative mind. When he once got a good grip of his subject, and his grip was always a good one, he was content. But Bright lived in days which followed a period of complete stagnation, and his imagination was undoubtedly immensely affected by the spectacle of the world as it was unfolded before his eyes.

We live in 1911 in times which had overgrown the lust for comparisons of progress which

associated railways with strikes, newspapers with libel actions, libraries with bonfires, and education with rates. Old-fashioned raptures about progress were considered middle-class, vulgar, and early Victorian."

In the course of his speech at the Cobden Club dinner Sir John Simon said: "The Illustrious patriot to whom this gathering is a tribute has been characterised by intense love of liberty, hatred of wrong, wide statesmanship, splendid and massive simplicity of character. He had been a type of the Christian statesman, a real leader of mankind. His example was now slowly teaching the nation to value peace. His services in the cause of peace were immense; and his view of the importance of friendly relations between different countries was closely related to his economic doctrine. The policy of Bright and Cobden had made the expansion of the Empire possible without desperate controversies and serious stains. He was in fact, the great example of a truly disinterested public man. To describe Bright's rules of oratory, we may take his own words in his hints to Mr. Gladstone for public speaking: 'It is quite impossible to over-prepare your subject, but quite easy to over-prepare your words. Break up the subject into not more than three departments, providing each with an island, a perfectly finished sentence at the end to which you have got to swim. Keep the best island of all for the last sentence of your speech, and let no power induce you to add another word.' Bright had no taste for the ordinary tittle-tattle of the House of Commons lobby, but talked of nature and literature, with a peculiar affection for poetry. As for his attitude on labour questions and his sturdy individualism, enough could be said to justify all the enthusiasm of his friends and followers. His greatest claim to admiration was the unfailing loyalty with which he held up moral principle as the guide of political action. Self-keeping, self-advertising, the worship of the jumping cat, and the cultivation of the man in the street meant nothing to John Bright."

His Highness the Aga Khan on Primary Education.

In the course of his long and able speech for the Mahomedan Educational Conference held at Delhi on the 4th instant and the following days, His Highness the Aga Khan dwelt enthusiastically on the importance of Primary Education. "We must have a serviceable and extended system of education for the benefit of the masses: It is the duty of the Government to

supply primary education to the masses which is beyond the means and scope of voluntary efforts in any civilized country. No country can ever flourish or make its mark as a nation as long as the principle of compulsion is absent. The colossal ignorance of the Indian masses militates against uniting them as a nation, and the ideal of a united nation is an ideal which we must constantly cherish and keep before us, making every endeavour towards its realization. I firmly believe that primary education should be free and compulsory and that it should be so devised that its benefit may extend equally to the minorities as well as the majorities of the Indian communities. No system of primary education can be deemed satisfactory, unless it is so carefully elaborated that minorities receive the same benefits as the majorities. I most cordially welcome the movement for the adoption of compulsion in primary education among the masses, and if it is to be efficacious and serve the noble purpose which it is intended to do, then it must be free from all and any taint of invidious distinction between one category of poverty and another. Nothing would be more fatal than forcing the parents to go through an inquisition into their income, and more particularly would this be so in the case of parents belonging to the minorities. Even when they are treated most justly they would constantly feel that they have not received the same benefits as others. This impression should not in any case be carried or allowed. I think it will be disastrous to set any limit. If you fix any limit, let it be only to prevent the rich from receiving free benefits. But great care should be taken to see that it is only the real well-to-do classes who are made to pay. Again it is equally necessary that proper safeguards should be provided in regard to the teaching of their own languages to the minorities, who should receive an equitable treatment in this respect. There cannot be free education for one language and utter illiteracy for those who speak another. Such a system is doomed to be an inevitable failure. It is not only as a Moslem that I heartily support the movement for free and compulsory primary education. We are Indians and I as a Moslem support the movement just as much as an Indian from a deep conviction of its beneficent necessity. I am glad to say that the Government have expressed themselves in favour of free primary education and are anxious to do what they can in the matter, which is of vital importance to the ryots. I am also delighted that enlightened public opinion has so unmistakably pronounced itself in favour of compulsory universal education."

Sir Roland Wilson discrediting the scheme of compulsory education for India.

At a meeting of the East India Association on Monday the 13th November last Sir Roland Wilson discredited the proposal to bring in a scheme of compulsory education for India. The attitude of the lecturer may be gathered from the fact that nine years ago he read a paper under the same auspices in which he contended that State-aided education in any shape was unsuited to the circumstances of India. He says that in the light of Western experience, it would be folly to think of inviting the masses of India to come to the tree of knowledge. The following lines of the London correspondent of the *Hindu* tend to show that there are a great many public men in England, who having little or no knowledge of the real situation in India, or of the growing demand for mass education therein, speak very light of the question of free compulsory education in India. "The greater part of his (Wilson's) paper was based upon the idea that the religious difficulty is inseparable from the question of elementary education. He endeavoured to show that one of the chief results of popular education in this country had been to accentuate religious strife and to create sectarian grievances. No one will deny that these things have unfortunately marred the benefit which the diffusion of knowledge has conferred upon our people, but no one will surely contend that these matters are of essential importance to the main question; and even the regrettable persistence of controversy as to the nature and elements of religious instruction has not affected in any large degree the tangible blessings which the masses of the people have derived from a free and universal system of education. That education is a good thing in itself and in its consequences seems to be a proposition which requires a good deal of daring for any educated man to dispute. And since most individuals cannot tap the fountain of knowledge for themselves it becomes the duty of the State, in its own interest as well as for the sake of the recipient, to open to him the closed reservoir and to make sure that everybody has an equal opportunity of availing himself of the provision made. Mr. Gokhale's Bill seeks to make a beginning in that direction. The religious difficulty exists in India undoubtedly, as in most other civilized countries but it is not at all an insuperable obstacle. Sir Roland Wilson's lecture was in fact a dissertation upon education in this country and had but little relation to the circumstances of India. He made no attempt to examine Mr. Gokhale's proposals. He evidently

knows little of the real situation in India, or of the growing demand for mass education there. For the rest his views are hopelessly antediluvian. To think that in these days you can permanently keep the people in ignorance or that it is desirable to do so is surely the height of folly. More education is the next step in India. How often are reformers told that they speak for only a microscopic minority because the masses of the people have no interest or concern in the grievances complained of? How can they have, so long as they are denied even the rudiments of knowledge! The question of cost is admittedly a serious difficulty at the outset, but the ever-increasing value and potentiality of an educated community will soon provide a solution for the financial problem."

Lord Rosebery on Libraries.

Lord Rosebery on the 7th November re-opened the reference library of the Bishopgate Institute, and took the opportunity of replying to criticisms of his Glasgow speech about the plague of dead books. The following extract from his speech will be useful for reforming Indian libraries:—"The question of books has become literally a burning one. Mr. Gesse, the librarian of the defunct House of Lords, suggested that a great number of superannuated books should be burnt. I do not believe in this method. It would not really get rid of the books. They would always be turning up somewhere. I had myself, with some compunctions, tried to burn a book. Nothing, except a dying deer, is so pathetic as a burning book. We might build a mountain of refuse books somewhere; but it would be difficult to choose the books to be destroyed. One critic has said that every book is immortal, and every author immortal because of it. But think of the fatal result of encouraging accumulation by such a terrible doctrine! The British museum is compelled to receive every book published, and before long would be a town of itself in the middle of London."

"The common-sense of the business would be to have three kinds of library. There would be a huge mausoleum of books containing everything published. It is ridiculous to accumulate in libraries intended for daily use all the multitudinous rubbish annually shot into the world. Every community should have a handy, useful, practical library containing every book, a reasonable human being is likely to want—say 50,000 at present. Public libraries depend for their usefulness almost wholly on the librarian, who guides the otherwise helpless student by personal

care or an explanatory catalogue. After all, however, the library a man loves is that which he has himself collected. I am referring not to the millionaire's library, with its Mazarin Bibles and First Folio Shakespeares, but to the cheap and little library, perhaps only a shelf of tattered and ill-bound books, almost every page recalling some pleasing incident or impression, and secured perhaps at the cost of real self-denial. Finally I should like to add that almost the first task, and certainly the first task, of a public library should be to collect all works relating to the place where it stands."

"Some Aspects of Education" by S. Srinivasa Iyengar.

A social gathering of the Madura Union was held on the 26th ultimo in the Hindu High School when Mr. S. Srinivasa Iyengar, B.A., B.L., delivered a lecture on "Some Aspects of Education," in the course of which we have the following:—"A great deal of attention must be devoted to the method of education and to the ideals of education. There could be no such thing as a universal type of education, and it is impossible to overlook the heredity and tradition of a race. It is not possible for human endeavour to shape the basis. To some extent, undoubtedly, there must be such things, as an artificial selection and a deliberate choice of methods. Liberty of thought and liberty of action even as regards educational ideals must be conceded. It is true that Western education has done splendid service and made us practically a new nation, but much yet remains to be done. A *via media* has to be discovered and the right solution is, while accepting the results and methods of Western education, we should seek to supplement that education, by training the younger generation to understand right ancient Indian History and to read aright the ancient book which had given them religious, social and legal ordinances. A compulsory study of the Smritis of Manu, Narada and Vishnu would be the best way of eradicating all superstitions in this country. It would not of course do to confine ourselves to oriental culture."

"For my part I do not see that there is not any necessity for the proposed University. But the ideal of education might undoubtedly be such as would enable those amongst us as want to develop and modify Hinduism to do so while those who want to remain within ancient fold of orthodox Hinduism may be allowed to have their education methods given a fair chance. I do not know what the promoters of the Hindu

University intend to do, but if they intend to start it not on any sectarian or racial lines but on the essential principles of Hinduism common to all sections of the Hindus, I cannot see any objection to it. I cannot define Hinduism yet and one generation is at least required before an agreement can be come to as to what is meant by Hinduism. That ought not to deter us from allowing others liberty to try their educational methods. We cannot claim any prophetic vision that such Universities must necessarily breed sedition. The less we talk or think of sedition, the less sedition there will be in the country."

"I do not imagine what possible objection there could be to the proposed Hindu University if it is started as I think it might be. If after some experience the Universities do not meet the modern needs, the scheme might be modified. The Government of India could be trusted to provide the necessary safeguards in the matter of furnishing a conscience clause. It is asked whether philosophy would not make them apathetic and lose the energy that they had under the spell of English education. That would not be so if the Hindu University kept hold of the best curricula of Western education as well."

'History of Indian Currency' by K. Ramanujachariar.

Professor K. Ramanujachariar of the Pachaiyappa's College gives us a beautiful description of the "History of Indian Currency" in the course of his lecture on the subject under the auspices of the Economic Section of the South Indian Association, Mylapore. "We may start with the punch and the die which issued gold coins in the days of Buddhist supremacy. These two forms of coinage, are not now available. Coming to the historic times, gold coins were more in circulation in Southern India. The Chalukya dynasty issued several forms of gold pagodas some bearing the designs of a *chanku* and *chakram* and some of *Vishnu* on them. These coins have gradually disappeared on account of the depredations by the northern people, though some of them are still available. We have the gold pagodas of the Gajapati Rajas, and also the Lingayat pagoda. We have also other sorts of pagodas issued by Bukka Raja, Sri Krishna Raja, Sadasiva Raja, and Timmaba Raja of the Vijayanagar dynasty containing on their inscriptions of Hanuman, or Vishnu or the Boar, or Siva and Parvati. All

these coins are now available for inspection at the Museum. After the fall of the Vijayanagar dynasty the various Palligars issued pagodas in imitation of their masters. Three or four forms of these pagodas are now available. Hyder Ali issued pagodas with similar inscriptions, with the picture of Siva and Parvati on one side, and his initials on the other: Tippu Sultan changed the inscription."

"Up to 1817, these gold coins were largely in circulation in Southern India. When the East India Company came to power in 1817, they also issued in respect for popular feeling gold pagodas, three or four descriptions of which are still to be seen. It is interesting to note that when the East India Company took charter, 994 forms of gold and silver coins met their astonished gaze. In 1600 a charter was given to the East India Company by Queen Elizabeth under which particular coins were minted in England and circulated in India. Until 1764, the Company continued minting coins. From 1766 to 1835 the Company tried all kinds of bimetallism. The people began to complain. Sir James Stephen was consulted and he showed the impossibility of fixing the ratio of bimetallism. The Company did not accept this and went on trying till 1816 when they declared the silver a legal tender and stopped minting gold pagodas and issued gold Rupees—fifteen times the value of a rupee. The first silver coin bearing an English model was issued in 1835 bearing the picture of William IV. At the same time gold coins were also issued, but they were not legal tenders, though in 1841 it was decided to receive gold coins in treasuries in payment of revenue. Between the years 1848 and 1850, the production of gold became so vast that the Government declared that gold coins would not be received at the treasuries in payment. In 1864 the Chambers of Commerce of Madras, Bombay and Calcutta submitted memorials to the Government, praying for the introduction of gold currency. The Government of India recommended the minting of sovereigns. After a long struggle the Government declared that gold coins might be received in the treasuries, a sovereign being equal to Rupees ten. The currency difficulty once more arose in 1872 and Sir Richard Temple, pointed out the necessity of introducing gold coins, but with little success. The history of the struggle of the Government of India in regard to these currency difficulties between 1873—1893 is a long one. They did not know what to do indeed. During this period various representations were made and several conferences were held:—The Indian Coinage Act VIII of 1893 was passed

closing the mints to the free coinage of silver to the public at the same time reserving the power to Government to coin and declaring the value of the sovereign to be Rs. 15."

The Hon'ble Mr. Duke and Primary Education.

The Hon'ble Mr. Duke, officiating Lieutenant-Governor, made an important speech at St. Andrew's Dinner. He prefaced it with a disclaimer not to deal with any political or controversial topic. No part of His Honour's speech will be read with greater interest than that in which he dealt with the question of primary education. His Honour said:—"There has always been an indigenous system of elementary education in India, but not only was it far too scanty in amount, but it had degenerated into an utterly lifeless and mechanical system in which the children learnt a modicum of the three R's entirely by rote, with the smallest possible exertion of intelligence by themselves or their teachers, and therefore it failed in the true ideal of education, namely to arouse and then to train the intellect. For the past ten years the Government of this province has been striving to remedy this state of things and has at last, I believe, succeeded in revolutionising the system, so that in future little children will no longer be treated as machines, but will be trained as in all civilised countries to observe and think. The commencement is necessarily slow, because the teachers must first be trained, but a substantial commencement has been made and in future we should move much faster. What precise measures may be taken to multiply schools and extend primary education more widely among the masses, I am unable to say, but of this I am certain that the Government of India will set themselves to break down the enormous inert block of illiteracy in this country."

The "Bengalee" in its review of this speech has:—"The measures taken by the local Government during the last ten years for improving the quality of elementary education are still in a more or less experimental stage, and we can only express the hope that they will be justified by their results. It is however, a matter for sincere congratulation that the Government are convinced of the necessity of pursuing a far more vigorous policy in the matter of the extension of education than has yet been followed. All that we can say is that if the Government will succeed in removing this huge mass of illiteracy, it will have earned for itself the lasting gratitude of

the Indian people. No problem as we have repeatedly said is more important than that as to how elementary education can be made universal. The determinations which Japan formed at the time and which she has faithfully carried out can be expressed in the words:—"There shall not be a single village without a school, nor a single family of which the members are illiterate." It is the clear duty of the Government of India who hold the destinies of this great and ancient country, to form a similar resolution. The emphatic declaration made by His Honour encourages the hope that whatever may have been the shortcomings of the policy followed in the past, the policy of the future will be a policy entirely worthy of both India and England, and that in a few decades' time we shall be able to say like the Japanese patriot that with the active co-operation of the Government we have been able to drive away illiteracy from the country."

Lord Morley and Education for Workers.

Lord Morley of Blackburn, Chancellor of Manchester University, in presiding at a meeting of the University Court, speaks on the importance of educating the working classes. His words on the occasion are as useful to the Workers' Educational Association of Manchester as to those who advocate mass education in this country. "It would never do if you only exert yourselves with giving certain privileged few access to knowledge and so forth and did not at the same time take measures for distributing knowledge as widely as you could among those who are less fortunate than yourselves." He then gives some of the true characteristics of the University. "The habit of mind that Universities tend to inspire will result in opinions being careful and responsible or otherwise. Some people used to say that the reading of books is the great thing for steadying opinion and widening knowledge and so forth. Well, certainly, if the books are well chosen and knowledge and habits of mind are well developed. I wonder, however, how many people read any book twice, except one or two. The aim of Universities is not merely to induce people to read books, but to form habits of mind. By that I mean interest in life. Concentration is the key to memory, to exactitude of statement, to balance of judgment, and to vigour of action. A University, if it is good for anything, must enforce an attitude of concentration. John Stuart Mill once said that the most characteristic difference between one man and another is in their ability to judge correctly of evidence.

In the "Pilgrim's Progress" Christian said to Hopeful:—"Thou talkest like a newly hatched chicken and thou talkest like one upon whose head the shell is to this day." Among other things a University has to try and get that bit of shell off. There is no place like a University for testing competence and of making competence. Somebody has said: "You may convince the learned man, it is rather harder to convince the ignorant man but the man who is half-trained and has got a fixed idea—that is the man you will never convince." Any one who listens to the controversy of the streets finds that there is an abuse of logic which really makes one despair. It is said that Universities make idealists and sentimentalists but it is astonishing as a famous man has said how often after undergoing a most refrigerating examination with analysis and all kinds of ratiocinated tests idealism turns out to be the true common sense, and how often sentimentalism is only an uncharitable name for the best of rationalism. As a final word I would give you the following quotation from Spinoza:—"When I have applied my mind to politics so that I might examine what belongs to politics with the same freedom of mind as we use for mathematics, I have taken my best pains not to laugh at the actions of mankind, not to groan over them, not to be angry with them, but to understand them"—and by understanding them Spinoza said that he meant looking at all the motives of human feeling, love, hatred, envy, ambition, pity, the sovereign emotion, not as voices of human nature, but as properties belonging to it, just as heat, cold, storm, thunder, belong to the atmosphere. In that spirit I commend these words to you."

Reviews and Notices.

THE POSITION OF WOMEN IN INDIAN LIFE, BY HER HIGHNESS THE MAHARANI OF BARODA AND MR. S. M. MITRA. (LONGMANS, GREEN & Co.)

It was with a special feeling of pride and delight that we welcomed the appearance of a book professing to give a picture of Indian women, by an Indian lady of such education and distinguished rank. We might even confess we had enough of chivalry and appreciation of the unique circumstances which invest this book with a peculiar interest, to give it the most indulgent attention and lavish praise. And we have also to make the regrettable remark that it has been a profound disappointment to us. We are afraid we have been placed in the position of

the Knight of Ariosto who was compelled by duty to keep the lists against Bradamante and we are certainly prepared to exchange, like that son of chivalry, Balisarda for a less deadly sword and carefully blunt the point and edge.

It is unfortunate that Her Highness should have called in the aid of Mr. S. M. Mitra without recording her own impressions of the women of foreign countries during her numerous travels. There is nothing of the genuineness of a volume of personal recollections and what we have instead, is a collection of figures and miscellaneous matter which might have been gathered by a laborious student in the seclusion of a library. There is nothing of the sweetness and grace which must have expressed themselves in the most attractive forms if the Maharani had recorded her own reflections. It is indeed a misnomer to have called it the *Position of Women in Indian Life*—as through the three-hundred and fifty pages there is nothing said about a study of the activity of womankind in Western lands and it is expected that Indian women should take advantage of their example to better their own position in life. And the volume could certainly have proved of great value if it had suggestiveness in this direction. We are sorry to see again, there has not been any recognition of the peculiar social conditions of the country and it is astonishing when an Indian lady is the authoress. It was difficult to suppress our amusement and sense of futility when we passed the various suggestions before us in review. Nothing can be more chimerical than the scheme of opening a central bureau of employment for Indian women and anybody conversant with the habits of the people in this country could not dream of such a proposal. The Indian lady of even the lower middle class will feel keenly insulted if she were asked to maintain herself by keeping a tea-shop! We do not know if it is worth while for anybody to point out that Indian women have an avenue of employment in advertisement-writing! It would be of the least use even to men in this country, with its present undeveloped commercial system and the Maharani will find it hard to get either a single situation or a qualified person for such work. The limits of impracticability are reached when the modest proposal is put forward that Indian ladies might make themselves useful as preachers and orators. If the Maharani intends to manufacture preachers and orators before they are made literate, we have no quarrel with her, but she must set about finding sheepish congregations to suit this extraordinary class of speakers.

As a book that might convey material for the building up of a distant ideal it is probably useful, but it must be long before its pages are turned to practical benefit for the daughters of this land. We are however hopeful the Maharani will be able to produce a more attractive volume, free from the heavy appendage of Mitra's authorship, conveying in a light and graceful manner her genuine impressions of the woman of foreign lands or a picture of her sisters in this country with the instinctive sympathy and appreciation which must be her priceless possessions.

THE MORAL LIFE AND MORAL WORTH, BY W. R. SORLEY—CAMBRIDGE MANUALS OF SCIENCE AND LITERATURE. (CAMBRIDGE UNIVERSITY PRESS.) 1s. net.

A problem which is of pressing interest to educationists in India at the present day is the question of imparting moral instruction to the youths in the institutions of the land. A real difficulty has been felt in attempting to frame moral lessons, based on the fundamental principles of ethics. Mr. Sorley's book will be of great use in solving this problem. A study of his book will afford the means of appreciating the most important of moral virtues, and convey useful knowledge relating to their elements. After some preliminary observations on the *Moral Life*, the author passes on to a lucid analysis of virtues like temperance, courage, wisdom, and some other personal virtues. Two special social qualities, justice and benevolence next claim his attention and the book closes with a study of the relationship between religion and the moral life. We have nothing but praise for the author's clearness of arrangement and general lucidity of exposition.

THE STORY OF THE EMPIRE, BY GERALD T. HANKIN, B. A. (PUBLISHED FOR THE LEAGUE OF THE EMPIRE BY JOHN MURRAY.) 2s. 6d.

We have great pleasure in drawing the attention of schoolmasters in this country to this new publication by the Empire League. The sense of citizenship which is sought to be infused into the minds of the children in this country, must be closely associated with an appreciation of the position of Indians in the great British Empire. And there cannot be a more impressive manner of bringing home this fact to their minds than by placing this book into their hands. The eminently useful ideal which the author has had before him is very well brought out in these lines: "Special stress

has been laid upon citizenship, i.e. upon those factors in history which have had the most direct and important bearing upon the development of the empire, and upon the rights, duties and responsibilities of the citizen. Minutiae of facts and dates have been reduced to the narrowest limits; but the connection between history and geography has been emphasised throughout, and an attempt has been made to explain in the simplest possible language what the British Empire is and how it grew." It is enough to add that the author has more than realised this hope.

A BOOK OF ENGLISH PROSE (1470-1900). SELECTED BY J. H. FOWLER, M.A. (MACMILLAN & CO., LTD.) 3s. 6d.

As the General Editor of Macmillan's *English Literature for Secondary Schools*, Mr. Fowler has done enough of service already in familiarising young minds with some of the best masterpieces in the language. The book under consideration is another such effort, intended for elementary as well as advanced students of literature. It consists of selections chosen from representative prose-writers between 1470 and 1900, almost from the beginnings of the evolution of English prose to the present day. Malory and Sidney are there, and the list has been brought down to Newman and Stevenson. The choice of paragraphs has been only with reference to excellence in style and the book will thus serve as an admirable study for some of the most subtle aspects of composition. The selection has been done with commendable taste, but we are not sure if the usefulness of the book would not have been considerably enhanced, if the editor had prefaced the selections from each writer with some critical remarks on the characteristics of his style. It is difficult to expect this kind of work to be done by the student himself as it is one of the most difficult aspects of composition.

TREATISE ON PRACTICAL LIGHT, BY R. S. CLAY, B.A., D.Sc. (MACMILLAN & CO., LTD.) 1911. 10s. net.

This book may be regarded as an expansion and development of the author's earlier book on practical exercises in light, which dealt only with the more elementary portions of the subject. The more advanced parts of the subject are treated with great clearness and lucidity in the present book. Problems of a commercial importance receive considerable attention. He has therefore dwelt at greater length upon the Compound Lens, the Microscope and Colour

measurement than is usual in text-books of this kind. The theory of every method is fully discussed and the degree of precision attainable pointed out. One noteworthy feature of the book is the employment of very cheap apparatus, which can often be constructed at home. The book is up to date in every respect and can be heartily recommended to all students, both elementary and advanced.

ELEMENTARY MECHANICS OF SOLIDS AND FLUIDS, BY A. CLEMENT JONES, M.A., PH.D. AND C. H. BLONFIELD, M.A., B.Sc. (EDWARD ARNOLD, LONDON.) 1909.

An attempt is made in this book to arrange the more elementary parts of statics, dynamics, and hydrostatics so that they can be conveniently studied together. Throughout the book wherever the experimental results are inadequate, the actual assumptions made are stated, or the laws which are only approximately true are indicated. The subject is developed by numerical examples so as to make the pupils fall back on fundamental principles. The formulæ representing the principal results and the laws are given in thick type. Graphical methods are freely resorted to. The book may be consulted with advantage by the science and mathematics students of Indian Universities.

LIFE IN THE SEA, BY JAMES JOHNSTONE, B.Sc. CAMBRIDGE: AT THE UNIVERSITY PRESS. 1911.

In this volume belonging to the Cambridge Manuals of Science and Literature the author has attempted to make a broad survey of life in the ocean, to consider the way in which different kinds of organisms affect each other and are affected by the great seasonal changes that sweep across the sea. Many of the statements in the book appear to be dogmatic, but we fear that within the short compass of this it is not possible to give all the evidence that might be brought forward.

LINKS WITH THE PAST IN THE PLANT WORLD, BY A. C. SEWARD, M.A., F. R. S. CAMBRIDGE: AT THE UNIVERSITY PRESS, 1911.

This book, though small in compass, is of considerable value to the evolutionist. It calls attention to some of the many questions raised by an inquiry into the relative antiquity of existing plants, and the nature of the evidence furnished by the records of the rocks is discussed. It also forms a volume of the Cambridge Manuals of Science and Literature.

PRIMITIVE ANIMALS, BY GEOFFREY SMITH. CAMBRIDGE: AT THE UNIVERSITY PRESS.

This book belongs to the same series as the two books reviewed above. It gives a simple account of modern views on the relationships of the chief groups of the animal kingdom, the principal grounds on which the modern classification of these groups is based, and the evidence by which some of the main streams of animal evolution can be traced.

FIRST BOOK OF ZOOLOGY, BY T. H. BURLAND, M.A., B.Sc. (MACMILLAN & CO., LTD.) 1911.

As the aim of the teaching of zoology as a school subject is to train the powers of observation and to develop a spirit of independent inquiry, this book gives an elementary account of a few readily obtainable animals. Practical work and exercises are also provided. Many of the illustrations are intended to serve as model diagrams to those who follow the practical work.

"THE WEEKLY CHRONICLE."

We are in receipt of the first three issues of the *Weekly Chronicle* edited by Mr. P. N. Raman Pillai, B.A., who as the late editor of the *Madras Standard* for about twenty years, has won for himself the reputation of a thoughtful, sober and an able writer. He used to advocate measures really wanted for the betterment of the people, and we feel sure that as the proprietor and editor of the *Weekly Chronicle* will properly represent the views of the Indian people. Ever since the unfortunate death of the "Madras Review" there has been a want of a good monthly or weekly under the editorship of a competent man. Mr. Raman Pillai has supplied that real want. It has been a pleasure to us of late to be reading his articles on literary, social and political subjects. He has set a high standard in his new weekly. The editorial notes are all carefully written in good literary style. The leading articles are contributed by men of merit. Interesting extracts are found in each number. And a special portion is set apart for giving an account of the activities in England concerning India. A weekly of this kind is a worthy and necessary addition to the ranks of Indian Journals and we heartily welcome it and wish it every success. The annual subscription is Rs. 9, and copies may be had of the Manager, 50, Gangu Reddy Street, Egmore.

"THE COLLEGIAN."

This is a new All-India Journal of University and Technical education. From the several sections into which the reading matter is generally divided, we find the name quite appropriate. We have, for instance, The Universities, The Colleges, Technical education, Education abroad, Student's section, Science and other notes, Sporting, Cuttings from leading periodicals, etc. The superfluity of Educational matters now available for publication, may account for a fortnightly of this kind to come into existence in addition to those already in the field. The arrangements, selections, and the literary style of the numbers we have received are appreciable. We wish the magazine every success.

Indian Educational Notes.

MADRAS.

Nadar's High School, Porayar.—The Nadar's High School, Porayar, celebrated the Durbar Day with great éclat. The staff and the students with one mind made the decorations as grand as possible. The gaily flowing Union Jacks at the building top with triumphal arches below, and the beautiful multi-coloured streamers and festoons waving throughout the School-house, made an indelible impression. After the recitation of songs in Sanskrit and Tamil, composed in honour of the occasion, the prizes and Coronation medallions were distributed to school children and to winners in sports. Then Mr. R. Kalyanasundaram Aiyar, the Headmaster, made an impressive and enthusiastic speech on loyalty and duties of students; and this was followed by a lucid speech in Tamil by Mr. T. S. Krishnaswami Aiyengar, Assistant Master of the School. There was a Gramophone entertainment to children and teachers and the Tanjore band was also in attendance. Later on the children of the 4th class gave a dramatic performance and after the distribution of sweets and *pan supari*, the celebrations ended amidst deafening cheers.

Gopalsamudram High School.—The Prize-distribution function of the Gopalsamudram High School was celebrated with great éclat on the 9th instant with Mr. R. N. A. V. Somasundaram Pillai Avergal, B.A., B.L., in the chair. The proceedings began with prayer which was followed by the Headmaster's report, which was an interesting record of the progress that had been made by the school in the matter of accommodation—equipment,

and efficient instruction during the short period of three or four years, and incidentally touched upon various topics of educational interest. The report was followed by interesting recitations and kindergarten songs which were much appreciated by the audience. The Chairman then gave away the prizes, the first of which was given in honour of Mr. L. C. Williams Pillai, the late lamented Inspector of Schools, who had done much for the school by timely advice and encouragement.

The Chairman then rose to address the audience and began by congratulating the Headmaster on having been able to celebrate the function during the auspicious week of the Coronation Celebrations, when the whole nation was rejoicing over the visit to their country of Their Gracious Majesties the King-Emperor and Queen-Empress. He then referred to the many sympathetic utterances of His Majesty which showed how deeply he loved his good Indian subjects and prayed that God might bless him with long life and happiness. After exhorting the students to regularly perform the duties they owed to themselves, their teachers and other elders and to God, he made an eloquent appeal to the wealthy men of the village for financial help to the school which had been founded and so long maintained at a very heavy pecuniary sacrifice by the philanthropic panniar Mr. Venkatarama Aiyer. He dwelt upon the great advantage of having a high-school in a rural centre like Gopalsamudram away from crowded cities which are beset with temptations of every kind and as he was not for raising the school-fees it being his deep conviction that education must be made as cheap as possible, he wanted the wealthy men of the village to help to make the school support itself without raising the school-fees. He himself had been connected with the Hindu College, Tinnevely, for the last several years and no cause was nearer to his heart than education. The eloquent words of Mr. Somasundaram Pillai had a value all their own as everyone present knew him to be one of the most sincere and unostentatious public workers of the District. The Chairman was then garlanded and the proceedings were brought to a close with the singing of the National Anthem in Tamil and three lusty cheers to Their Gracious Majesties the King-Emperor and the Queen-Empress.

Education among the Koya boys.—It will be remembered that in July last the Director of Public Instruction was requested to report—(1) how many schools there are for Koya boys in this Presidency; (2) how many Koya boys are reading in those schools; (3) how far the scheme of scholarships and the free supply of books and slates to Koya boys has been successful in popularizing education among the Koyas; and (4) whether, in his opinion, the educational wants generally of the Koyas are at present adequately provided for. The Koyas are the hill tribes in the Godavari District. In October the Director of Public Instruction submitted that there

were six schools for Koyas in this Presidency and that 120 Koya pupils were at present reading in them. Besides these 120 pupils, Koya pupils are freely admitted in all the other schools in the Bhadrachalam hill range and there are at present 128 Koya pupils attending eleven such schools. In addition to the six schools for Koyas, the sanction of Government was applied for in August last by the Director to open a new school for Koyas at Marayagudem. In August the Government sanctioned the award of only 25 scholarships at the rate of five for each standard, but it was not found practicable to adhere to this number. The Government Agent, Godavari, pointed out that all Koyas were alike poor and not in a position to understand the principles upon which pupils were selected for scholarships and that they would accordingly view with jealousy and dissatisfaction any such selection of scholarship-holders and might go the length of withdrawing the children to whom scholarships had not been awarded. Scholarships have therefore been sanctioned to all the Koya pupils reading in schools in the Bhadrachalam agency. A sum of Rs. 470 was spent in 1908-09 for the award of scholarships to 111 Koya pupils at the sanctioned rates. In 1909-10 the expenditure was Rs. 711 for 115 pupils. But as the number of Koya pupils increased to 227 in 1910-11 which was partially due to the inclusion of the Nugur taluk in the Bhadrachalam agency, the usual rates so as to restrict the expenditure. The expenditure on scholarships for this year amounted to Rs. 768. Scholarships for the current year have not yet been sanctioned as the matter is under correspondence between the Inspector and the Government Agent. Books, slates, etc., are also being awarded as prizes to the Koya pupils every year. The inspecting officers point out that after the institution of scholarships the number of Koya pupils attending schools is rapidly increasing and that the number will further increase if the payment of scholarships is continued for some years more. They also report that the educational wants of the Koyas are at present adequately provided for. The Director concurs in this opinion. The Government, in their Order, dated 7th November, hope that the Director of Public Instruction will continue to watch the progress of education among these hill-tribes with special care.

Commercial scholarships.—Intimation has been received from the Principal of the Bangalore Commercial High School to the effect that the institution in question has established, in honour of the Coronation of His Majesty the King-Emperor, ten free scholarships and twenty half-free scholarships, tenable for a period of eighteen months beginning on the Coronation day, the 12th December 1911. Applications are invited and must be supported by the head of some College or recognized school. This manner of commemorating the Coronation of the King Emperor is a laudable one, and the Principal of the High School deserves commendation for his patriotic act. So many memorials are undertaken

nowadays, which are of little benefit to any one except the promoters, that it is pleasing to find an instance where the commemoration of a great event has taken a useful form.

Opening of the new Hithakarini High School: Rajahmundry.—The opening ceremony of the new Hithakarini High School buildings constructed at a great cost through the princely munificence of the Raja of Pithapuram, was held recently. Babu Heramba Chandra Mitra, M.A., Principal, City College, Calcutta, officiated on the occasion. The building was richly decorated with flowers and festoons and the elite of the town graced the occasion with their presence. The report of the School and some Telugu verses were read. The President after delivering an eloquent address on education and the teachings of the 'Nineteenth Century' declared the buildings open. The Raja of Pithapuram who was expected to be present in person, on the occasion, was unable to do so, but sent his Deputy with the proposal that the School should be named after Rao Bahadur Mr. K. Vereslingam Pantulu, which was heartily carried out. The meeting terminated with the singing of 'National Anthem' and 'Mangalakarah' by two girl students.

The University elections.—We understand that at the election which took place on the 16th instant, to fill the four vacant seats on the Senate of the Madras University, Mr. C. P. Ramasami Iyer and Mr. K. B. Ramanatha Iyer have been returned by the registered graduates, and Mr. S. Srinivasa Iyengar and Mr. K. Ramanuja Chariar by the Faculty of Law.

Coimbatore Agricultural College and Research Institute.—List of Honorary Visitors.—The following G. O., dated the 4th December has been issued:—

The period for which the Honorary Visitors of the Agricultural College and Research Institute, Coimbatore, who were appointed in G. O. No. 582, Revenue, dated 2nd March 1909, were to hold their appointments having expired, His Excellency the Governor in Council is pleased to appoint the following gentlemen as Honorary Visitors to the Institution:—

Rao Sabib M. Abraham Pandithar, Tanjore; 2. Messrs. G. Adinarayana Reddi, Kondapuram, Hindupur Taluk (Anantapur); 3. K. Adinarayana Reddi, Allur, Nellore District; 4. Rao Bahadur Annaswami Tevar, Ukkadai, Tanjore; 5. The Mittadar of Chennappaickenpalaiyam, South Arcot District; 6. The Zamindar of Chunampet, Chingleput District; 7. Rao Bahadur C. Hanumantha Gowd of Hospet, Bellary District; 8. Mr. R. James, Coonoor; 9. The Hon'ble Raja Vasudeva Raja Valiva Nambudri of Kollengode; 10. Mr. Vengayil K. Krishnan Nayanagar, Kuttur, Malabar District; 11. Mr. Jaggarlamoodi, Lakhmayya Nayudu Garu of Karamchedu, Bapatla, Guntur District; 12. Mr. A. Varadappa Nayudu, Mittadar of Nekkondi, Dharmapuri Taluk, Salem District; 13. Sir Frederick Nicholson, K.C.I.E.,

Honorary Director of Fisheries; 14. The Mittadar of Obilinayakkanahalli and Bosinayakkanahalli, Salem District; 15. Mr. P. S. Parthasarathy Aiyangar, Kurnool; 16. Mr. Gangaraju Pantulu, Proprietor of Potuluru, Ganjam District; 17. The Hon'ble Rao Bahadur V. Ramabhadra Nayudu Garu, Vadagarai, Madura District; 18. Mr. Kannamalu Ramunni Valiya Nayar, Malabar; 19. Mr. P. T. Rangaswami Aiyengar, Kulittalai, Trichinopoly District; 20. Rao Sahib J. Seenambhat of Hadagalli, Bellary District; 21. Sri Ankitam Venkata Jagga Rao Garu, Proprietor of Sherumhammadpuram, Vizagapatam; 22. The Zamindar of Singampatti; 23. The Hon'ble Rao Bahadur N. Subba Rao Garu, Mangalore; 24. Mr. P. Subbaraya Aiyar, Periyakottai, Madura; 25. The Poligar of Uttukkuli, Coimbatore District.

2. The term of appointment of each Visitor will be three years.

3. The rules laid down for the guidance of Honorary Visitors are reproduced below:—

(1) The College and Farm will be open for the inspection of Honorary Visitors at any time except on Sundays and on Government gazetted holidays.

(2) Every Honorary Visitor intending to visit the college or farm shall ordinarily give the Principal 24 hours' notice of such intention stating the date and hour of his proposed visit.

(3) When a Visitor has thus announced the date and hour of his visit, an officer of the Institution will be deputed to show him over the Institution and to afford any information he may desire.

(4) A Visitors' book shall be kept in the Principal's office in which Visitors may enter any remarks regarding the working of the College or Farm. Copies of remarks recorded by Visitors should be forwarded by the Principal once a quarter to the Board of Revenue through the Director of Agriculture.

The Rector's Day at St. Joseph's College, Trichinopoly.—The 2nd instant was a *gala day* for the students of St. Joseph's College, Trichinopoly. It was the Rector's Day. All the students, to the number of about 2,000, with the staff, about 100 strong, assembled in the spacious Lawley Hall. The programme included Addresses in various languages, kolattam and various musical performances by the College Band. At the conclusion, Rev. Father Bertram, S.J., B.A., D.D., F.M.U., the Rector got up, and, after thanking the students for their good wishes on his behalf, proceeded according to the time-honoured custom, to proclaim an amnesty for all offenders, still liable to fines or other punishments. He went on to say there were many new faces to be seen in the hall that day, new students who had come from various Colleges. He was glad they had already caught the "esprit de corps" proper to the College, and that they were taking an active and intelligent part in the corporate life of the Institution, forging chains—golden chains—which would bind them to it for ever. The greatest accession to the College was in the I.U.C. If a line was drawn through Madras

parallel to the Equator, it would be found that almost every school south of that line had sent to the College three or four or more of its students, and generally, of the best. These young men had brought with them much talent, much enthusiasm, and great hopes. On looking over the rolls, he (the Rector) was satisfied with the admission made in July last, and there were few he was not prepared to defend. He hoped the young generation of I.U.C. would not disappoint him. He then spoke at length on the disappearance of the old system and the appearance of the new. The College Band then sang God Save the King and the meeting then came to a close amidst loud cheering and applause.

Pachaiyappa's College "Hamlet"—The Pachaiyappa Club, which consists of members of the above Institution gave a performance of "Hamlet" on the 15th instant, in the large Hall of the College. As on a previous occasion, when the "Merchant of Venice" was given, a stage was erected, and as much as possible made of quite a modest stock of appliances in the shape of scenery. But what struck a visitor most was the Hall itself, crowded to its utmost limit with students all of them sharing in the enthusiasm of the actors. We Indians must have characteristics in some respects very much akin to the English people, for a difficult author like Shakespeare to take such complete hold of them. The play commenced at 5.30 p.m. and by an economy of time between scenes and acts, although almost the entire play was given, yet the curtain fell finally not later than 8.30.

It may at once be said that the performance as a whole was highly creditable to the taste, judgment and industry of the performers.

When the curtain fell, Mr. P. Seshadri, one of the Secretaries, expressed the Committee's thanks to players and audience; thanks especially to Mr. Glyn Barlow for his careful training of the performers, and to Miss Glyn Barlow, for her studies in matters pertaining to their costumes. The attitude of the densely crowded Hall left the Principal with only one course open to him. Dressed as a Stage Manager, he, from a point close to the wing, acknowledged the tribute with evident gratification offered to himself and his daughter. One verse of the National Anthem closed the proceedings.

CALCUTTA.

St. Xavier's College: Prize Day.—The annual prize giving at St. Xavier's College, Calcutta, came off recently under the presidency of the Hon. Mr. Justice Carnduff and in the presence of a large gathering of ladies and gentlemen. The Programme presented was very interesting, one of the items being the dramatic representation of "The Mock Duke of Burgundy." The report submitted by Father E. O'Neill, S.J., Rector, showed that the College had 715 boys on the rolls. Of these 410 belonged to the School Department and 305 followed the University

courses of the College. There were 94 boarders. Candidates were sent up for the first time for the Junior and Senior Cambridge examinations. For Junior examination, six were sent up and all passed. Of nine boys presented for the Senior Cambridge examination, five passed, four of them securing School Certificates and two taking Honours. In the examinations of the Calcutta University, twenty-seven of the students passed the Intermediate Arts examination. Five qualified for the B.Sc. degree, two with Honours in Chemistry and one with distinction. "The Hon'ble the Maharajah Sir Prodyat Coomare Tagore, Kt., has presented the much prized Tagore Gold Medal for English Composition. Prince Golan Mahomed of the Mysore Family has again awarded the Sir Lawrence Jenkins Gold Medal for Mathematics in the junior forms. Mr. Hajee Abdul Latif has continued his scholarship of Rs. 20 a month to be awarded at the discretion of the Rector to a boy of limited means. Mr. Dooly Chand gives a monthly scholarship of Rs. 12 on the same conditions." This was followed by the distribution of prizes which consisted of medals and beautiful books. The President next delivered a neat little speech and the meeting came to a close.

BOMBAY.

The conditions of Sir S. J. David's Munificent Gift.—A Press Note issued by the Government states the conditions of Sir Sassoon David's gift mentioned in recent telegram. The total amount is £53,400 equal to Rs. 801,000. The sum will be administered by a Board of Trustees consisting of the Secretary to the Government on the Revenue Department, Education Department, two gentlemen nominated by the Governor and Sir Sassoon David or his representative or successor.

The Board may utilise the monies available in all or any of the following ways:—Namely, (1) to promote the welfare of the agricultural classes of the Presidency, including Sind, by giving grants-in-aid, initial or recurring expenditure incurred by the Government or by any public body in establishing rural schools of agriculture, where the vernacular is the only or the main medium of instruction; (2) giving grants-in-aid of the experiments conducted by the Government or by any person with the approval of the Government, having for their object the introduction of improved methods of agriculture suitable for use in the Presidency, inclusive of Sind; (3) giving grants-in-aid of the experiment conducted by the Government or by any person with the approval of the Government having for their object the devising of new or improved agricultural machinery for use in the Presidency inclusive of Sind, to assist the building of hostels attached to the educational institutions of all classes in the Presidency, including Sind; (4) by placing at the disposal of the Government from time to time such sums as the Board may agree to for the buildings of Hostels in connection with Government Educational institutions of all

classes. Such hostels when built either partly or wholly, by the money supplied by the Board to become the property of the Government and to be managed by the Government at their full and unfettered discretion, when in the opinion of the Government there may at many a time be no further need for hostels at the Government institutions, by giving grants-in-aid towards the cost of erection of the hostels attached to private educational institutions recognised by the Government under conditions to be approved by the Government, if at any time it should appear to the Trustees that the money at their disposal cannot be advantageously utilized in any of the way mentioned above, the Government shall have power, on the application of the Trustees, to sanction the diversion of the funds at the disposal of the Trustees to any other object which, in the opinion of the Government, is likely to promote the welfare of the people of the Presidency.

It is provided that the name of Sir Sassoon David shall be given to the various objects to which the money is devoted when they are established.

Commercial Education in Bombay.—It may be remembered that a Committee was appointed some time ago by the Syndicate of the Bombay University to consider the question of the introduction of commercial education into the University curriculum and to formulate a scheme for that purpose. The Committee have come to the conclusion that the best, if not the only way of achieving the object is to institute a new degree called 'Bachelor of Commerce', similar to 'Bachelor of Arts' and 'Bachelor of Science.' Accordingly Mr. K. Subramani Aiyar has given notice of the following propositions to be moved at the meeting of the Senate on January 9 next:—

(i) That a new degree to be designated the degree of Bachelor of Commerce, be instituted in the Faculty of Arts, and that the accompanying syllabus of studies for the degree be approved and adopted.

(ii) That the Syndicate be requested to frame and submit to the Senate regulations regarding the dates, fees and other details in connection with the examinations for the said degree.

Some important reasons are advanced by the Committee for taking this decision. Firstly, for young men who are desirous of taking up a business career, a special training in business subjects is as highly valuable and necessary as for those who enter the professions of law, medicine or engineering. 'Without a well-disciplined mind, the faculties specially trained to analyse new commercial and economical situations, and without a scientific study of applied economics, and in India, without a good grounding in English, it is difficult for young men to handle scientifically and critically the numerous complicated problems of modern science and industry.' Again, unless the subject is taken up by the University there can

be no hope that the people will pay as much attention, if any at all, to its study as its importance deserves. Also, the Committee are of opinion that there is a larger demand for young men trained in this way. They say:—

We are of opinion that there is a distinct demand for the services of young men trained in the way we suggest, and that the institution of a degree on the lines recommended will open out new careers for Indian youths, and help business houses in securing the services of trained youths, capable of being gradually advanced to the highest positions in business; and we are at the same time convinced that the cause of liberal education will in no way be imperilled by the recognition of the right of applied economics and the study of business problems to a place in the curriculum of the University.

It will not be out of place in this connection to note what has been done in England and America for the promotion of commercial education among the inhabitants. In America commercial subjects are often made a part of the regular work of schools and in some schools, we are told, a separate business department exists and systematic thoroughly practical training is given. Colleges exclusively devoted to commercial training also exist. In England nothing noteworthy in this direction was done till some time back, but now public opinion is slowly moving in the direction of giving commercial training and 'exalting it into an important requisite for everybody. Shorthand is very commonly taught in schools of every grade, and language teaching is being placed on practical commercial lines. Birmingham University also boasts a faculty of commerce reflecting many excellences.' Taking into consideration the various advantages that result from a sound commercial training we hope the Bombay University will adopt the recommendations of the Committee, and other Universities follow suit in good time.

PUNJAB.

Primary Education in the Punjab.—In the current issue of the *Punjab Gazette* it is notified that children of agriculturists and village Kamins shall be exempt from payment of admission and tuition fees in all Primary classes except the Upper Primary classes of Anglo-Vernacular Schools, in which half-rates shall be levied. The children whose parents are too poor to pay fees may be exempted from the payment of fees up to the limit, in Primary classes, of ten per cent. and in Secondary schools, of five per cent. of the total number of rolls. The children of teachers employed in recognised schools whose salary does not exceed thirty per mensem shall be exempt from the payment of fees in Vernacular schools, and Department's Scholarship-holders should not as a rule be exempted from the payment of fees.

The Mahomedan Educational Conference.—During the Mahomedan Educational Conference at Delhi, much enthusiasm prevailed regarding the proposed Mahomedan University at Aligarh. The Hon'ble Mr. Butler attended and stated that both Hindus and Mahomedans would have their Universities if they succeeded in raising sufficient funds, and advised Mahomedans to pay up what they had promised. The proceedings of the Conference were specially marked by a statesman-like pronouncement of His Highness the Aga Khan, with whose views regarding mass education few would disagree. Unlike a handful of his co-religionists in London who, headed by Mr. Amir Ali, have expressed themselves against the Elementary Education Bill, H.E. the Aga Khan reiterated that the question of mass education was one which it was the special province of the State to take up because private effort could not cope with it in a satisfactory manner. An extract from his speech will be found in our "Education in the Magazines" column.

Number and rates of scholarships.—At a meeting of the Punjab Legislative Council held in March this year the Hon'ble Lala Shadi Lal drew the attention of the Government to the advisability of increasing the value and number of scholarships awarded to students. He pointed out that rates and number of scholarships were fixed as far back as 1886 and since then there has been a considerable rise in the cost of living and in the number of students who compete for them. Besides, fees in nearly all Colleges have been largely increased and in several cases the amount of scholarships does barely cover the College fees. The Government recognised the necessity of making suitable changes and promised to consider any definite proposal made on the subject. The matter was recently discussed by the Punjab University and the Senate made the following definite proposals to the Government. In the Matriculation it was suggested by the Senate that the number of scholarships awarded by the Government should remain as at present but their value be increased from Rs. 12 to Rs. 15 per mensem each. In the Intermediate examination the number of scholarships was recommended to be increased from 3 to 5 and their value from Rs. 16 per mensem to Rs. 18 per mensem each. In the Degree examination the Senate recommended that the Government be asked to give 3 scholarships of Rs. 25 each in place of one as the Science Faculty did not exist at the time when the old list of scholarships was framed. The Government has accepted the recommendations of the Senate with the exception that the value of scholarships in the Degree examination has been reduced from Rs. 25 to Rs. 20 per mensem. The number of scholarships thus awarded by the Government according to the revised scale is 28 carrying a total annual value of Rs. 5,400 in place of 24 the annual cost of which was Rs. 3,756. The University has also decided to increase the number and value of scholarships awarded by it in the various examinations.

ALLAHABAD.

The Kayastha Pathshala.—The Kayastha Pathshala of Allahabad celebrated its founder's day on the 1st, 2nd and 3rd December. On the first day the students of the Pathshala staged Shakespeare's 'Twelfth Night' in a shamiana specially erected on the premises of the Pathshala. On the 2nd day there was a social gathering of the 'old boys' and the present students of the Pathshala. Dr. Ranjit Singh presided at a meeting held in connection with the gathering and delivered a suitable address. On the 3rd day the Pathshala building was beautifully illuminated and the memorial meeting was held under the presidency of Munshi Govind Prasad. Some poems were read and speeches were delivered in praise of the late Munshi Kali Prasad, the founder of the Pathshala. Some speakers also referred to what they called stagnation in the work of the Pathshala and criticized the 'authorities' for the same, while others spoke in defence of the 'authorities.' Munshi Govind Prasad said that those who knew the Pathshala since its birth were aware that during all those years it had progressed steadily. It was no use criticizing the 'authorities.' They all knew that Rai Bahadur Munshi Gokul Prasad, the present President of the Pathshala and others who had sent the interest of the Pathshala at heart were doing their best and utilising their leisure in the cause of the Pathshala. The meeting was also followed by a dramatic performance.

Report on Public Instruction.—The general report on public instruction in the United Provinces for the past year shows a decline in the number of Vernacular Primary Schools by 210 and the number of scholars has fallen by 3,734. The Lieutenant-Governor is unable to come to any finding as to the full causes of the decline, and an exhaustive enquiry has been instituted into the circumstances of Primary Education in this Province. There has not been much progress in Female Education. The mass of the public are still tolerantly indifferent. The work done is often spasmodic, and there is absence of thoroughness and steady persistent endeavour to overcome obstacles. On the side of technical education, the year was marked by the appointment of an Inspector of Industrial Education, who is also the Director of Industries, the appointment of a Professor, a Mechanical Engineering at Roorkee, and the establishment of a second Industrial School at Gorkhapur. The Cawnpore Agricultural College was formally opened and work began on the scheme for agricultural education in the Allahabad Christian College.

Technical scholarships.—The Government of the United Provinces is prepared to receive applications for technical scholarships of £150 a year, each tenable for two years, enabling the holders to proceed to England or any other Western country in order to obtain instruction in one of the follow-

ing industries—(i) mechanical engineering; (ii) electrical engineering; (iii) manufacture of paper. The possession of a University degree is not required, but candidates must possess a thorough knowledge of English and must be qualified either by a scientific education or practical experience to profit by one or other of the courses of study which has been indicated. It is desirable further that they should already have some connection with the industry or should be in a position to turn their training to practical use on their return to this country. Applications giving full details of qualifications and antecedents should reach the Secretary to Government, Industries Department, Allahabad, not later than the 1st March, 1912. The applicants should state which industry they select and what their qualifications are specifically in respect of the industry selected. Candidates must clearly understand that they will have to depend upon their own exertions when they return to India and that the Government does not and cannot undertake to provide them with employment.

TRAVANCORE.

The Travancore Education Code.—It may be recollected that much discontent was caused in Travancore by the introduction of the Travancore Education Code in the beginning of 1910. Representations were also made by several Members of the Popular Assembly, during its seventh session as regards many details of the Code. It was urged that the new classification of all Vernacular Schools as Elementary Schools teaching up to Class VII only had discouraged vernacular education and had discouraged vernacular literature, that the new system of issuing licenses to teachers was felt to be a humiliation by the profession, that the provision requiring that a school should not be ordinarily located within 200 yards of any public burial place or cremation ground was felt as a hardship, especially by existing institutions, that the abolition of fee concessions and scholarships was an ill-considered step and that the abolition of fees in primary classes should not be a reason for making Secondary Education prohibitively costly. It was also urged that the provisions as to school buildings were very strict and that the grants-in-aid were not liberal. The Government apparently felt the force of some of these objections and directed the Director of Public Instruction to report on the working of the Code during the first year, which he has now done. The latest *Gazette* contains the remarks of the Director on the criticisms that have till now been made on the Code and the orders of the Durbar thereon. The proceedings attempt to justify the provisions of the Code and end with the following observations with which many of those who have had to criticise the Code would not fully agree: "His Highness' Government would take this opportunity to mention that they have closely watched the working of the Education Code for the past nearly two years and they have much pleasure in placing on record their opinion that, in spite of

the vague fears entertained in some quarters regarding the operation of some of the rules of the Code, no adequate grounds have been shown for any material modification of any of the provisions contained therein, that within this short period education has improved in quality and that a sure foundation has been laid for further improvement." It is difficult to resist the conclusion that in some Native States also, much undue importance is now being given to the necessity of improving efficiency, irrespective of extension of education. That the Travancore Government themselves thought that some of the provisions of the Code should not be strictly carried into effect, but should be so worked as not to make managers of institutions feel their rigour, is enough justification for the protests that have been urged against the Code. The Director was asked to allow reasonable time to managers of schools, established before the Code came into force, to work up to the standard prescribed by the Code. He was also asked to draw a clear line between those rules which all managers could comply with at once and without difficulty and those which could be satisfied only in due course. The Director was also required to give one year's time from 1st January 1911 to all grades of schools for the full supply of the furniture and teaching appliances required by the Code. The Government further told the Director that the policy of the Department in respect of insisting on trained teachers, should be to insist upon the managers of private schools employing trained teachers 'consistently with the available supply of such teachers.' But these are temporary remedies, and it remains to be seen how the rules of the Code will work in normal years and how the public of Travancore will receive the Durbar's reply that no necessity has been shown to exist for the revision of the Code. The reduction of the course of instruction in the vernacular schools from eight to seven, the substitution of 'Nature study' for the imperfectly taught 'Physics and Chemistry,' the introduction of the Elementary School-leaving certificate examination for the Vernacular higher examination are all measures, it is claimed, which, 'if carefully and patiently worked,' are far from discrediting or slighting vernacular education, 'bound to improve vernacular education generally and thereby help the growth of the Malayalam language.' It is also pointed out that Government would consider the question of further raising the standard of Elementary schools if the facilities now provided for studying in the higher classes are availed of and if really useful and good books are written in the Malayalam language on all branches of knowledge. In regard to the complaints about the rules concerning school buildings, abolition of fee concessions, new conditions of recognition, etc., the Durbar point out that the Code is all right on these points and the utmost that could be done has already been done by asking the Director to allow manager of schools time to satisfy all the requirements of the Code. The Durbar do not see where the objection against the system of licensing could be, aiming, as it does, at

improving the tone of the teachers and maintaining them at the proper level of efficiency. Of course, trained teachers could not be had in sufficient numbers and this particular provision will be enforced in all rigour only when the supply is equal to the demand.—*The Hindu*.

COCHIN.

A Technical scholarship—It may be remembered that the selection of Mr K. Raghavakurup for a technical scholarship in Europe was sanctioned by the Durbar so long ago as June 1909. As it appeared desirable that he should undergo a preliminary course of training in India, arrangements were made through the British Resident for affording the student every facility to acquire theoretical and practical knowledge of the industry in the Government Tannery at Sembiam. By the time Mr. Kurup completed a course of one year at Sembiam, the Government Tannery was handed over to the Rewah State, and on the advice of the acting Director of Industries, Madras, he was sent to the State to undergo a further course of training. As the Rewah State subsequently decided not to allow apprentices in the State Leather Factory, Mr. Kurup had to be recalled. However, the Cochin Durbar have now on the advice of Mr. T. W. Arnold, Educational Adviser to the India Office, decided to depute Mr. Kurup to a course of training for two years in the Leather Sellers Company's Technical College in London. He will be awarded a scholarship of £150 per annum and second class passage to and from England. He will be required to start in time for admission to the College in spring term, commencing on the 9th January 1912.

Foreign Notes.

GREAT BRITAIN.

Teaching of Mathematics in British schools.—There are indications of a growing desire to reform the teaching of Mathematics in British schools, but the precise course of action to be pursued by those responsible for existing methods is still obscure. At the meeting of the Association of Teachers of Mathematics, held recently, Dr. A. N. Whitehead insisted upon the treatment of elementary mathematics as a set of fundamental ideas, the importance of which the student could immediately appreciate, and he advised the rejection from the curriculum of every proposition and method which could not pass this test. The task set before teachers, therefore, is to make up their own minds what ideas ought to be accepted as fundamental, and to school themselves in limiting the range of studies of their pupils to nations readily intelligible in the earlier stages. It is a laudable object thus to seek to economize the time and energy of all concerned; but it requires for its fulfilment an amount of discretion and restraint rarely to be seen in company with profound mathematical knowledge. Tradition

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is too strong, the progress of engineering and chemical science is too rapid, and the channels between theory and practice are too narrow to permit of rapid reform based upon such principles. The great truth is that mathematics is a living science which fertilizes as it flows. With the advance of applied mathematics, the area of what may be accepted as fundamental is extending, and theorems which yesterday were regarded as transcendental are to-day welcomed by engineers as aids to the solution of practical problems. Nevertheless, experience shows that within this ever-widening area there is a more or less definite patch of common ground which all must traverse if they of common ground which all must traverse if they desire to become skilful in the use of mathematical weapons; and presumably it was to this common ground that Dr. Whitehead was directing the attention of teachers.—*The Hindu*.

The School of Oriental Studies—The Interim report of the School of Oriental Languages for 1910 is published. The Committee is unanimous in the

opinion that in view not only of the academic, but also of the commercial needs the School is intended to supply, it would be difficult to find a better site than the London Institution.

The Committee understand that Lord Haldane, at the request of Lord Morley when the latter was Secretary of State, entered into communication with the managers of the institution with regard to the utilization of the existing buildings with certain alterations, costing from £20,000 to £25,000, to provide convenient and satisfactory accommodation at the outset. The Committee lays stress on the statement that the value of the site cannot be less than £100,000. It further estimates the annual domestic expenditure of the school, if placed in the London Institution, at £1,000. This is naturally apart from the salaries of the Director and teaching staff, estimated by Lord Ray's Committee at £10,000. Regarding the constitution of the Committee for the present, the report merely expresses the opinion that the school should be established under a Royal Charter.

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Member of Executive Council, Madras Government

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The Educational Review.

The twelfth day of December 1911 will ever remain a red-letter day in the annals of India, for it is the day on which His Imperial Majesty George V, the Emperor of India, celebrated the solemnity of his Coronation as Emperor of India by holding a special Durbar at Delhi. Of the boons conferred by him on the Indian people on that day not the least is the grant of fifty lacs of rupees for the education of the masses. We regard money spent on the education of a people not as an expenditure but as an asset. In his *Principles of Economics* after discussing the sources of national wealth and production Professor Marshall considers the question of personal productivity and says that the laws which govern the birth of genius are inscrutable. Genius appears in all classes of society. It may be that not so large a proportion of geniuses is born among those classes which have not inherited or acquired educational privileges, but, as the working classes outnumber the others many times, it is more than likely that a large proportion of the geniuses of each generation are born among these classes. He goes on to say that a large proportion of this ability is wasted and lost simply because it happens to come from lowly parentage and has no opportunity to develop. He then tells us that no national investment that would increase so quickly and so broadly the national wealth as such improvement in secondary education as would prevent this loss. Applying these ideas to our country we can say that the British Raj in this country can find no better investment for its surplus revenues than in

the education of the people. It may be said that it is the duty of a Government to spend a fair portion of its revenues in the education of its subjects. Still a Government does not often discharge its duties to its subjects, and when it does discharge its duties a subject and powerless people cannot but feel thankful. So we feel sincerely thankful to our King-Emperor for his allotment of fifty lacs of rupees for mass education.

The following remarks of Mr. J. E. Gorst on the present state of education in the United Kingdom seem to be applicable as much to India as they are to Great Britain and Ireland. Says Mr. Gorst:

"In most Elementary schools children are only drilled, not educated. The pernicious system of 'payment for results' practised by the Education Department up to 1895 still leavens the instruction given. Originality of teacher and scholar is sternly repressed. The new methods of self-education by work first and books afterwards, introduced into the schools of Bavaria and spreading all over Germany and elsewhere, is only partially known in British and Irish schools. It is generally confined to the Kindergarten instruction of infants; its extension would imperil 'the grant.'"

"The higher or Secondary schools and the Universities are still fettered by mediæval systems, which make the acquisition of learning to be reproduced at examinations the main work of students. We do not educate our scholars and students, nor do we permit them by independent research to educate themselves, we only prepare them for examination. There are, it is true, isolated teachers, both

men and women, in the Elementary and Secondary schools and at the Universities who have struggled to shake off the incubus of centuries of custom, and have shown by brilliant example what really education should do. They are the exception from whose successful experiments a better national system might be allowed, in the absence of official interference, to create itself."

There can be no doubt that in India as also in England official interference is the great bar to educational progress. Education is tied and bound by the examinations instituted by the Department. We had the Lower Secondary and Upper Secondary and their place has now been taken by the School Final Examination, and the tyranny of the Department leaves no room for the originality of the teacher.

Though debating is not one of the subjects of the curriculum of our secondary schools, yet few of these schools are without one or more debating societies. Not a week passes without some announcement in the public prints about public meetings and other similar functions in connection with such societies. While appreciating the value of the training afforded by debate, we must at the same time recognise the harmful tendencies in this practice which have their root in a mistaken idea of the function and aim of debate. If the aim of all our school work is preparation for life, then the function of school debates is assuredly to develop the qualities needed for dealing with the differences of opinion which the pupils will encounter in later days. The history of mankind shows that strife by the aid of might has been gradually replaced by strife by argu-

ment. It is indeed a great benefit to train high-school pupils in the power to reason, but do pupils actually get this training by the debates that are in practice? Do pupils attempt in these debates to give expression to their convictions after proper reasoning? Do they not in most cases get their convictions from other sources? Is it not common also for debaters to argue against their convictions? Voice, gesture, personality are important means to be employed in accomplishing the object of debate, but in school debates they become not infrequently ends in themselves. In life the aim of debate is to bring other people round to our ways of thinking, but in school debates the aim is to gain applause by winning, so to say, in an intellectual prize-fight. In reply to this it is said that it is very good training to argue against one's own conviction, a thing which is constantly being done by lawyers in courts. But the aim of debate in the high school is not to train lawyers. Further, to give an accused person the protection of his legal rights is not the same as presenting with thundering emphasis the arguments upon one side of a debatable question as if they were based upon one's sincere convictions. There is now-a-days much talk about the teaching of morals in high schools. But can moral principles be inculcated in the class-room while debaters are allowed to offer the work of others as their own, and arguing for what they do not believe to be true? Can such a system make for honesty, high character, good citizenship? If schools are to prepare boys for debating upon public affairs in later life, they should be given opportunities for genuine debate in which they are personally interested. They ought to achieve intellec-

tual vigour by personal effort as they do physical vigour. If there is educational value in debating, proper means should be devised by which every pupil in a school shall receive such training. The questions of debate should be closely related to the life of the pupil and to the subjects of his study. The pupils must be made to argue according to their own convictions. They ought to be accustomed to the idea of debating as a training in thought rather than an oratorical exhibition. In order that the training may be most effective and lasting, debates ought to be conducted informally in the regular classes over questions with which the students are familiar.

In Germany and Austria the secondary school teacher has a certain fixed honourable position guaranteed by the state, and he has certain rights and duties which he and others are bound to respect. His salary is in general equal to that of his brother state officials, the judges; it starts at a stated minimum amount and is increased by a stated percentage at stated periods until the maximum is reached; and after a few years of service he or his family is assured of a stated pension in case of his disability or death. Before one is admitted to this position, he must fulfil the conditions prescribed by the state in the form of academic and professional training for his chosen life work. After passing the leaving examination from the secondary school, he has to spend at least three years in study at a university. Then after passing a satisfactory physical examination, the candidate for the position of teacher in the secondary school is allowed to come up for the state examination.

This includes a general test in several subjects, and a more difficult examination in three allied subjects which he expects to teach. At least one thesis must also be presented. In many of the German states the successful candidate has to spend one year in combined theoretical study and practical teaching in a teachers' seminary, and an additional year in trial teaching, before he can be certified as a teacher. He is usually from twenty-five to thirty years old before he reaches this point. After he obtains his certificate, he may have to wait several years for an appointment, but once he is appointed he becomes a state official. It may interest our readers to note that the German or Austrian schoolmaster does not enjoy very long vacations. In Germany there are usually five vacations in the course of the year: Easter, Whitsuntide, the long summer vacation (usually about thirty days), Michaelmas and the Christmas holidays: the total number of days ranging from seventy-seven to ninety-six. Besides these vacation periods there are about a dozen individual holidays. In Austria the vacation days number from sixty-two to eighty-four, with about the same number of isolated holidays as in Germany.

In an introduction to a book of essays by different authors on science teaching, Prof. Sadler makes the following claim for science in education:—

"What the classical renaissance was to men of the fifteenth and sixteenth centuries, the scientific movement is to us. It has given a new trend to education. It has changed the outlook of the mind. It has given a new intellectual background to life. It has therefore disturbed the old

balance of studies. It has broken down a scholastic monopoly. It has made a new learning indispensable to all professional callings. It demands a new spirit and a new method of teaching. Its claims affect the whole field of education and every grade of school. They involve a revolutionary change."

Still stronger are the claims set up for science and scientific method by Prof. Dewey. In his address before the Educational Section of the American Association for the Advancement of Science at Boston, 1909, Dr. Dewey said:

"Scientific method is not just a method which it has been found profitable to pursue in this or that abstruse subject for purely technical reasons. It represents the only method of thinking that has proved fruitful in any subject, that is what we mean when we call it scientific. It is not a peculiar development of thinking for highly specialized ends; it is thinking, so far as thought has become conscious of its proper ends and of the equipment indispensable for success in their pursuit. When our schools truly become laboratories of knowledge-making, not mills fitted out with information-hoppers, there will no longer be need to discuss the place of science in education." At another place in the same address Dr. Dewey said:

"One of the only two articles that remain in my creed of life is that the future of our civilization depends upon the widening spread and deepening hold of the scientific habit of mind; and that the problem of problems in our education is therefore to discover how to mature and make effective this scientific habit."

What then are the points on which we should lay emphasis in assigning to science a

place in education? They are: 1. A good knowledge of the natural sciences is essential to a liberal education. 2. The teaching of science should begin with young children. 3. There is a necessity for direct and first-hand observation of nature by the students. 4. The more general introduction of biology should be specially encouraged. 5. The scientific method is wonderfully well-adapted to the training of minds. 6. The scientific method may be adopted in all lines of investigation. 7. The scientific method may be adopted for instruction in the various subjects of the curriculum. 8. The knowledge acquired by the student in the science courses is not as important as the mental training received. 9. The science work should lead to intellectual independence. 10. A sympathetic study of the natural sciences will lead to a poetic appreciation of nature's wonderlands. 11. Goodwork in science will preserve and cultivate in the mind of the child a spirit of research. 12. The work in science should assist greatly in the solution of the problems of social hygiene.

It is often supposed that vocational studies are opposed to liberal culture. This misconception is due to narrow ideas concerning vocational education and liberal culture. If by liberal culture we mean the possession of developed judgment and understanding, enlarged vision and insight, broadened human sympathies, capacity for efficient living and intellectual ambitions as make one interested in his life work and good company for himself, then liberal culture may come to different individuals from the study of many different things. Such studies, as biology, physics, chemistry, astronomy,

commerce, industrial history, economics, domestic science and household economics, are all capable of affording liberal culture to the boy or girl who studies them. In the past certain vocations alone were imagined to carry with them the dignity of social service, though they were as much ways of making a livelihood as the others. But at the present time, under the new social conceptions, a calling is considered to be of value only in so far as it renders social service. This gives a kind of universal and catholic feeling to every kind of occupation. From the point of view of social service no calling is essentially more sacred than any other. Every calling is sacred since it has in it the opportunities for social service. We often go to the past for inspiration, a course which often leads to a misjudgment of the present and what is actually before us. But the highest inspiration comes in the fulfilment of life and not in stepping outside of it. The only real culture is the actual work of life, and the really cultivated person is he who knows how to find all the real opportunities of life in the situation which lies immediately before him. Just as other worldliness is being eliminated from religion, so should we eliminate it also from culture. Moreover, as vocational studies prepare us for the one central work in life which supports us, vocational relationship becomes the central relationship of a man's life. All other relationships practically depend upon this; hence it is in this that a man ought to be most profoundly, most completely, most effectively educated. If education is a preparation for an ideal life, it ought to centre about vocational relationship. To centre one's education about one's vocation not only trains one for his job but may also stir up within

him springs of interest in culture which would otherwise remain unstirred, and may inspire him with the desire, and give him the opportunity, to prepare for the relationships of his life other than his vocation. President Garfield defined education as "enlightenment and service," and every truly vocational school can also be a cultural school of a high type.

Closely connected with the question of the place of the vocational training is the manual arts in place of the manual arts education. We have said that social efficiency is the end of education. Social efficiency in the individual means that each individual must be directly or indirectly a productive member of society. Now in the great majority of individuals productivity is the direct result of the intelligent and skilful use of the hands. If that be the case, then manual training should be given in school work a place sufficiently large to allow such training to be effective. Manual training not only contributes largely to ability to earn a livelihood, but it imparts first-hand knowledge of the material accessories of modern life, develops appreciation of beauty in its relation to material form, texture, colour, and provides a means of transmitting from generation to generation and age to age some of the choicest thought and feelings of man. Moreover, manual training is at the basis of many of our modern methods of teaching, and serves as a method or means of teaching other subjects. Manual training has both a content value and a process value, that is to say, it has a value both as subject and method. In the primary grades manual training is of value for its method, and as the grades advance its value as a subject becomes more important and in the upper classes of the high school it becomes a highly special-

ised subject or group of subjects. Furthermore, if the purpose of education is to forward human progress, it should be of a kind that helps to eliminate chance as a factor in human endeavour and to set up in its place some positive certainties. Now for the great mass of pupils who attend our schools manual training offers the maximum of opportunity for the elimination of chance as a means of producing the results sought.

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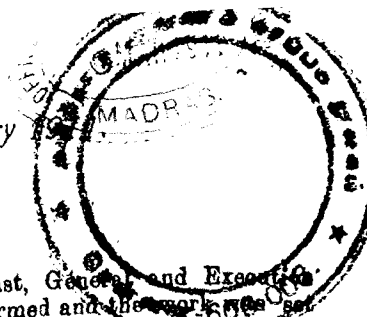
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Supplement to "The Educational Review," February

THE GUNTUR EDUCATIONAL
EXHIBITION, 24th JANUARY 1911.

OPENING DAY.

The Guntur Educational Exhibition was opened this morning at 8-30 A.M., by the Hon'ble Mr. J. H. Stone, M.A., F.R.H.S., amidst a large gathering of ladies and gentlemen and the representatives of various schools of this part of the Presidency. The English band was in attendance and played some lively airs. The Exhibition pavillion was tastefully decorated for the occasion and was filled to overflowing. The proceedings began with prayer (in Telugu) by two young boys of the Town High School, and then M.R. Ry. G. V. Subbarayudu Sastrygaru, B.A., the President of the Exhibition and Inspector of Schools, 2nd circle, who rose amidst cheers gave a hearty welcome and addressed the audience as follows:—

Mr. Chairman, Ladies and Gentlemen,—I, as President of the Guntur Educational Exhibition Committee, rise to perform the very pleasant function of greeting you all with great pleasure and accord you all a hearty welcome to this town and the exhibition. We have tried our best to make your short stay in this town a pleasant one and to attend to your wants, by way of securing for the visitors and others, accommodation and boarding and request you to kindly pardon us for any defects you may notice in our arrangements—which I admit are defective in many respects on account of peculiar circumstances under which the committee has had to work and the short time at our disposal in the midst of our official and other duties.

The idea of starting the Exhibition arose with the Secretaries M.R. Ry. M. D. Gopalachariar, B.A., L.T., and H. Periya Sastrygaru, B.A., and the former addressed me a letter in May last when I was at Nellore as to its work, etc., but from the experience I had had of the previous exhibitions at Nellore and elsewhere, I had my own misgivings as to the success of the exhibition if one was to be held in Guntur and dissuaded them from carrying out their wishes; but they persisted in their attempt and prevailed upon me and consulted Dr. Uhl, Principal of the A.E.L.M. College, who, I am glad to say, has encouraged them and offered them all the possible assistance he can render. Accordingly, at a preliminary meeting of the townsmen convened

by them in July last, General and Executive Committees were formed and the work was set on foot in right earnest. The Executive Committee consists of 15 members of whom at least 9 are required to attend each meeting. The success of the exhibition, if success it will prove, will be due to the undefatigable exertions of the secretaries and the invaluable help rendered to them by Rev. Dr. L.L. Uhl and the Missionary ladies, who have with commendable patience, arranged the exhibits received from different quarters of the Presidency as well as those from foreign countries. Here, it must be remarked with gratitude, that the consent of the Hon'ble Mr. J. H. Stone, M.A., F.R.H.S., our Ag. Director of Public Instruction, to perform the opening ceremony, given on the 4th December, last, has actually given life to the exhibition, inasmuch as the preparation of the local exhibits, has since been taken up earnestly by many of the officers of the department in this circle; and it is highly gratifying to observe that they competed with one another and overstocked the rooms with exhibits, many of which we have had to reject for want of accommodation.

It is for you all, ladies and gentlemen, to judge to what extent they have striven and how far their attempts have proved successful. Suffice it for me to say here that the local exhibits shown in the Halls relate to all the subjects of instruction, given in the departmental curriculum and may be said to be chiefly the work of teachers and the pupils who have been working on the new lines promulgated by the department and the Government.

They consist of the exhibits from America, Germany, Holland and England and Wool work, Apparatus and Appliances, Botanical specimens, Geometrical models, Drawing, Card-board work, Chalk-work, Geological collections, Clay models, Nail-work and Composite drawing, and loan exhibits from Mysore and other places. And we have had some of the best exhibits from the schools in the circle, which stand a very fair comparison with those got from foreign countries and this fact is entirely due to some of the Sub-Assistant Inspectors having taken a particular interest in their make.

We have also arranged in the stalls, the loan exhibits received from America, Holland and Germany and those from the Indian Provinces of Mysore, the West Coast and the Ceded Dis-

tricts as well as the British exhibits obtained from the Director's office. Some of the British firms dealing in books, Messrs. Longmans Green & Co., Macmillan & Co., and Blackie & Sons have sent down their agents with very useful books and they are all arranged for want of space in the College buildings, in the building of the Town High School and it is expected that the teachers will make the best use of them.

In connection with the educational exhibition, we have arranged to hold Educational Conferences at which very important subjects will be lectured upon and discussed for the benefit of the teachers of Secondary and Elementary schools by some of the eminent educationists and gentlemen and ladies in the Presidency. We have also secured the kind patronage and sympathy of our beloved Collector, who has in the midst of multifarious duties, consented to preside at one of our sittings and Mr. Pandu Ranga Rao, the Sub-Collector of the Ongole Division, has shown his interest in the cause of education by consenting to preside at a lecture on "The Teaching of English in our Schools" on the evening of the 26th instant. Dr. Kugler who has been engaged for over 20 years in relieving the sufferings of the poor, especially women, has with her philanthropic heart, come forward to lecture upon the "School-Hygiene" and the programme drawn up shows you the names of the great men, engaged in educational work, who have promised to instruct and benefit us with their lectures and advice, and it is needless for me to dwell here on their titles and fitness as they are too well-known to need special mention.

Considering the pitiable condition of most of the Elementary school teachers, the Committee thought fit to board them for at least three days and sanctioned Rs. 500 towards the expenses and it is hoped that the sum will be augmented if necessary, by the liberal donations of some of the rich members of the Committee. It is worthy of mention here, that the Sri Rani of Chintapalli—a village in the District—has generously paid a munificent donation of Rs. 40 for the feeding of Brahman teachers of Elementary schools. A hostel will be started to-day for the boarding of teachers of High schools who have come from the distant parts of the circle, so that it will be found that the Committee has done its best to house and board all classes of teachers.

Before concluding my remarks, I take this opportunity to express my thanks to all the ladies and the gentlemen who have taken an

active part in the work of the Committee or have otherwise assisted us with their advice. The thanks of the Committee are also due to the members of the American Lutheran Society working in this town who have placed at its disposal, their school buildings without which we could not have had this exhibition.

Now, Sir, Mr. Chairman, it is my humble duty to thank you from the bottom of my heart, for the ready consent you have given to open the exhibition and the sympathy you have shown to us by way of enabling the inspecting officers of the circle to witness the exhibits, and to attend their Conferences and to improve their knowledge and work still further, thereby showing your warm interest in the real progress of the Elementary and Secondary schools of the Presidency, short as your regime is at present. You have won the heart of one and all of us by having come down here in the midst of your arduous duties and established a claim for our gratitude. With these respectful expressions of love and gratitude, I beseech you, Sir, to declare the exhibition open.

Then the Hon'ble J. H. Stone, M.A., F.R.H.S., Ag. Director of Public Instruction, in declaring the Exhibition open said:—

He thanked the Exhibition Committee for the honour they had done him in asking him to come down here and open the Exhibition. That this educational exhibition is a movement which seems to have aroused and brought success all the educational activities of this district, so that we have not only a number of interesting exhibits which have come from all parts of the district, from furthestmost corner of Guntur, and are to stay here for some days and that a series of lectures and discussions are arranged almost every day and a salient topic of interest in education is to take place. That this exhibition would become an era or date in the history of this district, at any rate amongst teachers. He knew quite well that he should make a speech and that some saying of words are necessary on this occasion. But when any man considers what the saying is it is very difficult to fix on any particular topic and an obvious topic would be the valuable benefit that may be expected to result from holding such Educational Exhibitions. There is a certain story of a Moore who had a reputation for preaching. It was announced that he would make a speech at a certain time. A large congregation gathered to hear him. He was sent to the pulpit. He asked the audience if they knew what he was going to say. An affirmative answer being received he said

there is no need for him to make any speeches. The next time he got announced that he would speak again. He rose up and addressed the audience as before. Because they did not know what he was going to say there was no use of his talking to them. Again on a third occasion people gathered and he asked the same question. Some said they did, others they did not. An obvious answer that he gave was that those who did know teach those who did not know. Similarly he believed that in the course of the series of lectures during this exhibition, those who know will succeed in teaching those who do not know. Therefore he was not going to enlarge upon that topic. This reminded him that it was as nearly as 25 years since he first landed at Madras. He also said that amongst all the interesting reflections during the short stay we have seen almost the whole history of the Madras University before him.

Leaving the matter of University movement, at any rate, he said it was interesting to speak what had been the result of this quarter of century of educational progress. Taking the educational report written by Dr. Duncan in the year 1885-86 into consideration he made a comparison with the then state of things and the state of things at present. From the report he compared the number of educational institutions during the year 1910-11 the number in 1885-86. In 1885-86 there were 16,000 institutions whereas in 1910-11 there are as many as 30,000. The number of institutions nearly doubled, no doubt the increase being largely in the Elementary schools. Again he pointed out that the number of scholars increased by threefold; for, in the year 1885-86 there were only $1\frac{1}{2}$ lakhs while in 1910-11 there were nearly 12 lakhs. The expenditure in 1885-86 was only 44 lakhs of rupees; but in 1910-11 it amounted to 119 lakhs. The total expenditure included all money spent on education by Government, Local Boards, Missionary Societies and other private bodies. One more figure that is the amount spent from Provincial Funds. In 1885-86 the Director thought that a great deal had been done when 12½ lakhs of rupees were spent from Provincial Funds. But in the year 1911 the sum has gone up to 39 lakhs of rupees and the next year it will go up to 40 lakhs of rupees. At any rate when the money has readily risen he said he did not think that there was any danger of its falling again. There has also been a considerable interest in the quality of education. An epoch arrived when the educational authorities began to look round and think 'we have got a lot of students and a lot of

money is being spent for them. What is the result we get?' They thought the quality of education imparted is sufficient and justifies them in feeling complete satisfaction. Certain misgivings began to show themselves in the minds of educational authorities and those who are engaged in the actual work of education. These misgivings gave rise to a somewhat difficult way of looking at the educational problem. People began to think more about quality without giving attention to quantity; and since that year nothing has been more remarkable than the way in which education has developed in this manner. Nothing has been more remarkable than the affairs that have been made and the success which it has attended these efforts better as well as more extensive. It will be difficult to dwell in a few sentences and to sum up the various lines which this effectual improvement has taken.

In the first place, is freedom. We seem now to come to a conclusion that the State should not be very eager to lay down any great detail what has to be done in every school and college, that the State should rather leave large initiatives to the actual teachers, and that the State should aid, not necessarily pecuniarily, and encourage all educational work which it can after consideration pronounce to be good. It is the tendency towards freedom and it is shown in many ways. For instance, the University is manifesting this freedom to a certain extent and the boys have a considerable choice in the Intermediate course. This choice is still more great in the B.A. class, and the honour's course as in the past courses. The spirit of freedom shows itself still more plainly in the Secondary school leaving certificate scheme. In this scheme the one principle is that no subject is compulsory; but that does not imply too great liberty. A student may have a certificate that contains no entry about English or an entry about Mathematics. He may have such certificates if he likes. But it is pretty clear for some purposes is not valuable. If a student wants a certificate he must take these subjects the first time he appears for the public examination because if he does not take the first time he cannot take the second time at all. If a student wants any certificate he must take at the first time, what we call Group A. Another point is with regards to Group C. Here again he ought to observe that unless he takes at least one subject for the first time he appears for the examination he cannot subsequently take any subject at all in Group C.

teaching history is one of association of ideas and of the sequence of cause and effect.

(3) As a moral training I can say little here. If we accept the pessimistic saying of Gibbon that history is merely a record of the crimes and follies of mankind, then we shall eschew the study altogether. But we know that while we have to take into account the deeds of the mean and cowardly, which serve as a warning, we also have the deeds of noble, brave and patriotic men and women to inspire and stimulate our better nature.

Having said thus much to prove the value of history as a great means of mental and moral training, it remains to say a word or two on the subject of *methods*.

1. With regard to general organisation the usual plan now generally accepted is one in which there are three stages—In the first stage, *biographies and stories* told in narrative form to younger children, then in the second stage, after a general framework of the history of any country has been acquired, we proceed to fill up the structure with a general sketch of the history of the nation. A text-book is introduced and the history of individuals swells into the history of the nation when everything is taught with greater exactitude and social, political and religious features are treated. *The third stage* is to give a course of instruction on some definite periods. In all three stages the lessons should be mainly *oral*, in which the teacher supplements and interprets the text-book.

Then as to the materials or illustrations of history. Besides good text-books (and of them we now have an abundance) each school should possess good historical atlases, wall maps and plans of battles, also coins, pictures, photographs, engravings and a good magic lantern. If you have on your staff a good amateur photographer it will be of little trouble to get magic lantern slides made from pictures to illustrate particular periods of history.

In teaching young children, care should be taken to proceed from the best known to the least known, and the teacher who takes a lively interest in his works—and I don't think much of a teacher who does not—will ever be on the lookout to find a foundation basis of ideas found in the lives of persons or events connected with the neighbourhood or with the school on which he can base his narrative. Thus he will be able to build up general portraits of soldiers, kings, and leading men. Here the teacher's imagination comes into play. By his manner, fertility

of illustration, by unconscious emphasis, by using the child's familiarity with certain actions and moral qualities he will be able to teach history in a way that no book can. He will illustrate from the lives and actions of individuals, bravery, justice, mercy, patriotism in a way that will appeal to their own feelings and will establish both similarity and contrast between their own thoughts and actions and those of men of all ages. It has been well-said that the small boy is in the epic stage. Large ideas, great characters broad outlines appeal to him. The good characters are very good, the bad characters are very bad; slight gradations of character are not for him. Therefore it is of little use in giving a biography to analyse a character in the way in which we would do it for an advanced class. Elizabeth is to him 'good Queen Bess' before he has learnt as he will afterwards that she could swear like a first wife or lie like a horse-dealer. Sivaji is a noble patriot before he has learnt that he was a robber and treacherous murderer. It is the characters in broad outlines that appeal to him. But a caution is here necessary that this epic stage be not carried too far. At the end of every lesson a short summary should be learnt by-heart. I have seen teachers begin a lesson with the II Form by dictating notes. This of course, needs only to be mentioned to be condemned.

To come to *more advanced pupils* let us give an example of how a dry lesson may be illustrated and made interesting. We will suppose that the lesson is on the legislation of Edward the First a pretty tough subject for boys of the V or VI Form. The teacher will have made beforehand a sketch of the lesson for his own guidance noting the chief points to be emphasised and the methods used to emphasise them. He will begin by a little revision of the character of Edward I, and of the feudal system, using questions, and not lecturing. He comes to the Statute of mortmain, and asks the question as to what it was. He will be told, if the boy has studied his text-book properly, that it was to prevent the barons giving their land to the church, because the church was a corporation which was unable to perform feudal service. He will tell him of course that mortmain comes from two latin words *mortua manu* meaning: in a dead hand. But it requires the introduction of the personal element to make this intelligible. He will introduce two barons, each living on his own state, and make two enclosures on the blackboard to represent the estates of Baron A, and Baron B. In the estate of B, he will mark a monastery. He will then revise some of the

feudal incidents and ask what duties or payments to the overlord did the feudal system bring with it. He will mention (1) Overlordship, (2) Fine on the marriage of baronesses, (3) Knighting the eldest son, (4) intestacy, (5) escheat for treason, and will make it clear that it was from these and similar source that the king's purse was filled. He will thus proceed to describe the two barons. Baron A, is some 40 years old, he married young, and his two sons are of age, his two daughters have been married, he is businesslike and has made all arrangements for the disposition of his property, and is very loyal. So that the king's chances of getting any fines from this baron are very small. Now consider Baron B. He is 50 years old, and is in poor health; he married late and his eldest son is only 15 years of age, and of feeble constitution; he is unbusinesslike and has probably not made the necessary legal arrangements about his property; he has three unmarried daughters, he is suspected of unreasonable designs so that the king's chances of getting fines from him are very considerable. Obviously, Baron B is of greater value to his lord than the Baron A. Baron B as we have seen was in poor health. He was always of a religious turn of mind, and as he grows weaker he is often visited by the neighbouring abbot. Finally he makes over all his property to the church and then dies. What will the king get from the monastery on the counts mentioned above. Nothing at all. He will then make it to the class that there will be no orphan sons, no business, no intestacy, for a corporation cannot die, no escheat for treason for a monk cannot rebel. Obviously if all the barons did as he did, the king would get very little. How can he prevent this? Evidently by forbidding the alienation of lands to the church. The abstract nature of the Statute of mortmain has now vanished. For further illustrations of a concrete nature, I would refer teachers to Chapter VI, of Keatinge's *Studies in the Teaching of History*.

In the same way such abstract terms as government, law, order, autonomy must be put concretely so that they be grasped and remembered. A word with regard to the *method* of using documents such as are found in the "Source" books. A portion of the diary of Edward VI or an account of the battle of Bannockburn, for instance, might be read slowly aloud twice by the teacher or by one of the boys and then they might be asked to give the substance; or separate portion of the documents might be printed and the classes asked to make an analysis of the chief

points, say, of a contemporary account of the Black Death or if it is an account of a battle, to make a plan of the battle. I do not think such an exercise would be too difficult for the VI Form. It would give an added interest in the lesson and test their powers of observation and analysis and make them think.

With regard to dates, the chief object is to cultivate a sense of proportion. To give a string of dates and events, some only a year apart, and others six or seven years apart is misleading. A good plan is to divide the blackboard into spaces of 10 years and make the boys copy out what you have put there, and then ask them to fill in the dates in their right places. In making a general summary of a long period, a similar plan may be adopted for this a recent writer has suggested 'a line of time' which each boy can make for himself, his scale being two or three inches for every one hundred or five hundred years as the case may be. The events and dates can be filled in at discretion. It will please a boy's ingenuity to make such a line of time and to place a date 'in scale' accurately. Such charts may be hung on the class-room wall. Similarly, the boys should be encouraged to make genealogical tables not putting in every possible person mentioned, but just sufficient to answer a question as to the right of a particular king to the throne or the relationship of leading men.

The use of maps to illustrate every history lesson is essential. Suppose the lesson is on the wars of the Roses. A good plan is to make the boys bring an outline map. The teacher will also have an outline map of England on the blackboard. Then as the different battles are taught, the places should be marked in the maps, and the reasons for the position of the battles should be clearly shown.

The Blackboard should be used mainly for the purposes of *emphasis*. As the lesson proceeds, the main points after being well taught to the class should be put on the blackboard, so that when the lesson is finished, the complete lesson in bare outline will appear on the blackboard. Only let teachers beware of making history a blackboard lesson. There is such a thing as the abuse if the blackboard is used in a subject like history. It is in the pupils' minds that we seek to leave the impression of the lesson and not merely on the blackboard.

THE ART OF DESCRIPTION OR DRAWING VERBAL PICTURES.

Every teacher of history should cultivate the art of vividly picturing the scenes he is talking

about. Too often history lessons are useless recapitulations of names and dates and isolated facts which do not arouse any interest. In the words of Lord Macaulay, whose historical writings have the enduring charm of vivid verbal pictures: "To make the past present, to bring the distant near, to place one in the society of a great man, or on an eminence which overlooks the field of a mighty battle, to invest the reality of human flesh and blood, beings whom we are too much inclined to consider as personified qualities in an allegory, to call our ancestors before us with all their peculiarities of language, names and gait, and to show us over their homes, or to meet us at their tables, to rummage the old fashioned ward-robbs, to explain the uses of their ponderous furniture, these are duties, which properly belong to the historian," and I would add should also, belong in a measure to every successful teacher of history. To do this the teacher must read widely on the manners and customs of the age he wishes to represent. The study of historical places, of old ruins, of pictures, coins, contemporary literature, and indeed everything which may throw light on the period he wishes to depict, is most desirable. Let him endeavour, for instance, to transport his pupils in imagination to some scene in the middle ages whether in India or in England. In this way there will be a reality about his teaching which nothing else can give.

A word as to *Essays*: A good many answers in history may be given in the form of short essays, and it is a good plan in the V and VI Forms to devote a lesson to the writing of two answers in the shape of essays. The boy should be able to write an answer in a limited time in which facts should be used to illustrate points or support arguments, which should keep to the question and be well arranged and which withal be forcibly and brightly expressed. This is the ideal and it is worth some trouble to try and train the boys to attain to it. It is easy enough for them to write out an account of a reign or a life, or a civil war, but to teach them to use the facts and dates of history, argue from them and interpret them is the great aim of the teacher.

In conclusion, I would summarise a few practical hints which may be found useful.

Don't lecture. Don't use big words the children do not understand. Don't use a book when teaching little children. Don't elaborate a lesson with too much introduction. Don't accept answers merely in the words of the text-book. Always come well prepared with a clear idea of what you are going to say to teach. Always be lively. Always show connection between the facts,

Always use concrete illustrations. Always use the blackboard. Always use a map and correlate your teaching with Geography. Always try to make the pupils think. Always use questions. Always be interesting. Always use pictures and photographs when you can.

Bearing these points in mind the teacher will keep before him the great aim of all teachers which is not only to supply the pupils with knowledge, but to so equip and develop their minds that they may be able afterwards to continue their reading for themselves. So he will have achieved the special ends of all historical teaching, the stimulation and exercise of the imagination, the training of the reason and the judgment and the cultivation of true citizenship. (Cheers.)

The chairman in bringing the meeting to a close, remarked that the lecture was very interesting and instructive. The Hon'ble Mr. J. H. Stone, was then garlanded and the gathering dispersed with a vote of thanks to the lecturer and the chairman.

SCHOOL HYGIENE.

Before taking up the subject of the hour I desire to express my gratification and pride as one of the older residents of this District, that it has been possible to have such a creditable Educational Exhibition in our midst. It surely bespeaks much progress in the Educational Department of this District a Conference such as this in which we see men and women working side by side. It is the outcome of many years of faithful labour on the part of those who have gone before; may it not be the earnest of a day when the barriers of caste and creed shall have been severed away, and when all of God's children shall be employed in the enlightenment and development of humanity—if in that much to be desired, there remains any ignorance to be dispelled, any humanity to be developed.

It is no doubt taken for granted that the papers presented to this Educational Conference shall be of such a character that they will prove helpful to the teachers in attendance, and in this day of specialization in every department it seems to me that it would have been more appropriate to have had this paper of this hour prepared by one who has had special training in the Sanitary Department of Government.

It is well recognised to-day that the branch of medicine known as Hygiene or the science that treats of the prevention of disease and the pro-

servation of health is of far more importance than that which treats of the cure of disease or the restoration of health.

I am told that among all the models that have been prepared for this exhibit there is no model of a hospital. When the laws of health are perfectly obeyed there will be no hospital. They once have had their day and ceased to be—for there will be no more disease. Hygiene as a science is receiving an increasing attention in almost every land. My last voyage from Europe to America was on a steamer that carried two thousand immigrants. Before the voyage ended, all of those that had neither marks of smallpox nor of vaccination were vaccinated by the ship's surgeon and just as we were entering port, the health officials came aboard and examined the eyes of all those who were entering America for the first time. All immigrants entering America at the Port of New York City are landed on Ellis Island where there is a large receiving house several stories in height with hard floors and tiled walls. There are few days in the year when hundreds are not received here and on many days thousands are landed. And yet the cleanliness of the place is something astonishing. Many times a day the whole place is washed down from top to bottom with disinfectants. All this is carried on with great cost to the United States Government. What object is there in all this care concerning those who are received into the country. It is entirely due to the desire to preserve the health of the country. And if we look into the schools of the Western World we find that the subject of Hygiene is occupying an increasingly important place in the educational centres. Great Britain, Germany and America lead the world in their efforts to improve the sanitary conditions of their schools in Europe. During my visits in America, I have seen a little of the way in which educationists are dealing with the problems that confront them. And when we consider that in the City of New York itself there are more than fifty languages spoken, it will be evident to us, that the language question itself is a great problem in the schools of American cities. For many years the older countries of Europe have been pouring their inhabitants into the New World in such numbers that the army of immigrants has been compared to the waters of the mighty Niagara, that go on day and night without interruption. The admission of such numbers into a country that is still called New, is a real menace to the health of the country, and when the insanitary conditions of life in which

many who come from the old world have been accustomed to live, the danger to health is still greater. Many efforts are being made to prevent these dangers. And those that specially concern us to-day are in connection with the schools. It is no slight task that the new country has undertaken, that of providing education for foreign-born, in addition to its native-born population. Not education alone, but education under sanitary conditions it is, that will develop these children into strong and useful citizens. It would not be of any practical benefit to you to enter into a detailed description of the school houses in America. In England, to some of them, it may be said, there is much to be desired. But very many of them are beautiful buildings, well adapted both in arrangement of class-rooms and arrangements for heating and ventilation and lighting, to the preservation of the health of the pupils. But the Hygiene of the school requires that much more be done than the providing of school buildings constructed according to the more advanced principles of sanitation.

In the large cities of America many of the scholars come from homes, the inmates of which are ignorant of the first principles of sanitation, in many of which diseases such as scabies, (itch), inflammatory (diseases of the eye), tuberculosis, etc., are in full possession. The problem is how to educate the children from such homes without at the same time exposing children from healthy homes to these contagious diseases. This problem is solved in many of the great cities by medical inspection of the schools with trained nurses to supplement the work. Great Jane Adams whose useful work in connection with Hull House, Chicago, who is so well-known, in speaking of the "Visiting Nurse and the Public Schools" says, "I see in the attendance of the visiting nurses one of the very best opportunities for helping the children and helping the families, as they are found in the public schools, and more than that, it is a matter of public safety and largely, too, a matter of public health that more should be kept in public schools." New York has more than 75 of such visiting nurses in connection with the public schools. It should be explained that by public schools, we mean the graded school from the infant, through the Grammar or the Lower Secondary to the Upper Secondary or High School. The children in these schools are tested for defective vision and hearing. Many a dull child has been transformed into a bright intelligent pupil by having a pair of glasses

furnished, thereby making it possible for the lessons to be seen. Cases of acute illness are very usual and healed at once by the visiting nurse either at home or at school, as the case may require. The medical inspector and the visiting nurse have together an oversight of the physical condition of each pupil, and are thus able to recognise many contagious diseases in them, and thus save the outbreak of an epidemic that would necessitate the closing of the school and the interfering with the studies of all the pupils. By means of this personal supervision inflammatory diseases of the eye and contagious diseases of the skin are discovered and treated, and thus sources of infection are destroyed. The visiting nurse is on the alert for any symptoms of tuberculosis, such as loss of weight and strength and evening rise of temperature, cough; and in some places out-door schools have been established for children of poor physical development thus adding to the health of the schools from which these sickly ones have been taken, and also greatly improving the health of those thus kept in the open air. The visiting nurses keep careful records of each child under their care, and in their visits to the homes of the children are able to make suggestions to the parents in regard to the food, sleep, etc., of the children. They also direct the teachers in the schools as to the kind and amount of exercise suitable for the different children.

Another very interesting question that is engaging the attention of educators in America is the development of the defective and backward classes. One result of the care of the individual pupil has been the discovery that there are certain pupils that never make any progress in the ordinary school class, whereas when the same pupils are removed from the ordinary school and taught by teachers who have made a special study of such pupils they do develop and become useful and intelligent members of society. Going from public schools and the work along sanitary lines that is carried on in them, let us turn to the Colleges and Universities, and what do we find? Here too we meet with medical men or women who are in charge of all matters pertaining to the sanitation of the school. Each student upon admission to the school is submitted to a rigid physical examination, and accurate records of weight, height, chest measurements, physical defects, etc., are kept, and the exercises in gymnasiums and field-sports are prepared, and advice is given in regard to food, lesson, study, etc. It was my privilege three years ago to

spend a few hours in the Wellesley College, one of the most advanced Colleges for women in America. The college buildings are numerous and are scattered over 500 acres of land elevated and rolling, and having on one side a beautiful lake. There were 1,200 young women, all studying for their B.A., at the time of my visit. These young women were physically under the care of a medical director, and they were required to spend some time each day out of doors, and the requirements of them as students are severe, but I thought when I saw them that I had never seen a more happy healthy-looking body of young women. Very briefly have I noted a few points in regard to school hygiene as it is found in some of the educational institutions of America. Of what practical use is such information as educators in this land of India, where problems as to climate, population, etc., are so different from those in West? For answer to this question let me direct your attention to the exhibit in this building. There are exhibits here that have not been prepared in India, that could not be prepared in this land, and yet they are not without their use. Had they no other use, they would serve to show that despite differences in climate and country, mankind is one, being everywhere animated by something higher, something better, and if this exhibition does nothing more than to send you teachers home with the definite idea of the unity of the human race, it will be well worth all the time and thought and money expended upon its preparation, and if by briefly directing your thoughts to the efforts that those in the West are making to solve their health problems, you are sent home with the determination to do more to solve the health problems of your schools, I shall feel well rewarded for giving you an hour of my time.

Let me also give you a few practical suggestions in regard to school hygiene in your own district—in your own school-site:—The selection of a site of a school is important. It is true that not many of you are likely to be engaged in the erection of school buildings; but, no doubt many of you will be able to select houses already erected. I have travelled extensively over the Guntur district and have visited a good many schools. In regard to some of these schools I would take no exception to the site; they are well located both as regards accessibility and also as regards sanitation. A school ought not to be located in a bazaar. There is too much noise and too much dust and there are too many obscene sights. It is particularly objectionable

to have a girls' school in the bazaar street. The girls in the Guntur district who go to school are of a tender age and girls of a tender age should not be exposed to the sights and sounds of the bazaar. The school-site should be dry and easily kept clean. In building upon a site which has already been occupied, great care should be taken that there are no old cesspits or old wells, and filth polluted soil should be cleaned away, and old pits cleared out and filled up with concrete. If possible, the school-site should be large enough not only for the house but also for a good sized play or exercise ground. To my mind one of the great attractions of the Sharkey school and the Noble college, both Bandar Institutions, is the beautiful compound attached to each one. To be sure the simple village school cannot have and does not need such sites—such play-grounds—but it can have a piece of land shaded with a few trees in which the pupils can play. In larger towns where land is more valuable it is difficult to have school sites of good size. Many schools have no extra land attached. In such cases it will be well to interest the town authorities in the health of the school pupils to such an extent that some field or other unoccupied land will be loaned for an exercise ground.

The school house:—The construction of the school house will depend upon whether it is an Elementary or an Upper Secondary school or a college. Government is now engaged in erecting some model schools in some of the larger parts of the Presidency. I have seen only one of these model school houses—the Girls' school house at Tenali. This, doubtless, as many of you know, is a building of which the district may justly be proud. I am sure that you will all take the opportunity of seeing the Stall High School for girls now in course of erection in Guntur. One of the best built Lower Secondary schools in the district is the one at Kentachambal in Palnad. The buildings referred to are all pukka, with good walls and stone or cement floors. But in the majority of villages the Elementary school is held in a house with mud walls and mud floors and there are teachers whose school house consists of the shade of a tree. It is a question whether the last named—the school under the tree ought not to be considered the one most up-to-date from the point of view of hygiene.

I think Government requires each school to have prepared a plan of the school house showing arrangement of rooms, classes, windows, etc., and cubic contents, etc. It is well to have such a plan on the wall. It is far more important that

the ventilation of the school-room should be attended to. I am afraid that some teachers are so accustomed to inhaling air that is impure that they are not capable of judging as to the purity of the air of their school-room. A great plan should be for a teacher to make a rule to test the condition of the air of his school-room by going out of doors and taking a few deep inspirations and then entering the school-room. If he finds that the air of his school-room is oppressive let him leave the room vacated for a few moments and have the doors and windows all widely opened. It is very essential that the school-room should be so constructed as to make it possible for the impure air to escape. The open space between the top of the wall and the beams, so often seen in the Indian house, affords an excellent means of escape for impure air, and taken in connection with large doors and windows for the entrance of air supplies a very good method of ventilation. In buildings where there is no such air escaping above there should be ventilators over the doors.

The question of light is an important one:—Judging from what I have seen the school-room in this country is too dark. I am not referring here to the buildings erected for school purposes, for they usually are fairly well lighted. The teachers should remember that the effect of the little light is often as injurious upon the eyes of their pupils as too much light. Among the principal articles of school furniture may be mentioned mats, benches, blackboards and slates. The model schools ought to have neither slates nor mats. The floors should be of some impermeable material either stone or cement. Benches constructed with a view to the size of the pupils should be provided. But what is to be done in the case of the school where they are too poor to provide benches and where they say that they have mats to sit on. If mats as a necessary evil must be tolerated let them be the small mats that can easily be taken up and placed in the sun.

Slates have long since been condemned as being most unhygienic for school use and papers and lead pencils are substituted for them. It is true that Government does something in the way of appointing Sanitary Inspectors of the schools and schools that are under the care of lady managers have the advantage of having the health of the pupils in a measure looked into. But there is much room for improvement in the attention to sanitary conditions. The teacher should in his attention to his own personal hygiene be an example to the pupil. I fear that many of the teachers of the Elementary schools

give little attention to personal hygiene. I know that one must be lenient in judgment when one remembers the conditions under which some of the teachers are obliged to live, their poverty and the scarcity of water in many of the villages. But whenever possible let me urge the teachers to take a daily morning cold pour bath. Such a bath not only keeps the body in health but has a most exhilarating effect upon the mental faculties. What can be done to improve the health of the pupils of the schools? Let special attention be given to the subject of hygiene in the training school for teachers. Let the teachers have a greater sense of responsibility as the guardians of the health not alone of their pupils but of the community. To guard the health of the school is to guard the health of the community. The pupils in our schools to-day are the men and women of tomorrow. He cannot expect the uneducated villager to understand that scabies or itch is the result of a parasite that flourishes on a skin that is not kept clean, that smallpox is a germ disease that can be controlled by vaccination, that Cholera is the result not of the anger of the Goddess but of the introduction into the system of the Cholera Bacillus and that the best way to prevent it is to boil our water and milk, that tuberculosis, that disease so largely on the increase in India as the result of unhygienic methods of living can be prevented and even cured by the use of fresh air and good food, that beriberi is the result of a toxin dependent largely upon the use of uncured rice, that it is a dangerous thing to have lepers selling vegetables in the bazaar. Hand-bills and leaflets on most of these subjects have been or will be prepared in the vernaculars for distribution among the villagers, but the old-fashioned villager will laugh at the new fangled ideas brought in from the West. Many of his ancestors have died of these diseases. It was their fate. If the Gods so decree he too will die of one of them. Oh, no! we cannot do much with the elders. But the boys and girls in your schools will in the years to come be the elders and then if the hygienic conditions of this district have not improved, will you not be in a large measure responsible?

Let me suggest to the teacher of the Educational department that as prizes are given for the greatest skill in athletics so that a prize fund for teachers be established and a medal be given each year to the teacher whose school has made the greatest progress along the line of the observation of the laws of health. Let the pupils be taught to look upon itch and sore eyes as a

disgrace, as there is no visiting nurse. Let each teacher keep in the school simple remedies for simple diseases. Let simple lessons on some of these contagious diseases be prepared for use as reading lessons in schools. (See Neve's instructions for consumption). Give some illustrated lectures showing for instance healthy lungs and lungs in which the tubercle bacilli reside and work. Have some simple wall mottoes prepared and placed in prominent places in the school-rooms, such as "Boiled water will prevent Cholera." "Always sleep with doors and windows open," "Spitting on the floor is forbidden," "Fresh air cures consumption," etc.

When a teacher hears that a pupil or any member of the family has a contagious disease let him report it at once to the Sanitary Inspector and do not allow the pupil to attend school until all danger of infecting others is over.

Provide spittoons for the use of children and make it an offence to spit anywhere but on the spittoon.

It seems superfluous to say anything in regard to latrines as that is something that school inspectors generally look after pretty thoroughly.

Does it seem that attention to the hygiene of the school would leave little time for attention to more important things? There is *nothing more important* than the health of the school, and attention to this will help not hinder all the other departments of the school. Careful attention to the cleanliness of the school-room will make it a safe place for the pupils to occupy.

Careful attention to his personal habits will help to make the teacher a safe person to have in training the future men and women of this district.

The provision of benches of heights varying according to the size of the pupils and with comfortable backs will help to develop habits of correct position in sitting so that the lungs can be freely exercised and undue pressure on the stomach and bowels avoided.

Careful arrangement of the timetables will result in the visiting of overtaxing of the mental faculties. The proper kind and amount of exercise will keep the pupils from becoming stupid and will make the work of the teachers much easier.

This paper has not touched upon those diseases that result from what is known as social evil; nor is it my intention to do more than call the attention of the educationers to the well-known fact that many children are the innocent victims

of diseases resulting from the self-indulgence of others. Only as self-control is developed in the child and the standard of morals raised will such diseases become less in this or any land.

There is much being said to-day in regard to nature study in the schools. There is no better way of teaching pupils the sacredness of the human body and all of the great mysteries of life than that it is suitable for the young to know them by well-chosen lessons on plant and animal life. May we not hope that one result of these nature studies will be such an impressive condition in the morals of the country that some of the old customs such as child-marriage will no longer be considered essential for the preservation of the purity of the home.

I have not gone into the question of the hygiene of boarding schools. This is a large question and one that is receiving the earnest thoughts of the Managers of such schools. In those schools there is not only the care of the pupils during school hours but the care out of school hours. Those schools ought to be under the care of Medical Inspectors and no people should be admitted who has not been subjected to a physical examination. This for some years has been the rule in our Mission and to this care in the admission of pupils we attribute the very few cases of tuberculosis that we have had developed in our schools. Last year I visited the house of two young teachers in a village where they were teaching. I found them occupying at night a room with one door and no windows—no sunlight during the day, no air at night. I knew the family history of both and that the mother of the wife had died of tuberculosis. I strongly urged them to sleep out at night but they were afraid of thieves.

When the people of this land become as much afraid of the thieves who steal their health, as they are of thieves who rob them of their jewels they will sleep with open doors and windows.

The young people refused to have been trained in our schools. Do you wonder that we sometimes feel that this problem of improving the sanitary condition of this country is too difficult for solution?

But out of an experience of 24 years let me send you home with a word of encouragement and hope. There is improvement despite the many failures. There are obstacles but put up along with the other mottoes in your school-room this one "Obstacles are things to be overcome." Let me quote from one who has over-

come more obstacles than has come to any one of us. Helen Keller who despite being blind and deaf she is to-day a B.A. devoting her life to the improvement of blind of America. She writes "The struggle which evil necessitates makes us strong patient, helpful. I am an optimist in spite of all. Lift up your burden. It is God's gift; bear it nobly. Optimism leads to achievement."

The chairman then remarked that the lecture was instructive as it came from the lips of an experienced doctor of more than 25 years standing as Miss Kugler and said that more attention to boarding houses and hostels on sanitary and hygienic principles would improve the existing state of things. Mr. MacIver was then garlanded and the proceedings came to a close with a vote of thanks to the chair and to the lecturer.

THE TEACHING OF ENGLISH IN SECONDARY SCHOOLS.

On Thursday the 26th inst., at 4 p.m. a paper on the teaching of English was read by Mr. V. Ramaswami Iyer, B.A., L.T., Headmaster of the Taylor High School, in connection with the Educational Exhibition at Guntur. The following is the full text of the address:

The subject is a very wide and comprehensive one and embraces within its scope a number of items which go to make up English teaching. Such topics as pronunciation, spelling, grammar and composition may be treated separately and every one of them will present us with sufficient material for an afternoon sitting. In my opinion, no subject in the school curriculum is more important than English and no subject is taught in a less satisfactory manner. English is fast becoming the medium of communication among the educated classes in India. A nation's prejudices may be one thing but its needs are quite a different matter. It is said that even in countries where English is not the spoken language or which are not subject to British domination, as in Japan, there is a partiality for learning it. It has become, what Latin was in ancient days, the language of commerce, in course of time, is destined, perhaps, to become the language of diplomacy, to the clerk in the public office, to the merchant, to the traveller and to the politician, English has become as necessary as Chota Hazri and tea

to an Englishman. It commands a great market value and the man ignorant of English is not regarded as an up-to-date man. In the railway, in the tram car, in the public squares, in congresses and in conferences, English serves as a common platform upon which can meet, in peace and amity, the various races that compose the people of India. In Durbars, and in ceremonial functions, a knowledge of English has become essential as uniforms and regulation dresses. Under the *Pax Britannica*, English has become the language of even private correspondence. It has become possible for a Mss. Sirojini Naidu or a Ramakrishna Pillai to burst forth in song.

Such however is the large demand for English teachers in all stages of a pupil's career, primary, secondary and Collegiate that it is not possible or even practicable. The only course seems to me to be to derive our inspiration from those sources which will improve our methods of teaching English. The greatest of all difficulties in the initial stages of learning English, and on the part of the teacher in teaching it, is the English spelling. It is acknowledged on all hands that the great stumbling block in the way of a foreigner acquiring a working knowledge of the language, is that one symbol does not represent one articulate sound and that in other ways the alphabet is imperfect. Half the energy of our peoples is wasted in crossing bridge on the road to learning. Attempts have been made to reform the spelling but where most of the greatest statesman failed our pupils have succeeded. It is their spelling that approaches nearest to the phonetic. One fruitful source of mis-spelling is the indifferent manner in which words are pronounced. A correct standard of pronunciation is so difficult to be reached except by those who have for sometime resided in England. But because we cannot reach perfection, it is no reason why we should not strive at improvement. In the English as it is spoken in the different districts, there are what may be styled provincialisms. In some districts, they have శూల్ (చూల్) for school and in others మణి (మణి) for money, etc. The great difficulty with our boys is to distinguish between G and Z; zero is gero, cousin is cougin, obliged is oblized. Other defects also may be noticed, charity is chority, establish is estoblish, traveller is troveller. By far the most common mispronunciation is the addition of the a sound after an English word. It is this indifference to correct pronunciation which is the cause of mis-spelling and this in truth handicaps them

through life. I may be permitted to tell you that I have tried to correct mis-spelling by making them pronounce properly and I believe it has been attended with some success.

The illiterate ploughman may have to deal with overseer garu or avergal, the rubies which people use for ornaments may be limitation rubies, the places from which letters and parcels are despatched may be post offices, those large volumes from which men draw their intellectual life may be bokkulu or bokkupal and that invigorating draught, which has become a daily necessity with most of us, may be kapineellu or kapithanni. All these are crude and even incorrect ways of expressing modern ideas. They serve also as indication to show that divine discontent with existing imperfect vehicles of thought that must make for improvement and reform.

At no time perhaps in the history of India was such an importance attached to the language of the ruling race. Persian and Marattee were cultivated by the literate class in provinces where the Mussulmans and the Marathas held unquestioned sway. But with the English language in which the Government is carried on, it is something more. It serves a loftier and sublimer purpose. It is the language in which to us Indians, are enshrined, all those ideas which make for modern culture and of which modern civilization is capable.

Under these circumstances, it behoves all those whose duty it is to guide and control education to see that such teaching methods are employed as will lead to a correct comprehension of what has now become the *lingua franca* of educated India.

It is a trite saying, but nevertheless a true one, that the best way of learning a foreign language is for the person desirous of learning it to go to, and live amidst, people who use it as their vernacular. But the six thousand and odd miles that separate us from the British Isles make it impossible to do anything of the kind. If it were only a question of sailing over the channel or even going across the Alps, the problem may not present such complexity. The next best thing is to sit and learn at the feet of those who are masters of the language.

Take the word 'existence' for example; the ordinary way of correcting the spelling, because it is in most cases spelt as existance, is to make the boys go over the letters one by one. In many of the cases where this method was adopted it was not successful and the same mis-spelling

recurred. 'He is quiet tired' let him be made to say quite tired and it is alright. 'He is a quite boy' say some; tell the boy to say 'he is a quiet boy' and the same result will follow; luxuriant is luxurient, composition is composhun, lilies is lillies, pursued is persued, opportunity is oppertunity; the whole thing depends on the manner in which the words are pronounced. Again the initial sounds are very often mispronounced. Ate is yate; on the other hand, yea is ea, and yet is et, ion is iron, liberty is not only liberty, but also liberitv. I must conclude this portion of my subject by putting what I have said in the foregoing that, unless special attention is paid to pronnnciation from the lowest class upwards, no tangible improvement can be shown, and towards this end the pupil must be well drilled in phonetics which plays such prominent part in the present-day system of studies.

Nothing makes teaching more dull and monotonous than synonymous teaching. The school is a little garden where the children should roam about at their pleasure and cull the freshest blossoms. If you scare him out of it by dunning into his ears, words and expressions whose application he cannot understand, the pupil is bound in course of time to be a great intellectual zero. Teachers of English have not unfrequently come across cases where boys have substituted 'remonstrate' for 'rebuke,' and 'involuntarily' for 'of his own accord.' I cannot exhaust all the cases but these are only two out of the many that may be cited. I may mention to you an instance in my experience as teacher when a grotesque use was made for this partiality for synonyms. The sentence in the Reader was 'God preserve you.' According to the Orthodox school, every word must have its equivalent. I use the term 'must' advisedly; the general, now fortunately exploded, notion was, that there lay no choice in the matter. We may easily imagine the pupil rummaging over the leaves of a Dictionary like Anandale's. The pupil fixed upon the word 'preserve' easier substitutes were passed over and there was the word *pickle* which tickled his fancy and the result was 'God pickle you.' In another instance there was the word communicative and the Dictionary had it 'See under communication' and forthwith this was jotted down, communicative means 'see under communication.' Such extreme cases do not occur every day of our scholastic lives, nevertheless to serve to point out the weak points in our system. Now where is this evil more common than in the so called exercise of

paraphrasing. Let us suppose that the following passage is given to the pupil for paraphrase: —

Bury the Great Duke,
With an Empire's lamentation,
Let us bury the Great Duke
To the noise of a mourning of a might nation.
Mourning when their leaders fall
Warriors carry the warriors pall
And sorrow darkens hamlet and hall.

To render the passage into the vernacular is obviously out of the question. The translation method is not in vogue nor will it serve any useful purpose. It is no easy task to drive home into the boy's mind the ideas contained here and I shall tell you the reason why. We have not got in India the dual institution and the nearest counterpart is the titular Maharaja. The idea of the Empire is novel to him, for it was long since there was any empire and perhaps at no time within historical times had we our trouble and idea of its universality. The idea of a nation, that is, of a number of people who have cast off their clannishness and are bound only by the tie of common interests, I say, that idea, is quite modern and so far as our country is concerned, is like the first glimmerings of the dawn. The ideas contained in the other lines are essentially Western and Christian. These reflections apart, it is interesting to consider how the pupil proceeds with his paraphrasing. Let the Grand Duke be interred. Let us inter the grand Duke. Let this be done to the grief of a powerful race grieving when their generals join the majority. Soldiers bear soldiers cloth thrown, over the coffin and in cottages and palaces, all lights are put out.

Apart from its other disqualifications, there is no soul in the man in the street but would call it rot. The whole passage ought to have gone into the melting pot as it were and a new form should given to the metal. Pupils should be made clearly to understand that.

1. Paraphrasing does not consist in a mere word for word substitution.
2. All the words occurring in the passage need not necessarily have their equivalents.
3. In poetry as distinguished from prose, there is a repetition of words and expressions to give greater force and vividness.
4. The paraphrase must be flowing and easy and such as appeals to our sense of euphony.

After some eliciting, a result like the following may be obtained.

"Let the remains of the great Duke of Wellington be buried with the military honours, and let all Englishmen high and low mourn for him as they do when a great man dies."

But by far that which presents the greatest difficulty to the young learner and that which puzzles the ingenuity of the young teacher is grammar. The allusion to this part of my theme leads me to my school days. I was in one of the lowest forms and in answer to a question, "What is Grammar?" was able to say that it is the art which enables a person to speak and write a given language correctly. The definition was got up, of course, from Elementary Grammar book, the C. V. E. S. Primer I remember. This feat of memory was thought so unusual that for a whole week, I sat in the first place in the English Grammar lesson while at the same time during that period I enjoyed complete immunity from further questioning. What was true 30 years ago is, I am sorry to say, true even now. The teacher goes into the class, opens the book, and in a mechanical manner asks the pupil to repeat the grammar set for the class. When I come across such instances and after a deal of argument as to the unsoundness of the method, the teacher remained unconvinced much less converted, I have thought that time was ill-spent and that the task of attempting to set him right was thankless one.

Grammar, so far at least as the English language is concerned, is the handmaid of language. In the child there is first unconscious perception which is succeeded by the conscious, which, as the child grows in years is symbolised in language, and it is only at a late period, that abstract generalisations can be made. Grammar is essentially abstract in its nature and from a number of particular instances, generalisations are made.

There are two dangers which ought to be guarded against. Grammar may be the end and aim of language teaching, or, it may altogether be consigned to the region of forgotten things. I am sorry to observe that of late, there has been a tendency to forget grammar altogether. After a certain stage in the pupil's career, Grammar should be assigned its rightful place in the scheme of studies. The action of the University Authorities has not been quite consistent. A wave of reform swept over the educational world of Southern India in 1890, and I may add that sea has always been ruffled. The previous method of text-books was condemned and a decree went forth abolishing the English text-book for the

Matriculation Examination, and general English, as it was called, became the craze of the hour. Pupils, now, because they were made to know more of the difference between the abstract and concrete noun, the nominative absolute and the superlative of eminence than of the devotion to his master of a Friday, of the resourcefulness of a Robinson Crusoe, the steady friendship of the high-souled Harry Sandford, the interesting diary of the Pepys, and the innocent railery against trade and commerce as depicted in the pages of a Goldsmith. That was a monstrous system, and monsters alone could have stood so much dosing with grammatical pills. The genius presiding over English Poetry came down to relieve the torments of the poor students much in the same way as Mercury came down from Heaven to relieve the sufferings of Ulysses in the Island of Calypso. The text-book has been re-introduced and let us hope that hereafter at least there will be no trifling with the intelligence of the school boy. Let me indicate the manner in which grammar ought to be taught. The method of teaching grammar as a separate entity from the reading book leads only to be mentioned in order to be condemned. It should be correlated with the text-book and must be taught along with it. If it is Number, I would select the words in the order in which they occur in the text and I should put them down on the blackboard. By questioning and referring them to the other pages in the book, I would elicit the form of that number which implies more than one and the words singular and plural, shall introduce only very gradually. The boys should be able to say that very many words form the plural by the addition of 'S' to the singular, and that other ways are exceptional ways. I should confine myself to the words occurring in the reading book and I should have nothing whatever to do with that fearful array of singular and plural nouns and of foreign words with which we are so painfully familiar in our grammar books. The next thing is gender. Here it will be useful to convey a caution. The grammatical text-books indulge in a philosophical distinction between gender and sex to which the brains of the young boys are not equal. Make the whole class stand, let them face right and left, and then front and direct each of them to resume their seats as belongs to the masculine gender, and in 99 cases out of a hundred, the boys will sit down. This is because their attention had not been called to the fact that grammar deals only with words and sentences. Boys are required to be taught in order to ascertain whether a word belongs to this or that gender they must

first see whether that word refers to a male or a female being or whether it refers to a lifeless object. I have heard persons who ought to know that they belong to this or that gender and not to this or that sex. The same is the case with different case of nouns. I had occasion to go to a certain school and just to see if grammar was understood in the right spirit asked the boys whether they belonged to the common or proper noun.

There was no dissentient voice. All of them were unanimous in their declarations that they belonged to the proper noun. I may quote numerous other examples. My only object is to condemn that hum-drum method of teaching grammar so common in our schools. I am fairly confident that grammar being taught on the lines which I have tried to indicate, the pupils may be led to construct a grammar for themselves.

I have elsewhere touched upon the undesirableness of mere synonymous teaching. Other aspects of the reading lesson may be briefly noted. There is a certain amount of difficulty in our boys being made to understand English descriptions. They say of a warm welcome and a cold reception where in our vernaculars we have quite the reverse, coolness in our hot region being the standard of comfort. Apart from this, the way in which the reading lesson is done can hardly be said to be satisfactory. The boys are made to read a certain passage they are asked the synonyms of certain words and the teacher goes off at a round trot to grammar and the lesson is over. I should follow a different method. I should ask simple questions in English which they should write on their slates and this will form composition in the lower forms. I would invite their attention to the picture in the lesson and question him on it. In many cases the question is considered a mere superfluity and not worth paper on which it is printed. When the boy has reached the stage when direct appeal to the eye is dispensed with their recollection may be drawn upon. It is in higher secondary course that more difficulties manifest themselves. The teacher should have recourse to word-painting and the whole thing has to be acted out. I turn over the pages of the prose-text at random and I find this sentence "Ulysses wondered to see the magnificence of the palace." It will not do merely to say that 'wondered' means 'was astonished' and 'magnificence' 'grandeur.' Therefore the passage means 'Ulysses was astonished at the grandeur of the

king's residence.' When a man is struck with wonder, he dilates and the sympathetic dilation of the other features follow. The facial expression is different from the usual and the teacher must be struck with wonder himself if his lesson is to be of any use and if the interest is to be sustained. Then again, there is a word 'magnificence.' It must not be assumed that the pupil is acquainted with the magnificent things under the sun. There will be some boys as they are termed who will say that but is a magnificent object. Describe the grand front, the court-yard within the long corridor into which open a number of rooms the mounted guards, the armour and the dress and person of king if necessary. Then alone will the people realise what a palace is. The Matriculation Text-book contains an introduction to every poetical piece. Some of the characteristics are pointed out therein: his simplicity of style, his contempt for the formal rules of poetry and his sympathy with the poor. I took Simon Lee and having selected certain passages and asked the boys to write down opposite each what remarks in the introduction each of them illustrated. Most of the boys, if not all, wrote down every thing but the correct answer. Their direction might advantageously be directed to style. "This consent, the peers with one consent approved." It must be pointed out that the object is placed first not only to give prominence to it but also to preserve the balance. The same is the case with "This contention be so expressed to the life." Here is a good example of a well-balanced sentence from Ulysses, the Matriculation book for this year "These solemn shews and pageants in honour of his guest King Alcinoüs continued for many days as if he could never be weary of showing courtesies to so worthy a stranger." Sometimes sentences occur themselves which must serve as an example of how a sentence ought not to be written. First, with reference to the order of words. "I am he whose counsel, if fame is to be believed at all more than by the united valour of all the Grecians, Greece befell." The order must evidently be "If fame must evidently be" "If fame is to be believed at all I am he by whose counsels Troy fell more than by the united valour of all the Grecians." Secondly, as to wrong grammar. "Know them that I am that Ulysses who heretofore have filled the world with there nown of my politics." The sentence should be "Know then that Ulysses is who heretofore has filled the world with the renown of his policies." One word about the

figures of speech, and I have done with Reading. Here is a sentence, "After his death the mantle of Government fell upon his son." If in a general way, the boys are asked to explain the figure of speech here he does not scent any figure or he goes on the wrong scent. If he is made to conceive in parts that government is compared to a mantle and the son assuming the sovereignty is likened to a man putting on his dress. It will, I am sure, appeal more powerfully to his imagination than otherwise.

No account of the methods of teaching will be complete without a reference to composition. Its derivative meaning is putting words together; but it also implies that the words should be so arranged as to produce an agreeable impression on the ear. All knowledge whether derived from books or observation of external nature is pressed into service and hence may be said to be the summary of all Sciences. It is impossible within the short space at my disposal to dwell upon the various aspects of this most important exercise. Till a few years ago, it occupied only a very subsidiary place, but of late, prominent attention has been drawn to the importance of the subject. The difficulty in focussing together all that they have read in books is great and hence it is that it is done in a most slovenly fashion, spelling, grammar, idiom and matter are tested in the exercise of composition. No instructions can be given than what are, and can be, commonly given on the subject. Let them write what they please and let the exercise be corrected and faults be pointed out. I shall point out some of the salient mistakes committed by school boys.

Exaggeration and want of a sense of proportion.—"England is 25,000 miles from India." "He was thunderstruck when he heard that his brother was attacked by the headache." "The London Matriculation is very very easy." "Electricity is destined to change the whole aspect of nature." "I told him ten thousand times not to do it."

Oversteem and false patriotism.—"Foreigners come into India because they cannot secure bread in their country." "Indians need not not go to other countries as they have got plenty to eat." "Even if the population increase to ten times the present number, we need not starve." "In ancient times, the Indians ruled over the whole world."

3. *Self-depreciation*—"We are the most wretched people on the face of the earth." "The

Hindus are mere worms and they do not deserve to breathe God's air; the social system of the Hindus is such as to provoke the contempt of the whole world." "It is a disgrace to civilisation." The Brahmins have been the cause of the ruin of our country; but for them India would occupy the place occupied by England at the present day.

4. *Use of the vernacular idioms and words.*—"The elephant is a Vahanam for kings." "He had eaten bellifolly" like Vigneevara he sat in a quiet corner." "Do not wag your tail." "He capped the gentlemen." "He had performed his japam."

5. *Wrong use of English idioms.*—"The mountain was in labour and out came a rat." "As the bird flies far as the crow flies."

6. *The wrong use of tense.*—"I am your pupil ten years ago." "The train was arriving when we reached the station."

7. *Want of a definite plan or skeleton.*—In letter-writing it is that boys commit many blunders. The letter is often made to take the plan of the essay without the necessary you and I but with the address and the subscription added, there is no attempt at paraphrasing, nor is due attention paid to punctuation. These are some of the commonest defects which I have noticed in the course of my teaching; if boys are to write really good composition they should be made to cultivate extra reading as a habit, else, composition is bound to be a combination of words but without euphony or sense.

THE TEACHING OF MATHEMATICS IN SECONDARY SCHOOLS.

The following is the full text of the speech delivered by Mr. P. V. Seshu Aiyar, B.A., L.T., of the Presidency College, on "The Teaching of Mathematics in Secondary Schools," at the Educational Exhibition at Guntur. Mr. V. S. Srinivasa Sastri, B.A., L.T., of the Servants of India Society, presided:—

Mr. Chairman, ladies and gentlemen:

The subject of my paper, viz., the teaching of Mathematics in Secondary Schools is one on which much has been spoken and written in recent years in England and America, the countries from which we derive our inspiration in many subjects of instruction in our schools. It has also begun to engage the attention of educators in this Presidency with this difference that in the West the agitation for improved methods originated from teachers, and on the recommendation of Committees of Teachers, the Examining Bodies and the Universities modified the syllabuses for their several examinations. Whereas here in India the syllabuses, etc., were changed in accordance with the new tendencies and the teachers are now trying to acquaint themselves with these tendencies and methods with a view to suit their teaching to such tendencies. And as I hold that the agitation for improved methods has not permeated the Indian atmosphere as thoroughly as one would wish, I propose in this address of mine to draw the attention of teachers to some of the salient points in the modern agitation and to indicate what ought to be done by us towards the improvement of mathematical teaching.

Before I pass on to the subject, however, I should like to say a word or two as regards the equipment and preparation of the Mathematics Teacher for his work.

The first and fundamental requisite for every teacher is that he has a thorough command of the subject-matter which he teaches, so as to be able to speak with authority on the subject. This mastery is attained in part by an intensive study of the subject-matter and in part by an extensive study of a wide range of mathematical subjects. He must have gone through a thorough course in the Secondary subjects such as Arithmetic, Algebra, Geometry and Elements of Trigonometry and a fairly good course in Trigonometry, College Algebra, Analytic Geometry and the ele-

ments of Calculus. Also a course in the History of Mathematics and some work in Theoretical and Practical Physics may also be profitably included in the list. This as applied to our Presidency, would mean that none but mathematics graduates should be entrusted with the mathematics work of our Secondary Schools. In Germany all the teachers are graduates and in England most of them are so. This fact is adduced as one reason why Germany shows so much proficiency and advancement in Mathematics.

In this connection we have to regret that the new B.A. Pass Course in Mathematics of our University does not include the elements of Calculus; but it is satisfactory to note that it does include some work in Physics.

In addition to the above equipment in the subject-matter the teacher must have gone through a pedagogical course in Mathematics. This course should include (1) a course in child psychology and theory of knowledge (2) observation of the teaching of the subjects by specialists and (3) actual teaching under the supervision of such specialists. In this connection it is gratifying to hear that the Teachers' College at Saidapet is to be properly manned with specialists in various subjects with a view to give a satisfactory training as detailed above.

So much for the equipment of the teacher before he begins his life. Now coming to what he should do after entering life, I should like to remark, he should not allow his knowledge of Mathematics to rust but he should keep himself in touch with the subject, and since Mathematics is a live and growing subject, he must keep himself in touch with the current literature on the subject as found in magazines and periodicals of an elementary character. For this purpose the teachers must form themselves into clubs and associations wherein they can read the journals and magazines, discuss several questions connected with the subject, exchange ideas and compare notes.

If we examine the present condition of the teaching staff in the light of these remarks as regards equipment, it is satisfactory to note that most teachers of mathematics in the High Schools are mathematics graduates and trained L.T.'s. But the teachers are generally not in touch with the current literature on the subject nor do they even remember the higher mathematics they once studied in the college course, though, of course, there are many exceptions; so that the one thing necessary in their case is the formation

of associations and clubs with the objects already enumerated.

As regards the teacher of mathematics in the Lower Secondary classes, it is regrettable that they are not mathematics graduates, and until they all become graduates (which is to be our ideal and which may take a long time) the course of studies and the detailed syllabuses must be prepared by the High School teachers and the teaching supervised by them. This I would strongly urge upon all headmasters present here and would ask them to set free the senior Mathematics teacher of the school for some hours in a week with a view to this supervision work.

Now coming to the main subject, viz., the modern tendencies in the teaching of mathematics I wish to observe that the dominating thought of the present movement is a fuller consideration of the child's mind; a sacrifice of the logical to the psychological. That is, the test in determining the matter and mode of instruction is its fitness to arouse and hold the child's interest. That this is a sound principle will be readily granted by all, but the real difficulty lies in getting at the clue to interest the child. That clue is to be found in the child's nature. The child's instinct is "to do," i.e., to exert his powers, and whatever leads him to *doing, successful doing*, is interesting to him (doing here includes intellectual doing also). The utility of a thing does not appeal to him so much as the scope which it gives for his activity and the display of his powers. For instance, he does not care to know the use of playing football though he is very much interested in playing the game. So in teaching mathematics we must see that the mathematics presented to him is such as he likes to do and in doing which he is likely to succeed eventually at least.

This means (1) that rigor and all abstractions such as definitions, rules, logical proofs, etc., must be eschewed in the early stages, (2) that the teaching should be concrete, experimental and inductive; (3) that no complicated, artificial and ingeniously manufactured questions be set to the child but he be given easy questions from his own life or from the life of those around him; (4) that the subject be made to grow in the class-room and constant appeal be made to the intuition of the child. I shall take up these one by one:—

That rigor and all abstractions such as definitions and logical proofs must be eschewed

from the early stages is plain enough, but in respect of rigor I should like to say one word. With regard to rigor there are two extremes; absolute scientific rigor on the one hand which is attainable only by the specialist and any attempt at securing it in the early stages will only make the subject dry, repellant and incomprehensible to the pupils. A child for instance when it learns its mother-tongue does not understand the exact significance of words from the very beginning but as it sees the word applied to a number of things, it gradually gets to know the exact meaning. On the other hand the glory of mathematics is its peculiar clearness and the strictness of its proofs and unless the subjective effect of this is preserved some of the objects of teaching Mathematics will not be attained. The question of rigor crops up specially with regard to Geometry and the best course will be to base the subject on a large body of hypotheses, i.e., assume many things which might be proved and make inferences from these in accordance with the problems of thought (or logic).

Coming to the second point, viz., that the teaching must be from the concrete to the abstract; the question is what is the exact meaning of this as applied to mathematics. If we recognise the experimental origin of mathematics, we can, I believe, take this to mean that experiment, estimation, observation, induction and intuition, all these must be given honoured places in mathematical teaching. Again, as regards the question what is that concrete which is to be made the basis of work at any particular stage in the teaching of mathematics, it means—material things, experiments with them and reasoning about them, nay, more, it may be taken to include whatever is thoroughly mastered intellectual property of the pupil, i.e., the concrete at any stage includes all the abstractions previously made and assimilated. For example in teaching the arithmetic of whole numbers material objects must be largely employed, but in teaching fractions integral arithmetic along with concrete illustrations may be made the basis.

Again proceeding from the concrete also means that we must teach through the eye, i.e., we must make constant use of diagrams, colours, squared paper, etc., etc. Colours and squared paper are not used in our schools as largely as desirable.

Next coming to the point that teaching should be experimental, inductive and intuitional, the first point to be noted is that the pupils must

be gradually led by judicious oral questioning to the rules and not that the rules be given first and the students be asked to verify them. Again, in teaching constructions or propositions in geometry the student must be gradually led to them, and not the constructions and propositions given first and the student asked to follow the reasoning.

[Of late, I am afraid that there is very little of oral questioning employed by mathematics teachers so much so that a belief has come to be current among the teachers of other subjects that the mathematics teachers are having an easy time of it. They set some questions to the class and sit quiet in their chairs. To a certain extent it is true. Why! one headmaster was asking us the other day as to how to assign marks for class work in mathematics. His difficulty was that most students might copy the correct answers and how to judge who deserved marks and who did not. Evidently the headmaster had in view this habit on the part of the teacher of idly sitting in the chair after having set the questions. But I thought it was easiest to assign marks in mathematics, if oral questions were largely employed and if the teacher went round the class when the students were engaged in working questions].

In short, the subject must be made to grow in the class-room and not to be dealt with as in a book on Experimental Geometry recently published. There the propositions are given first and the boys are asked to make some experiments and measurements and infer the propositions. This would make the teaching dry and mechanical and defeat the very object of teaching experimental geometry.

In this connection I should like to point out that in teaching for instance, a proposition in geometry, various modes of proof, viz., proof, (1) by intuition, (2) by measurement, (3) by dissection or superposition, (4) by the use of motion, (5) by reasoning, must be given so as to enable the student to realise and thoroughly grasp the truth and understand its bearing to other propositions and to the first principles. I mean that mere experimental proofs are not in their very nature satisfactory but experiments are wanted for leading the student to the truths. For example if you ask a student to measure the three angles of a number of triangles and find their sum and thence try to infer that the sum is two right-angles, you will be simply asking him to take the truth on trust. For, his own measurements do not give the sum to be

exactly 180° . Whereas if you give him a purely logical proof he may not be able to find any flaw in your argument; yet he may not feel quite convinced of the truth. To take an example from higher mathematics;—when the student is given the proof of Taylor's Theorem he agrees to all your steps yet he demures to accept the final result. This shows that mere logic alone does not satisfy the young even if he understands the logic. The inference is that one method of proof alone is not sufficient to make the student realise the truth. If you can also make use of his intuition it is very desirable to do so. In the case of Euclid 1.32, for example, it is very desirable to give him the following proofs at some one stage or other: (1) by paper cutting, (2) by the theory of parallels, (3) by paper folding, (4) by rotation, (5) from the fact of the determinateness of the third angle when we attempt to draw a triangle with two angles given. Similarly for 1.15, 1, by measurement, 2 superposition, 3 intuition, 4 argument. [These several proofs were explained to the audience by using the blackboard]. Occasionally it is desirable to show that students ought not to rely too much on dissection proofs; an example, viz., a dissection proof for $64=65$, was shown on the blackboard. It is also desirable to show especially in the case of clever students who do not care to draw neat figures, that logic alone may mislead him as an illustration, it was logically proved that every triangle is isosceles.

Another point we have already noted is that complicated artificial and ingeniously manufactured questions must be avoided. Of course complicated questions will teach patience and perseverance and give skill in handling figures, but they will make the subject repellant to the child and the same skill can be attained through problems of an easier nature which he cares to do.

Again ingeniously manufactured questions may require concentration of attention and sharpen the intellect but success in the attempt to solve such question is all a chapter of accidents as Professor Christal has put it and beginners will get disheartened if they do not succeed in their attempt and will consequently begin to hate the subject itself.

The following omissions may be proposed:—

1. Manipulation of large numbers and exercises involving many numbers.
2. Fractions with large denominators and complicate fractions.
3. All weights and measurements not actually in use; tedious reduction of compound quantities,

4. Decimals beyond the third or the fourth place and circulating decimals.

5. Square root of large numbers and cube root altogether.

6. Difficult questions in compound proportion, partial payments, equation of payments, partnership, time and distance and time and work.

7. Inverse questions on Discount, Stock and Exchange.

Algebra.

8. Simplification and factorisation of complex expressions.

9. Square root of irrational and fractional expressions.

10. Simplification of complicated fractions.

11. Equations with literal co-efficients.

Geometry.

12. Difficult riders and difficult constructions.

Then the question is what is the kind of matter to be included? To be brief we must put in easy problems of a nature that will give the training which is claimed for mathematics and will fit him for his future life. This again means the matter should be such as "to (1) exemplify clearly the nature of mathematical reasoning and the sequence of its results as a logical system; (2) help to a better understanding of the laws of nature; (3) bring out the relation of mathematics to the social organism and the activities of modern life; (4) give skill in the performance of mathematical processes to meet the future needs of the pupil." The first two mean that the fundamental laws and principles must be clearly explained. In this connection, I wish to protest against the notion which seems to be prevalent in some quarters that under Elementary Mathematics in the School Leaving Certificates scheme we have only to teach Practical Mathematics pure and simple, that it would be enough if the students are able to perform the processes, no matter whether they understand the principles involved in those processes. Such a notion is very erroneous. Practical Mathematics may enable a student to pass an examination; but can never give the culture claimed for mathematics nor the power to wield his mathematics and apply it to problems which he may meet with in his future life. Mere passing is not our goal, as it ought not to be, if we care for the best interests of education; and therefore we must pay special attention to laws and principles involved.

Nextly to show the relationship of mathematics to the activities of modern life, the problems set must be from the world of man and of matter as it can be seen and understood by the pupil, i.e., from practical and commercial life as he sees it. Such problems will develop the power to apply mathematics and show how indispensable it is in every-day life.

Another point in the modern agitation is the correlation of the several subjects of mathematics and of mathematics with physics. This correlation will arouse the interest of the pupil, conduce to the better understanding of each subject, show the relation between the several subjects and show that all mathematics is one and that it is only the variety of method that splits it into its different branches. The necessity for correlation is accepted by all and yet in practice it is not effected to a desirable extent because teachers have not yet thought out in what all ways and in what all parts such correlation can be effected. I shall enumerate some parts of the different subjects where such correlation can be effected.

Arithmetic and Algebra.

1. Laws and principles of the four rules.
2. Laws and principles of fractions; equivalence of fractions.
3. Verification of results in simplification, factorisation and square root.
4. Method of detached co-efficients and decimal notations.
5. Verification of the roots of equations.
6. Problems solved by equations.
7. Symbolic expression of arithmetical formulae in mensuration, interest and discount, etc. Arithmetic and geometry.—

Chiefly in the use of squared paper, colours, graphs in arithmetic and in mensuration. Again there may be correlation between practical and theoretical geometry, in teaching, metric properties of geometry, it may be correlated with algebra, etc.

Another important point in the modern agitation is that the students must be made to form rough estimates of the answers to be got and to verify their answers.

Then he read the following lines from an article in the August issue of the 'Educational Review' on 'some main defects in the answers of High school students to Mathematic papers' contributed by him

Rough estimate is a thing altogether unknown to our students and for want of it, the candidates often give very absurd results as their answers, though a moment's reflection could detect the absurdity, e.g., in the Matriculation arithmetic paper of 1909, to the question about a gold ornament we had answers like Rs. 9 and 12 given by the candidates. In the question the ornament is said to weigh 4 tolas and 1 sovereign and odd, and the price for the sovereign weight is given as Rs. 14, and from the data a tola could be found to be nearly $1\frac{1}{2}$ times a sovereign weight and thus a moment's reflection would show that the answer must be somewhere near Rs. 100 and yet answers below Rs. 14 (the price of a sovereign weight) were given by the candidates.

I need not say to this assembly how very useful a rough estimate will be for checking the answers, but I only regret to find that no such estimate is ever formed by our students and the sooner we try to remove this defect the better.

The most effective method of removing it is to insist upon the students forming such an estimate to each and every question and checking their result before passing on to the next question. In this connection I must also say that our boys often do not know as to how to form such an estimate and therefore, the teachers, will do well to guide the students to get such rough estimates formed for every question done in the class. The method must be such as not to take up much time and at the same time the checking must be effective. Constant practice and the example of the teacher alone can teach the students the shortest and the most effective method of checking the results.

For this purpose rough approximations must be introduced at a very early stage even in connection with integers. For example in multiplying 345 by 23 the student must be made to see that the product is greater than 300 by 20 or 6,000 and less than 400 by 25 or 10,000. Again, say, the question 'what is the cost of 12 measures of rice, if rice sells at $4\frac{1}{2}$ measures per rupee' is proposed. The student must be able to say readily that the cost is slightly less than Rs. 3. Oral questioning to elicit such approximations may appear to be unnecessary and waste of time. But I won't be surprised if a student, provided there has not been any such questioning in class, gives Rs. 49 $\frac{1}{2}$, as the answer to the question. For, our students are never in the habit of checking the answers and if in the course of working he commits a mistake, say of writing 33/8 for 8/33, he gets the answer suggested and

would coolly leave it there with two dark lines underneath to indicate that it is the answer and pass on to the next question.

In short my own conviction is that teachers cannot spend too much time in forming such a habit in their students of checking their results and early and systematic attempts must be made by the teachers for the formation of such a habit.

Another defect I should like to point out is that answers are as a rule not verified nor is any revision of the work ever attempted.

In geometry the chief defect is the want of a correct understanding of the logic of the several steps in a proposition and ignorance of the central or vital point in a proposition.

To make the students understand the logic of the several steps and the central or vital step, judicious oral questioning of the several parts of a proposition is the method to be adopted. How to question on a proposition cannot be indicated herein and it is beside our point for the present. But small pointed questions on the subject-matter of every proposition and on the consequences of the absence of some of the conditions given, can and must be got ready by every teacher. In this connection I should like to point out that teachers generally do not now-a-days resort to such oral questioning in connection with every proposition. They do make the students repeat the propositions, and prove them at the most with figures having letters different from those used in the text, and they then pass on to the riders which they do in large numbers and ask the students to take down the solutions. Such a practice is cramming and can never improve geometrical knowledge. In this connection I may also suggest that occasionally (say in teaching the important propositions) the teachers will do well to trace the proposition to the very fundamentals or first principles of the subject, i.e., definitions, axioms and postulates. In teaching a proposition students must be asked what theorems are assumed in it and then to prove those theorems what theorems are wanted and to prove these latter what are wanted and so on down to the definitions, axioms and postulates. And then by way of summing up they must be asked to proceed synthetically to the proposition starting from the first principles. Such a procedure makes the students thoroughly grasp the logical reasoning by which the proposition is arrived at and also give them the relation of one proposition to the other propositions and indicate to them the applications of the several propositions and incidentally teach them which

proposition are very important and which are comparatively unimportant.

Gentlemen, I have touched upon most of the important points in the modern agitation and also some defects in our present system. It is for us teachers to modify our teaching in accordance with the tendencies and so as to remove the defects.

First of all, the teacher must have had scientific and pedagogic training for the work and he should be in touch with the current literature on the subject for which purpose associations and clubs must be formed.

Nextly, the matter presented must be such as to interest the student and must have a close bearing to his present and future life.

Thirdly, rigor and all abstraction, complicated and artificial problems must be eschewed.

Fourthly, the subject must be made to grow in the class-room from experiments and investigation and suitable illustrations with colours, diagrams and squared paper must be largely given.

Fifthly, different branches of the subject must be well-correlated with one another and with physics.

Sixthly, rough estimates and verifications must become a regular habit with the student.

Seventhly, oral questioning and mental work must be largely employed.

Eighthly, the logic of propositions must be clearly explained and propositions traced to the first principles.

If these are properly attended to I hope the teaching of mathematics will be greatly improved and no student will ever come to hate the subject. Further, India will, in course of time, be able to show some proficiency and advancement in mathematics and indirectly, through the application of mathematics to business and industries, India will gradually rise to be materially a great nation.

PARENTS AND SCHOOL WORK.

LAST DAY'S PROCEEDINGS.

28th January 1911.

The Conference met this morning at 7-30 when Mr. R. Venkatasivadu, B.A., L.T., Professor of Logic, A. E. L. M. College, Guntur, read a very interesting paper in Telugu on "Parents and School Work," and during the course of his speech dwelt on the influence of parents on their sons and daughters, and showed how it is connected with the school work. The chairman, M.R.Ry. V. V. S. Avadhani Garu, B.A., gave a few remarks on the subject, and the gathering dispersed with the usual vote of thanks to the chairman and the lecturer.

2. Visitors to the Exhibition stalls this day were unusually great in number.

3. The evening items of the programme were:—1. A lecture on the Status of the Headmaster by Mr. V. S. Srinivasa Sastri, of the Servants of India Society, and the meeting was presided over by Mr. K. B. Ramanatha Aiyar, M.A., B.L., L.T., of the Pachaiyappa's College.

The second item in the evening programme was a lecture on "Religious and Moral Education" in School (in the absence of Mr. R. Venkatratnam Naidu, M.A., L.T.,) by Mr. Nallaswami Pillay, District Munsiff, Guntur, and Rao Bahadur Professor M. Rangachariar, M.A., occupied the chair. There was a large gathering of ladies and gentlemen.

"THE STATUS OF THE HEADMASTER."

Mr. V. S. Srinivasa Sastri who was called upon to address the audience delivered his lecture on "The Status of the Headmaster," and in the course of his speech said:—

He was going to speak on a ticklish subject, and that, therefore, he felt a little more nervous on that occasion than on others. By some experience he said he had learnt that nothing was so easy to a speaker as giving offence unjustly, and talking on a subject like this, although with the best intentions in the world, he feared he would create soreness in the heart of one man or in the other. That, however, was a necessary difficulty, and that he would face it with the love of the audience. His own personal experience was rather happy, and although it extended over 20 years, his lot had run on some smooth place, and in the examples he was going to produce his own personality would not come much.

He recognised that the lot of the headmaster in general was not quite so happy as it might have been. As he was no longer a headmaster, he felt that he was altogether without any embarrassing impediment in this matter, and he therefore ventured to speak on a subject which is surrounded on every side by various difficulties. The idea that he should one day speak on this matter to a wider public than one would get everyday struck him with some force at the time when the School Leaving Certificate Scheme was launched. One or two objections which that scheme had to meet with was based on the comparative incompetence of the headmaster to bear the additional burden that the scheme would throw on him, and to adjusting mainly the increased responsibility that would now under the scheme vest in him. That criticism was made by almost all critics, and that it stands to-day in the records of Government as one of the principal objections to the scheme. He was greatly grieved that such criticism should have been made so generally. Why it was objected to might be expressed in a few words. It was urged that the headmaster already powerful would now become omnipotent over the fates of all young men under his care, that in the marks for the boys and in the presentation of the candidates, for public examinations his personality, his individual idiosyncrasies would play a prominent part and hardship would be inflicted on deserving young men. It was further feared that the relegation of such important subjects as history, geography and elementary science to be not subjects of public examination was also a drawback, because of the great deal of the work in the school would entirely depend upon the character of the headmaster. It was suspected that he would get slack, and would allow his assistants to get slack, and he was very sorry to say that these criticisms have come about in a very curious fashion during the last few days. He was almost ashamed to speak of the low estimation in which he is held. With regard to the matter of superintendents in the public examinations to be held in March next, he had heard it said over and over again that the one great idea is that they should be held as far as possible in every school that presents candidates so that it may appear to the teachers and to the taught not as a different examination but more or less as an examination in their own place and by their own men, and that as it is conceived would be a great advantage of this scheme over the previous one. He was speaking not authoritatively but that he had heard it said,

and the present idea is that where, for example, there are two schools in a certain locality, the headmaster of the one would not be the superintendent of his own school, but in the other and his own would be superintended by the other. How that was a reflection on the trustworthiness of the headmaster he did not know. It was looked upon from one point of view and he was not going to regard the position of the headmaster for this one circumstance. It is greatly feared that if the headmaster superintends his own school, the idea would get abroad that in some way or other his candidates would have certain advantages which were denied to other candidates. He was not going to make any comment on this, but that such a charge was likely to be made by our own men, by aggrieved parents, and it would also likely be made by some teachers who have not had the benefit of superintending. And when it is once allowed to be made, the value of the examinations would suffer. Such a state of things reflects on the character of the headmaster, and if things were all right, that criticism is not justified. Now the unpleasant impression before our minds, prominently, is that the headmaster does not command the confidence of either the department or of the parents and teachers with whom he deals. If that was a fact, and to some extent it was, it was better to examine the causes that bring about such a state of things, and that was why he wanted to speak on the Status of the Headmaster. That an officer of his rank, dealing with a large number of pupils year after year, training them up, forming their character, and indeed, making them to be citizens of the future, and preparing them for the world's work, that an officer of that character, should enjoy a higher status and against whose character nothing should be allowed even to be whispered. It was because of the low status in which he is held, there was a low measure of public confidence in him. First of all, it is desirable that the headmaster should enjoy a higher status than he does, and if that point is made clear, we could then proceed subsequently to consider in what ways to enable him to attain to that status. He is a man than whom we cannot set another exactly as higher in rank or in quality. He is often a Master of Arts, but always a Bachelor of Arts, and a Licentiate in Teaching. Educationally, therefore, he has a higher position in the public service, and if educationally he is so situated, to whatever community he may belong, and however restricted his function may be in social and other matters, he certainly should take a place inferior

to nobody else, and as a gentleman in every sense of the word, he ought to be expected to be perfectly trustworthy. And as one entitled to public esteem, and public consideration, he ought to enjoy a higher status inferior to nobody else. And if a man who is responsible for fostering character to the young is not trusted, then the schools do not enjoy a high repute and this is the case with most of our high schools. Therefore, if a headmaster is a person who impresses his individuality on the students, who make them esteem among the institutions that work for public benefit, one who is to make schools the real centres of influence from which not merely intellectual work will emanate, but also the qualities which are associated with first rate citizenship, high patriotism, noble endeavour and so on, then such a person should be given a rightful position that is due to him.

Then he dealt with the subject of the appointment of headmasters. He gave an example where an Inspector of Schools asked him to give a man who could impress his individuality and character on the young, who would not care what pupil or people say of him, who would not be affected by undue praise and would not tolerate nonsense, while he would perform his duties to the best of his judgment. That Inspector wanted such a man and not a man who talks too much, writes papers, and one whose mind is elsewhere than in his work. Now then the qualities required in a headmaster should be preferred by managers in making their appointments.

He then classified the schools into four grades according to the class of management, and before doing so, he said that there were a great many exceptions, honourable exceptions to what he was going to say.

First of all, excepting the Government Schools, there are the Mission Schools, of which there are a great many. Now in these Mission Schools, the rule is all, although strictly defined, and although it does not include all the functions associated with the name of the headmaster, elsewhere in the sphere assigned to him, the headmaster has a free hand. He has freedom in the province assigned to him, and in promotions and admissions his decisions are not generally upset. If he is allowed any power, that power is allowed to be exercised to the full without any fear that he would be liable to be called in question, or his orders upset, or in any way altered so as to deprive him of what is due to his position.

Secondly, there are the Committee Schools, viz., the schools under indigenous committees. Here the headmaster's hands are not as free as they should be. In the matter of admitting pupils, in the matter of presenting them for public examinations, in the matter of free student-ship, in the matter of appointing his own assistants, or making recommendations for their own appointments, in the matter for promotion either in work or in salary, in all these matters he knew he could mention one or two schools where the headmaster was reduced almost to a cipher, and where his influence was only secondary. For example, he knew a school where promotions at the beginning of the year required to be made on the opening-day were not done so for one whole week, because the Secretary of the School Committee who was a busy and prosperous Vakil was away at the time, and it took a week before anything in the matter could be done, although the headmaster was entirely responsible for that business. Another instance was in a school in which for punishing the son of the manager, the headmaster was summoned to the presence of that dignitary, and then and there scolded, and warned.

Then coming to the Board Schools, or schools that are under the management of District and Taluk Boards, he said that though they were not many, in great majority of these cases excepting one or two, the headmasters of these schools enjoyed a certain measure of independence and freedom which they did not get elsewhere. The cause was not far to seek, for they are generally managed by either the Collector, the Sub-Collector, or the Deputy Collector, who not to speak of other things, not to speak of the honourable traditions of public service, are much too busy to occupy with the trifles of the school management. Perhaps, by reason of that circumstance, the headmasters enjoy a great measure of liberty, and where their decisions are upheld, and it is the rule that their recommendations in every matter are accepted.

Then there are the Municipal Schools. These are managed by Municipal bodies which are fairly numerous. The School Managing Committee sometimes consists of 15 or 16, and seldom less than 7 or 5. Each member of the committee fancies that the headmaster somehow or other is dependent on his own personal bounty and is bound to consult each one in all matters of importance and their wishes when clearly expressed must be carried out whether they be reasonable or unreasonable. He knew many teachers and headmasters who had suffered grievously under

Municipal management. The Municipal schools are rather somewhat slow in one thing, namely, that of allowing that measure of freedom that is due to the headmaster even when he does his functions properly. As an illustration of the fact that the kind of trouble that the headmaster gets often from the Municipal schools, there was once a Municipality which came to be managed by the Tahsildar who was appointed Chairman in the interregnum between the vacation of one Municipal Chairman and the appointment of another to the office. Somehow or other this fortunate Tahsildar had a long spell of office as Municipal Chairman for 8 or 9 months. During that time it struck him that the headmaster and the several teachers of the Municipal school which was under his management might well be made to pay greater attention to him personally than they seem to be doing. And to bring about that object he passed an order that no teacher employed in that school should proceed outside the station on holidays without previous permission obtained of him. It was brought to his notice that certain masters were going away on Saturday morning to their villages or so and returned on Sunday evening or Monday morning which privilege was not assigned to him nor to any officers under him. To redress this inequality he forbade the masters taking advantage of their holidays without previous permission obtained of him. This brought many people to his door every day. This went on for some days when the headmaster and his assistants sent a mild remonstrance which the headmaster was so bold to endorse saying that no such thing had come within his experience in any of the Municipal schools and that it would be desirable if the Tahsildar would reconsider his order. In reply to this endorsement one line was written below his letter: "The headmaster will simply obey orders." Now this man had not a good reputation even in his own department and he could have made his term of office for 8 months into good account. This was one typical example of the kind which the Municipal schools are subject to.

Lastly comes the school under individual managers, who are also proprietors of the schools. Now in this case, the headmaster is quite happy if the manager is a good man and even if it is not so he has to satisfy only one person. Sometimes the managers themselves are the headmasters in which case the position of the headmaster is very clear. Luckily however, such schools are few.

Then he came to the management of public

institutions. As a rule out teachers and headmasters prefer services in schools where they will be controlled by Europeans rather than by Indians. They would prefer it for smooth working and for the peaceful transactions of every-day business with a European control rather than with an Indian. For when you give power to an Indian gentleman he exercises it somewhat strictly so as to destroy the sense of manliness in him over whom he exercises his powers. Though subordinate, yet he may be treated as an equal as man to man and a little courtesy shown to him in the exercise of powers as one gentleman would do to another.

Again, some managers are very kind, very gracious and allow the headmasters to do everything as they please, but this is one extreme and another extreme is where the headmaster's work would be scrutinised in each individual case. It is only fair that a person accepting the place of a headmaster be allowed a certain amount of liberty, and managers ought to make it a rule not to call in question everything. The managers should have a friendly consultation with the headmaster as to the exact state of things and as to the precise needs of the locality and in the matter of promotions and appointments.

Sometimes appointments are made by managers without consulting the headmaster and reported by him as to the sort of man required for the place. Sometimes the headmaster himself is unable to treat his subordinates as his equals, and thus destroy the sense of independence. They must so behave that it must be pleasing to him to give an order and that it is a privilege to them to be obeyed. The headmasters themselves to cover the deficiencies of their work bring charges against others and thus try to cloud the issue. This is somewhat harsh. This is perhaps the result of a long away that autocratic institutions have had amongst us. Thus the lot of the school-masters in private schools is poorer than what it was some 15 or 20 years ago, and official subordination to another is a very difficult thing to fulfil. For "*Seva' Dharma Parama-gahanah Yoginampyagamyah*," even the Yogis who with patience and respect of which a man is capable, even they could not do satisfactory service. When it is so with them it is certainly beyond common humanity. There is no man in the world that has some people to control and at the same time he is also under the control of others. Service is not dishonourable so long as he performs it to the best of his judgment. So one of our primary duties is to see that we exercise our power with gener-

osity and chivalry over the man we rule. Then there is no need why managers should feel officially superior to headmaster. Another point which is a necessary counterpart of this is the feeling in the headmaster that he is a somewhat unworthy person, and that he has very little power either in the matter of promotion or testimony. Consequently the assistants get what they want by applying to the manager direct.

The next point he touched upon was when circulars were sent to the headmasters of schools to write out the history of their institutions so that it might be known to the world how many were managed by our people and managed to such good purpose. No answer was given by any headmaster. For, if the history of a dozen excellently managed institutions and the results of their work as contributing to the development of the young, more known, this would benefit other institutions in many ways. For they were not bold enough to do so and come forward with the history of their institutions. This shows there is a lack of independence in them.

Again, when the School Final Examination Scheme was in preparation and when the headmasters were asked to give an opinion on each subject so as to discuss and find out the cause of so many failures in the Matriculation Examination only 15 out of 100 sent answers. They would not come to offer an explanation as to why pupils even from first-rate schools stood away. They would not give any evidence or testimony when their pupils were plucked and when they fully knew that something was wrong. For criticisms from headmasters would give a good effect and in doing so, they were only contributing to the welfare of their pupils. The fact is that there is a sense of helplessness and that feeling had to be got over. No headmaster ought to say to himself that he is helpless for then nobody would care for him so long as he did not care for himself. The headmaster ought to believe in his own self and let him assert his position and claim to be heard.

The headmasters would say in defence of themselves that they are not duly respected because the world goes mostly by salaries and by how much does a man draw a month and that the proper remedy would be to raise their salaries and then they would be treated with respect. There is some measure of truth in this. Is it right then that a man of his position should be indifferent about his duties so long as he is paid

low? The manager says something similar and since that the headmaster has very little to do in the enjoyment of luxuries he could sacrifice something as he himself should set an ideal of economy for his pupils and because virtue has its own reward. It is very ungracious on the part of the employer to say that virtue has its own reward. The employer who lurks on the strength of this saying is doing his duty most improperly. It is well for the managers to say what can these poor men do, we keep them very low, we must treat them equally, and they will be our associates instead of mere subordinates. Then he said that the headmasters are responsible for any miscarriage of education. And as the headmaster is the representative of his school, so on him depends the prestige and popularity of the school. He should avail himself of every opportunity and try to make reforms in the educational administration. He should have a knowledge of the character and capacity of his assistants. There are some assistants who complain against the headmaster and say that he demands an increase of salary. The headmaster should rather demand that his assistants are duly rewarded, and leave it to the good sense of his manager for an increase in his pay.

Now under the School Final Examination Scheme many headmasters have applied for assistant examinations and many inspectors have also seats. Now what is the effect of many headmasters applying for those assistant examinations? The effect is two-fold. First of all, it creates in them a desire to stand well with the Inspectors of Schools. Then perhaps the Inspector being the chief person before him, he becomes a dependent of the Inspectors and a slave to himself. Now again, the inspectors and the headmasters are to work side by side. The Inspector ought to indicate and to advise the headmaster inasmuch as he has a larger experience in this line than the headmaster who knows only of his own school. He should sit and consult together on important matters and as to the exact needs of the school. The existing state of things is not quite satisfactory, and unless the status of the headmaster is placed beyond question, no improvements in secondary education can at all be permanent, and unless he is made fully and entirely free in the internal management of the school over which he presides and in his own sphere subordinate to nobody else, the new scheme will fall and secondary education will miscarry.

Now, the headmasters who desire to have the

privileges which are their own should work out their ideals, even at the risk of their professions and even if they suffer in the struggle it shall be only temporary and in the long run they will benefit their class as a whole and would arrive at the status and the position which is their due. It is only necessary that they should revise their old line and be prepared to follow a better policy than they had been hitherto doing and it is to that work the headmasters are called upon.

Then Mr. Ramanatha Aiyar, who rose amidst cheers spoke very highly of the lecture, and said that this would be much appreciated by those who are in the profession. He said that though the lecturer laid stress on the status of the headmaster, it also meant and has reference to the succession of good masters who would in time take up this work as their profession. That the teacher should awaken to a sense of his responsibilities and fulfil his duties to the satisfaction of all. That the proportion of work and wages does occupy the teacher's mind when he compares his standing with the standing of those who were equal to him in the school career but then he should know he belongs to an honourable and living profession. That it is desirable the teachers should insist upon their own standard of work, that they should be proud of their profession, and ought to be conscious power. The teacher should pay a great attention to physical exercise, and that he should set up an ideal for his young students in every department of life. The teachers as a class to whatever community they may belong are only as what Brahmins in ancient day were if only they keep up to their ideals. The teachers have certain ideals of life and these ideals of life can be pursued irrespective of the position they occupy in society.

The meeting then came to a close with the usual vote of thanks to the chairman and the lecturer.

MORAL EDUCATION IN SCHOOLS.

GUNTUR, 8th February 1911.

The last of the series of lectures delivered in connection with the Educational Exhibition and Conference at Guntur was on "Moral Education in Schools." In the unavoidable absence of Mr. R. Venkatratnam Naidu, M.A., L.T., Mr. Nallaswami Pillay, District Munsiff, Guntur, who was called upon to address the meeting on the subject, delivered a very interesting speech, and in the course of his speech he made a few remarks on the following points:—

The subject of Moral and Religious Education was one of the most important at the present day, and that it occupied the minds of all who were interested in the educational problems of India. The question was one in which we Hindus had an abiding interest. We who are born in religion, bred in religion, and taught in religion, considered religion as a personal heritage. In so far as he had thought out the question of this side of education, he would favour the revival of the old system of giving moral instruction to boys and young men and that so far as his experience had taught him he would prefer the old *Phyal* School System. The *phyal* school was based upon good arrangement, and the child was first taught the elementary principles of morality, and as he grew up in knowledge and learnt more, he was given necessary instructions on higher morality, so far as his religion was concerned. He said that the existing text-books which were placed in the hands of the children did not teach and begin with morality but with other things, as lessons on fox, cat, rat and so on. He knew he would be criticised, but that he was fully convinced of the benefits of the old system where though the child in the beginning could not understand what he was taught, yet it had a lasting effect on him, and that in the long run, he would realise what it meant to teach him. Our *Athichivati Kural*, *Arinjayavirumbu* and so on as we have in Tamil parts did much good in their own way, and that therefore a series of text-books on morals graduated according to the standard would remove some of the defects of the present system. He also said that parents, and their influence at home have also much to do with the character of the children. He concluded that he now realised the benefits of his early education along the old line taught by his parents and that therefore he would prefer it.

Then Rao Bahadur Professor M. Rangachariar, the Chairman, rose amidst loud cheers, and

delivered a lecture in the course of which he said:—

The subject of the evening was a very important, and would not suffer by reiteration. It was really so important by saying constantly that it was important, and saying that it was important constantly was to realise its importance, and being so important a question, it was most natural that most people would have thought about it, even those who were not poor schoolmasters. And, secondly, it became possible for them to offer suggestions and give expressions to opinions which deserve to be carefully considered. He thanked the lecturer for his remarks on the subjects, but that it meant to him that he held rather than have this modern education diverged as it was from religious and moral education, let us go back to the *Phyal School System* and the *pinching of the ear*. That was a system which had been long current in this country, and which in those days did much good. But having fallen to the vortex of modern thought, he was afraid he could not altogether uphold the idea of the continuance of the *Phyal School System* in the development of the educational institutions of this country. He did not deny that it had its imports, but the imports it had were certainly very much inferior to what we in these modern days hoped to have in our ideal schools. Generally, they say that 'education is the complete development of man.' That is one way in which education is defined, and taking that definition to be true, we find that he is not mere matter and energy, and not all spirit and no matter, but we find that he is a combination of both matter and spirit. In our old system, when we in this country were protected by natural barriers and when we were free from the competition of the external world, we felt secure in all matters, and it appeared to us that to take care of material aspect and development of man's perfection was not so very necessary as to take care of the subjective spiritual aspect. Situated as we were in those days, everything was arranged on the principle of division of labour; social organization, industrial enterprise, education, and everything was arranged in this country on the principle of division of labour; and having been so arranged on the principle of division of labour there was complete absence of competition. And whether there was complete absence of competition or not, every walk of life had been hereditary with all classes of people and things were learnt from generation to generation and passed from father to son. When such was the condition of life to

look after, that aspect of education which gave rise to the principles of contentment, virtue, righteousness, etc., was necessary; but, to-day somehow or other and in the wisdom of Providence, India is not shut off from the rest of the world. We have got into the world's stream of politics, into the world's stream of industries and in industrial enterprise, and in the world stream of thought and education. Under these circumstances could we really manage to be trained and educated so as to reach the perfection of our nature by means of those old instruments, those old institutions, which were certainly partially developed, and which had only a partial ideal. That was the question asked, and the answer was emphatically clear if we only went through those Exhibition rooms, and knew how such a beautiful organization had been materialised in those rooms. They told us what the modern tendency in education was. The tendency in modern education was to make everything real, and this tendency in favour of reality in education was only part of a greater force in the field of thought which had played a prominent part during the whole of the last century, viz., the force in favour of science, the scientific way of looking at things, the scientific way of studying things, and not in a mechanical and physical way of looking at things. The utilitarian way of looking at things had taken a prominent part in the modern field of thought and education; and personal comfort and convenience also attached a greater importance to the instrument of civilisation. All these things had come only in the train of thought, the force of scientific way of looking at things so much so that in these modern days we hear people criticise Indian education as being one-sided, for the reason that it does not pay attention to the humanitarian side of education. But what was there which the scientific kind of education did in the way of perfecting the manhood of man. In that scientific spirit there was everything necessary. It was so potent that it could model men in accordance with the perfection that it was possible for him to have. He had read criticisms like that and that he had talked to persons who hold such views in regard to such questions but that if we judge the truth by its fruits the statement is not true. And of all men whom he had known in his personal experience, the man whose field of thought was as it were limited by the scope of the scientific way of looking at things was often very narrow, but he was often too sure of the position that he held. Not only that he held his own position but what was serious still, he was sure of his denials, of

his indications. That was the kind of spirit it was him. And now whether with that spirit it was possible for us to get anything like the perfected human nature evolved, it was for us to think. But to him it appeared that such a thing was absolutely impossible. Now, there was therefore a need for the development of what might be spoken of as the spiritual side of man's nature, and it was as a part of this development of the spiritual side of man's nature that we have to deal with the question of moral education. Some people had declared and the lecturer had also in the commencement of his speech remarked, that this question had assumed particular importance in these days of modern education. He did not know that if that could be really established so far as this question of need for moral education in the Indian system of education was concerned. It was not a modern question at all, and it was a question which had been long discussed, and it was a question which had been prominently in the minds of all those Missionary agencies who had worked in the field of Indian education in this country already. It was really no new question. It was coming more and more into prominence whether the religious neutrality of the British Government in India justifies its utter indifference to the matter of the religious and moral education in schools and colleges. That was the question which was modern. For a long time it was considered by those persons who occupy positions of authority in the British administration of India that religious neutrality meant this kind of absolute indifference. But it now being felt that it did not mean that. How the Government might manage to be justly neutral, and at the same time encourage religious and moral education in the schools and colleges of this country was a practical question not to be solved more or less satisfactorily. It was clear to him that a work of this kind must be done in correlation with the new streams of thought and educational forces operating not only in our minds but throughout the whole world. We could not ignore the scientific spirit, the development of materialism and spirit, the development of materialism and civilisation, all these things we could not ignore, and we could not ignore the forces underlying all this material development, all this scientific progress. There was something else without which all these would be a mere show, a mere bubble amounting to nothing at all, something which would really tend to make human life happy in the presence of these things, and happy even in their absence, and now that something must also be taken care of and must be developed. Therefore here was

really no denying the need for such education and in these modern days such education could not be after *Phyal School System*. It must be carried out in the force, and in the field of thought and education. It was a difficult task to do, but it must be done. And that as we go on fighting about these things and struggling about them, and trying an experiment quite through, we would by failures or by small successes, it might be learnt, how to reap good success in the end. He believed that would be the history of moral education in the years to come. Already beginnings had been made in various places and these beginnings were promising, and no doubt, that when these experiments were tried on a larger scale and under varying conditions results would accrue which would make the future of moral education in our Indian schools assured.

Another point to which he gave expression was an answer to those who say that there could not be moral education without religious education, and that since religious education was a thing to be given in schools, moral education was a thing to be given in particular. He was not with the mother in particular. He was not going to say against that, but that it was not quite true. The mother has to do a great deal in bringing up the child in love of morality, virtue and righteousness. But that was not enough, something more, and that was the school had also something to do with it. In this country there are children in schools who belong to various communities and how the boys are to be taught morality in schools and of what religion and so on. But this question need not be discussed, but even here morality could be taught and a love of virtue, righteousness, etc., might be infused in the minds of the school-going population based upon faith and civilisation. They could be given instruction by illustrations and examples and taught to know what self-sacrifice, altruism and unselfishness, and all these things in the love of faith. He then divided the teaching of morality into three stages according to the standard of thought. A young boy need not be taught in the same way as a developed young man. First is the instilling of faith in the virtue of morality, and in the goodness of righteousness. Secondly, in extending this faith and correlating it to the various aspects as it comes within his experience, and the last is in endeavouring to justify the faith in the light of reason when such sectarian difficulties cease, and he would then be able to understand that the whole question of morality is religion. If these positions were well grasped he said there

could be no difficulty in introducing moral education in schools. "Put faith into the minds of the young boys, and be careful about them and you would see how moral lessons could be taught to them, and how you have instilled into them. Ask them to see and observe, and they would in course of time all discuss the foundations in reason of their faith in morality, and after having realised how beautiful morality is, they would begin to discuss its foundation though their search ends in mere scepticism and agnosticism. With the combination of all the objective tendencies of modern education and with the endeavour to instil faith in things of faith and things of goodness, we would be able to tackle the problem in working out the question of moral education. Thus they would be able to judge for themselves, and India would occupy a better and larger scale in the civilisation of the modern

days, and in the system of education.

In conclusion, Rev. Dr. L. L. Uhl, Principal, A. E. L. M. College, Guntur and Vice-President of the Exhibition, in a neat little speech enthusiastically proposed a hearty vote of thanks to the President, Mr. G. V. Subbarayadu Sastri, and the ladies and gentlemen who rendered valuable help in the making of arrangements and to the Secretaries, Messrs. H. Perayasastry, M. D. Gopalachariar and R. Venkatasivadu, but for whose indefatigable exertions the Exhibition would not have been the grand success it has been. It must be acknowledged that the President and the Secretaries who were the originators of the Exhibition deserve much credit for providing a good opportunity to the teachers and pupils of the educational circle for their educational progress.

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THE SOUTH INDIA TEACHERS' UNION.

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THE EDUCATIONAL CONFERENCE 1910

—A BRIEF REVIEW.

The Educational Conference held on 22nd, 23rd and 24th of December 1910 was a success. There was fairly good attendance of delegates from the various parts of the Presidency. There were delegates from Madurai, Trichinopoly, Coimbatore, Cuddalore, Vellore, Conjeevaram, Nazareth, and Tiruvellore. The Madras Teachers' Guild was fairly represented. Teachers and professors also came from stations far and near, which have no affiliated associations. A gentleman travelled all the way from Vizagapatam to attend the Conference, having been deputed for the purpose by Mr. Lazarus.

It is to speak too much of the Conference to say, that the success was what it should have been. Some of the affiliated associations were not represented. It is hoped that there will be no repetition of indifference on their part as evidenced this year. But it is a matter for congratulation that the majority of the associations and some of them so distantly situated as Nazareth, Madurai, Trichinopoly and Coimbatore were represented. To call the Conference a success of the right sort it should be attended by at least 1000 delegates from 300 associations of secondary teachers. Mr. K. B. Ramanatha Aiyar, M.A., B.L., L.T., in the course of his excellent Presidential Address said: "In the Presidency there are 511 Teachers' Associations of all grades: of these there are as nearly as 50 associations of teachers engaged in secondary and collegiate work and 460 of the elementary teachers. 300 associations for secondary teachers and 700 associations for elementary teachers, will be nearer meeting the needs of those engaged in school work." What a glory will it be to the teaching profession, if a thousand associations can become affiliated to the South India Teachers' Union and show themselves fit for united action on a large scale! Is it too much to expect such a consummation?

The proceedings began with the welcome address ably delivered by the Rev. W. Meston, M.A., B.D., Vice-President of the Madras Teachers' Guild. Mr. Meston rightly characterized the year 1910 as the Jubilee Year for Secondary Education in this Presidency, in which a vast amount of freedom had been given to the teaching profession. Formerly, the be-all and end-all of teachers was examination. The condition of things has entirely changed. Instead of an examination, certificates will be given to boys, according to which, a boy will get credit for everything he has done and discredit for everything he has left undone. The terror of the Matriculation examination is over.

The Presidential Address was characterized by depth of thought, by clear insight and by dispassionate statement of facts. The way in which Mr. K. B. Ramanatha Aiyar handled difficult educational problems was admirable and was highly appreciated by the audience. The existing associations, according to Mr. Ramanatha Aiyar, are too few for the needs of education in this Presidency. More and more associations should get affiliated to the Union, in ever-increasing numbers. One noteworthy thing in connection with the work of the year, is the publication of the modest supplement to the Educational Review, the South India Teachers' Union Journal. The teachers must realize how much they can benefit themselves by working together and what a powerful agency they can make in shaping the educational policy of the country. Every point in this excellent address deserves careful perusal.

The papers read, one and all of them, bore on important subjects and made the Conference that met last specially interesting. Mr. A. F. Gardiner, Principal, S. P. G. College, put forward a powerful plea for the education of the depressed classes and showed that the establishment of Free Night Schools was one of the effective means for the spread of enlightenment among the lower orders. Mr. J. S. M. Hooper's paper on Moral Education was characterised by clear analysis and by a lucid

presentation of a difficult subject and the arguments bearing upon the subject of the paper appealed to the audience as sound and evoked a respectful hearing. The paper deserves to be read carefully by all those who have the well-being of our school-going boys and girls at heart. Mr. P. N. Panchapagesa Aiyar, of Madura, showed in his interesting paper that the education of the depressed classes is important in more ways than one, as it is not only in the interests of the classes themselves but also in the best and abiding interests of the people, the country, nay, education itself. Mr. V. S. Srinivasa Sastri in his usual vigorous, clear, and forcible language proved by an array of statistics and by arguments not easily to be controverted that there is no necessity for the establishment of model schools in our Presidency and that aided schools can be made model by a more liberal aid given by Government. In his thoughtful paper, Mr. A. S. Vaidyanatha Aiyar said that it was a surprise that the Government should have thrown out the Provident Fund Scheme as premature, though favourably reported on by the Hon. Mr. J. H. Stone and recommended by Dr. Bourne as a workable scheme. It was pointed out that the question of Provident Fund was intimately connected with the question of efficiency on which the Department was so keen. Efficiency ultimately rested with the teacher and any scheme for promoting efficiency must take good account of the fact, that so long as a satisfactory solution of that question was not arrived at, the most effective step towards securing efficiency would remain unsolved. Mr. N. Paramasiva Aiyar's interesting paper on School Records was the last of the series of papers read at the Conference. He gave useful suggestions for the maintenance of records that should accurately represent the capacity of pupils for school work, talents, ability, and intelligent attention as also habits of regularity, punctuality, diligence, interest in physical exercise, character and conduct.

These papers will be published in due course either in the *Educational Review* or in the *Supplement*. The full text of Mr. J. S. M. Hooper's paper on 'Moral Education' is published elsewhere in this issue of the Supplement.

The afternoon session of the Conference on the 24th of December began with the meetings held under the auspices of the sections of the Madras Teachers' Guild. The proceedings of the meetings will be published as the reports are being received. After the meetings, the Madras Teachers' Guild was *At Home* to the Union Conference. The business meeting was next held at which the resolutions drafted by the Executive Committee

were moved and, after a lively discussion, the following resolutions were passed:—

RESOLUTION I.

The Report of the Union for 1909-10 shall be adopted.

RESOLUTION II.

This Conference resolves that the several affiliated Teachers' Associations do consider and report at the next Conference how best to promote the educational progress of the depressed classes and also in what practicable form moral instruction could be imparted in schools.

RESOLUTION III.

This Conference resolves that a Committee consisting of the members of the Executive Board with power to add to the number be formed to draft memorial to be submitted to Government to reconsider their decision on the Provident Fund Scheme and to do what can be done to further legislation, if necessary, in regard to the matter.

RESOLUTION IV.

This Conference, while appreciating the desire of the Government to take Municipal and Local Board Schools under its direct control, feels bound to state that there is a pressing need for more liberal grants to aided schools, than at present, so as to enable them to rise to the level of efficiency which is contemplated by Government in their proposed model schools.

The business agenda was taken up for discussion. It was resolved that the following alterations shall be made in the rules of the Union:—

- (1) To Rule IV, add "The Mysore Province."
- (2) To the existing Rule XI, read—

The Secretary's expenses and office expenses shall be met from the funds of the Union, subject to the approval of the Executive Board.

A Donation.

We have great pleasure in acknowledging the receipt of 13 Rs. given as donation to the South India Teachers' Union by the teachers undergoing training in the Teachers' College, Saidapet. The Union cannot be sufficiently thankful to the Teachers' Association of the Teachers' College for this timely help, and hopes that similar donations will come forth from other Teachers' Associations and from individual teachers taking an interest in the welfare of the Union.

A recommendation of the Union and the Syndicate.

The following reply has been received from the Registrar of the Madras University to the letter of the General Secretary forwarding the recommendation of the Union regarding the conditions of admission into affiliated Colleges of the holders of Secondary School Leaving Certificates:—

"I have the honour, by direction of the Syndicate, to acknowledge the receipt of your letter, dated the 22nd December 1910, forwarding a recommendation of the South India Teachers' Union relating to the conditions of admission of holders of Secondary School Leaving Certificates, to affiliated Colleges under Regulation 166."

Report on the Work of the English Section of the Teachers' Guild read at the Conference held in December, 1910.

The aims of the English Section are:—

(a) To improve methods of the teaching of English by (1) model lessons, (2) papers on important subjects, (3) the drafting of syllabuses, (4) development of phonetics especially by way of contrasting English and Indian sounds, (5) by preparing lists of books of reference for teachers and books for general reading for pupils.

At the preliminary meeting held at the beginning of the last term for drawing up a programme of work for the year, provision was made for doing work along all the lines indicated above. But the subject of phonetics did not receive any consideration this year. It is however proposed to take up this branch of study next term. At the suggestion of Mr. K. B. Ramanatha Aiyar it has been resolved that the Secretary should become a member of the English Phonetic Association and this will, it is hoped, give an impetus to our work in that direction.

At the Wesleyan Mission High School, Triplicane, we had a model lesson given by Mr. Sessa Aiyar on "Black Lead." The plan of the lesson was carefully drawn up by Mr. K. Ramanuja Aiyangar of Govindappa Naicker School, Georgetown. The demonstration had the following features about it, which deserve mention:—

1. The lesson was an object lesson in which almost every point was elicited from the pupils.
2. Black Board notes served as headings for paragraphs to be done by boys.

3. Difference between lead proper and the so-called "Black Lead" was clearly demonstrated by an experiment.

4. The composition exercises done by the boys were carefully supervised by the teacher.

5. The members of the Section present looked into the exercises and offered their criticism on the lesson and on the common errors of the boys which could be gathered from the exercise.

Rev. G. H. Findlay guided the discussion along profitable and right lines. It was agreed on all hands that a number of lessons on this plan might be conducted with a view to form a syllabus for the Lower Secondary Classes.

A paper on "How to correlate other subjects with composition" was read by Mr. Gnana Muthu, Head Master, Harris High School. The main points to which the attention of the meeting was drawn were: 1. That in the lowest classes correct modes of speech should precede forms of writing and hence it should be the endeavour of the teacher to enlarge the vocabulary of the pupils by suitable conversation lessons having for their subject-matter topics familiar to children and adapted to their environment, and that the answers given to the skilful questions of teachers, if committed to writing by pupils consecutively should form the rudiments of an essay; 2. That insistence of vernacular being the medium of instruction stood in the way of children taking to speaking English with a facility and ease which they should acquire at that stage; 3. That, in Forms 1st to 3rd, ideas should come first and expression next; 4. That, to promote the acquisition of ideas, History in the form of biographies, Elementary Science in the form of object lessons, and Geography as expounded by geographical readers should be drawn on for material for composition work; 5. That in the higher classes logical arrangement of ideas and construction of paragraphs should be insisted on and that subjects for composition should be drawn from the pupils' general reading, besides books prescribed for non-detailed study, and from the more advanced topics of History, Geography and Science.

At two other meetings the subject that occupied the attention of the members was the kind of books that High School boys might be recommended to read for the acquisition of a right literary taste which might serve as a foundation for the study of higher literature in College life. Mr. T. B. Krishnaswami, M.A., gave at one meeting a suggestive list of books covering nursery rhymes, biographies, tales of travel and adventure, essays and novels.

This meeting was followed up by another at which Mr. K. B. Ramanatha Aiyar, the worthy President of the last Conference spoke on the same subject in greater detail and supplemented the list of Mr. T. B. Krishnaswami, M.A., especially under the history and biography heads. In making up this list he placed prominently before the meeting the idea that books suitable to Indian environment should be given preference. As the 19th century literature furnished a safe guide to boys in the matter of style he desired that they should cultivate their acquaintance more with the 19th century writers than with earlier writers. The list of books referred to here will be placed before the English Section meetings.

N.B.—A list of books recommended by the English Section fit to be used for literary studies in English by Secondary Schools pupils will be published in the next issue of the Supplement.

MORAL EDUCATION IN SCHOOLS

By

J. S. M. HOOPER, M.A.

The modern educational world is troubled by many and varied problems but among them all, in almost all the countries of the globe in which an educational system exists, the most acute problem is that with which we are to deal this afternoon. In England the question of moral and religious education in the schools has given rise to the most embittered political strife, and the problem still remains without a satisfactory solution; in America, in many of the European countries, and in Japan the question is one of absorbing interest. That the same is true of India need hardly be said in this gathering. Nor need we trouble ourselves greatly about the causes which have been operating to produce so widespread an unrest in educational circles, save to hint that the great accession of new knowledge during our own and the previous generation, which has made so great a difference in the political and social aspect of the world, has made a re-adjustment of educational thought and practice inevitable. Never since the Renaissance has there been anything to compare with the present emphasis on education as a whole; and gradually it has become clear that unless our new knowledge is to carry with it a curse, it must contain elements of moral force far greater than is at present the case. Old land-marks have been shifted in religious and family life no less than in science, and with them there is a most real danger of moral land-marks also becoming obscured. It is necessary for us who are teachers to frankly face this situa-

tion and to ask ourselves what should be our aim, and what our method of attaining it.

One of the perils of the teacher's calling is that he should become so absorbed in the details of his craft as to forget the great end he has in view. He has a curriculum which he must follow, an examination for which he must prepare his boys, and the time at his disposal is all too short for getting through the things that must be done. But we only need to pause for a moment to realize that we are not teachers simply in order to make boys learn certain prescribed lessons or to secure good results for our school in a given examination: our aim is far loftier than that. May I quote a passage from an old writer which seems to me to sum up admirably the possibilities of the teacher's position? "Schoolmasters when they are such as they ought to be have it in their power to new model and set right, by God's blessing, once in twenty years a whole kingdom." That, gentlemen, seems to me to be, our business, and for that we need to be unceasingly equipping ourselves. We need to take stock of the state of our country, to see where we think it needs setting right, and then, with a full consciousness of the high calling to which we are called, to give ourselves to our task. Knowledge is needed, it is true; but more than knowledge will thoroughness and truth and a patient sanity avail for bringing about the "new model" in the State; it still remains true that it is righteousness which exalteth a nation. Our work then, in its final analysis, is the making of men; not merely of fine boys, but of men of character and efficiency which shall stand all the strain that life may bring with it. "The whole work of education" said Herbart, "may be summed up in the concept, Morality." And all our treatment of our boys should be governed by that thought; Professor Eucken of Jena well says "The pupil should always be treated as one who is called to the high task of a good life and to the bearing of responsibility."

This then is our work, the end that we should have in view through all the petty routine which looms so large in our daily life; we need the ideal to redeem our calling from the common place. It is true that we are not the sole bearers of this responsibility; our boys come to us from homes which have already exercised and must continue to exercise a most potent influence upon their character so much so, indeed, that some have gone so far as to say that the teacher has no direct responsibility for the moral life of his pupil. To lay all the responsibility on to the parent or on to the definitely religious teacher would certainly

be to relieve the teacher of the most perplexing part of his duties; but it would at the same time reduce his vocation to a level which would fail to attract the best men, for it is the very difficulty of our problem, the very weight of the burden of moral responsibility which we regard as necessarily involved in our profession, that makes it one of the most honourable which any man can follow. We must of necessity share our burden, but even were it possible to do so, we dare not attempt to evade it by a reference to the undeniable duties of parents and religious instructors. Sometimes we are tempted to wish that we might deal with our task without these allies, for we not seldom find that the lines of moral development which we would choose to follow are not those of a pupil's home, or at least that there is a lack of system in home moral training which largely hinders us in our work. In this respect there is no doubt that those who have charge of boarding schools or hostels, where the students are continually under the observation and, when necessary, disciplinary control, of the same authority, are in a far more favourable situation for imparting effective moral instruction than those, the great majority in this country, who have to be content with the opportunities of the day-school, interfered with at every turn by rival influences over which it is impossible to have the slightest control. The question of moral education can never be fully dealt with in the school, and in anything that may be said here this evening we must recognize that at best we are only touching one side of the problem; moral education in the home should go on side by side with moral education in the school. And yet while this is so, it is difficult to over-estimate the magnitude of the opportunity of the teacher in the school; indeed, if the home life of many of the boys is not morally helpful, there is all the more reason that the teacher should use all the resources at his disposal to redress the balance; it is for him to create the ideal for his student to quicken in him the sense that the actual and the obvious is not the inevitable, that in character there are heights which he is meant to scale and that nothing less than the best and highest is worthy of attainment.

These, I take it, are among our ideals, and it is well for us from time to time to refresh ourselves by remembering them. But the pressing question, if we have agreed thus far that we have high moral responsibilities for the lives of the students who are under our guidance, is as to the way in which we are to set about discharging those responsibilities. It will help to clarify our thought if at the outset we draw the distinction between moral instruction and moral training; by the one we mean

the imparting of moral ideas, by the other the development of good habits in our pupils. Here, at once, we are on very debatable ground. There are many, on the one hand, who maintain that direct moral instruction is valueless, if not actually harmful, and that all that can be attempted in schools is moral training. On the other hand, there is a strong body of opinion which insists that moral instruction of the most definite kind is needed among the lower classes, and though perhaps not so urgently, to some extent among all classes. We may, I think, divide instruction in morals, which is distinguished from training in that it is always more or less direct, into formal and incidental instruction, and we shall find that the debate is very largely with regard to formal instruction, such, that is to say, as finds a definite place in a school curriculum. Ought morals, as such, to find a place on the school time-table? To be urged against such formal teaching is the danger that if "Morals" is treated as a separate subject, on a level with history and arithmetic, it will always be kept in a separate compartment as a mere branch of knowledge; there is the further danger, in the case of English boys, at any rate, of the pupil being nauseated by the well-meant effort to "do him good"; I hardly know how far such a feeling would be current in India, but one of the chapters of Kipling's "Stalky and Co.", in some ways a wonderfully true picture of English school-life, gives a most salutary caution to those who are in danger of forgetting this side of the problem. Yet another danger lies at the other pole, the danger lest by such instruction we produce prigs instead of honourable gentlemen. That these are real risks I do not for a moment deny; but nevertheless I feel strongly that moral instruction must be given; whether formally or incidentally is comparatively unimportant, though personally I incline to think that incidental instruction in morals, if it can be guaranteed as to amount and not left to mere chance, has the advantage as compared with the more formal method; but on the other hand it may be said, that the danger of morals being regarded as a mere subject of study and kept isolated could be adequately guarded against by careful and constant correlation, and the other dangers hardly arise if the teaching is good. When you have given your moral lesson you have not done all that needs to be done for the making of character; but you have done something. Many of the things that are wrong in conduct are due to ignorance or thoughtlessness in one or other of its forms, and for such faults knowledge is the remedy. Even for the faults which are due to wilfulness increased knowledge is not a bad thing; it cannot well do harm and

it may operate most beneficially on the will. Some minds are starving for good ideas and for ideals that shall kindle them; they are endowed with the faculty of choice, but are condemned to choose among things that are not the highest because the highest has never been presented to them. The moral life undoubtedly needs food, and in some cases it needs a stimulant; and it is here that the moral lesson finds its place.

If formal instruction be given it is necessary in teaching small boys, and it is desirable in teaching those who are older, to employ story as the chief means of instruction. "Truth embodied in a tale" will often find an entrance and remain when abstract moral makes no impression whatever. The more inspiring and attractive the story, the more effectively is it possible to produce the moral impression on the mind. There is no doubt that in Christian countries the idea of morality centres in the person of Jesus, so that the Christian who seeks to express his moral ambition can say nothing higher than that he wants to be like Christ. This linking of morality to a great Personality is of the highest value; it makes morality live in the mind of the pupil, and it further gives him an ideal for his own life, and a standard by which he can readily test himself. I would say incidentally that this value for morals may be found in the story of Jesus, apart altogether from the further religious value which every Christian would claim for Him. The story of any great man may be used as the medium for moral instruction, but if the field of the exercise of his virtue was far removed from the ordinary experience of the pupils, as is generally the case, the utmost care must be taken to apply the hero's virtue in some familiar way, lest it should be regarded as something for great occasions and for great men only.

So much for formal moral instruction; what we may call incidental instruction may come in any lesson, in response to an inquiry from a pupil, or following out some thought in the lesson itself; in coming thus spontaneously it will have more of the impress of a reality which means something for the teacher, and is therefore likely to be received with more of the right kind of attention than if it is arranged for and expected beforehand. The one condition for the steady fruitfulness of this method is that there should be some sort of system in the mind of the teacher; he should make it his business to see that the ground of moral questions has all been traversed, by way of suggestion if not thoroughly. Such incidental moral instruction may very well

be fitted in with the teaching of the ordinary subjects of the time-table: arithmetic may be made the guide to honesty of thought and to straightforwardness in all practical money affairs; geometry should teach an intelligent obedience to the laws of thought; history and geography may be made the vehicles of instruction in patriotism, in heroism, in the sympathetic understanding of the life of other nations. All these and indeed all the subjects that any of us have to teach lend themselves in the hands of a man who is watching for opportunities of moral influence to the most valuable uses. The exercise of discipline, too, frequently gives an opening for the enforcement of moral truth. A high ethical tone should be found in all our work, and the very method of our teaching depends for its practical success upon our obedience to the great moral principles of truth, or accuracy, and thoroughness. In all direct moral instruction it is most necessary that the truth taught should be brought into the most intimate connection with the pupil's normal experience of moral problems, and the teacher must be familiar with the type of problem which is exercising the minds of his boys; it is only by making the abstract moral concrete in a particular case that it will be brought home to the average boy as something in which he must take more than a philosophic interest. In this however there is a danger which must be carefully guarded against, the danger which has been fallen into by a very large proportion of the students who pass through our schools and colleges, of living a double life. In intellectual matters this is very common, and is of course helped by the fact that the language of all higher education is English, with its own lines of thought, expressed in its own vocabulary, while the language of the home is one or other of the vernaculars, coming into little or no contact with the words or thoughts of the schools. In morals the same tendency may be observed; in the classroom a high code of honour may be taught, and even acted upon, and if the suggestions made above as to the practical and detailed application of morals to every-day life are followed, some of the things that the boy finds in his home are very liable to come under criticism. At home the boy can hardly fail to do as those around him are doing, unless his school-learned code of conduct is much more powerful than is frequently the case; and the result is that he leaves what he has learnt at school outside the doors of his house, to be resumed the following day when he returns to the classroom. This appears to me to be a most fatal division; it involves an inconsistency within the boy's own character which must weaken the whole

moral fabric. The prime necessity is that whatever code of morals be adopted, it should be uniform in its application in each individual's case; it may be that we cannot all subscribe to the same standard of morals, but we are all at least under an obligation to observe that to which we subscribe; and our students are to be brought up with the certainty that whatever else is doubtful it is sure that truth and consistency of character are absolutely essential.

But we have not yet reached the heart of the question; let us grant that by one means or another we have communicated a satisfactory code of morals to our pupils, that they have intellectually grasped much of the stored wisdom of the ages with regard to ethics. In other words they know morals in much the same way that they know arithmetic or geography, and all that is so much to the good; but the problem remains of translating all their knowledge into life and character. The intelligent child will ask "Why must I be true and kind and honest.....?" And must I be true and kind and honest.....? And it is upon our answer to that inevitable question that almost everything depends. As Browning puts it, "The real God-function is to furnish a motive and injunction for practising what we know already." What are the sanctions of our morality? We may distinguish three main sanctions for morality, each of which has a part to play in the work of moral education. There is first the personal, the frank appeal to self interest, more or less refined, summed up in such sayings as "Honesty is the best policy"; in its usual form this motive to good conduct is crude and inaccurate, and the average pupil will see this for himself; the evil as a matter of fact prosper in this world at least as well as the good, so that on this ground it would be possible to base a very strong argument for cunning wrong-doing. The motive may however be so put as to constitute a moral appeal of the highest kind; we may treat a boy as one who is called to a high destiny, and may continually remind him that such a destiny is only possible for him, if in the little things of every-day he is living his best; untruthfulness now unfits him for the good life which he one day hopes to live on a larger field; increased capacity is the true reward of virtue. Then in the second place there is what we may call the social motive—the motive which leads a boy from the first to seek the good of others, whether those others are the members of his own family or school, or the members of a wider body such as the City or the State. There can be no question that this motive has meant much both in the distant past, in the states of the ancient world, where the individual

was regarded not so much as an end in himself as a member of the body politic, and in our own generation. The basis of the Japanese system of morality as taught in the schools appears to be practically this, and high authorities agree that the extraordinary progress of Japan in many fields is due in the main to the educational advance that she has made. In England there are many who hold that the appeal to the interest of the race is sufficiently strong to serve as the basis for morality; but there seems to be insufficient evidence to establish so general a proposition. In the recent report of the Director of Public Instruction in the Punjab it is significant that he states that the actual effect of the direct moral instruction conveyed through undenominational readers is not considerable, and gives it as his deliberate judgment that the most effective moral instruction is based upon religious doctrine. And I think that most will agree that this is the ideal; in other words that the personal and social sanctions for morality need the help of religion. If moral instruction is to count in the life of the pupil it is essential that his will should be touched, and while it is true that this can be done to some extent through the intellect, as a rule it is safe to say that the emotions and imagination of the young must be stirred if the will is to act. I do not regard Matthew Arnold's "morality touched by emotion" as an adequate definition of religion, but we may take it for the moment as suggesting to us what I believe to be the truth, that morality without religion cannot permanently or sufficiently operate in life. If this be so, the teacher of morality must have as his ultimate sanction a deep religious conviction; he need not necessarily parade it; I do not think it at all desirable that we should parade the deepest things of our life in our ordinary class work; but whenever a moral question is touched the teacher should show unmistakably that it is for him not a trifling matter, but that his judgment on it is based upon unseen foundations. Every teacher must be a religious man, if he is to be worthy of his calling; he must have a sense of the unseen, and he must be loyal to it.

Religion and morals hand in hand in our schools is the ideal; are we in India wasting our time in discussing it? Hardly, for it is good to recognize and aim at the ideal, however unattainable it may appear at present. That it is unattainable in many of our schools we must acknowledge. Schools for the children of any one religious community, and managed by representatives of that community seem to be in the most favourable position for realizing the ideal; in them there is a free field for combining religion and morals, for parents and

teachers and managers alike hold one general system of belief, the internal differences of which need not prevent substantial unity of teaching. Mission schools are pursuing the best course that is open to them; the Scripture lesson is a religious lesson, and has its full value as such to Christian pupils, but for those of other faiths it is clear that it can be regarded chiefly if not wholly as merely a moral lesson. The Government policy of religious neutrality is most unsatisfactory from the standpoint of moral education. It is clear that religious instruction cannot be given; but the obstacles in the way of formal moral instruction are less serious, and I cannot see why more emphasis should not be laid on the incidental instruction in morals to which reference has previously been made; this needs no elaborate legislation and would raise no storm of criticism, and it would produce the most beneficial results. The more informal in appearance the better; but let me repeat once more, the teacher should not drift; he should have a clear system in his mind.

I am aware that the subject of moral instruction is too complex to be dealt with in the compass of one brief paper, and it is certain that I must not attempt to do justice to the remaining part of my subject, that of moral training—the operation of all those forces of school life which go to the formation of good habits. I would name two elements of outstanding importance. First the corporate life of the school playing about a boy from the moment he joins the school and exerting upon him an influence of which he is largely unconscious, but which in after life he may come to realize, has been the strongest force that he has brought with him from boyhood. Our great English public schools exercise this power to a wonderful extent, and it is one of the things which Indian education needs most seri-

ously to develop. The fellow-feeling engendered by participation in common school games, or in the school debating society; the common pride in the school buildings or in the successes of past or present pupils of the school; the subordination to a common discipline and the consciousness of an obligation to do one's best for the school—all these are among the possessions which the English public school boy takes with him from his school. It is difficult to have all this in day schools, and under very different circumstances from those of Rugby or Eton; but the effort is worth making on moral grounds.

The second great element in training is one on which I have already touched, and with a brief reference to which I must close though I would fain dwell upon it at some length, the personality of the teacher. It is by seeing the teacher's high moral standard, the teacher's strenuous devotion to a noble ideal of duty, that the boy will be roused to a belief in the things that are above. It is by the tact and sympathy of his master, far more than by any mere words of moral counsel that the pupil will be saved from moral slackness and failure. It is the teacher's practical justice and thoroughness which are the standards for the boy to copy. The best men and only the best are needed for the high task of teaching; it is for them; "if they are such as they ought to be"—to quote once again—"to new model and set right, by God's blessing, once in twenty years a whole kingdom." If these things are so—and who can doubt it?—the culture of ourselves must precede and accompany the culture of our boys: we must see to it that not in word only but in deed and truth we are ourselves living on the moral level which we desire for them: our life must lag no whit behind our highest teaching.



THE SOUTH INDIA TEACHERS' UNION.

Vol. II.]

APRIL, 1911.

[No. 3.]

[All contributions, &c., should be addressed to the General Secretary, S.I.T.U., P. S. High School, Mylapore. Communications intended for publication in the succeeding issue, should, as far as possible, reach the General Secretary, S.I.T.U., not later than the 20th of the month. The Secretaries of Affiliated Associations are requested to send in every month advertisements and reports of meetings for publication.]

THE S. I. T. U. SUPPLEMENT.

For want of funds, the S. I. T. U. Supplement could not be issued for the months of February and March. If the capitation fees due from the various affiliated Associations can be remitted in due time, it will be possible for the Union to show a record of useful work. In spite of reminders, the General Secretary has not been favoured with any response, except from a few Associations. It is hoped that the work of the Union will be facilitated by remittances at an early date.

The duty of the affiliated Associations does not stop with mere remittances. It needs no saying that it goes much beyond that. Without the active co-operation of the local Associations the Executive Council can by themselves do very little. Many Associations are not sending up reports of their activities. It is the publication of such reports and of the papers read and the lectures delivered that would show to the outside world what the Union and the affiliated Associations are actually doing. The General Secretary has already addressed two letters to the affiliated Associations, requesting their Secretaries to communicate for publication summaries of proceedings of their periodical meetings. It is disappointing that many Associations have not responded to the call. In the absence of communications of this kind it will be impossible to conduct the Union's Journal to any useful purpose.

We are glad to announce that a Teachers' Association of the Taluk High School, Tenali, has been affiliated to the Union. It is hoped that the example set by this Association will be followed by many others. Each school in the Presidency, whatever its grade, may form an Association of its teachers and get it affiliated to

the Union. If this can be done, the Union will become a body of no small influence and usefulness. Why this is not done is a problem which the members of the teaching profession have themselves to solve.

The President of the Nuzvid Teachers' Association applied for the waiving by the Union of its claim for the capitation fees due from that Association for the year 1910. The letter was circulated to the members of the Executive Committee. They sympathise with the request but they cannot comply with it, as, according to the existing rules they have no power to write off amounts due, either in whole or in part. For the same reason the request of the Secretary of another Association to grant concession of a part of the capitation fees for the current year could not be complied with. However, a motion will be made at the next year's annual Conference to suitably alter the rules so as to empower the Executive Committee to grant concessions in special cases.

Communication has been received from the Secretary of the Coimbatore Teachers' Association giving information of the election of office-bearers for the current year:—R. L. Roddon, Esq., M.A., Principal, Coimbatore College, has been elected President; R. Cecil Wood, Esq., B.A., Principal, Agricultural College, becomes the Vice-President; M.R.Ry. M. Kannan Avargal, B.A., L.T., Vice-Principal, Coimbatore College, is the Secretary; M.R.Ry. N. Sanjivi Rao Avargal, B.A., L.T., Assistant Master, L. M. High School, is the Treasurer. The following list shows the other members of the Executive Committee:—

- (1) Miss Peddie.
- (2) D. Toomey, Esq.
- (3) M.R.Ry. T. S. Venkatarama Aiyar Avargal, B.A., L.T.

- (4) M.R.Ry. A. S. Vaidyanatha Aiyar Avargal, M.A., L.T.
 (5) M.R.Ry. K. Rangachariar Avargal, M.A., L.T.
 (6) M.R.Ry. K. Vaidyanatha Aiyar Avargal.
 (7) M.R.Ry. T. Gopalakrishna Aiyar Avargal, B.A., L.T.

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M.R.Ry. C. Raghunathachariar Avargal, Secretary, Venkatagiri Teachers' Association, writes that his Association conveys its appreciation of the great necessity and utility of such an organization as the South India Teachers' Union. He has communicated a list of teachers who are the members of the Association for the current year. We hope that this Association will show a record of active and useful work.

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We have been getting regular monthly reports of the proceedings of the meetings of the Elementary Teachers' Association, Velattikulam, Tinnevely District. It is noted with pleasure that it is one of the affiliated Associations doing efficient work.

HISTORY-GEOGRAPHY SECTION.

REPORT FOR THE YEAR 1910.

The following report on the working of the History-Geography Section of the Madras Teachers' Guild was presented to the Conference:

Mr. K. A. Viraraghavachariar continued Secretary of the Section throughout the year.

The first meeting of the Section for the year was held on 4th March 1910, when the following programme of work for the year was drawn up:—

- (1) The Teaching of the special portion in Indian History—by the Secretary.
- (2) The Teaching of Geography in the lower classes—by Mr. K. Chinnaswami Aiyar.
- (3) Sources of Ancient Indian History and how to use them for teaching purposes—by Mr. S. Satyamoorthy.
- (4) Practical Work in the Geography Classroom—by the Secretary.
- (5) Weather-charts—their construction and uses—by Mr. K. Audiseshu Naidoo.
- (6) The Place of Romance in History Teaching—by Mr. P. Seshadri.
- (7) Map-projections—by Mr. S. Viraraghavachariar.

(8) Construction of Relief Models—by Mr. T. V. Rangaswami Iyer.

(9) The Teaching of Civics in Secondary Schools—by Mr. T. S. Subrahmanya Iyer.

During the year the Section met six times and subjects 1 to 5 were discussed. Subjects 6 to 8 will be taken up for consideration early next term. It is proposed to bring up before the sectional meeting of the Conference the question of Civics. In a very large number of our schools our pupils are not taught anything on the important question of the administration of our country. It is for the Guild to lay down what shall be taught in the subject and how to teach the subject. The attendance at the meetings of the Section was on an average 15. Though there was better work done than in the previous year, still unless a larger number of teachers actually engaged in the teaching of the subjects evince more interest in the work of the Section by joining the Guild and actively co-operate in its work, it is undoubted that the Section would not be in a position to wield any influence in moulding the teaching of these subjects in our schools throughout the Presidency. All the subjects brought up for consideration were thoroughly discussed and the members left the meetings, the better for the discussion. With reference to the teaching of Indian History, the members were of the general opinion that its teaching might begin in the IV Standard with the teaching of local history with the aid of materials available in the District Gazetteers, etc., and that both in that class and in the I Form the History of India might be taught in the shape of stories, greater prominence being given to those of South India. In the II and III Forms, elements of the subject might be taught with the aid of a good text-book. In the IV and V Forms, the whole History with a few more details might be taught thus making the teaching of the subject on concentric lines possible. The work in the VI Form might under such an arrangement be confined to the study of the special period. It was the unanimous wish of the members that more attention should be paid in all the classes to South Indian History. It was also generally agreed that in teaching the special period, overloading the subject with details should be avoided and the quality of teaching bettered. The members discussed a syllabus on the History of Ancient India specially prepared for the consideration of the meeting. For detailed information on the subject members are referred to the report of the meeting printed in the March Supplement of the "Educational Review." At the next meeting proceedings of

which are reported in the April number of the S. I. T. U. Supplement, the "Teaching of Geography in the Lower Classes" was discussed. Members were generally of the opinion that the aim in the lower classes should be to develop Geography teaching out of Nature study. Home Geography should be first taught and it should be as far as possible by well-planned excursions. The meeting expressed itself strongly in favour of experimenting in our schools the organization of excursions for teaching purposes. Clay-modelling, map-making, the teaching of the Geography of the Presidency on regional lines and the Elements of the World Geography with the help mainly of the globe and a large size map, the possibility of a syllabus on concentric lines, were all considered item by item. The lecturer was requested to prepare a syllabus on the lines suggested in the course of discussion. The syllabus was prepared and will be taken up for consideration early next year.

With reference to the sources of Ancient Indian History the lecturer discussed the value of Sanskrit Literature, Tradition, Inscriptions, Coins, Histories and Biographies by Indians themselves like Bana and Kalhana, accounts of foreign travellers, etc., and showed that pupils in our High Schools ought to be initiated into the mysteries of all these things by teachers reading suitable extracts from English translations of them in connection with the special period studied. He advocated that the hobby of collecting coins and stamps might be cultivated in children in the school.

On the question of practical work in Geography class, the members were of the opinion that all that was possible in our schools under the present conditions are, relief-modelling and plan-making in the lower classes, and drawing maps illustrating the different geographical phenomena such as relief, rainfall, productions, distribution of population, railway and canal constructions, drawing of graphs. It was also agreed that as far as possible map-drawing should be done in the class-room itself under the supervision of the teacher. The last two meetings were devoted to Weather-charts—their construction and use. They were more demonstration classes. To the small but enthusiastic audience the lecturer explained the construction and value of the different instruments used in the preparation of the chart—the Fortin, maximum, minimum thermometers, Hygrometer, etc. Typical Weather-charts of Madras were distributed among the members and the figures in them

were carefully studied. The practical value of these charts was also explained.

It will thus be seen that at everyone of these meetings useful work was done. It is earnestly hoped that in the coming year the members of the teaching profession will appreciate the nature of the work of the different sections, into which for pedagogical purposes, this Guild is divided.

At the meeting of the History-Geography Section of the Conference with Mr. A. S. Vaithyanatha Aiyar Avargal, M.A., L.T., in the chair, the following resolution was passed:—

(1) This Conference is of the opinion that it is very desirable that Civics should be taught in the higher forms of our Secondary Schools and appoints a committee of the following members to draw up a syllabus in the subject and suggest books of reference:—Messrs. K. B. Ramanatha Aiyar, T. S. Subrahmanya Aiyar and K. A. Viraraghavachariar.

(2) That the History-Geography Section of the Madras Teachers' Guild be requested to draw up a list of books of reference on "Source-books" in Indian and English History, and books suitable for comparing English and Indian institutions, books which deal with "Social" England suitable for High School teaching.

MATHEMATICS AND SCIENCE SECTION.

REPORT FOR THE YEAR 1910.

The following is an abstract of the work of the Mathematics and Science Section of the Madras Teachers' Guild during the year 1910, kindly communicated by Mr. P. V. Seshu Aiyar, B.A., L.T., Secretary of the Section:—

Ten meetings of the Section were held in the year and the following subjects were discussed by the Section at those meetings:

- (1) The main defects in the answers of High School students to Mathematics papers.
- (2) A syllabus of "Elementary Mathematics" of Group A of the School-Leaving Certificate Scheme.
- (3) Graphs in "Elementary Mathematics."
- (4) Use of squared paper in Arithmetic.
- (5) The exact scope of 'Elementary Mathematics' as indicated by the course of studies published by the School-Leaving Certificate Board.
- (6) The syllabus for Physics (C) published by the School-Leaving Certificate Board.
- (7) The value of a study of Algebra.

(8) The teaching of Physics in Secondary Schools.

(9) The teaching of Decimals in Schools.

(10) A syllabus of Elementary Science of Group B of the School-Leaving Certificate Scheme.

The Section also prepared a syllabus of Elementary Mathematics and forwarded it to the School-Leaving Certificate Board as an indication of the lines on which the teachers of the Presidency would like to have a syllabus drawn up; and it is satisfactory to note that the course of studies published by the Board is more or less on those lines.

There is also a Committee formed to formulate a syllabus of Elementary Science of Group B of the School-Leaving Certificate Scheme in as much as the Department has not published a syllabus on that subject. The same Committee is also to consider the syllabus of Physics, Group C, published by the Board and to advise the Section as to whether the Board should be approached with a prayer to reconsider the syllabus.

The Secretary of the Section takes this opportunity to express his regret at finding that the attendance at the meetings of the Section is gradually becoming poorer and he hopes that teachers will be pleased to evince greater enthusiasm and to take a greater interest in the work of the Section.

THE EDUCATION OF THE DEPRESSED CLASSES.*

I have ventured to write a paper on this subject, not because I am competent to do anything like justice to it, but because I feel its importance so strongly. The question of the depressed classes is now foremost in the air as one of the most pressing of our problems, and education, lying as it does, at the root of everything is surely the first aspect of that question that should demand our attention. This seems to be the more necessary if we can regard all those classes as depressed, who are pressed down by caste or poverty.

Gentlemen, for many of our things we have to depend upon the peasant and the labourer, the poor and the low caste, and we find much to our

* A lecture by Mr. P. N. Panchapagesa Aiyar, B.A., L.T., of the Madura College, at the Educational Conference of the South India Teachers' Union, held in December 1910, in the Hindu High School, Triplicane.

cost and theirs, they will not move. They will not shake off old prejudices or change their methods of living for anything new and better. They are looked down upon by the higher classes and are sometimes most shamelessly treated by them. On account of their extreme ignorance they run too easily into debts and get into the clutches of the cruel money-lender. Amongst themselves class hatred is intense and sometimes takes dreadful forms. Crimes increase and they become in time a danger to society. So in the best interests of ourselves and the classes themselves, education is very necessary as an effective remedy.

Further, education is after all a plant that should grow and thrive. And how can this be, if its roots do not run far and wide, up and down, deeper and deeper to the lowermost strata of our society. We speak of the education of the nation, of the country as a whole, and how can this be possible without the education of the depressed classes who stand at the basis and who form no less than one-sixth of our population? Again Free Primary Education is now in the lips of all—the people and the Government. A consideration of the present subject will, I hope, be of much use in the solution of that important problem. In short, gentlemen, to me the education of the depressed classes seems to raise issues far-reaching in their effects, touching not only the depressed classes themselves but the very progress upon which our future well-being depends. Let us therefore examine its state and note its progress till now.

I will not weary you, gentlemen, with figures from statistics, but I will try to read some extracts here and there from public reports.

In the famous Despatch of 1854 we have the following:—"It is our object to promote the education of the uncivilised races such as those found in the various districts of central and Southern India who are in the lowest condition of ignorance or are the slaves of a degrading and barbarous superstition."

Later on, "the attention of the Government should be seriously directed to the consideration of some plan for the education of the lower classes and we cannot doubt that the advantages attending elementary knowledge can be plainly and practically made apparent to the understanding of the lower classes."

In the Government Order instructing the Commission of 1882 as regards its work, this passage occurs: "Attention was specially directed to the question how useful and practical knowledge

might be best conveyed to the great mass of the people who are utterly incapable of obtaining any education worthy of the name by their own unaided efforts," and therefore directed "the principal object of the enquiry of the Commission, should be the present state of elementary education throughout the Empire and the means by which this can everywhere be extended and improved." Acting upon this instruction the Commission made several recommendations amongst which are the establishment of special schools for the depressed classes and the affirming of the principle "that no boy be refused admission into a public school or college merely on the ground of caste."

Now, according to the Annual Educational Reports of the Director of Public Instruction, the figures for the percentage of the Panchama boys at school to those of the school-going age varies from 9 to 10 during the last three years.

From the above it is clear the importance of the education of the depressed classes has long been recognised and the progress after a sufficiently long interval is poor. The question therefore naturally arises, how is it there has been little or no progress and what are the causes for such a result?

Of course answers have been given from time to time and I only beg leave, Mr. Chairman, to consider them one by one. Society is said to be the first answer. The unfriendly attitude of the higher classes is severely criticised. It is remarked, often with justice, law is liberal, but custom is cruel. There is nothing in the rules to stop a Panchama from reading in a public school but sentiments, in practice, make that matter impossible. There is strong opposition, nay violent opposition to this step; and we have to feel—it is a pity it is so. The reformer expects to root out this feeling against the depressed classes. It is our sincere wish that he does it. But will he succeed and will the matter end there? Well, we cannot say. For, after all, the higher classes cannot be fully wrong when they wish to stand aloof. There is some degree of justice, nay, some reason; and recent events we observe from day to day lead us to think that this is even natural. Gentlemen, this is not the time nor the place to discuss whether they are right or wrong in this attitude. Admitting this as one of the causes, we ought to go deeper to find out the worm at the root and that this is not that worm will be very clear from this fact. Even in the special schools set apart for them the attendance and the strength of these classes are in no way satisfactory.

The indifference of the Government is next commented upon. They are charged with not caring enough for the matter. But when we consider the special clauses in the rules and the codes of education, the founding of special schools and scholarships for them and the reports and orders issued from time to time on the subject, and, when we place them side by side with the exertions of the educated section of our people in this direction, there does not seem to be much justice in the charge. But after all, the success of these schools mainly depends upon the zeal and the spirit of their staff. Are they earnest and enthusiastic in their work and have we got enough of them for the work? These are our questions.

As regards the first, I do not see any reason why we should think the contrary is the case. On the other hand, we come across teachers whose zeal runs high at the beginning but perhaps goes low towards the close of their career. As regards the number surely the supply is below the demand. This cannot but be so.

As the teachers have to come from outside their ranks, a good supply can be had only when the teachers rise among themselves, and real progress in the work is possible only then. This will be when education is popular with them; when they like it—nay, feel its necessity. This, gentlemen, seems to be the first and foremost object to be aimed at before any extension or spread of education can be thought of, before we want to show any increase in the number of schools or scholars. Now in all our efforts in the past has sufficient attention been paid to this? Have our depressed classes come to appreciate education? Or, have they at least been brought not to dislike it? I am afraid the answer shall have to be in the negative or if positive, only this—that stage has yet to be reached.

To many of us the stupendous difficulties that lie in the way may loom very big. We may think this is the most unpractical question. But we shall yet consider and try to learn what we can. We know full well from actual experience that a person comes to like a thing and therefore works for it and at it if, in the first place, the resulting fruits be tempting enough, if his state and environments are not such as to smother exertions in that direction, and if, finally, he is convinced of the importance of the thing he is trying to get at. Let us now see in the present case what the resulting fruits are, that are offered to one among the depressed classes that

he might get himself educated and what the conditions amidst which he has to work, and finally if education under the circumstances can appeal to his mind with any force.

As it is, all we can say at the best are these. Law allows equal freedom, equal privileges to all. The Panchama is not debarred by reason of his birth, caste or creed. High posts are as much open to him as to any other, provided he be qualified. Nay, other conditions being the same, he may be preferred. Perhaps, the way is made smooth for him by special scholarships and grants. The schools designed for him are all free. Are these not inducements enough? Gentlemen, enough or more than enough; we ought to consider also whether they are strong enough to appeal to the depressed classes. Judging from the results the answer seems to be they are not so. But current opinion takes them they are and attributes their failure in effect to the social disabilities of the depressed classes. So it calls upon all the educated at least to level inequalities, to allow perfect freedom so that the effects may follow. Whether this is the right view seems to be doubtful. For if we look about ourselves the really depressed classes are not alone among the Panchamas, but also among the hill-tribes, the peasants and the labourers who are pressed down by poverty. A visit to our villages will easily bring home to our minds that among them education is at its zero point, though they enjoy higher social freedom. After all, social status closely follows in the wake of education and becomes rightly its due, and it will be impossible for any individual or body not to admit its claims. So then in the elevation of the depressed classes, our object should be to do it through education. Hence it is a prime condition that the inducements offered and the means adopted are strong enough. That these are not so at present, will be clear from a little consideration.

We speak of free schools. But are they really free to them, though it may be so to us? We should bear in mind, gentlemen, that among the depressed classes the people begin to earn very early in life, even at their school-going age; and the earning besides being sufficient to maintain the individual leaves a margin to the whole family. Well, if a boy be sent to school, is not his earning a clear loss to the family and his maintenance an additional expense over and above the loss? So when we consider their extreme poverty, are these free schools so in effect?

But it may be said that they are generally worked so as not to clash with the boy's outdoor working hours. He undergoes tuition when he may be at rest or in play. But is the school instruction a play? Has it been made a play? The three R's that are taught in the schools cannot but be dull and uninteresting. There is no manual training, no practical art, to appeal to the inborn instinct of the depressed class boy. The future prospect of a high office cannot certainly move him now; nor are the examples of those few among them who can read and write, any way inspiring. They are not better off. Sometimes they are worse off. They take to costly habits. They cut bad figures in their circles. Do they learn anything at school that may help them to earn bread in a way which they cannot otherwise? And is it a wonder as a net result of all these, education is not popular? The boys do not attend school, and if they do, they are irregular.

Above all, let us consider their surroundings. Brought up by ignorant persons amidst poverty and want, vice only too easily takes hold of them. They are literally possessed with the demon of drink, escape from which is difficult. Thus it is, we have the education of the depressed classes almost where it was years ago, with little or no progress.

To bring about real progress in the work, it seems to me, gentlemen, we ought to start certain changes not only in the schools but also in our very ideas. In the first place, we should realise the extreme importance of the work and attach a degree of sanctity to it. Next we should try to understand the real problem and bring our independent thought to bear upon it so that we may find out the right ways and means which, I humbly submit cannot be done for us by others outside. We should not therefore rest content with entrusting the work to Missions—thanks to their labours for which we cannot feel enough grateful. We should open schools free in name as well as in fact. The boys should be clothed and fed at the expense of the schools, and they should be given books, slates and other things. Sometimes money grants should be awarded to induce parents to send their boys to school. A regular course in some of the practical arts which may best suit the boys' instincts, which will earn him a living in life, should be arranged for. Last but not least, night schools should be opened for the young and the old that the prejudice among them against education may be undermined, and the evils of drink and intemperance counteracted.

But all these mean men and money. Whence are they to come? This is a difficult question indeed, to answer which, I sincerely feel I am quite unfit. Lacking in experience, in knowledge, wanting in the true study of our conditions and resources, I wish from the bottom of my heart, this is taken up by able heads amongst us, and the matter well threshed out. But having proposed the question, I will venture an answer to it. Kindly bear with me if it happens to be too bold or too gross. We are often accused of saying too much and doing too little. Whatever justice or injustice may be in this charge, surely it ought to be a decisive happy step if we, as a body of teachers, can start and work schools for the purpose. I cannot see a body of men, more qualified for the administration of this work than ourselves. This will raise us from the status of a mere discussing union to an active working body. If the idea can only recommend itself, the magnitude need not deter us at all. The ways and means will suggest themselves readily. We need not begin with a comprehensive unmanageable scheme. But we may be modest, start on a small scale at certain centres, with an eye to earnest solid work, in place of fussy hollow activity. Gentlemen, I refrain from dwelling upon this aspect of the question as I am afraid this is vast and it can afford matter enough for a full paper.

Next, I pass on to the money aspect. Here again, I beg to repeat that I have not made any special serious study and the opinion that I venture should be taken for what it is worth. The scheme as outlined above and worked in a manner stated above should surely cost many times more money than it does at present. Where are we to find money? To answer this I have only the blind belief, if we can do and show real work, money will come somehow or other.

Free Primary Education has an attraction for one and all of us. Surely it is a devoutly to be wished for thing, if the schools are really free—as I have showed they are not—to the depressed classes. And my fear is and I beg to repeat it again and again, that the depressed classes are not only among the low castes but among the peasants and labourers who are pressed down by poverty, to an extent we cannot have any idea of. If this view be accepted can we be quite sure that free education cannot but be a complete

success? But if there be doubts will it not be better to wait for sometime to come and prepare the ground for it? The funds now ready may in that case be usefully diverted in this direction of the education of the depressed classes. But, gentlemen, I have said these words with a good deal of hesitation and diffidence, as I express only a passing impression in my mind, but not any mature opinion formed out of deep conviction after a careful study.

So now to sum up all, the education of the depressed classes is important in more ways than one, as it is not only in the interests of the classes themselves but also in the best and abiding interests of the people, the country, nay, education itself. This importance has been realised for a long time and still the progress of this education has been very little. The causes that account for this small progress are many and various, amongst which the social disabilities of these classes have been given undue prominence, as though they were the sole and chief cause. Efforts therefore, if any, have been made only in this direction, of attacking the so-called caste prejudices and social restrictions; while the true course is and ought to be to begin the work of education in the true spirit so as to appeal to the minds of these classes, the extreme importance of education among them, and thus imbue them with the power of themselves fighting their way up to the higher ranks in the social scale. So then, how to do this work in that manner, is the problem we should face boldly and try to answer clearly not merely in words but in deeds. I do submit the answer must come from us alone—not others outside can answer for us, however sincerely and ungrudgingly they may work for us. I have tried in an humble way to answer the question to the best of my ability and I admit that what I propose may be crude and rough; but it is for you, gentlemen, to take it up or reject it and place another in its stead. You should bring your mature judgment to bear upon what you propose so as to make it take a definite solid shape.

Wanted for St. Aloysius' High School, Quilon, a Mathematics B.A., L.T. Salary Rs. 70—5—90. Apply with copies of testimonials to the General Secretary, S. I. T. U., P. S. High School, Mylapore.

THE SOUTH INDIA TEACHERS' UNION.

Vol. II.]

OCTOBER, 1911.

[No. 4.]

[All contributions, &c., should be addressed to the General Secretary, S.I.T.U., P. S. High School, Mylapore. Communications intended for publication in the succeeding issue, should, as far as possible, reach the General Secretary, S.I.T.U., not later than the 20th of the month. The Secretaries of Affiliated Associations are requested to send in every month advertisements and reports of meetings for publication.]

THE S. I. T. U. JOURNAL.

We regret that the S. I. T. U. Supplement had to be temporarily suspended for want of funds; but it is hoped that it may be issued more regularly hereafter as the finance of the Union is getting strengthened by more Associations coming in for affiliation.

The efficient maintenance of the Journal will largely depend upon the regularity of the communications from the affiliated Associations regarding the work done by them month after month. Such a necessity for monthly communications will be the means of infusing a spirit of activity into the Associations and will tend to make the Supplement popular and useful. The main object of the Supplement is that it should be a faithful record of the activities of each of the affiliated associations. The work of the Union cannot become widely known, if it should not be such a record. It is hoped that the Secretaries concerned will keep the General Secretary informed, month after month, about the activities of the Associations.

The Union which was almost without funds only a month ago has been placed in a better position in its financial aspect by timely contribution of its capitation fees by the Madras Teachers' Guild. Up to now it is the Guild that has been the mainstay of the Union. We know what large demands the Union is making on the funds of the Guild, but yet, it is a matter for congratulation that the Guild is prepared to stand by the Union and lend to it the weight of its hearty support, both financially and otherwise. The Union cannot be too grateful to the Madras Teachers' Guild for the support it is giving. We take this opportunity of thanking such of the affiliated Associations as have made remittances of the subscriptions due from them and as have been readily responding to our communications. The following list shows the

names of the Associations that have remitted the capitation fees for the year 1910-11 and the amount remitted by each:—

	RS.	A.	P.
1. Conjeevaram ...	...	8	0 0
2. Tenali ...	...	7	0 0
3. Cuddalore ...	...	4	8 0
4. Tirupati, H. E. L. M. ...	...	4	8 0
5. Venkatagiri ...	...	3	4 0
6. Nazareth ...	...	14	10 0
7. Madras Teachers' Guild ...	...	58	14 0
8. Tirupati, D. H. H. S. ...	...	4	8 0
9. Bellary ...	...	0	8 0

Total ... 105 12 0

Many high-placed gentlemen not belonging to the teaching profession but interested in its advancement are keenly watching the progress of the Union as the one All-Presidency League of the Teachers of the enlightened province of Madras. It needs no saying that it is the duty of all teachers to lend it their hearty support. The Associations that have been affiliated but have not paid their subscriptions for the last year are requested to remit the amounts due from them as early as possible. We know that the various educational centres of our Presidency, whether large or small, have Associations of their own. These are requested to come in, in large numbers for affiliation. We believe that before the next Conference, which we feel sure will be much more successful than the last year's Conference, the Union will be able to show on its record at least twice the number of the affiliated Associations that it had last year.

The Government Order No. 418, dated 18th July 1910, is printed below for the information of members. Such of the portions as are unnecessary to get an idea of the nature of the Order have been omitted in consideration of the limitations of space:—

Letter—from J. H. Stone, Esq., M.A., Principal, Presidency College, Madras.

In their Order No. 396, Educational, dated 21st May 1908, Government were pleased to depute me during the college vacation to formulate a scheme for the establishment of a Provident Fund for teachers in schools under private management. I was not able to complete this work during the vacation, but have now the honour to submit a report and draft rules for a Provident Fund.

PROVIDENT FUND.

History of the movement.

2. The question of provident or pension funds for teachers has been discussed from time to time by the Madras Teachers' Guild ever since its foundation in 1896, and Mr. Bilderbeck, Principal of the Presidency College and President of the Guild, gave the subject a prominent place in his presidential address in 1904. He thought it unlikely that Government would undertake the management of a Provident Fund or afford it pecuniary aid, and that the Madras Teachers' Guild either itself or by collaboration with one of the more respectable insurance companies might establish such a fund.

3. The Guild did arrange with a company for special terms for its members, but teachers have taken very little, if any, advantage of the arrangement. Meanwhile Mr. W. M. Theobald had been appointed Headmaster of Stanes' High School, Coimbatore, and soon after this the question of Provident Funds took a new shape. Mr. Theobald had been an English Elementary Schoolmaster, and was therefore familiar with the system established by the Elementary School Teachers' Superannuation Act of 1898. He conceived the idea that a fund on the lines of that Act might be established for the Madras Presidency, and I do not think I am doing any injustice to the other members of the District Educational Conference* that met at Coimbatore on the 25th July 1906 when I say that it was on his initiative and under his inspiration that a scheme for a Teachers' Pension or Superannuation Fund was adopted by that Conference.

4. This scheme involves the following principles:—

- (i) One fund to be established to which all

* Similar Conferences at Coimbatore and Salem in 1905 had passed resolutions in favour of "a general scheme of pensions and allowances for teachers of all grades employed in Municipal, Local Boards or Aided institutions" and the organisation by the department of a Provident Fund for teachers employed in all recognised schools and colleges.

qualified teachers in recognised schools not directly under the management of Government shall be obliged to contribute.

- (ii) The fund to be managed by the Educational Department.

(iii) The amount of a teacher's contribution to be determined by the grade of his certificate and not to be a proportion of his actual salary. [This is the meaning I attach to the words of the Conference's recommendation 10, but there is some room for doubt as to their real intention.]

- (iv) Contributions to be paid through the managers of schools and, where practicable, deducted from grants.

- (v) Contributors to be entitled to—

- (1) Compassionate allowances in the event of premature incapacity for work from illness or accident;

- (2) A pension, annuity, or allowance after the age of fifty;

- (3) Repayment of contributions in one lump sum to a teacher who retires from teaching with the approval of the Director of Public Instruction after from three to ten years' service;

- (4) A similar payment—the amount to be determined on the merits of the case—to the family of a teacher who dies while in active service;

- (5) Service to count although not continuous, provided that no break is of more than one year.

The Conference also suggested the deputation of an officer to devise a scheme.

5. The Conference held by the Madras Teachers' Guild in December 1906 adopted the following resolution:—

"The members of the Madras Educational Conference respectfully and strongly urge Government to appoint an Educational officer under the Director of Public Instruction to consult with representative Educationists and an actuary chosen by Government to formulate a definite scheme for the establishment of a Provident Fund for recognised teachers working in schools under private management. The Conference would suggest that such teachers be divided into three classes—

- (1) Primary,

- (2) Lower Secondary,

- (3) High School and College grades; and that teachers' contributions and benefits be uniform in each grade."

This resolution was submitted to His Excellency the Governor through the Director of Public Instruction, and the Government acceding to the memorialists' request for the deputation of an Educational officer, I was deputed "to formulate in consultation with representative Educationists a scheme for the establishment of a Provident Fund for teachers."

6. I have accordingly consulted either personally or by circular a large number of managers and teachers of institutions of all kinds, besides officers of the department. In doing so I have taken occasion to expound the views which I had at the time arrived at, and if any of those whom I consulted should read this report they will find that it does not altogether embody those views. The scheme I now propose is however more in accordance with the opinions of most of my advisers than others which I previously sketched.

Discussion of Principles.

7. The Government having in their Order declared their sympathy with the movement for establishing a Provident Fund and having undertaken to consider the important questions of Government management and aid in the event of a feasible scheme being devised, no discussion of either the desirability of establishing a fund or of the propriety of Government assisting in the matter seems called for. There are, however, a number of debatable points, a decision on which must precede the formulation of a scheme.

The need for a general fund managed by Government.

8. Would it not be enough for Government to afford aid to funds voluntarily established under approved rules by managers of colleges and schools, either directly by a grant-in-aid, or indirectly by admitting a manager's contribution to a fund as expenditure in calculating the aid admissible?

Such action on the part of Government would plainly be in line with their whole policy towards private institutions. It would involve the minimum increase of interference with the freedom of action of managers, and since managers who had funds might be expected themselves to make contribution to them a condition of employment, no coercion of teachers. It would also make unnecessary the creation of any new machinery and would encourage the tendency, already showing itself on the part of managers, to establish funds. It, therefore, would seem at first sight that Government need

only admit the principle of aid to individual funds and lay down the conditions on and the manner in which it will be given.

9. A large proportion of the managers and perhaps even a larger proportion of the teachers think otherwise. They desire a fund to which contribution shall be compulsory for all qualified teachers, managed and aided by Government, and it is worth while investigating their reasons for this desire. The first reason is no doubt the idea that a Government fund would be safe. Teachers could depend implicitly on the integrity and wisdom of its management. The second is the superior facilities for moving from school to school which such a fund would afford, and as a corollary the idea that whereas contribution to a manager's fund would bind the teachers to the manager, contribution to a Government fund would be a means of freedom. There is also probably the not ignoble desire on the part of teachers for recognition as in some sort servants of the State.

These are the teachers' reasons and I do not think I have met with any teacher who would repudiate them.

10. The managers' opinions are divided. Some dislike the idea of the additional interference of Government with their work that they fear a general fund might involve, others welcome the idea of a general fund because their resources are not equal to the burden of maintaining private ones. The majority are in favour of a general fund because they think it offers the best prospect of substantial improvement of the teaching profession.

11. I think that these views deserve careful consideration. As regards the first point there certainly would be an element of risk in the multiplication of funds in the hands of the very diverse agencies included under the term managers.

12. As regards the second point—the question of transfers; I supposed at the outset of my enquiry that anything that hindered the transfer of teachers from one school to another would be an advantage to education, such transfers being unnecessarily frequent. This view is not taken by teachers nor by many managers. It is pretty generally agreed that while it is important to encourage people to adopt teaching as a profession instead of making it a stop gap, teachers are not unduly prone to seek change, and that nothing ought to be done that would prevent a man from bettering himself. It might, of course, be argued that a teacher would decide on a

transfer in view of its net advantage; that a rise of salary might, for instance, not be a sufficient set off against leaving an institution which had a provident fund. It would moreover be possible to provide in grant regulations for the transfer of money to a teacher's credit in one fund to another, but this does not meet the case of institutions, of which there would probably for long be a good many, without provident funds. Unless, also, the grant regulations insisted on a strict uniformity of contributions from teachers and managers, a fund would always be liable to lose by a teacher's transfer, even if he were replaced by a teacher bringing money from another fund; and insistence on such uniformity would largely impair that voluntary character of funds which the opponents of a general fund aim at.

13. The idea that funds might be made a means of controlling teachers finds expression in the Coimbatore District Conference's suggestion that teachers who resign after so many years' service *with the manager's permission* should receive the amount of their contributions. That this might tend to enslave the teacher was also recognised by the Conference; he is accordingly given an appeal to the Director.

14. Great weight should, I think, be given to the view that a public fund managed by Government would be a means of consolidating the teaching profession, of bringing the great body of teachers outside the department nearer to the level of those in it, and of according effective recognition to the teacher, as such, as a public servant.

15. For the above reasons the scheme I propose is for a public fund managed by Government.

The scope of the fund.

16. The next point is the scope of such a fund. The memorialists conceive this to be as wide as possible. They ask for a fund for recognised teachers working in schools under private management.

17. There is little doubt that they have been led to this view by a study of the English Elementary Teachers Superannuation Act of 1898. This Act imposes on all certificated elementary teachers in the United Kingdom the obligation to pay a fixed sum per annum while in employment, and ensures to such as attain the age of sixty an annuity proportionate to their period of service, and allowances to such as are prematurely incapacitated.

18. The elementary school teachers of Eng-

land are a homogeneous body. They have all passed through the same course of education and training and are employed in schools of similar stamp under similar conditions of work. Their average morale and intelligence is high. The very existence of the Act of 1898 is evidence of this, for it was the direct result of the exercise of their powers of persistent united action towards a clearly realised end.

19. The body of certificated teachers in Madras differs considerably from this body. They are of all standards of education down to the very humblest. The managements under which they work are very diverse, and what is perhaps most important of all, a large proportion of them are private schoolmasters managing what are essentially proprietary schools. That they are incapable at present of united action on a large scale goes without saying, but this, I may remark in passing, merely points to the necessity for external assistance, if their lot is to be effectively ameliorated.

20. I confess that at first sight these differences suggest the impossibility of adopting the English system in Madras. But there is one respect in which the profession of teaching in Madras presents a striking analogy with the elementary teachers of England. The system of certification which affects only one grade of English teachers, includes in one well-defined body a certain number of teachers of this Presidency. Certificated teachers in Madras do constitute a profession. They are subject to a common system of training, the qualifications of all, allowing for difference of grade, are attested in a similar manner and their certificates provide a means of recording their service.

21. Granting, however, that it is possible to treat the certificated teachers of the Presidency as to some extent a homogeneous body, the largeness of their numbers presents a difficulty.

From the Report on Public Instruction for 1902-03 to 1906-07, I have compiled the following statement of the number of teachers serving in aided and unaided institutions and holding non-Indian diplomas, trained or untrained teachers' certificates, or approved service certificates:—

In colleges	...	...	195
In secondary schools for boys	...	...	2,345
In " " for girls	...	...	697
In primary schools for boys	...	...	8,988
In " " for girls	...	...	1,167
			13,332

Statistics for teachers in European colleges and schools do not appear in the report. There are 97 such institutions and the number of certificated teachers employed in them is probably less than 300. I think, therefore, that 13,600 may be taken as a pretty accurate estimate of the number of certificated teachers employed in institutions under private management, i.e., of the maximum number of teachers with which an inclusive compulsory fund would have at present to deal.

22. In view of this large number, I was inclined to think that it would be necessary to limit the scope of a fund to teachers in secondary schools. Such a limitation would reduce the number to be dealt with to about 3,000 persons, and it has an air of simplicity. As a matter of fact, however, it is subject to very great inconveniences. There are, for instance, teachers of all grades in secondary schools and also in elementary, and it happens more or less often that teachers pass from one kind of school to another. Again schools do not necessarily maintain their grade indefinitely. An elementary school may obtain recognition as secondary, or recognition as such may be withdrawn from a secondary school. To allow teachers of the lower grades privileges denied to others of the same grades from the accident of service in a secondary school might tend to perpetuate the practice, which the department seeks in other ways to discourage, of employing such teachers in secondary schools.

23. Another principle of limitation would be by grades, the fund might be for teachers of the secondary and higher grades only, and if it be thought undesirable to attempt to deal with the whole body of teachers this is what I should suggest. It would introduce no complication into the working of the fund and is only open to the objection that it would shut out the lower paid teachers, for whom it is most imperative that something should be done, from the benefit of the fund.

24. I venture to think that it would not be impossible for Government to manage a fund for the whole body of certificated teachers. As will appear, however, I do not propose that Government should do so, and if the scheme detailed below were adopted I estimate that for many years to come the fund would not have more than 10,000 subscribers.

In view of even this number, however, it seems desirable to decentralise the management of the fund and simplify its machinery as far as possible and these things I have tried to do in my scheme.

Should contribution to the fund be compulsory?

25. The District Conferences and the Madras Teachers' Guild appear to have thought this an essential condition of financial success.

They are, I think, almost certainly right and we have the example of the local board funds to which contribution is compulsory. At the same time it will be well to seek to guard against levying contributions from teachers who really cannot afford to pay, and from those who would with difficulty, if at all, realise the advantages the fund offered. The teacher managers of elementary schools, until lately results schoolmasters, appear likely to labour under both the above disadvantages. I, therefore, propose that contribution from them shall be voluntary. Somewhat different reasons, which are given in a note to the draft rules appended, have led me to make contribution optional for certain other classes of teachers. These provisions may, of course, be expected to keep the number of subscribers considerably below the maximum possible.

Should managers contribute to the fund on behalf of their teachers?

26. An obvious objection to their doing so is that there would be an economic tendency for their contributions to be deducted from salaries. In saying this I hope that I shall not be misunderstood. I am not impugning the good faith of managers. I merely mean that it matters little to a manager whether the cost of his staff consists partly in contribution to a provident fund or not, and that the necessity of making such a contribution might tend to lower salaries or to prevent their rise. Consequently to compel managers to contribute might do no real good to the teacher. It is likely, however, that some managers, in order to keep teachers in their schools would voluntarily supplement their contributions, and this should, I think, within limits be encouraged.

27. Managers are, on the whole, not averse to the idea of contribution and some are already contributing to funds. Some, however, think that the burden on their resources would be too great; others dislike the idea of compulsion.

Since, also, my scheme seeks to deal with the teacher as certificated by the State, and so far as possible regards the particular employment he is in as an accidental circumstance, to compel managers to contribute would be anomalous.

Should the basis of contribution be actual or average salary?

28. In view of the large number of teachers involved, the variety of agencies under which they serve, the fluctuations, often within narrow limits, of their rates of pay and possible difficulty in some cases of ascertaining what these are, it seems to me that the English system of fixed rates of contribution should be adopted. The complexities that would arise from trying to deal with actual salaries are well illustrated by the working of the salary-grant system of aid recently discarded. I have tentatively laid down fixed rates, taking one anna in the rupee of salary as the standard rate of contribution and determining the average salary of each grade by examining a good many inspection reports from various parts of the Presidency. If the general principle is adopted, no doubt a more thorough investigation into average salaries would be desirable.

29. It is proper to remark that the system is not very welcome to teachers, partly because it might press a little hardly on a teacher at the beginning of his career and partly because it might prevent him making so large a contribution towards the end of it as he would like to do. In answer to these objections, it may be pointed out that a teacher's burdens are likely to increase in the course of his career and that a Provident fund of the kind contemplated is not meant to ensure the maximum saving possible but to be a safeguard against indigence. The objections are weakened also by making contribution optional for the class of teachers whose pay is lowest and most precarious.

What amount and character of service should give a teacher a claim to share in Government aid of the fund?

30. I have adopted here also the principle of the English fund that to qualify for the benefits of the Fund service need not be continuous. But Rule XXV contains a provision intended to give a decided advantage to teachers whose service is not greatly interrupted. The difficulty of working the fund would be obviously much greater if the technicalities of the Government pension system were introduced into it.

What advantages should the fund secure to teachers?

31. The English fund is an annuity fund. Except in case of premature incapacity, a teacher gets nothing from it unless he remains in service till he attains the age of sixty-five.

It is not, perhaps, surprising that all the teachers I have consulted ask for more than this. They want to take out of the fund with interest all the money they contribute to it. I do not think that the fund can properly be made compulsory on any other basis. The profession of teaching does not offer sufficient attractions to allow of teachers being forcibly deprived of a part of their income with a view to a contingent benefit. There is no analogy between their circumstances and those, for instance, of members of the Indian Civil Service.

My scheme, therefore, provides, that the teacher shall receive in all circumstances what he has contributed to the fund with interest, and this follows the analogy of the provident funds maintained by Local Boards.

32. It is to be hoped that Government will be willing to supplement this amount in the case of teachers who have put in not less than, say, ten years' service. This might be done as in Local Fund Provident institutions by crediting each teacher's account annually with a bonus and paying him a proportion of his bonus account according to his length of service. It appears to me that it would be better, particularly as all members will not contribute every year, to leave the question of bonus till the closing of a teacher's account and to make the amount of bonus a proportion, depending on his length of service, of the sum due to him. Such an arrangement would much simplify the keeping of accounts since only a record of the amounts actually paid into the fund on account of each teacher and the interest accruing each year would have to be kept, which could be done for each district by the Assistant Inspector of Schools.

Instead of a lump payment the bonus might with some advantages, take the form of a pension of equivalent actuarial value. My reason for not working this a definite part of my scheme was the great increase in the number of small pensions involved.

Relation between the Government fund and other Provident funds open to teachers.

33. Such funds are at present District Board and Municipal funds, certain funds established by private managers and by Railway Companies. All the District Boards have Provident funds, except Bellary, Nellore, Chingleput and Salem and none of the Municipalities. The District Municipalities Act does not appear to contemplate the establishment of funds by Municipalities

but only the making of rules with regard to the establishment of Pension and Provident funds by their servants and the payment of contributions from Municipal funds to such funds (section 43).

Teachers in the employment of District and Taluk Boards and contributing to a Provident fund would not of course contribute to the Government fund. But rules might be framed to allow of a teacher transferred from private to Local Board service taking with him any sum to his credit in the Government fund.

34. Whether teachers in the service of local bodies which do not maintain funds should be allowed to contribute to the Government fund is perhaps open to discussion, although the terms of my reference seem to exclude it.

There would seem no reason why such teachers should not contribute to the Government fund. On the opening of a fund by the local body employing him, the sum to a teacher's credit in the Government fund could be transferred under the rules suggested above for teachers transferred from private to Local Fund service.

35. Private funds have already been established in connection with the Madras Christian College, the St. Joseph's College, Trichinopoly, the Doveton Protestant College, the Kallikota College, Barhampur, the Lawrence Asylum, Ootacamund, the Catholic Mission, Trichinopoly, and the Basel German Mission. The Town High School Association, Kumbakonam, the South Indian Missionary Association, the Basel German Mission Parsi High School, Tellicherry, and the Hindu College, Tinnevely, have schemes in a more or less advanced state for establishing funds. The two last named have applied for their expenditure on their funds to be admitted in calculating aid.

If existing funds continued to be maintained, teachers contributing to them should certainly be exempted from contribution to the Government fund. As, however, there are at present very few such, arrangements might be made, if managers desired it, for their amalgamation with the general fund.

Notes on the Draft Rules.

I append a set of rules which I have drawn up as the best means of setting forth my scheme. It will be observed that I have sought to make use of the Post Office Savings Bank system, and that rule XV contemplates some little divergence from present Post Office practice. If it were

not for the need to make only contributions made during service count to the fund, more use still might be made of the Post Office machinery.

The provision that managers should themselves pay their teachers' contributions into the treasury and teacher-managers theirs into the Post Office is to avoid the necessity for money transactions and account-keeping by Educational officers.

The monthly payments into the Post Office Savings Bank ensure the money earning some interest during the year. It is to be anticipated that the total annual takings of the fund will be invested as soon as possible after each 30th June.

I have also contemplated some changes in the form of certificate granted to teachers. I do not think there is any valid objection to these being in the form of a service register. I hope it will not be thought necessary to maintain copies of them in Sub-Assistant Inspectors' offices. The record maintained by the Assistant Inspectors should be sufficient safeguard against loss of certificates. Perhaps a carbon paper duplicate of this record ought to be submitted and filed in the Inspector's office as a safeguard against damage to the Assistant Inspector's record. Some special arrangement of a safe or strong room would be desirable in his office and he should be supplied with interest tables. A further safeguard against loss of records would be the annual publication in each District Gazette of a list of members of the fund with a statement of the total recorded service and amount to the credit of each up to date.

If contribution to the fund is to be in any degree compulsory, the question of how compulsion should be exercised arises. In England it is secured by legislative enactment. In Madras it would probably be sufficient to make compliance with the Provident Fund rules a condition of recognition.

I have not framed any rules to safeguard teachers against failure of managers to comply with the rules. Since such cases would very rarely occur, each could be dealt with administratively.

One object I have had in view is to avoid the creation of any new machinery. It seems probable, however, that my scheme will involve the addition of a clerk to each of the Assistant Inspectors' offices. This clerk would not only maintain the records at head-quarters but tour with the Assistant Inspector and check them with teachers' certificates and pass books. To facilitate this the records should probably be

kept in ledgers, one for each Sub-Assistant Inspector's range.

DRAFT RULES.

I. The fund shall be called the Government Provident Fund for Certificated Teachers and is intended for the benefit of such teachers of both sexes.

II. The term "certificated teacher" shall include all persons holding—

(1) Trained, untrained and approved service certificates (general) of the first collegiate, second collegiate, upper secondary, lower secondary and primary grades.

(2) Certificates (general) complete or probationary, of the collegiate secondary and elementary grades.

(3) Certificates (technical) of the advanced, intermediate and elementary grades.

(4) Certificates granted under the Code of Regulations for European Schools of the high, middle and primary grades.

(5) Certificates or qualifications declared by the Director of Public Instruction to be of equivalent value with certificates granted by the department.

(6) Any other certificates granted under the authority of Government by the Educational Department containing an entry that the holders of them are eligible to contribute to the fund.

III. The fund shall be formed out of and maintained by—

(1) Contributions from teachers,

(2) Contribution from managers of schools,

(3) Interest derived from investments, and the Government of Madras through the Educational Department shall be the recipient and manager of the fund.

IV. Teacher-contributors to the fund shall be in two classes called hereafter class A and class B. Class A consists of teachers who are employed in recognised schools under managers; class B consists of teachers who are employed in recognised schools under "teacher-managers."

V. Contribution to the fund shall be obligatory for teachers from the time they belong to class A even if they should subsequently pass to class B.

VI. Contribution shall be optional in the case of teachers in class B except as above, and

of teachers who are classed as Europeans under the Code of Regulations for European schools.*

VII. Teachers who are contributors to other Provident Funds recognised by the department or who produce evidence of having effected an assurance on their lives with a recognised Insurance Company may be exempted from the obligation to contribute to the Government Fund so long as they are contributors to such funds or their policies remain in force.

VIII. Teachers who leave a service in which they have been contributing to a fund and who on so leaving receive any sum of money from such fund shall if in other respect qualified become contributors to the Government Fund and may pay into that fund the sum received from the other less any part of it received as bonus.

IX. The following classes of teachers shall be ineligible to join the fund:—

(1) Teachers under twenty years of age.

(2) Teachers in class B who do not begin to contribute within five years of obtaining a probationary teacher's certificate. Provided that no certificated teacher of not less than twenty years of age shall be ineligible during the first three years after these rules come into force.

X. Contributions shall be paid by teachers at rates based on a payment of one anna in the rupee on the average pay of teachers of each grade so far as this can be ascertained, and these rates shall be subject to modification by Government as necessity arises.

These rates shall be called the normal rates and shall be—

Grade.	Contribution per mensem.	Contribution per annum.
First-grade collegiate ...	RS. A. P. 4 0 0	RS. A. P. 48 0 0
Second-grade collegiate—Secondary with general education certificate of rank of First in Arts of Madras University, Middle School under C.R.E.S. ...	2 12 4	33 0 0
Upper Secondary—Secondary with general education certificate of rank of Matriculation of Madras University, Primary School Teachers under C.R.E.S. ...	1 8 0	18 0 0
Lower Secondary, Elementary (Higher) ...	0 11 0	10 8 0
Primary, Elementary (Lower).	0 10 0	7 8 0

* This is an attempt to meet the difficulty arising from the great difference of pay of European teachers of the same grade.

XI. Certificated teachers (technical) shall be classed by the Inspector of the Circle in which they are serving when they join the fund with one or other of the above classes according to their qualifications and pay, and shall subscribe at the rate determined by such classification.

XII. Teachers who improve the grade of their qualifications shall be permitted to subscribe at the rate of the higher grade from the date of certification in it.

XIII. The contributions of the following classes of teachers shall be at enhanced rates as under:—

European teachers—Fifty per cent. above normal rates.

Heads of Colleges—One hundred per cent. above rate otherwise payable.

Teachers in Colleges and in College Departments—Fifty per cent. above rates otherwise payable.

Heads of Secondary and High Schools—Fifty per cent. above rates otherwise payable.

XIV. Women teachers may contribute at the above rates or at 25 per cent. below them at their option, but the option once made cannot be revised.*

XV. Subscriptions shall be due from teachers who join the fund for every complete month of service in a recognised school or part of a month not less than fifteen days.

Vacations and periods of leave on full pay shall be reckoned as service.

Contributions shall be paid during leave on partial loss of pay; in full or proportionately to the pay drawn at the option of the contributor. Leave on entire loss of pay shall not count as recorded service.

XIV. Managers may contribute to the fund on behalf of teachers in any manner they choose, provided that the sum contributed by a manager in a year shall in no case exceed the sum contributed in the same year by the teachers in his employment.

XVII. On becoming eligible to join the fund a teacher shall apply (if in class A, through his manager) to the Sub-Assistant Inspector of the range, forwarding with his application his teachers' certificate with the Provident fund, page (Appendix A) duly written up.

If the Sub-Assistant Inspector finds that the teacher is eligible to contribute, he shall return

* This is because the pay of women teachers is not consistently lower than that of men.

the certificate after making in it the necessary entries over his signature and also in the form in Appendix C.

XVIII. In the case of teachers of class A—

(1) The manager shall deduct each month from their salaries the contribution due from teachers in his employ and shall pay the whole amount with any additional contributions of his own (under rule XVI) to a public account (Post Office Savings Bank Rule 42) opened for the purpose in the Post Office Savings Bank.

(2) Between the 15th and 30 June in each year the manager shall withdraw the sum at his credit less As. 4 and shall pay it into the nearest Government treasury to the credit of the fund, and shall forward to the Assistant Inspector of Schools of the district the receipt for the payment and a statement in the prescribed form (Appendix B) of the amount so paid in on account of each teacher, after distributing proportionately the interest credited by the Post office, together with their teachers' certificates.

(3) The sum, including interest, to the credit of a teacher who passes from the service of one manager to that of another shall be drawn by the first manager and transferred to the second to be paid to his fund account in the Post Office Savings Bank.

XIX. In the case of teachers in class B—

(1) On receipt of his teachers' certificate endorsed by the Sub-Assistant Inspector, the teacher shall open an account in his own name in a Post Office Savings Bank and pay into it monthly the sum he is entitled to contribute.

(2) When necessary he may transfer his account to another Post office under the ordinary Post office rules.

(3) If a teacher ceases to make his monthly contribution or pays in a larger sum than his contribution or withdraws any money from his account, he ceases to be a member of the fund and his account becomes an ordinary Post Office Savings Bank account. He may however pay in advance or in arrears contributions for as much as three months, provided that the sum of all the contributions due for any year is paid by the 15th June.

(4) Between the 15th and 30th June in each year he shall send to the Sub-Assistant Inspector of the range in which he is employed his teachers' certificate and his Post Office Savings Bank pass-book written up to date with interest, and a signed Post Office form of application for withdrawal through the Sub-Assistant Inspector as his agent (Post Office Savings Bank rule 26) of the sum to his credit less As. 4.

The Sub-Assistant Inspector shall prepare for all the contributors of class B in his range a statement in the form in appendix C and submit it to the Assistant Inspector. He shall also prepare in duplicate in the form in appendix D a statement which he will check with the pass-books, of the withdrawals from each Post office and submit one copy to the Assistant Inspector and send another together with the applications for withdrawal to the Postmasters concerned.

(5) The sums so notified for withdrawal shall be paid to Government to the credit of the fund by book adjustment.

(6) The Sub-Assistant Inspector shall return their teachers' certificates and pass-books to the teachers, and when each takes his book to the Post office to pay in his contribution for July, the Postmaster shall enter the withdrawal in the book.

(7) When a teacher leaves one Sub-Assistant's range for another he shall immediately report the fact to the Sub-Assistant Inspectors of both ranges stating the new school in which he is employed.

XX. (1) It shall be the duty of the Assistant Inspector of each district to maintain a complete record in the form in appendix E of the service and contributions to the fund of the teachers in the district, and this he shall enter up to date on the receipt of the statements from the managers of schools and Sub-Assistant Inspectors and of copies from the records of other Assistant Inspectors.

(2) He shall, when a teacher is transferred from his district to another, furnish the Assistant Inspector of that district with an attested copy of the record of service and contributions of the teacher.

(3) He shall also, when on tour, take every opportunity of comparing his record with that contained in the certificates held by teachers.

(4) All other Inspecting officers will similarly take every opportunity of verifying the Post Office Savings accounts of managers and teachers.

XXI. The monies received by Government to the credit of the fund will be held for the fund by the Accountant-General and will be invested by him in Government securities, or in debentures issued by the Municipal Corporations of the three Presidency towns, or by the Port Trusts of Calcutta, Bombay, Karachi and Rangoon, or in such others as Government may, from time to time, specially authorise.

XXII. Interest shall be credited annually in July on the whole amount standing to the credit of each teacher, including interest previously credited, at a rate to be fixed from time

to time by Government, in the books kept by the Assistant Inspectors. In calculating interest fractions of the rupee may be disregarded and interest shown to the nearest anna.

XXIII. The account of a contributor shall be closed—

(1) When he definitely retires from the profession of teaching, such retirement, unless on grounds of physical incapacity certified by competent medical authority, rendering the teacher ineligible for further employment in recognised schools.

(2) When, if a male teacher, he has a recorded service of thirty, or if a female, of twenty-five years.

(3) When he obtains an appointment in the service of Government or of a Local Board, or outside the Presidency.

(4) When his teacher's certificate is cancelled under the Madras Educational Rules.

(5) When he fails to comply with any provision of Rule XIX.

(6) When he dies.

XXIV. When a member's account has been closed, it shall not be re-opened except in case of retirement due to physical incapacity certified by competent medical authority, and only then in case his fitness to resume work is similarly certified.

XXV. (1) When a contributor's account is closed, he, or in case of his death, the person or persons named in his declaration in his teacher's certificate, shall receive from the fund the sum of money standing to his credit in the fund.

(2) If his account is closed under XXIII (1), (2), (3), or (6), he shall receive a bonus being a proportion of the sum to his credit calculated on the scale in Appendix F.

XXVI. By recorded service is meant service recorded on the teachers' certificate and attested by an officer of the Educational Department.

In the case of teachers whose service as certificated teachers began before the date at which these rules came into force, recorded service shall include all service held to be established by the Director of Public Instruction.

For establishing a claim on the fund such service need not be continuous, provided that no period of service will be counted which is separated from the period preceding it by as much as its own duration.

XXVII. The amount to the credit of a contributor shall be ascertained by adding the yearly amounts to his credit as recorded in the account kept in his name by the Assistant Inspector of Schools.

XXVIII. The amount of his recorded service

IV

Official Memorandum No. 746—1, Educational,
dated 23rd April 1909.

With reference to his letter R.C. No. 1594, dated 3rd April 1909, submitting a copy of Mr. Stone's proposals for the establishment of a Provident Fund for teachers, the Director of Public Instruction is informed that Government await his report as to the feasibility of the scheme from the point of view of the work proposed to be done by Assistant and Sub-Assistant Inspectors of Schools.

C. A. SOUTER,

Under Secretary to Government.

To the Director of Public Instruction.

V

Letter—from the Hon'ble Mr. A. G. BOURNE, D.Sc., F.R.S., C.I.E., Director of Public Instruction, Madras.

In continuation of my letter R.C. No. 1594, dated 3rd April 1909, I have the honour to submit the following remarks on the scheme for the establishment of a Provident Fund for teachers.

2. Mr. Stone consulted, either personally or by circular, a large number of managers and teachers of institutions of all kinds as well as many officers of the department; his report is full and has been very carefully compiled and it may, I think, be assumed that if the institution of a provident fund is desirable and feasible, this scheme should be adopted with but slight modifications.

3. As to desirability, there is very much to be said in favour of the institution of a fund and the arguments find a place in Mr. Stone's report. The matter is summed up in these words; it "would be a means of consolidating the teaching profession, of bringing the great body of teachers outside the department nearer to the level of those in it, and of according effective recognition to the teacher, as such, as a public servant."

The issue which I now submit for the decision of the Government is whether, having regard to the fact that there are many, other than teachers, who might claim similar recognition, the expenditure of public funds in this particular way is desirable.

I do not think that any valid argument can be based upon the existence of the English Elementary Teachers' Superannuation Act of 1898. This applies Elementary teachers only; Elemen-

shall be ascertained from the entries by Inspecting officers in his teachers' certificate.

XXIX. On a teacher's application to retire submitted through a Manager or a Sub-Assistant Inspector of Schools, or on a duly authenticated report of his other employment, of cancellation of his certificate, of failure to comply with the rules or of his death, or when his record show that a teacher's account should be closed under XXIII (2), the Assistant Inspector of Schools of the district shall ascertain the sum due from the fund and shall submit through the Inspector of Schools to the Director of Public Instruction a statement showing the teacher's recorded service and payments to the fund and the total amount due to him under rule XXV.

XXX. If the Director is satisfied that the claim is established, he shall issue to the teacher, or his heirs, a certificate to that effect on presentation of which at a Government treasury the sum shall be paid.

APPENDIX F.
Rates of Bonus.

After 10 years' recorded service. ...	10 of the sum to a teacher's credits		
do. ...	30	do.	do.
" 11 do. ...	11/30	do.	do.
" 12 do. ...	12/30	do.	do.
" 13 do. ...	13/30	do.	do.
" 14 do. ...	14/30	do.	do.
" 15 do. ...	15/30	do.	do.
" 16 do. ...	16/30	do.	do.
" 17 do. ...	17/30	do.	do.
" 18 do. ...	18/30	do.	do.
" 19 do. ...	19/30	do.	do.
" 20 do. ...	20/30	do.	do.
" 21 do. ...	22/30	do.	do.
" 22 do. ...	24/30	do.	do.
" 23 do. ...	26/30	do.	do.
" 24 do. ...	28/30	do.	do.
" 25 or more of recorded service ...	30	do.	do.

tary education or its equivalent is compulsory and sufficient funds are raised by taxation to pay for its efficient maintenance.

4. As to feasibility, the Inspecting officer whom I have consulted think that Mr. Stone's scheme could be carried out by that agency provided that sufficient clerical assistance is given to that end. The question turns upon the availability or otherwise of funds. Should the Government decide to pursue the investigation, the next stage should, I think, be to obtain some actuarial calculation as to the liability to be incurred. The Government contribution or "bonna" may amount under the scheme to a sum equal to the teachers' contribution together with the interest that has accrued thereon. At a very rough guess, it seems to me that this might eventually amount to an annual setting aside of from 1 to 1½ lakhs.

Order—No. 418, Educational, dated 18th July 1910.

At the Madras Educational Conference, which was held in December 1906, a resolution was adopted urging on Government the necessity of appointing an Educational officer to formulate, in consultation with representative educationists, a definite scheme for the establishment of a Provident Fund for teachers employed in schools under private management. In their Order No. 396, Educational, dated 21st May 1908, the Government expressed themselves in sympathy with the aim of the Conference, and deputed the Hon'ble Mr. J. H. Stone, Principal of the Presidency College, Madras, to formulate a scheme for the establishment of a Provident Fund for teachers.

2. The scheme drawn up by Mr. Stone provides for the establishment of a single general Provident Fund for the benefit of all qualified or certificated teachers in recognized schools under private management. Mr. Stone suggests that the Government of Madras through the Educational Department should be the recipient and manager of the fund, which should be designated "the Government Provident Fund for Certificated Teachers," and that the contributions to the fund should be compulsory in some cases and voluntary in others.

3. The Government have given their most careful consideration to these proposals and although they are strongly impressed with the desirability of improving, if possible, the position of teachers and of rendering the profession more attractive, they cannot help observing that the

introduction of a Provident Fund for teachers in schools under private management is beset with great practical difficulties. Assistance given to a Provident Fund for teachers in schools under private management would inevitably lead to a demand for similar assistance to funds for those teachers in schools under public management, who do not now belong to any Provident Fund and are not eligible for pensionary privileges, that is to say, all teachers employed in Municipal schools and such of those in Local Fund employ who draw less than Rs. 10 and who are not now admitted to the benefits of Provident Funds. But if a scheme were to be established for the benefit of all teachers in schools under private and public management alike, the total number to be provided for would be raised from 13,600, as estimated by Mr. Stone in paragraph 21 of his report, to about 23,000 and the contribution to be paid by Government would not only be correspondingly raised *ab initio* but would, in the near future, be subject to a considerable and continuing increase as schools multiplied and certificated teachers became more numerous. It is, however, not possible with the materials furnished in the report to gauge, with any degree of accuracy, the extent to which the establishment of a Provident Fund would prove a burden on the Provincial revenues. There is, in the majority of cases, no information as to what salaries are actually paid to teachers in schools under private management, and it would be impossible to arrange for the recoveries of the contributions from the teachers by deductions from their salaries. The only method of enforcing contributions, advocated by Mr. Stone, is to refuse recognition to managers of schools where the teachers failed to contribute. This would affect the managers and not the teachers, and it is not clear how managers could compel their teachers to contribute. It does not therefore appear that the fund could be worked without further legislation. Moreover, in the absence of legislation, there would be perpetual difficulty in getting all the schools to join the fund.

4. It is also observed that there is nothing in the scheme to safeguard the interests of the teachers from malversation on the part of managers or mismanagement of the accounts of contributions received.

5. Further, the establishment of a scheme such as that proposed by Mr. Stone would necessitate the employment of specially trained clerks in the offices of the Assistant and Sub-Assistant Inspectors of Schools, an audit by the Accountant-General and the maintenance of service registers

for all subscribers, numbering, approximately, a thousand in each district.

6. The Governor in Council is, therefore, convinced that the establishment of a Provident Fund of the kind proposed would not only involve a large addition to the existing establishments of the Inspecting officers but would also entail a great expenditure of public money which could be better employed in promoting educational work by increasing the grants in aided schools, by establishing more training schools and by paying higher salaries so as to attract better qualified teachers in Government schools. The whole scheme appears to the Governor in Council to be premature at the present time. The schools under private management in the Presidency are so very loosely managed, the schoolmasters so

little under control and so independent of the school managers that the scheme, if introduced, would almost certainly break down from unpunctuality in payment and irregularities in bringing to account the contribution from subscribers. The Governor in Council has, therefore, reluctantly come to the conclusion that the advantages which might be anticipated from starting a Provident Fund for teachers employed in schools under private management would not be in any way commensurate with the trouble and expense involved and that the proposal must therefore be dropped.

(True Extract.)

L. M. WYNCH,
Ag. Secretary to Government.

