

CORRESPONDENCE

TO THE EDITOR OF THE MADRAS TIMES

of appointing, as examiners, persons who have not
of the capabilities of educational institu-
in the Madras Presidency. The practice of
dom should be discontinued, or the Syn-
y of experienced educationists specially
ould be made to revise and approve the
are hurled upon candidates. It was the

practice formerly in the local University to submit the questions proposed by examiners for the approval of the Syndicate, and the restoration of the practice is all that is now desired. Unless some such reform is introduced, the standards of the examinations will cease to be constant, and their variations will tend to demoralize the candidates, and, in the long run, to arrest the progress of education. It is now too late to repair the disaster and ruin of the last December examinations, but from our past experience, which, in the interests of education, will not, I hope, be repeated, a lesson may be learned to guide our future conduct.

A LOOKER-ON.

14th February.

UNIVERSITY OF MADRAS.

The following Candidates have passed the First Examination in Arts held in December 1878 :—

FIRST CLASS.

Mahadeva Aiyar, R. Maharajah's College, Trivandram.
Venkatachala Aiyar, Taracad Javanti Aiyar, Provincial School, Calicut.
Krishnaswami Naranappa, Provincial College, Combaconum.
Ramaswami, G. S., Provincial College, Combaconum.
Madhavarayudu, V., High School, Vizianagaram.
Ratnavelu Chetti, Mount, Madras Christian College.
Ramaswami Aiyar, S., Provincial College, Combaconum.
Vamana Rau, T. S., S. P. G. High School, Tanjore.
Radhakrishnan, S., Provincial College, Combaconum.

SECOND CLASS.

Sankaranarayana Aiyar, Ramanathapuram Appadurai, High School, Ernakulam.
Bashyam Aiyangar, Arunkulam, Madras Christian College.
Mani, Tevaradiyil Kora, High School, Ernakulam.
Marjoribanks, James Alexander, Bishop Cotton's School and College, Bangalore.
Sitaraman, P., Provincial College, Combaconum.
Panakala Rau, Patri, Provincial College, Rajahmundry.
Suryanarayana Prasadha Rau, Satyavada, Provincial College, Rajahmundry.
Narasimachari, Pandravedu, Presidency College.
Visvesvara Aiyar, Mokshagandam, Central College, Bangalore.
Krishnamachari, Comandur Ramakrishnamarajapettai, Madras Christian College.
Seshagiri Aiyar, Tiruchandurai Gaidynatha Aiyar, S. P. G. High School, Trichinopoly.
Subramanya Aiyar, Ayilam Palpanabhan, High School, Ernakulam.
Venkatarama Sastri, M. R., Provincial College, Combaconum.
Narayana Rau, Mankala Surya, Private study.
Krishna Aiyar, Othtur Srinivasa Aiyar, Provincial School, Calicut.
Venkatasiva Avadhani, Vavilala, Provincial College, Rajahmundry.
Narayana Aiyar, R. V., Maharajah's College, Trivandram.
White, Walter Wyndam, Madras Christian College.

Satagopa Aiyangar, R. St. Joseph's College, Negapatam.
Tillanayakam Pillai, Adinaryana, High School, Ernakulam.
Subramanya Aiyar, P. Maharajah's College, Trivandram.
Venkatachellam, Bollapragada, Presidency College.
Chelva Aiyangar, Naggihalli, Central College, Bangalore.
Raghavindra Rau, Batindur, Provincial School, Mangalore.
Vedantachari, Carur, Presidency College.
Sama Rau, Karpur, Central College, Bangalore.
Saldanha, Sylvester Surverin Sattrum; Provincial School, Mangalore.
Balakrishna Aiyar, T. S., S. P. G. High School, Tanjore.
Venkatarayudu, Velagapudi, Provincial College, Rajahmundry.
Narayana Rau, Kodical Provincial School, Mangalore.
Krishnaswami, Vittela Aiyar, Provincial College, Combaconum.
Nauroji Hormusji, Provincial School, Mangalore.
Krishnamachari, Srivilliputtur Ranga Aiyangar, S. P. G. High School, Trichinopoly.
Rajaratnam, Mylapore, Presidency College.
Raghavendra Rau, C. K., Provincial College, Combaconum, and High School, Coimbatore.
Damodara Menon, Karat, High School, Ernakulam.
Ranachandran, Panchanatha, Provincial College, Combaconum.
Augustus, Francis Xavier, High School, Ernakulam.
Venkataswami, Kotar, Maharajah's High School, Mysore.
Sambasiva Aiyar, V. S., S. P. G., High School, Tanjore.
Rangachari, Malavur, Madras Christian College.
Narayanaswami V., (Venkatarama Aiyar), Provincial College, Combaconum.
Ramachandra Aiyar, Muttuswami, Provincial College, Combaconum.
Narayana Aiyar, Kasi Aiyar, Maharajah's College, Trivandram.
Venkatesvara Aiyar, S., Maharajah's College, Trivandram.
Padmanabulu Nayudu, Koka, Provincial School, Bellary; and Presidency College.
Ramaswami Aiyar, Kalapatti Aiyar Pattar, Provincial School, Calicut, and private study.
Janakirama Aiyar, Tiruvallam, Madras Christian College.
Krishnaswami, K. S., Provincial College, Combaconum.
Narayanaswami V., (Ramaswami Aiyar), Provincial College, Combaconum.
Ramaswami Chetti, Battayi, Central College, Bangalore.
Narayana Rau, Kalle, Provincial School, Mangalore.
Saldanha, Sylvester Xavier, Provincial School, Mangalore.
Taylor, James M'Kay, Bishop Cotton's School and College, Bangalore.
Srinivasa Aiyangar, C. K., Provincial College, Combaconum.
Somayajulu, Yachuri Sarvesvara, Provincial College, Rajahmundry.
Kuppuswami Chetty, Gandavadi, Madras Christian College.
Martyn, Joseph Samuel, Madras Christian College.
Varada Rau, Tummalapalli, Presidency College.
Kuppuswami, M. S., Provincial College, Combaconum.
Ramalinga Sastri, V., Provincial College, Combaconum.
Venkataraman, C. V., Provincial College, Combaconum.
Gomez, Francis Joseph, Maharajah's College, Trivandram.
Balasundara Mudali, Eakkadu, Madras Christian College.

Ganapati Aiyar, Manappattam Subramanyan, High School, Ernakulam.

•Minakshisundaram Pillai, Tinnevely, Madras Christian College.

Srinivasa Aiyar, Sami Aiyar, S. P. G. High School, Trichinopoly.

Kumuru Pillai, S. Sankara, Maharajah's College, Trivandram.

Srinivasa Aiyar, Maharajah's College, Trivandram.

Nadamuni Chetti, Sundur, Madras Christian College.

Seshachalam, Turlapati, Presidency College.

Krishnaswami, T. A., Provincial College, Combaconum.

Ranalingesvarappa, Bodapati, Provincial College, Rajahmundry.

Visesvara Rau, Kudla Nadkarni, Private study.

Krishnaswami Aiyar, T. M., S. P. G. High School, Tanjore.

Srinivasanarayana Rau, Akella, Provincial College, Rajahmundry.

Hayalwaraya, Ramanujakutam, Madras Christian College.

Rajaratnam Mudali, Perumbakkam, Presidency College.

Kadirvelu Pillai, A. Viravahu Pillai, Maharajah's College, Trivandram.

Subramanyan, Varanasi, Noble High School, Masulipatam.

Rego, Francis Xavier, Provincial School, Mangalore.

Raghavachari, Eakkadu, Madras Christian College.

Pinto, John Baptist, Provincial School, Mangalore.

Ramalinga Aiyar, Agaram, Madras Christian College.

Narayana Menon, Nallanattu, High School, Ernakulam.

Basavaraju, Damaraju, Provincial College, Rajahmundry.

Rajagopalachari, S., Provincial College, Combaconum.

Masilamani, Akur Christian, Maharajah's College, Trivandram.

Varahappa, Baggapalli, Central College, Bangalore.

Ramasubba Aiyar, Vangal Venkatesubba Aiyar, S. P. G. High School, Trichinopoly.

Varugisa, C. M., Maharajah's College, Trivandram.

Venkanna, K., High School, Vizianagram.

Bhina Rau, Krishnaji, Provincial College, Combaconum.

Rama Rau, Aragula, Maharajah's High School, Mysore, and private study.

Mariya Arulanandam Pillai, S., St. Joseph's College, Negapatam.

Krishna Rau, Adakki, Presidency College.

Nanjundappa, Anumpalli, Provincial School, Bellary.

Narasimha Aiyangar, Venkipuram Venkatesa Aiyangar, High School, Coimbatore.

Venkatesvara Aiyar, Vaidyanatha Aiyar, Maharajah's College, Trivandram.

Bashyam Nayudu, Caruppetti S., Madras Christian College and private study.

Ramasswami Aiyangar, Setlur Vedanta, Central College, Bangalore.

Venkatachari, Bhavani, Provincial College, Combaconum.

Venkatesvara Aiyar, R., Maharajah's College, Trivandram.

Silva, Severino Lawrence, Provincial School, Mangalore and private study.

Subramanya Sastri, M., Provincial College, Combaconum.

Ganapati Sastri, A., Provincial College, Combaconum.

Sambasivan, N., Provincial College, Combaconum.

Venkatasubramany Aiyar, Venkatakishna Aiyar, Maharajah's College, Trivandram.

•Srinivasachari, Cadambi, Central College, Bangalore.

Anantarama Aiyar, Ayilam Narayana Aiyar, Provincial School, Calicut.

Sivagnana Pillai, Tinnevely N., Madras Christian College.

Venkatarama Aiyar, Deverayadru, Central College, Bangalore.

Vasudeva Rau, Subanthore, Provincial School, Bellary.

Kodaudarama Aiyar, K. S., Provincial College, Combaconum.

Prakasam, Pragallapari, Provincial College, Rajahmundry.

Kellappa Kurup, Paloli, Provincial School, Calicut.

Venkataraman V., Provincial College, Combaconum.

Ramaswami Aiyar, S., Maharajah's College, Trivandram.

Kumaraswami Mudali, Tottikkalai, Presidency College.

Ragavendra Rau, Vizianagram, Provincial School, Bellary.

Appa Rau, Amauchi, Provincial College, Rajahmundry.

Numbermal Chetti, Vemur, Madras Christian College.

Sitaraman, S. V., Provincial College, Combaconum.

Srinivasan, P., Provincial College, Combaconum.

Prakasaram Nayudu, Pillariscetti, Provincial College, Rajahmundry.

Rungaswami Aiyar, K. V., Provincial College, Combaconum.

Masilamani, David, High School, Ernakulam.

Krishnamurti Nayakar, Corattur Tayankuppam, Madras Christian College.

Subba Rau, Tiramakudlu, Maharajah's High School, Mysore.

Velayuthan, Pagavate, Maharajah's College, Trivandram.

Rathnavalu Mudali, Conjeveram, Presidency College.

Ittinkanda Panikkar, Ulanat, Provincial School, Calicut.

Varadachari, Pundi, Madras Christian College.

Vaidyanathan, Nemmarai Rangan, High School, Ernakulam.

Vaidyanatha Aiyar, K. S., S. P. G. High School, Tanjore.

Sesban, K., Provincial College, Combaconum.

Subramanya Aiyar, S., St. Joseph's College, Negapatam.

Narayana Aiyangar, Nadamuni, Madras Christian College.

Ramasawmy Aiyangar, Setlur Billigirirangam, Central College, Bangalore.

Singa Aiyar, Naggihalli, Central College, Bangalore.

Duraiswami Pillai, V., St. Joseph's College and Wesleyan Mission High School, Negapatam.

Muttukumaraswami Mudali, Chunnampet, Presidency College.

Chikkanna Chetti, Bangalore, Central College, Bangalore.

Sesha Aiyar, T., Maharajah's College, Trivandram, and Church Mission Society's English Institution, Palamcottah.

Padmanabha Aiyar, Adige, Provincial School, Mangalore.

Cochran, Robert Lyle, Doveton Protestant College and private study.

Rangaswami Aiyangar, Manavasi, Presidency College and Madras Christian College.

Srinivasa Rau, Combaconum, Presidency College.

Vedañayakam, Selvarayan Pennayya, Madras Christian College.

Ekambarayya, Giddu, Madras Christian College.

Hopday, Daniel Alfred, Madras Christian College.

Ramaswami Aiyar, Narasimhamurti Aiyar, High School, Coimbatore.

Subramanya Aiyar, Pennattur, Presidency College.

Zacheus, Alfred Daniel, Madras Christian College.

Krishnamachari, Singatnaja, private study.

•Venkatanarayana Pillai, Vandalur, Madras Christian College.

Krishna Aiyar, S. N., S. P. G. High School, Tanjore and Provincial College, Combaconum.

* Sessa Aiyangar, Gopala Aiyangar, private study.
Krishna Rau, Wunthakal, Provincial School, Bellary, and Central College, Bangalore.

Kunni Laman Menon, Changulath, Provincial School, Calicut.
Venku Aiyar, Adachani Guruswami Aiyar, High School, Ernakulam, and Church Mission Society's English Institution, Palamcottah.

Venkatappayya, Peddillhotla, Provincial College, Bajamundry.
Moses, Samuel, Maharajah's Colleg, Trivandram.

Matriculation Examination 1878.

Monday, 16th December, 10 A.M.—1 P.M.

GENERAL ENGLISH.

Examiners.—{ Rev. GEO. PATTERSON.
J. B. BILDERBECK, B.A.
J. COOK, M.A.

The Answers to Parts I. II. and III. must be written in separate books.

Part I.

I. Paraphrase :—

The streams which kissed the living banks,
Ran smooth and winding, deep and clear,
Now edged by graceful willow-ranks,
Now tufted palms approached so near,
That every long leaf mirrored lay,
On waves that crept and stole away
With murmurs musical and low :
While many a lily at the brink,
Pressed down her lips of gold to drink,
And drinking levelier seemed to blow.

II. Correct the following, making no unnecessary changes :—

- (1.) He asked them whence they came from, and they replied him from Italy.
- (2.) Being driven by a stormy weather towards land, two of the men landed ashore; while another two remained on the boat.
- (3.) I asked him what I can do, and he said to be more industrious.
- (4.) I will not go until a year in the least.
- (5.) The city of Madras, having an occupation nearly of twenty-seven square miles, makes up of thirty-six distinct villages, and with the purpose of the Municipal administration divided into eight Municipal divisions.
- (6.) He threw his eye upon him in scorn, and requested whether he could distinguish black with white.

- (7.) You shall seldom or ever meet upon an ungrateful person, who, if you look backward and trace him up to his original, you shall find that he was born so : and, if you could look forward enough, it is a thousand for one but you shall find him also die so.

- III. (a). Distinguish the meanings of the following synonyms :—
(1) Notorious, famous. (2) Sensible, sensitive. (3) Custom, habit.
(b). Give the precise meaning of the italicized word or words in the following :—

Tell him to come.

Tell me everything.

I cannot tell what is the matter with him.

Too hard study will tell upon your health, and that will tell against you in the examination.

- (c). In the following sentences make the changes indicated, and such others only as are absolutely necessary :—
"It is so difficult that I cannot understand it."
Replace *so*, (1) by *too*, (2) by *very* and (3) by *such*.
"I have not seen him since 1870."
Replace *since* by *ago*.

Part II.

- IV. (a).—Analyse the following, giving the character of each subordinate sentence. "I have often wished, that as in our constitution there are several persons whose business it is to watch over our laws, our liberties, and our commerce, certain men might be set apart as superintendents of our language, to hinder any words of foreign coinage from passing among us, when those of our own stamp are altogether as valuable."
(b).—Write the above so as to have only two subordinate sentences.
- V. (a).—Give the two plural forms for *die*, *genius*, *penny*, and construct short sentences which will clearly illustrate the difference in the meaning of the forms.
(b).—Give the masculine forms corresponding to *sow*, *doe*, *hind*, *lady-in-waiting*, *lass*, *madam*.
- VI. (a).—Express the following by means of appropriate collective nouns,—*two partridges*, *twenty boys*, *one hundred and forty-four buttons*.
(b).—Distinguish between
(1).—He looked over my paper,
He overlooked my paper.
(2).—He brought me two cup-fulls of marbles
He brought me two cupsfull of marbles.
(3).—James said that John should do so.
James said that John would do so.
- VII. "I told you before all about it."
(a).—The above may be interpreted in three different ways. What are these?
(b).—If you were to read the above sentence aloud, point out where you would place the pause or emphasis so as to express the meaning in each case.

Part III.

- VIII. (a).—Mark the accented syllable in each of the following words, and give *one* synonym for each :—
*enigma, hazardous, imaginary, anonymous, rami-
 fication, preposterous, prognosticate, tumultuous.*
 (b).—Assign different meanings, according to accent, to the following :—
angust, gallant, refuse, incense.
- IX. (a).—Give the comparative and superlative of *nigh, holy, melancholy, grey, red, far, fair, fore.*
 (b).—Parse fully each word in the following :—
*Fain would the cat fish eat,
 But she is loth to wet her feet.*
- X. (a).—Illustrate by short sentences the use of each of the following as (1) a noun, (2) an adjective, and (3) a verb :—
mean, rank, tender, sound.
 (b).—Illustrate by sentences the idiomatic use of the phrases *take in; take off; take to, take over; set to, set in, set up, set over.*
- XI. Write an essay (not exceeding two pages of your paper) on "*Cruelty to Animals.*"

Monday, 16th December, 2—5 P.M.

ENGLISH TEXT.

Examiners.—{ D. WILSON KIDD, B.A.
 R. HARVEY, M.A.
 GEO. BICKLE, ESQ.

The answers to Parts I. II. and III. must be written in separate books.

Part I.

- I. It has been said that Longfellow's fondness for medieval illustrations has betrayed him into inaccuracies of expression; and that *Evangeline* is blemished by inappropriate Scriptural allusions. Give two—*only two*—instances from *Evangeline* where this criticism is true, and justify it in each case.
- II. Tell me not, in mournful numbers,
 "Life is but an empty dream,"
 For the soul is dead that slumbers,
 And things are not what they seem.
 (a).—Expand the last two lines, so as to show how they contain a reason for the antecedent sentence.
 (b).—Where you find "*for*" in the following, substitute an equivalent expression.
 (1) Take her for your wife.
 (2) A heart for any fate.
 (3) Having the glare of the burning village for funeral torches.

- (4) For three hours he sobbed.
 (5) We will work for William's children.
 (6) I sold it for a rupee.

III. Express in your own words, the meaning of the following :—

- (1) She broke out in praise.
 (2) His face, like the face of the morning,
 Gladdened the earth with its light, and ripened
 thought into action.
 (3) By her beating heart Evangeline knew who was
 with him.
 (4) Might is the right of the strongest.
 (5) It was the thought of her brain that assumed the
 shape of a phantom.
 (6) Into her thoughts of him time entered not, for it
 was not.

IV. Show the force and suitability of the following epithets :—
*honest sweat; startled air; gossiping looms; envy, the vice of re-
 publics; bring hay; ambrosial meadows; sheeted smoke; wimpling
 waves; Penn the Apostle.*

- Part II.

V. (a).—The following expressions printed in italics occur in Scott's Autobiography but with a different context. Show that you clearly understand their meaning.

- (1) Their master gave them several hints on the sub-
 ject which if they are *wise they will improve.*
 (2) The boy has been absent from school and therefore,
 it will take him some time to *make up his leeway.*
 (3) The lad's parents consulted *the most respectable of
 the Faculty* as to the possibility of a cure.

(b).—Scott says that he was sent to College he was put at once to the Humanity class.

- (1) What kind of class is this?
 (2) Why did it receive the name?
 (3) The word Humanity has two meanings as a noun.
 What are they?

VI. (a).—In each of the following cases supply what is necessary to show the *usual* meaning of the words in italics.

Can you give from Scott or make yourself any example of a less common use of the words?

- (1) He *stubbornly* refuses to.
 (2) People say he is greatly *addicted* to.

(b).—Make sentences containing the following expressions properly used.

- (1) to affect superiority.
 (2) to gather grapes from thistles.

VII. State in one short sentence for each what has struck you as most characteristic of

Scott as a school boy
 Scott's elder brother
 Scott's teacher, Dr. Adam.

VIII. Take *either* of the following as a subject for a short exercise in composition. State the reasons that led Scott to choose the

bar as his profession in preference to following that of his father or

State the evils which according to Scott resulted from his being placed when sent to the High School of Edinburgh in a class further advanced than himself in years and in progress.

N. B.—Give carefully *what* Scott says; avoid saying it in *his very words*.

Part III.

IX. (a).—Express the meaning of the following sentence clearly in your own words: "Tubourai Tamaide was the only one except Tootahah who had not been found guilty, and the presumption arising from this circumstance, that he was exempt from a vice of which the whole nation besides were guilty, could not be supposed to outweigh strong appearances to the contrary."

(b).—State the effect of the words italicized in the following sentences:—

- (1.) In the evening this young man and *another* chief went away to the westward.
- (2.) This was no other than the ingenious *gentleman* who contrived to steal our sextant.
- (3.) Upon these ledges there was footing only for an *Indian or a goat*.

X. (a).—In the following extracts expand the italicized words into sentences, and underline those sentences:—

- (1.) They could sell none of them *without his permission*.
- (2.) They were indulged, except when the smith's time was too precious *to be spared*.
- (3.) Great solicitation was made *for the release of the canoe*.
- (4.) I was not a little mortified *at the bad success of my project*.

(b).—Parse the words italicized in the following:—

- (1.) A chief who had dined with me a few days before, *accompanied* by some of his women, came on board alone.
- (2.) A place at least seven *miles* distant from the fort.
- (3.) When the hour came, most of them *were returned* home.
- (4.) The only thing we saw worth *notice* was a repository for the dead.

XI. (a).—Give equivalents of the words italicized in the following:—(1) *Memorials* of her beauty, (2) We *opened* the bag, (3) One *course* of white coral-stone, (4) *sharp* coral sand, (5) In *bad way*, (6) A pool *so steep*, (7) Desirous *to make as much as they could of us*, (8) The report of two *pieces*.

(b).—Explain the difference between the meanings of the words in the following pairs, and introduce these words into sentences consisting of not less than six words each.

- (1.) Capture, conquest.
- (2.) To make way, to make a way.
- (3.) Instruction, instructions.

Tuesday, 17th December, 10 A.M.—1 P.M.

TAMIL: GRAMMAR, &c.

Examiners.—{ S. SESHAYYA, B.A.
J. M. VELU PILLAI.

Part I.

- I. (a) What is the original source of the story of Nala?
(b) Describe the geographical situation of Nishada and Vidarbha.
(c) Does the *Nalavenna* afford any internal evidence to show that its author lived in the plains of the Carnatic and was unacquainted with the natural features of the country wherein the scene of his poem is laid?

II. Paraphrase in simple Tamil:—

- (a) கேடில் விழுச்செல்வங் கேடெய்து குதாடல்
ஏடவிழ்தார்மன்னர்க் கியல்பேகண்—வாழ்க்
கலங்கலை யென்றுரைத்தான் காமருவராடற்
கிலங்கலைநான்மார்பனெடுத்து.
- (b) கண்ணிழந்துமாயக் கவருடிக்காவலர்தாம்
மண்ணிழந்துபோந்துவன நண்ணி—விண்ணிழந்த
மின்போலுநான்மார்ப மெதுனியில் வேறுண்டோ
என்போலுழந்தாரிடர்.
- (c) அஞ்சன்மடவனமே யுன்றனணிதடையும்
வஞ்சியனையார் மணிதடையும்—விஞ்சியது
காணப்பிடித்தது காணென்றன களிவண்டு
மாணப்பிடித்ததார் மன்.

- (1) Explain the grammar of the words underlined in (a) and (b).
- (2) Explain the *Samudhaya* underlined in (c), quoting sutrams from the Nannul. Why is there no duplication of வல்லினம் after பிடித்தது and பிடித்த?

III. (a) Give the meaning in Tamil of the following:—

- (1) ஞானக்கலைவாழ் நகர். (2) பெற்றகொடி. (3) பா
வேய்ந்த செந்தமிழா மென்னப்பரந்ததே. (4)
கேளாவானால் விருந்திட்டமன். (5) அழ
குசுமந்தினாத்தவாகத்தான். (6) மால்வரையை
வச்சிரத்தாலிரந்தான். (7) யாழின் ஓகைபோ
ற்சொல்லான். (8) பாவிற்குழல்போல நின்
முழுவன்கொள்கை.

- (b) What Tamil equivalents does புகழேந்தி use for the following Sanskrit words and expressions? (1) வே
தவியாசர் (2) பவார்ணவம் (3) சுத்தியமார்க்கம்

(4) சுவேதச்சத்திராதிபதி (5) புஷ்பஸாயகன் (6) பத்மாஸனி.

- (c) Render the following in the language of புகழேந்தி.
 (a) Such is the madness of love.
 (b) Nala entered the temple of the maiden's heart.
 (c) One who is neither elated by prosperity nor depressed by adversity.
 (d) The parrot and the vulture sported together in the same cage.

IV. (a) How does the swan exhibit his skill in negotiating between Nala and Damayanti?

- (b) Derive சுயம்வரம் and give in Tamil a very brief description of that ancient institution.

(c) Does Nala deserve the epithet காமநீராழி அடக்குமாறுள்ளத்தவன்?

V. Quote the stanzas which describe (1) the approach of spring and (2) the sunset.

Part. II.

VI. What relations exist among the four statements given in every stanza of the நான்மணிக்கடிகை? Illustrate any two of those relations by quotations from the text. State with reasons if கடிகை is appropriate here.

VII. (a) Give a clear பொழிப்புரை of (1) கொள்ளற்கொள்ளாந் கைமேல்வர; (2) தவக்குட்டர் தன்னுடையானீந்தம்; (3) பகையொருவன் முன்னம் வித்தாகமுனைக்கும்; (4) வியக்களி நல்குந்தார்மேற்றம்.

- (b) Express the meaning of the following, putting the எழுவாய் before the பயனிலை. (1) இகழ்த்தொருவன் பேணுமெசெய்வது பேதமை; (2) முழையும் இறைவகையானின்றவீடும்; (3) ஏதிலரென்பாரியல்பில்லார்; (4) மழையுந்தவமிலாரில்வழியில்லை.

(c) Comment on the beauty of any two of the expressions underlined in the following:—(1) சினச்செவ்வேல் நாட்டாக்க நல்லனில் வேந்தென்றல்; (2) பெற்றானதிர்ப் பிற்பிணையன்னான் கானதிரக்கும்; (3) மனைக்குப்பாழ் வாணுதலின்மை; (4) பொருளின்தொகையினிது தொட்டுவழங்கின்.

VIII. (1) Give with meanings the பகுதி and விருதி of குட்டம், முன்னம், இறை, இயல்பு, and மழை in VII.

(2) Give the காலம், பொருள் and முடிபு of வர, ஆக in வித்தாக, நீந்து and முனைக்கும் in VII.

(3) Taking any four of the following words, say what words or phrases are used in the text to

qualify them; உன், நெய்தல், சுடர், அழல், தவர, பொருள், அந்தாரம், முகம், மலர் and பழனம்.

IX. What information do you gather from the தசகுமார சரித்திரம் on (1) the mode of fighting, (2) the mode of declaring war and proclaiming victory, (3) the education of princes and nobles, and (4) the amusements of royal ladies, at the time to which the book refers.

X. Correct or justify the following:—

- (1) “கையுஞ் சொத்துமாய்ப்பிடித்து?” (2) “உடம்பு குலைக்கக் குலைக்க ஒடி;” (3) “பாணம் பொத்திக்கிடப்பதை;” (4) “நீராட்டத்துக்காக;” (5) “ஆகாயத்திலிருந்துருண்டுவீழ்ந்தது;” (6) “சத்திரன் அவன் முகமாக ஆய்விட்டது.

XI. Fill up the blanks with appropriate எச்சம்.

- (1) இவ்வேதனைகளைப்—போது நான் உடல்—முகம் மனம்—வாய்—பல்—கண்—அறிவு—கீழே—வீழ்த்தேன்.
 (2) அரசன்மகள் இவன் என்பிராணநாதன் என்று—உடல்—முகம்—மனம்—கண்—அறிவு—ஆசையோடு—தொடங்கினான்.

XII. How is வசந்தகாலம் described in the தசகுமாரசரித்திரம்?

XIII. Define and explain in your own words an உரிச்சொல். From how many kinds of பகுதி are வினைச்சொல் derived? Give two examples of each kind.

Tuesday, 17th December, 2—5 P.M.

TAMIL: TRANSLATION AND COMPOSITION.

Examiners.— { P. V. RAMASWAMI RAJU, B.A.
 { S. RAMASWAMI MUDALIYAR, M.A., B.L.

Part I.

I. (A) Translate into Tamil:—

I will not weary you, gentlemen, with all the arguments that passed between me and Rachub; at last we compromised matters—he would take nothing less than the whole debt, but he let me have, at a very cheap rate, a chest of second-hand clothes, by which he assured me I might make my fortune. He brought them to Grand Cairo, he said, for the purpose of selling them to slave-merchants, but he was in haste to get back to his family at Constantinople, and therefore he was willing to make over to a friend the profits of this speculation. I should have distrusted Rachub's professions of friendship, and especially of disinterestedness, but he took me with him to the Khan, where his goods were, and unlocked the chest of clothes to show them to me. They were of the richest and finest materials, and

had been but little worn. I could not doubt the evidence of my senses.

- (B) (1) I was touched to the heart by this kindness.
 (2) Even fools learn by experience.
 (3) Our conjectures were, alas! too true.
 (4) Pardon me the expression, I have none of those superstitious fears.
 (5) Although my brother had been prosperous in his profession, he did not despise his poor relations.
 (6) You have made this excuse so often on similar occasions, that I do not now believe you.

II. Composition in Tamil :—

“ O ! it is excellent

To have a giant's strength ; but it is tyrannous
 To use it like a giant.”

(The composition is not to exceed two pages in length. Particular attention should be paid to spelling, hand-writing, and accuracy and appropriateness of expression).

III. Translate into English :—

ஓராஜகுமாரனே சொல்லுகிறேன்கேள். இக்காட்டில் தம் குலசாரங்களை யெல்லாம் சிறிதும் நினையாமல், வேதங்களையும் அறியாமல் பாவத்தையே தேடிக்கொண்டு வேட்களுடன்கூடி அவர்களிட்டசேற்றைப் புசித்துக்கொண்டு சில பார்ப்பனப்போலிகளிருக்கின்றனர். அவர்களுள் ஒருவன்மகன் நான், எனக்கு மாதங்கள் என்றுபெயர், மனதிலும் நினைக்கக்கூடாத தீச்செயல்களைச் செய்திருக்கிறேன்.

IV. (a) முகம்பார்த்தருள்கோக்கி முன்னிரந்து செல்வர் அகம்பார்க்குமற்றேரூரப்போல.

- (b) பாவிற்குழல்போல நின்றழலும்
 (c) அறக்களி இல்லாதார்க் கியுமுற்றேன்றும்.
 (d) நாற்றமுரைக்குமலருண்மை
 (e) அதிர்ஷ்டமும் ஐசுவரியமும் ஒருவர்பங்கல்
 (f) விதியை யார்வெல்லக்கூடும்.

V. பூதகோடிகளெல்லாம் சூழ்ந்துகொண்டிருக்கும் படியான சாக்ஷாது, மான்தோலாடையையணிந்த, ருத்திர மூர்த்தியானவர் பார்வதி சமேதராய் எழுந்தருளியிருக்கின்ற கைலாசபர்வதத்தை உளையில வேரோடும்பிடுக்கித் திரிலோகங்களும் நடுநடுக்கும்படியாய்த் தூக்கினான். உலகங்களைத் தாங்குகின்ற அஷ்டதிக்கெசங்களையும் தந்தங்கள் முறியும்படியாகத் தன்னுடைய புஜத்தினால் தூக்கினான். இனி நம்மீதுவருவானென்று முப்பத்துமுக கோடிதேவர்களும்நடுக்கக்கொண்டு ஓட்டம்பிடித்தார்கள். இவர்காலகேயர்களை அவர்கள் பந்துசகிதமாக அணிந்தகிரீடங்களோடும்பிடித்த ஆயுதங்களோடும் கொன்றபிறகு இவனுடையபெயரைக் கேட்டாலும் இடிமுடிக்கக்கேட்ட சர்ப்பம்போல் தானவர்களுடைய கருவுக்கூட இன்னும் பயப்படுகின்றது.

Wednesday, 18th December, 10 A.M.—12-30 P.M.

ARITHMETIC.

Examiner.—CAPTAIN W. H. COAKER, R.E.

- I. Find by Practice the value of
 (a). 9 tons 17 cwt. 2 qrs. 24 lbs. at Rs 125-6-8 per ton.
 (b). 29,764 articles at Rupees 1-11-9½ each.
 II. The materials of an old building were sold for Rupees 1,500 upon condition that they should be removed within 30 days, under a penalty of Rupees 10 per day for every day beyond 30 days. The purchaser employed 40 men at 3½ annas per day to do the work, and after selling the materials for Rupees 2,365, he cleared Rupees 190 by his bargain. Find the number of days the men were at work.
 III. (a). Divide 0576 by 180, and by 018.
 (b). Find the value of

$$\frac{2.8 \text{ of } 2.27}{1.36} \left\{ + \frac{4.4 - 2.83}{1.3 + 2.629} \text{ of } 8.2 \right\}$$

IV. A and B enter into partnership ; A supplies the whole of the capital, amounting to Rupees 45,000 upon condition that the profits are to be equally divided, and that B pays A interest on half the capital at 10 per cent. per annum, but receives Rupees 120 per mensem for carrying on the concern. Find their total yearly profits when B's share is equal to one half of A's share.

V. Find the difference between the true discount on Rupees 250-2, due two years hence, and the interest on the same sum for two years, allowing in both cases simple interest at 4 per cent. per annum.

VI. A room, 21 feet long by 13½ feet wide is surrounded by walls 1½ feet thick, and 14 feet high. There are two doors each 4½ feet by 6 feet, and one window 3 feet by 4½ feet. Find (1) the cost of building the walls at the rate of Rupees 5-1-0 per cubic yard, and (2) the number of bricks each measuring 9 inches × 4 inches × 2½ inches, required for the work.

VII. If 38 men working 6 hours a day can do a piece of work in 12 days, find in what time 57 men working 8 hours a day can do a piece of work twice as great, supposing 2 men of the first set to do as much work in 1 hour, as 3 men of the second set can do in 1½ hours.

VIII. Extract the square root of .002, and of 764.9, each to four places of decimals.

IX. A person's net income from 5 per cent. Government paper is Rupees 1,225 after paying income tax at the rate of 2 per cent. Find the number of shares of Rupees 1,000 each owned by him.

Wednesday, 18th December, 2—3-30 P.M.

ALGEBRA.

Examiner.—SRINIVASA RAGHAVA AIYANGAR, B.A.

- I. Simplify $\frac{x^3 + 3x^2 + 5x + 15}{x^2 + 2x^2 + 5x + 19} + \frac{x^3 + x^2 + 3x^2 + x - 2}{x^3 + 2x^3 + 3x^2 + 4x - 4}$
 II. Show that $(x^3 - 3x)^2 - 8(x^5 - 6x^4 + 9x^3 - 2)$ is an exact square and resolve the whole expression into factors.

III. Show that

(i.) if $a + b + c = 0$ then $a(b - c)^2 + b(c - a)^2 + c(a - b)^2 = 0$.

(ii.) if $a + b + c = 1$, $ab + bc + ca = \frac{1}{3}$, $abc = \frac{1}{27}$.

$$\text{then } \frac{1}{a+bc} + \frac{1}{b+ac} + \frac{1}{c+ab} = \frac{27}{4}.$$

IV. Solve the following equations.

$$(1) \frac{4(x+5)}{x+6} + \frac{3(x+6)}{x+5} = 7.$$

$$(2) x + y + z = ax + by + cz = 0.$$

$$\frac{x}{b-c} + \frac{y}{a-c} + \frac{z}{a-b} = 1.$$

V. A mail coach runs between two places A and B and back again. A traveller who starts walking from A 5 hours before the mail coach is overtaken by it half-way between A and B. He then doubles his rate of walking and meets the mail coach on its return journey 3 miles from B. The traveller then goes to B at the same rate and returns, and by the time he comes again midway between A and B, the mail coach reaches A. Find the distance between A and B and the rate at which the mail coach runs.

Thursday, 19th December, 10—12 A.M.

GEOMETRY.

Examiners.—{ CHARLES WATERS, M.A.
W. LEEING, M.A.

The Answers to Parts I. and II. must be written on separate books.

Part I.

I. At a given point in a given straight line, make a rectilinear angle equal to a given rectilinear angle.

An obtuse angle ABC is divided by BD so that the angle CBD is double the angle ABD. CD is drawn parallel to AB, and CE at right angles to CD meets DB produced in E. Show that DE is twice BC.

II. Prove that in any right angled triangle the square which is described upon the side subtending the right angle is equal to the squares described upon the sides which contain the right angle.

Prove that, in the above figure, the area of a six-sided figure formed by a side of each square and the three straight lines which join the adjacent corners of the squares is equal to four times the area of the original triangle together with twice the square on the hypotenuse.

III. Two equal circles intersect one another so that the centre of each circle is on the circumference of the other. From a point on the circumference of one of these, straight lines are drawn through the centres A, B, meeting the circumference of the other circle in P and Q. If AQ and PB be joined, show that one of the angles APB, AQB, is four times the other.

Part II.

IV. If a straight line be bisected and produced to any point, the rectangle contained by the whole line thus produced and the part of it produced, together with the square on half the line bisected, is equal to the square on the straight line which is made up of the half and the part produced.

V. Produce a given straight line so that the rectangle contained by the whole line thus produced and the part produced may be equal to a given square.

VI. If, from a point without a circle, there be drawn two straight lines, one of which cuts the circle, and the other meets it; if the rectangle contained by the whole line which cuts the circle, and the part of it without the circle, be equal to the square on the line which meets it, the line which meets shall touch the circle.

VII. ACB, DCB are two circles, intersecting in B and C. P is a point in BC produced. PA is a tangent to ACB, PDE a chord of DBC. AD and AE cut the circle ACB in F and G. Shew that FG is parallel to DE.

Friday, 20th December, 2—5 P.M.

GEOGRAPHY, PHYSICAL AND GENERAL.

Examiners.—{ W. H. WILSON, PH.D.
C. W. PEARCE, ESQ.
W. MORGAN, ESQ.

The Answers to Parts I. II. and III. must be written in separate books.

Part I.

I. Enumerate the disintegrating or depressing forces at work on the earth's surface, arranging them under the head of Chemical or of Mechanical agencies. Select any one of these forces, and give a brief description of its action.

II. Give an explanation of the following circumstances:—

(a.) The snow line on the southern slope of the Himalayas is but little over 13,000 feet, and on the northern, nearly 21,000 feet.

(b.) The annual range of the thermometer at St. Helena is about 9° F. and at Orenburg about 62° F.

(c.) The amount of salt in the surface water of the ocean is greater in the tropics than in temperate and polar regions.

III. What impurities would you expect to find (1) in rain and (2) in spring water? What is meant by the hardness of water and how can it be removed?

Part II.

IV. The "British India Steam Navigation" Company's steamers sail up and down the Indian and British Burmah coasts.

At what ports do you think they would be likely to touch, and what cargo would they probably take in and discharge?

V. Mention:—

- (a).—Six of the most important native states of India with their chief towns.
- (b).—The highest peaks of the Himalayas.
- (c).—The town (1) near the junction of the Jumna with the Ganges. (2) at the mouth of the Tapti. (3) in the delta of the Irawady.

VI. (a).—Describe the position of the following and give one remarkable fact in connection with each:—(1) Singapore, (2) Kars, (3) Texas, (4) Buffalo, (5) Port Jackson, (6) Manitoba.

- (b).—Mention (1) the longest river flowing into the Arctic Ocean, (2) the chief tributaries of the Mississippi (3) the chief towns of Mexico.

VII. Give a brief account of New Zealand, with reference to:—

- (1.) Its position.
- (2.) Its coast line.
- (3.) Its mountains and rivers.
- (4.) Its divisions, physical and political.
- (5.) Its chief towns.
- (6.) Its exports and imports.

Part III.

(N.B. Correct spelling is required).

VIII. The Captain of a ship sailing eastward on the 21st December, finds the sun to be vertical at noon, and his chronometer shows that the time at Greenwich is 6 A.M. Where about is the ship? Where is it likely to be going to, and why? What important commercial city would it arrive at if it changed its course and sailed due north.

IX. A ship sails from the second seaport in Great Britain to the chief town of the largest British Possession in the West Indies, and thence to the southernmost city of importance on the E. coast of S. America, whence it returns to the chief seaport in France, and then to the richest city in the world. Describe its course as accurately as you can; tell the names and situations of the places if visits, and the cargoes it is likely to take from each port to the next.

X. In what country in Europe is each of the following articles most largely produced for export:—Cork, Brandy, Mercury, Dried fruits, Hemp, Hides, Ironware, Eggs, Olive oil, Paper, Wood-tar.

(N.B. Put the answer to the above in the form of a table.)

XI. Of what does the kingdom of Denmark consist? What and where is its capital?

XII. Draw a neat map of Africa, marking in it 5 large lakes, 5 large rivers, 5 important towns, 5 Capes, 5 islands or groups of islands, and 5 portions of the sea.

(N.B. The names must be entered in the map, not written by the side.)

Friday, 20th December, 10—12 A.M.

PHYSICS.

Examiners.—{ E. P. METCALFE, M.A.
C. NAGOJI RAU, B.A.

The Answers to Part I and II must be written in separate books.

Part I.

I. Name the several natural forces which are brought into action in the following operations:—

- (1.) Lighting a fire.
- (2.) Building a mud wall.
- (3.) Using your blotting paper.
- (4.) Climbing a toddy tree.

II. State and explain the effect on the mercury of a barometer.

- (1.) when the lower part is immersed in water
- (2.) when it is placed under a partially exhausted receiver.

III. Under certain conditions it is possible to bring the water of a canal over the bank into the fields below without labour and without cutting the bank. State the conditions and means employed.

IV. 108 lbs. of mercury, whose specific gravity is 13.5, are immersed and weighed in water. Find their weight and explain the cause of the difference.

V. Draw a rough sketch of a Bramah press with force pump and cistern, showing the directions and positions of the valves.

Part II.

VI. What is energy and how is it measured? Compare the energy of a body weighing 4 lbs., and moving with a velocity of 5 ft. per second with that of another weighing 5 lbs. and moving with a velocity of 4 ft. per second.

VII. Define specific heat.

3 lbs. weight of mercury at 70° is mixed with 1 lb. of water at 15° and the temperature of the mixture is found to be 20° what must be the specific heat of mercury, that of water being taken as the unit?

VIII. How is ebullition caused?

A vessel containing water at the ordinary temperature is placed under the receiver of an air-pump and the air pumped out? What change will you observe in the water, as the receiver is exhausted?

IX. When water and sulphuric acid are mixed together, the solution is found to be hot. When snow and salt are mixed together, a very cold solution is obtained. Account for the production of heat in the former case and cold in the latter.

Thursday, 19th December, 2—5 P.M.

INDIAN HISTORY.

Examiners.—{ C. C. FLANAGAN, M.A.
E. B. POWELL, LL.B.
GEO. MILNE RAE, M.A.

The Answers to Parts I. II. and III. must be written in separate books.

Part I.

- I. (a).—State what you know regarding the ancient kingdoms of *Pandya* and *Chola*.
(b).—Name the kingdom of which *Calicut* originally formed an important part.
(c).—When did *Calicut* become an independent principality?
(d).—What name did its rulers bear?
(e).—Give the names of any other ancient kingdoms of the *Deccan* that you know.
- II. (a).—Briefly state the leading tenets of *Boodhism*.
(b).—Name its founder, the *Boodha* that gave a fixed character to its institutions, and the king who chiefly supported it: also give the approximate dates when these three personages flourished.
- III. (a).—Assign events to the following dates:—B. C. 327 and 6; (b) state in what year the Portuguese first landed in India and name the greatest of their commanders here.
- IV. "Sultan Baeer captured Delhi and established the Mogul dynasty, which continued to flourish for a hundred and eighty years, under a succession unprecedented in India, of six monarchs distinguished by their prowess in the field, and, with one exception, by their ability in the cabinet."
(a).—Define by dates the period over which the *one hundred and eighty years* referred to extend.
(b).—Name the six monarchs in the order of their accession to the Mogul throne.
(c).—Explain why such succession is spoken of as *unprecedented in India*.
(d).—Name the *one exception* and mention without narrating the principal occurrences of his reign.

Part II.

- V. Describe—(a.) Akber's character; (b.) His policy and its results. (c.) By what act or acts did his great-grandson alienate the loyalty of his Hindoo subjects?
- VI. (a.) Trace the course of events from the treaty of Surat which resulted in the treaty of Salbye.
(b.) Give the date of the latter, its leading provisions and the names of the contracting parties.

VII. Give a short account of each of the following personages, specifying the times in which they lived, and for what they are chiefly remarkable:—Beiram Khan, Rezia Begum, Mahabut Khan, Chetoo, Nana Furnavis. Who is generally known in Indian History as "the King Maker"?

VIII. State when and under what circumstances the following places were acquired by the English:—The Konkan, the Punjab, the Baramahal and Coorg.

Part III.

IX. Give an accurate account of:—

- (1.) The addition made to British territory during the administration of Warren Hastings.
- (2.) The addition made to British territory in Southern India during the administration of the Marquis Wellesley.
- (3.) The annexation of Assam, Nagpore and Scinde.

X. Write short historical notes on any six of the following particulars:—The Board of Control—Duplex Fatikalad—The gates of Somnath—The College of Fort William—Taj Mahal—Kutub Minar—The abolition of Suttee—The suppression of Thuggee—The introduction of Railways.

XI. Sketch the career, and give an estimate, of any four of the following persons:—Hyder Ali—Chaitanya—Rammohun Roy—The last of the Peishwas—Sir John Shore—Sowae Jey Sing—Sir Henry Lawrence.

XII. Write such an account of the Goorkhas, the Coles, and the Pindarees, as to show their place in the history of British India.

MISSION SCHOOLS.—There is one other portion of Professor William's letter to which we must refer, and which will afford great satisfaction, as the testimony of a competent and critical observer, to all friends of Mission work in India,—that, namely, in which he speaks of the comparative excellence and efficiency of the education given in Missionary Colleges and Schools, and of the influence which these institutions are exerting. Speaking of Madras, he says:—

"Here, as in other parts of India. Missionary Schools are, in my opinion, doing the best work. The education they impart is openly and professedly founded on a Christian basis. They teach the Bible without enforcing ecclesiastical dogmas on their pupils. Indeed, my second tour has impressed me more than ever with the benefits which India derives from the active efforts of Missionaries of all denominations, however apparently barren in visible results those efforts may be. Moreover, I think that the part they have hitherto played is as nothing compared with the rôle they are destined to fill in the future of our Eastern Empire. The European Missionary is daily becoming a more important link between the Government and the people. He is confided in by natives of all ranks, and is often able to do what the Government with its wise professions of neutrality cannot effect. Missionary Schools, attract the children of parents of all creeds, though they openly aim at permeating their minds with a spirit hostile to those creeds. It may be very true that their Bible-teaching tends to destroy without necessarily reconstructing, but it is gradually and insensibly infusing principles

incompatible with the Pantheistic ideas with which the Indian mind is generally saturated. If it does not always build up the true creed in place of the false, yet it lays the foundation of a future belief in a personal God. It substitutes for the slippery sands of Pantheism a basis of living rock, which may be afterwards thankfully occupied by evangelizing missionaries as a common standpoint, when the Gospel is confronted in argument with the Veda and Koran. My conviction is that the vast work of Christianizing India will not be accomplished entirely through Missionary instrumentality, but rather through the co-operation of divine and human agencies, working in a great variety of ways. Yet I am equally convinced that it will be principally effected, and far more slowly, gradually, and insensibly than is commonly expected, through impressions made on the minds of children by a process of education like that our Missionaries are carrying out in their Schools."

Professor Williams especially commends the Schools of the Free Church of Scotland, under Mr. Miller and Mr. Rae, at Madras, and the Church Missionary Schools, under Bishop Sargeant, at Tinnevely; "but," he adds, "I could name a hundred others if time and space were allowed me."—*Sunday Magazine*.

ELEMENTARY EDUCATION IN INDIA.

ELEMENTARY education is one of those few branches of Indian departmental activity which all men are agreed to recognize as beneficial. The obstinate questionings and blank misgivings which surround the university and the high school, till even the friendly critic begins to doubt whether the higher education is not a great mistake, have no place in the humbler precincts of the village school-house. Nobody asks himself whether it is a good or a bad thing that the peasants' sons should learn to read and write and cipher. There are no lamentations over the costliness of the literate ploughboy, as over the price paid for the brand-new bachelor of arts. All the money spent on elementary education is accepted as meaning so much useful and necessary work done; and, generally speaking, this is really the case. The work, in truth, is one which admits of almost indefinite expansion. Old experience has proved that no great increase is to be expected in the annual number of graduates turned out by provincial colleges; but the list of village schools grows longer and longer every year. There are districts in the North-Western Provinces which had only half-a-dozen village schools eight years ago, and which possess twenty-five times that number now. The benefit to the people is too obvious to require comment. As a mere means of protection to the agricultural class it would be difficult to overrate the importance of the village school. Perhaps there is no community in the world more helplessly dependent on the honesty of its immediate superiors and their authorised agents than the Indian peasantry. One stands aghast to think of the frauds which might be perpetrated by a cunning village accountant in league with an unscrupulous landlord. The illiterate cultivator is practically at their mercy. But the literate cultivator, capable of understanding the field-map and the rent-roll, and fully alive to the value of a receipt, is perfectly well able to protect his own interests.

He is rare, very rare, at present, but he will be much more common in the next generation, thanks to the system which has placed reading and writing within the reach of every tenant—nay, of every farm-labourer. And this satisfactory reflection is disturbed by no uneasy feeling that we may possibly be educating the schoolboy beyond his social needs: for the young peasant, when he leaves the village school, leaves it for the field, and lives and dies an agriculturist, like his fathers before him. Amidst the vast ignorance of the rural population; in the centre of regions where the white face is a wonder, and where the speech of the people is almost unintelligible, it is with a genuine sense of relief and light-heartedness that one turns to the village school-house, where a little spark of intelligence is kept alive, and where the hope of better things is never suffered to become extinct. The weary judicial or revenue officer dreams of the day when, instead of stolid clowns, mouthing out a semi-articulate *patois*, he will have to deal with men who speak what he can understand, and to whom his whole procedure, with the language in which it is recorded, shall not be an awful and incomprehensible mystery.

"Still, admirable as the system is, there are faults in it which cry for amendment. Some of these are obvious enough to strike even the unskilled visitor. Nobody, for instance, can have a moment's doubt as to the character of the maps which are used to illustrate the geography lesson. They are usually to be found stowed away in some dark recess, untidily bound up with a piece of string; and when they are unrolled, the effect is very trying. What with original imperfections of design, and what with the damages suffered from the climate, from insects, and from dirty little hands, the normal appearance of the village school map is very deplorable indeed. It should not be impossible to turn out a neat map in Urdu or Hindi; yet the fact is that the best English map, when copied in the vernacular languages, somehow loses all its preciseness, and becomes an indistinct jumble. Under such disadvantages, there is little wonder if geography is generally the village schoolboy's weakest subject, learnt only by rote, and evidently shirked as far as possible. In truth, the study is one utterly foreign to the Oriental mind. The native of the east can no more use a map than he can understand a picture. This fact was quaintly illustrated by an incident at the close of the late war, when the Turkish plenipotentiary arriving at Adrianople to sign the terms of delimitation during the armistice, was found to have no map of his own, and to be incapable of understanding either the Russian map or any other whatever. If such be the condition of plenipotentiaries, one would naturally suppose there must be little use in trying to convert ploughboys to modern geographical beliefs; and, in fact, the abolition of the geography book in village schools has been recommended more than once. This would be a pity. The elements of geography are a legitimate part of primary education; and they might be taught successfully enough if the appliances and means were better. A simpler textbook is wanted, and English maps might be used so as to give the pupil a fair idea of locality, without the association of a printed name to be searched for and spelt out. Perhaps English figures might even be used in arithmetic, instead of the unhandy and uncertain symbols of the Persian or Hindi character. Arithmetic

is usually one of the best taught subjects, though it seldom extends beyond the first four rules. A short course in natural science, comprising the most rudimentary truths, completes the *curriculum* of the village schoolboy. In this branch also there is much to be desired, as is natural enough in the case of a subject even more alien than geography. But it is not only in these extraneous subjects that the necessity of improvement is noticeable. Faults can be discerned in the very pith and essence of the whole system of elementary education—the teaching of village boys to read. The main fault is a common one, by no means peculiar to India, though special circumstances cause it to assume in this country an exaggerated form. It consists simply in reading without understanding what is read. In high schools and colleges this vice is usually explained by the excessive number and length of the English subjects, obliging the student to trust to his memory rather than his intelligence in working up a course which he has no time to spell out grammatically. But in elementary schools another, and perhaps more potent, motive exists, in the ancient traditions of Indian education, which are followed everywhere, save in schools supported by the State. The traditional way of teaching is to impart first the power of reading, than the knowledge of grammar, and lastly the vocabulary. If the village schoolmaster had his own way, he would give himself no trouble in the world as to whether his boys understood what they read or did not. An Urdu reading-book, of course, cannot help containing much that the boys must understand, yet there always remains a large residue for explanation; and it is scarcely wonderful that the explanation is not always given. To read with alarming rapidity is regarded as the proper aim of the scholar, and the true test of the teacher's efficiency. The absence of intelligence is most remarkable in the lowest classes, among which there will occasionally be found a few boys who are confessedly taught after the indigenous fashion, and who can read as well as the classes above them, with this difference, that they do not comprehend a word of what they so fluently repeat. For all this, there remains a vast difference between the State school and the private native school; and it is the proper boast of the North-Western Provinces system that no where else in the line between the two so sharply drawn. In Upper India elementary education is free from the trammels of any indigenous system. It is wholly a creation of the State, and yet it is not less popular than if it appealed to native traditions, instead of boldly proceeding upon English lines. The contrast between the old and the new systems will be still further emphasised hereafter, when the effect of the normal schools begins to make itself felt. Most of the present imperfections of the system arise from the want of trained teachers which these schools are gradually supplying. In a few years we may hope to see the native methods of instruction discontinued in every class.—*Friend of India.*

REDUCTIONS IN GRANTS TO AIDED SCHOOLS.

COLONEL R. M. Macdonald, Director of Public Instruction, wrote to the Acting Chief Secretary to Government, on the 13th December 1878, as follows:—

• In submitting the Budget Estimates of 1878-79 I asked for Rupees

3,00,000 under the head of Grants-in-Aid. Government, however, restricted the allotment to Rupees 2,83,000, on the ground that the actuals of 1876-77 had not exceeded that amount. This allotment not only left no funds available for new grants, but made no provision for such new grants as had been sanctioned since the 1st April 1877 within the limit of the original Budget grant of Rupees 3,00,000. The issue of new grants has, in consequence, been entirely suspended, and no money is available for the most necessary purposes.

2. It was expected that this difficulty would be to some extent met by a reduction in the scale of salary grants which has been in contemplation for the last five years, but no orders have been yet passed on the revised Code submitted with my letter, No. 215, of the 15th January 1878.

3. Other difficulties are also looming in view in connection with the gradual extinction of the Educational Building Fund, and, unless something is done at an early date, all the various classes of charges now borne by this Fund, viz., original works, repairs to Government educational buildings, and building-grants to aided schools will eventually fall all at once on Provincial Funds. In the revised Code above referred to I have reduced the scale of building-grants from one-half to one-third, and abolished grants for repairs. I have also suggested that the Educational Building Fund should be reserved in future for Government buildings, and that all building-grants should be paid out of Provincial Funds, due provision being made for the charge in the annual Budget Estimates. This last measure cannot, however, even if approved, be carried out until the present distribution of the sum available for grants-in-aid is altered.

4. The mode in which this sum is now spent cannot, I think, be said to be very judicious. A glance at the statement of salary grants, which is annually published in the appendix to the Report on Public Instruction, will show the enormous proportion of the total sum which is swallowed up by the town of Madras, especially by Colleges and Higher Class Schools. It has happened in several instances that the salary grant to a single institution has exceeded all the salary grants given to a division larger than Scotland. The total amount of salary grants expended in 1877-78 in the town of Madras was Rupees 91,566-15-7. This is irrespective of results grants amounting to Rupees 5,476-4-0 from Provincial Funds, results grants amounting to Rupees 9,734-7-4 from Municipal Funds, and Scholarships in aided Colleges and Schools paid from the Provincial Funds amounting to Rupees 1,813. On the other hand the above sum includes certain grants which properly speaking appertain to the account of the previous year, although they were drawn in 1877-78. How different the policy pursued in Bengal has been is shown in my letter, No. 1127, of the 22nd May 1875, from which the following extract is taken:—

“There, grants are sanctioned ordinarily for terms of five years, and although District Committees may make another grant to the same school for a second or third term of years, it is laid down that the renewed grant shall in ordinary cases be considerably below the maximum, and that the grant to a school shall grow smaller and smaller on each renewal. In this way money is from time to time set free and new schools are aided, although the grant-in-aid allotment remains stationary. The proportion of aid given in advanced

districts is much smaller than it is in backward districts, and in Calcutta itself Higher Class Schools are not aided at all, except in the two cases referred to in the following extract of a letter which I have recently received from the Bengal Director, viz.:—

'It is worthy of special notice that nothing whatever is given in Calcutta to schools which educate up to the University Entrance Standard excepting to the Anglo-Persian Department of the Madrasah and to the School Department of the Sanskrit College. The Sanskrit College and the Arabic Madrasah are the oldest schools in India, and grants to the School Departments are considered justifiable on political and philological grounds.

'No grants are given to the great English Schools of St. Xavier's, the Doveton School, and the Martiniere, nor to the great Missionary schools of the Established Church of Scotland, the Free Church of Scotland, and of the Independents, nor to the equally large schools under native management, such as the Metropolitan Institution, the Oriental Seminary, the Calcutta Training School, &c.

'Aid is granted to schools for the poor of all races, but especially to schools for the European and Eurasian poor.'

"In this Presidency a school which has once secured a grant retains it for an indefinite period, and, as has been often pointed out in the annual reports, a very large proportion of the amount available for grants-in-aid is spent in the town of Madras. It seems very doubtful whether this expenditure can be regarded as altogether justifiable."

5. There are now many towns besides Madras, in which Higher Class Schools are carried on without any aid at all from this department, and in which schools which receive salary grants pay so large a proportion of their expenses out of the school fees that a considerable profit accrues on the whole to the Managers. Below is given a list of eleven schools, which between them passed fifty-six pupils at the last Matriculation Examination and which receive no salary grants:—

	Matriculates.
Native High School, Combaconum ...	19
Do. Negapatam ...	7
Mission School, Narsapur ...	7
High School, Malabar ...	5
Hindu Anglo-Vernacular School, Nellore ...	4
London Mission School, Salem ...	4
Central School, Madura ...	3
St. Andrew's School, Madras ...	2
Native High School, Mannargudi ...	2
St. Aloysius' School, Vizagapatam ...	2
London Mission School, Vizianagram ...	1
Total ...	56

During the last four years a paragraph has been inserted in the Public Instruction Reports noticing the schools in which the receipts from the Government grant and the fees have exceeded the expendi-

ture. The following schools have in one year or another made a somewhat remarkable profit:—

Institutions.	PROFIT IN			
	1874-75.		1877-78.	
	Rs.	a. p.	Rs.	a. p.
Town School, Combaconum ...	2,414	3 4	3,305	9 0
S. P. G. High School, Tanjore ...	2,953	8 4	997	11 11
Do. Trichinopoly ...	1,495	9 8	2,124	10 9
Hindu-Anglo Vernacular School, Tinnevely ...	121	6 0	1,206	9 1
High School, Coimbatore ...	340	15 8	12	1 8

The Town School of Combaconum is managed by the Masters of the Combaconum College, and it is understood that the savings in this single school already exceeded a quarter of a lakh of rupees. It is the intention of the Managers to expend the whole or a portion of this money on a building and to apply for a building-grant. This will, no doubt, be an excellent mode of spending their money, but they might, if they chose, expend it on some purpose wholly unconnected with education, and the question arises whether it is desirable that grants-in-aid should be given in such a manner as not only to relieve Missionary Societies and other educational bodies of all need of subscriptions and donations for the working of schools, but actually to leave them with a large surplus. Combaconum is an example of a town in which higher class education is given under three different systems. The Provincial College is a Government Institution and the School Department of the College costs Government nothing. The Managers of the Native High School have not ventured to ask for a grant, but the three young graduates who are at the head of this institution make a monthly income of upwards of Rupees 100 each out of the school fees. In the Town School, which is on the grant-in-aid system, Government expend Rupees 3,491-10-0 on results which in their own College and in the Native High School cost the State nothing.

6. Nothing has been yet done by Government to carry out the policy indicated in G. O., No. 1024, of the 18th July 1873, but whatever course may be ultimately resolved upon, it seems to me that the time has come for the withdrawal of some of the aid which is given to Higher Class Schools in the town of Madras and in certain other large towns and for the application of any savings which may be thus effected to purposes for which money is urgently required.

7. In the selection of these towns I propose to be guided entirely by the Notification published under G. O., No. 290, of the 23rd July 1877. In the town of Madras and in the Mofussil Towns of the First Grade A, viz., Combaconum, Trichinopoly, Tanjore, Negapatam, Coimbatore, Tinnevely, Palamcottah, and Saidapet, the scale of school fees has been raised for the third time within the last nine years. It may therefore be expected that the income of the schools situated in these towns will be larger than ever.

The fees at these rates are sufficient to pay the entire salaries of the masters from the first up to the upper fourth class inclusive. In the fifth class the salary of the master may be taken at about Rupees 100, and in the sixth class at Rupees 200. These classes are therefore not generally self-supporting. As a matter of fact classes

of forty boys do exist in some schools, but usually the number is somewhat smaller, especially in the upper classes. There are of course other expenses besides the salaries of the masters, such as the pay of peons and sweepers, stationery and other contingencies, prizes, &c. Taking, however, everything into consideration a grant of Rupees 200 per mensem ought, I think, to be deemed sufficient for a higher Class School.

8. In a school educating up to the First Examination in Arts the salaries of the Masters of the sixth and fifth classes are usually lower than in the corresponding classes of a Higher Class School, because there are two masters above them, one of whom is Headmaster, but the income from fees in the College classes, which is Rupees 3 a-month in Mofussil towns of the first grade, is usually small owing to the number of pupils in these classes being small. The maximum grant for schools of this grade might be fixed at Rupees 350 a month, viz., Rs. 150 for the School, and Rupees 200 for the College.

9. In fully-developed Colleges I would take Rs. 450 per mensem for the College Department. This is more than the amount actually drawn by the Madras Christian College in its College Department. To this I would add Rupees 150 per mensem for the School Department.

10. In the case of Middle Class Schools a grant of Rupees 100 a-month should, I think, be deemed sufficient. The highest class in these schools may be the upper fourth, but some schools do not go beyond the lower fourth, and others have no class higher than the third. It must, however, be remembered that the Headmaster in a school of this grade probably receives rather more than an Assistant Master teaching the corresponding class in a Higher Class School.

11. Even in the districts which I have named I would make no reduction in the grants given to colleges and schools intended mainly for Europeans and East Indians, or in schools for Mahomedans, or in girls' schools, or in schools for the poorer classes.

12. On the other hand there are two institutions now receiving aid which ought not, I think, to receive grants of any kind. These are the Hindu Proprietary School and Sullivan's Gardens Seminary. It is very proper and desirable that such institutions as the Hindu Proprietary School should exist for the benefit of boys belonging to wealthy and aristocratic families, but it seems altogether an anomaly that public money should be given to an institution of this kind. The fee in the alphabet class of the Hindu Proprietary School appears to be higher than that of the Matriculation class in most of the aided schools, and the class of persons who want a special school of this kind ought to be in a position to pay such fees as are necessary to meet the expenses of the school. The grant drawn by this school last year was Rs. 2,120-9-10. Sullivan's Gardens Seminary is a small theological seminary, in which a few young men are trained for Mission work, two or three generally matriculating every year, and occasionally appearing for the higher examinations. One of the teachers receives a small grant of Rupees 40. I concur with Mr. G. Duncan in considering that this grant might with advantage be transferred to some other institution connected with the Society for the Propagation of the Gospel.

13. The following is a statement showing the reductions which will be made in the grants of certain colleges and schools, if the proposals above made are approved:—

Institutions.	Proposed Grants.			Reduction		
	Rs.	a.	p.	Rs.	a.	p.
Free Church Institution, Madras.	7,200	0	0	2,847	0	0
Patcheappah's High School Do ...	2,400	0	0	3,822	4	1
S. P. G. High School, Vepery, Madras ...	2,400	0	0	3,000	0	0
Church of Scotland Mission School, Madras ...	2,400	0	0	2,994	0	0
London Mission School, Madras...	2,400	0	0	1,701	8	0
Wesleyan Mission School, Madras.	2,400	0	0	517	12	8
Hindu Proprietary School, Madras	...	...	...	2,120	9	10
Govindu Naidu's Primary School, Madras ...	1,200	0	0	2,194	3	5
Free Church Mission Branch Schools, Madras ...	1,200	0	0	60	0	0
Town School, Combaconum ...	2,400	0	0	1,091	10	0
S. P. G. High School, Trichinopoly.	4,200	0	0	1,512	8	0
S. P. G. High School, Tanjore ...	4,200	0	0	1,310	6	11
High School, Coimbatore ...	4,200	0	0	1,331	10	8
Total ...	36,600	0	0	24,553	9	7

14. It is, of course, not intended that the future grants shall be lump grants. The grants will continue to be drawn under whatever rules may be in force, but within certain fixed limits.

15. The heaviest reduction is in the grant to Patcheappah's High School. It will be remembered that for many years this institution was carried on without any aid from Government, as the trustees would not receive a grant. After it came under the operation of the Grant-in-aid Rules it was long remarkable for its costliness, and so lavish was the expenditure that when the trustees at last set to work and revised the cost of the establishment, it was found possible to devise, without in any way impairing the efficiency of the institution, prospective reductions, amounting to no less than Rupees 347 a-month. It is very doubtful whether the large grants which this institution has received for many years have been of much real use, or in other words whether the institution has been much better than it would have been if there had been no grants. Govindu Naidu's Primary School, which is under the same management, is also conducted on a somewhat extravagant scale, the Headmaster receiving a salary of Rupees 175 per mensem.

16. The total sum saved by the above reduction is Rupees 24,553-9-7, and of this sum Rupees 18,695 is needed for building-grants to aided schools, if this item is made, as recommended, a charge on Provincial funds. This will leave a net balance of Rupees 5,858-9-7. A portion of this is needed to enable the Church of Scotland to raise their school at Vellore to the Matriculation standard, and there are many other applications to be dealt with, especially in connection with girls' schools.

17. Among other purposes for which money is needed in connection with aided female education is the appointment of an Inspector

tress of Girls' School. Under G. O., No. 311, of the 29th September 1869, the Superintendent of the Female Normal School was also to have been Inspectress of Girls' Schools in the Presidency Town. Mr. Powell, when he proposed this arrangement, expressed his belief that it would have a very salutary effect upon the several girls' schools in Madras. The arrangement was, however, never carried out. On a few occasions Miss Bain was asked to report on the needle-work of certain schools, but her time was fully taken up with her work in the Normal School and in the Military Female Orphan Asylum, and I am not aware that she was ever called on to inspect any school. I do not myself see how the two duties can be accomplished by the same person. Such an appointment would be a great relief to the Inspector of the Presidency Division, who has more schools to inspect than he can possibly get through. There are upwards of fifty girls' schools in the town of Madras, and as yet nothing has been done with regard to secular schools for adults and secular zenana teaching, for which several influential native gentlemen have expressed a strong desire. In Bengal female education has been encouraged by the appointment of Mrs. M. Wheeler, daughter of the Rev. K. M. Banerjee, as Deputy Inspectress of Female Schools and Zenana Agencies. Mrs. Brander (formerly Miss Bain) is now a widow, and I believe that she would not be unwilling to return to this country. Her long experience as Superintendent of the Government Female Normal School and her knowledge of Tamil render her peculiarly fit to fill such an appointment as this. Her salary might be fixed at Rupees 400, rising by biennial increments of Rupees 20 to Rupees 500, and in addition to her work at Madras she might be required to make occasional tours in the Tamil Districts, receiving for such journeys the same travelling allowances as the Inspectors of Schools.

On the above the following order was passed on the 24th December:—Pending the issue of final orders on the revised scheme of salary grants now before Government, His Grace in Council will view with approval any reductions which Colonel Macdonald can make, under the authority vested in him under the existing Rules, in the grants now made to the institutions noted by him and to others, if such there be, similarly circumstanced, in order to provide funds to meet the expenditure on other objects now under his consideration; but such reduction should not take effect before the 1st April 1879, in order that the Managers concerned may have full opportunity of making the necessary reductions.

ZILLAH AND HIGHER CLASS SCHOOLS.

(From the Director's Report).

THE Zillah School of Berhampore has suffered from dissensions among the Masters, and Mr. Kenpy complains of a great falling off in the supply of boys from Taluk Schools and notably from the Onslow Institution, which has been entirely closed for some time. The upper fourth class again acquitted itself badly at the Comparative examination. The general result of Mr. Metcalfe's inspection in February was satisfactory with regard to the Telugu classes and poor with regard to the Ooriya classes. No less than 20 boys went up for the

Matriculation examination and 13 passed, one in the first class. This school has been recently strengthened by the appointment of two graduates as Second and Third Masters, and a great difference in the style of the work is expected in consequence.

Mr. Kershaw visited the London Mission School of Vizagapatam in July 1876, and his report was on the whole tolerably favorable, but there had been some decrease in the strength of the classes, the quantity of work brought up was rather small, and the results in Arithmetic still continued unsatisfactory. At the Matriculation examination, 6 out of 9 passed against 11 in the previous year. The regular staff of Masters is poor for a school of this grade, but Messrs. Hay and Jagannadham continue to devote some time to this school.

The Hindu School, Vizagapatam, has hitherto been a very inefficient school of its class, mainly owing to the inferior attainments of the majority of the teachers. This year, owing to a graduate having been appointed Headmaster, some improvement has taken place. Six pupils matriculated against two last year, and the general result of Mr. Kershaw's inspection was rather more satisfactory than usual.

Both the Mission and the Hindu School at Vizagapatam used to have a Mahomedan department, but this department has been abolished this year in both schools after what Mr. Kershaw describes as "years of vain struggle on the part of the managers against the indifference of the Mahomedan population and the dulness of Mahomedan students." The decline in the attendance is mainly due to this cause.

The Hindu School of Cocanada passed a creditable examination at the annual inspection, and the Arithmetic of the upper fourth class was described by Mr. Kershaw as the best he had ever seen since he had been an Inspector. The attendance has also improved considerably. It will be observed however that only 4 pupils out of 9 succeeded in the Matriculation examination.

The attendance in the Church Mission School of Ellore again shows a satisfactory advance. The general results of the annual inspection were "pretty fair with some rather serious exceptions. The Mathematics of the 5th and 4th classes was particularly bad as regards the execution and not generally satisfactory otherwise." Three out of six pupils passed the Matriculation examination, which is an advance on last year, when only one out of eight succeeded.

When Mr. Kershaw inspected the Central School of Nursapore, it had to some extent recovered, as regards numbers, from the depressed state to which it had been reduced, but the result of his inspection was far from satisfactory, mainly owing, he thought, to the youth of the new Headmaster and Second Master. Only two boys were sent up to the Matriculation examination and both failed. The Second Master of the Zillah School of Berhampore has been since placed in charge of the Central School, but the attendance has fallen off.

Mr. Kershaw found when he inspected the Church Mission School of Bezwada that a fifth class was in existence, and that the Matriculation subjects had been introduced not only into this class but also into the class below. As the staff of masters was very weak, much of the work done was of a very unsound character. Three boys were sent in for the Matriculation examination and one passed.

The Hindu School at Bezwada is conducted by two matriculated masters and four teachers of still lower qualifications. Here also

Mr. Kershaw found a fifth class reading some of the Matriculation subjects. The result of his inspection was on the whole satisfactory, but he observes that the school "would produce better results and prove a far more useful school if the Headmaster would not try to keep up a sort of make-believe Preparatory Matriculation Class."

The Hindu School of Masulipatam did not do as well as usual at the annual inspection, a result which Mr. Kershaw ascribed to the low grade of most of the Assistant Masters. The managers applied to me last year to secure them the services of a graduate, but no Telugu graduate was available. A graduate has been since appointed. This school did very well at the Matriculation examination, 12 out of 19 candidates having passed.

The American Mission School, Guntur, was inspected for the first time in September. The classification was found very defective and the result of the examination was not satisfactory. Five out of eight pupils succeeded however in the Matriculation examination against one last year.

There has been no increase in the number of Higher-class Schools in the 2nd Division, and the attendance has to some extent fallen off, but the number of pupils who matriculated has risen from 24 to 42, and of these 5 are in the first class. The fifth and lower fourth classes of these schools were subjected to a comparative divisional examination instituted by Mr. Bradshaw, but conducted by masters appointed by him.

The Wardlaw Institution is in a less satisfactory condition than it was last year. Only 8 pupils matriculated against 14 last year. The fifth class stood highest in the general average at the divisional examination, but last but one in general English, which was the most important paper. Mr. Haines had not divided his fourth class into an upper and lower fourth, and all the pupils took up the papers set for the lower fourth class, but even with this advantage the school stood last but one. The lower classes acquitted themselves fairly at Mr. Fortey's inspection.

Mr. Bradshaw inspected the Zillah School of Kurnool in September. A marked improvement had taken place in English reading and pronunciation in every class except the fifth, which was composed of unpromising materials, most of the pupils being young men instead of boys. In the Matriculation examination, 7 out of 9 boys passed against two last year. The upper fourth class occupied a high position in the Comparative examination of Provincial and Zillah Schools, but there was some doubt how far this result could be relied on, as copying undoubtedly took place in the divisional examination which was held under the same superintendence about the same time.

The Zillah School of Cuddapah has improved greatly under Mr. Scott, who took charge of it in April 1876. Mr. Bradshaw, who visited the school in November, observed that its general condition contrasted most favorably with the state in which Mr. Barrow had found it twelve months previously. Five out of nine pupils matriculated against one last year, and three were placed in the first class. At the Comparative examination of Provincial and Zillah Schools the upper fourth class did far better than last year. In the divisional examination the fifth class of this school was the last on the list. On the other hand the lower fourth class did well and was decidedly good in English.

Mr. Bradshaw visited the Free Church Mission School, Nellore, in November and examined the classes *vice versa*. The following is an extract from his report:—

"Throughout the school, as admitted by Mr. Macmillan, a large proportion of the boys are below the standard of the class they are placed in. The effect is most injurious to themselves and the classes; and the discipline of the school suffers too, as the Headmaster must either yield to the pupils in their choice of a class or let them leave the school as they threaten to do. This is owing to the presence of the Hindu Anglo-Vernacular School which sprung into existence as a High School in a not altogether fair way, being in fact a secession of masters with pupils from the Matriculation class (as well as from all the others) from the Mission School. In it boys are admitted with little or no strictness as to entrance and monthly fees, and the spirit in which it is conducted at present is proving very injurious to the soundness of education in Nellore."

About 33 pupils went in for the Matriculation examination and 22 passed against 7 last year, two being in the first class. The fifth and lower fourth classes acquitted themselves very well in the divisional examination.

With the exception of Patcheappah's High School, Bishop Corrie's Grammar School, and the Free Church Mission School, Trivellore, all the higher schools in the division were examined by Mr. Fowler during the year. He had intended to inspect Patcheappah's High School in November, but the Trustees had already made arrangements for a gymnastic fête on the day named by Mr. Fowler, and he was unable to find another day. The attendance has risen from 467 to 546, two new sections having been added to the lower fourth class. Some important changes in the financial arrangements of the institution are referred to as follows in the annual report of the Trustees:—

"For some time past the Trustees have felt, and the Director of Public Instruction has pointed out, that the cost of Patcheappah's High School was excessive. The establishment connected with the school was fixed many years ago when the institution was in its infancy, and its wants still undeveloped. In process of time as the school progressed and the necessity arose for increasing the tutorial staff, additions to its strength have from time to time been sanctioned without reference to a definite plan, and the consequence has been an expenditure, certainly not wasteful, but somewhat less economical than would have been sanctioned under other circumstances. The establishment has now been carefully and thoroughly revised, with reference to the cost of similar Government and aided institutions, and the result has been an immediate and prospective reduction in the expenditure of Rupees 347 a month."

At the Matriculation examination, 43 out of 53 passed, 10 being in the first class.

The Church of Scotland Institution was visited in July, and Mr. Fowler's report was generally favorable. Twenty-two pupils out of 31 passed against 7 last year, 4 being in the first class. This school has thus recovered its former position.

At Mr. Fowler's inspection of the S. P. G. High School in Vepery, some classes acquitted themselves well and others rather indifferently. He comments on a practice which exists in this school and is becoming prevalent in other schools of allowing the boys to write their copy books at home. In the Matriculation examination, this school,

occupies a much higher place than it did last year, 15 pupils out of 18 having passed against four last year; of these two are in the first class.

Mr. Fowler inspected the Wesleyan Mission School, Royapettah, in March and found a marked improvement in the discipline and instruction. Thirteen out of 22 pupils passed the Matriculation examination, one in the first class, the total last year having been five.

St. Mary's Seminary was inspected February. Here also there was some improvement, but for a school of the higher class the teaching staff was very weak, there not being a single graduate among the masters. Twelve out of 22 pupils passed the Matriculation examination, two in the first class, whereas only five passed last year.

The Hindu Proprietary School, in which there are sixty shares of Rupees 500 each, is intended for the children of persons of the wealthier classes, and the fee in the alphabet class is higher than that of the Matriculation class in any of the other aided schools. The attendance, which has never been large, has fallen off a little, especially in the upper department. The school was inspected in July and with some exceptions passed a fair examination. At the Matriculation examination 9 out of 23 passed against three last year, one being placed in the first class.

The St. Thomé Seminary was not inspected, but the attendance has increased, especially in the upper department, and a very decided advance has been made, as 8 out of 10 pupils matriculated against one last year, two being placed in the first class.

The attendance in Bishop Corrie's Grammar School has fallen from 190 to 136, and only 8 out of 18 pupils passed the matriculation examination against 13 last year.

The London Mission School was inspected in March and was found on the whole in a satisfactory state. The classification was still imperfect, but Mr. Joss seemed fully alive to the importance of raising the standard of the classes. Some time will be necessary for the reforms which have been made in this school to produce the effect which may be expected from them. Only seven out of twelve pupils matriculated against six last year, and they were all in the second class.

The Harris School was examined in March. This school is making fair progress, and the upper and middle departments are stronger than they were. Four pupils went up for the Matriculation examination and two passed against one last year.

The Balura Pathasala, Triplicane, is at present an imperfectly developed school of the higher class, no Matriculation class having been formed yet. The staff is also weak for a school of this grade, there not being a single graduate among the Masters. Mr. Fowler inspected the school in March and was satisfied with some of the results of his examination, but there was a want of order in the school and the teaching in some of the classes was not sound.

Patcheappah's Branch School, Conjeveram, was inspected in December. The result of the examination was on the whole fair. According to the published report of the Trustees, 15 pupils went up to the Matriculation examination and 12 passed. The Inspector states that 13 went up and 11 passed, and this latter number agrees with the *Gazette*. It is a great advance on last year and reflects credit on Mr. P. V. Ramasawmi Raju, B.A., the Headmaster.

The Free Church Mission Schools at Conjeveram and Chingleput were inspected in December, and Mr. Fowler's report compares the state of the two schools. The Conjeveram School is now decidedly in advance of the other, eight out of nine pupils having matriculated in the former, and two out of four in the latter. The report of the Mission claims one more for each school, but the above are the numbers given in the *Gazette*. Measures have been taken this year to "improve the organization of the Free Church Mission Schools by introducing a new and uniform scheme of studies" and by "carefully purging the classes of pupils unfit for them."

The Local Fund High School, Sydapet, was inspected in February, and the result of Mr. Fowler's examination showed that the teaching had not been very efficient. The staff is weak and does not contain a single graduate and only two First Arts men. Seven out of seventeen pupils passed the Matriculation examination and two were placed in the first class. This is a better result than has been achieved for some years.

The Free Church Mission School, Trivellore, has made a decided advance, three out of six having passed the Matriculation examination. One of these was in the first class and obtained the Government scholarship for the Chingleput district.

Mr. Fowler's inspection of Patcheappah's Branch School, Chedumbram, showed that the standard of the fifth and lower classes in several subjects was not so high as it ought to have been. Sixteen pupils went up for the Matriculation examination, and according to the *Gazette* 14 passed, two being in the first class. The Headmaster claims only 13, but states that the number would have been larger, had not some pupils who had been reading in the school for 8 or 9 years gone off to join a private school at Combaconum. The gymnastic class is not so well attended as it was at first. Some of the boys met with a few trifling accidents, and have been forbidden by their parents to take part in "such dangerous exercises."

Mr. Fowler inspected the Zillah School of Cuddalore in February and was fairly satisfied with its condition. Eleven boys went up for the Matriculation examination and all passed, four being placed in the first class. This school also greatly distinguished itself in the Comparative examination of Provincial and Zillah Schools. Only eleven pupils went up, but every one passed and one was placed in the first class. Great credit is due to Mr. Sounce for the efficient state into which he has brought this institution.

Mr. Fowler's report on St. Joseph's School, Cuddalore, showed that fair progress was being made. The order of the school had improved and the answering in some subjects was satisfactory. There was, however, still much to be done, before the teaching could be pronounced sound. Seventeen pupils went up for the Matriculation examination and nine passed in the second class against four last year. An increased grant has been given to this school in which the attendance is steadily increasing.

In the 4th Division, the London Mission School, Salem, has given up its grant and is no longer under inspection, while the S. P. G. High School, Poriur, has been transferred from the middle to the higher class. The total number of schools remains therefore unaltered. It will be seen from the following tabular that the increase in the attendance of these seven schools is insignificant, but that the

number of pupils who matriculated has risen from 35 to 48, the number in the first class being five against seven. The only one of these schools which was inspected during the year was the Town School, Combaconum. *(To be continued.)*

A FEW WORDS ON MORAL LESSONS.

By John Gill, Professor of Education in the Training College, Cheltenham.

THE master of a school has not to deal with intellect only. He has to train children, possessed of a physical and moral nature, as well as of intellectual gifts. He cannot deal with these irrespective of those. It is true, he may ignore them; but, if so, it will be worse for the work to which he gives exclusive regard, and it will be irreparable injury to the children themselves. For a moral training is going on, though he may not be controlling it. Constituted as a child is, it is impossible to train the intellect alone. Hence the misfortune is, that where a master gives all his attention to the intelligence, the moral nature is dwarfed and warped. The mistake in neglecting moral culture is similar to that of a gardener who carefully cultivates one portion of his ground, and leaves an adjoining piece to thistles and weeds. A master should clearly understand that the communication of knowledge does not lead to greater purity as moral beings. In itself knowledge has no such tendency. Alas! too often the contrary is the fact; knowledge and genius too frequently gild the grossest corruption. But though knowledge is not the parent of virtue, vice is not therefore its offspring. Still there is likely to be a thick moral darkness, into which no light can penetrate until the conscience has been irradiated by the Sun of Righteousness. A master should see, too, that where his sole concern is the culture of intelligence, he is making an impression on his pupils that the head is of more importance than the heart, and that such pupils going forth into the world would order their career by the same vicious rule.

Under present conditions, masters have many temptations to neglect the highest part of their work. Moral training does not show. There is no splendour about it. It does not get trumpeted forth. An inspector or an examiner can measure somewhat the work put into the teaching of reading, spelling, and arithmetic; but however skilled he may be, he can see marvellously little of the toil, care, and anxiety that have been spent on the other. The growth of this is slow, the process is hidden, the previous condition unknown, and the work unappreciated. Yet, no, not that; there is One who knows—One has marked the patience, forbearance, self-denial, gentleness, generosity, kindness, and the arduous, persevering, and unwearying labour to get these amongst the pupils, and to train them in nobleness of feeling, aim, and thought, and in love to God and their fellows; and He renders at length to every man according to his work. The teacher should fortify himself amidst his difficulties and temptations by such a consideration as this. He should also be stimulated by the fact that within that hidden organism—a child's mind—vast powers be enfolded by which he may be connected not only with all that is noble in human progress, but with a higher life, derived from God Himself and which, developed and fostered here, will run parallel with that of the Eternal.

Moral training in school has many sides, and is the product of many agencies. At present we have to do with one of those belonging to the master—an important one, yet not the most valuable. For it is not only the precept, but over and above all, the practice to which he must address himself. He must not only form the moral intelligence, but he must cultivate moral habits. To teach and to reduce to practice what is taught: to instil moral truth; to lead to its practice in deeds of kindness, sympathy, forbearance, and truth, and constant regard to duty, are the things demanding his care. He ought to try to secure the engrafting of right principles, the culture of proper feelings, and the formation of moral habits. He who has such aims will need to do more than teach. He must train. He will mark angry looks, hasty words, acts of teasing or of tyranny, instances of selfishness and deviations from truth and honesty, as in copying, scratching desks, writing on walls, and the careless use of books. He will also note deeds of kindness, sympathy, forbearance, and resistance to temptation. At a fitting time he will take up the looks, words, or deeds, and so treat them as to awake the sympathy or enlighten the conscience of his charge. In doing this, he will direct attention to the actions, and not to the individuals. He will also let it be seen that he esteems an act of forgiveness a thousand times more than the repetition of a hundred texts. Such a master will also often sit in judgment on himself. Have arithmetic, geography and grammar driven from his thoughts the moral habits his pupils are forming, and the moral sentiments they are imbibing? Has he punished for a misspelt word in a similar way as for a lie? Has he cultivated conscience as much as he has memory? He will also, in view of the perilous circumstances in which his pupils will commence the battle of life, often ask himself whether his treatment is calculated to produce habits of well-doing? Whether he is fortifying them against the temptations they must encounter? And whether he is always keeping in view the formation of character as his chief aim?

The master who is thus careful about moral training will be ever anxious about the moral atmosphere in which the children live, and to give a right tone to all the school work. This will be manifested not only by the diligence and uprightness which mark the performance of duties, by the evident sympathy with whatever is noble and good, but especially by the general sorrow and distress when cases of wrong occur. Such things will be felt as a common misfortune, which every one should mourn over and strive to remove. "Our Robert has been very naughty, and we are all very sorry," should be the sentiment awakened by the rebuke of a delinquent. The master, too, who is thus forming the moral atmosphere, will take great pains to point out the inseparable connection between deeds and results. When a child is suffering from an act of thoughtlessness or sin, he will point out that these two are always joined. He will do so, too, when a child feels the pleasure following a deed of kindness.

Moral lessons have for their aim first to inform the mind of the nature of duty, thus to enlighten the conscience, and thereby to implant principles for guidance in all affairs. In doing this, instances of conduct, prohibitions of particular acts, or rules for special deeds, will be the occasions for these lessons. These are to be so treated that the result will be not merely to prevent or secure a particular deed, but by means of it to place a principle in the mind, which should

govern not only in these particular cases, but in many others. Thus a lesson on teasing should not only tend to prevent such conduct, but to make the golden rule the living principle of the life. This first step is the culture of the conscience. The conscience always decides by some accepted standard of duty, and approves or disapproves accordingly. In this country it would seem impossible that there can be any other standard than the Bible. This blessed book has so flooded our life, institutions, and literature with its light, that all Britons—consciously or unconsciously—try the moral quality of actions by its teaching. It would be an easy thing to prove that in this country there can be no moral training apart from the Bible. Here this is not necessary. But this one thing may be said, that in the training of the conscience we need an absolute standard—one from whose authority there is no appeal. And that in this country anything outside of the Bible would be for such a purpose like shifting sands.

Moral lessons, to be effective, must be addressed not only to the intelligence, but to the feelings and sympathy. The lesson must consist of incidents and illustrations drawn from the sphere of child life; these must be graphically pictured so as to take possession of the child's imagination, and the main features so delicately yet truly delineated as to awaken spontaneously the appropriate feeling. Here a word of caution. The purpose is not to get the expression of feeling, much less to get a formal statement of the truth he is setting forth; but so to put his facts, illustrations, and incidents, that the feeling will spring forth as a matter of course.

The moral lesson must be tested by its influence on the conscience and will. Its prime aim is to lead to habits of right action. Children should leave such lessons with a fixed determination to do the thing that has been enforced, or to avoid the thing that has been forbidden. Not that they are to be asked to express such determination in words. It is no duty of the teacher's to exact formal views, no more than it is to get the expression of a feeling. He is not to stimulate, where the result might be self-deception or hypocrisy.

Moral lessons are best given to groups where sympathy is most possible. In the collective lesson then, there is a force which intensifies an awakened feeling, strengthens the unspoken decision of conscience, and confirms the determination to go "and do likewise."—*The Schoolmaster.*

APPOINTMENTS, &c.

Appointments made between the 16th Dec. 1878 and 15th Jany. 1879.

G. Sudarsana Sashiah is confirmed in the post of Sanskrit Pundit, Presidency College.

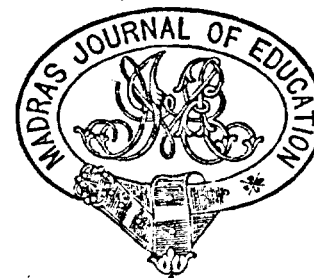
C. Viziaragava Charry, to be Assistant Master, Zillah School, Chittoor, on Rs. 60, vice T. V. Sabbaramier, transferred to Salem Zillah School, on Rs. 70.

Mr. Scott, Acting Head Master, Zillah School, Cuddapah, to be Head Master, Zillah School, Cuddapah, substantive pro tem, on Rs. 200, vice A. Ramachendriah, transferred to Madura.

A. Ramachendriah to be Head Master, Zillah School, Madura.

Mr. Hensman to be Acting Head Master, Zillah School, Chittoor.

P. Nanu Iyen, Head Master, Anglo Vernacular School, Cannanore, to be Deputy Inspector of Schools, North Coimbatore, substantive pro tem, on Rs. 100 per mensem.



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THE MONTH.

THE ENGLISH PAPERS FOR MATRICULATION 1878.

WE have a few remarks to make on the English papers set to Candidates at the last Matriculation Examination of our local University.

First with regard to the General English paper.

By the way what a barbarism is that phrase "General English," it always grates upon the ear. By long residence in India, however, Europeans appear to become reconciled to "pigeon English," and even in some cases apt to adopt it.

We wonder which of the Fates impelled Mr. Patterson to choose that singularly unhappy passage for Paraphrase! It is far, very far too metaphorical and too sensuous for Matriculation Candidates. In the B. A. paper, it might find a proper niche. For the Entrance Examination, the passage set should be narrative, and fairly within the grasp of the Examinees. We shudder to think of the fearful mangling which the passage must have received at the hands of more than two thousand Hindus all engaged in this barbarous pastime of paraphrasing, or in other words, of murdering the Queen's English. The practice has so few defenders that we wonder it is not discontinued. The Director of Public

Instruction in his volume of Standing Orders just published, writes :—

"The most effectual way of ascertaining whether a pupil understands the meaning of a passage is to make him construe it word by word into the vernacular, or to make him translate it on paper. But construing and translation are often neglected, and too much reliance is placed on English synonyms, English paraphrases, and oral explanations in English, which might be suitable in a National School in England, but are out of place in an Indian class-room."

Evil practices are proverbially difficult to kill, but we certainly have a right to expect that our University should not be the last to discountenance what has been so universally condemned, and what is so utterly opposed to sound education.

The remainder of Mr. Patterson's paper is excellent, with the exception of one or two of the passages given for correction, which to us, appear too elaborately bad.

To Mr. Bilderbeck's paper greater objections must be made. In the first place, Part (b) of Question IV is far too difficult for nine-tenths of the candidates, and they must have vainly torn their hair and wasted much valuable time in the attempt to solve this syntactical conundrum. If it is thought that we overstate the difficulty, we invite any Englishman learned in grammar, to take up a pen and to count the number of attempts he makes, and the minutes he spends before he tortures the passage into the required form. A question that offers so much difficulty to an English expert is surely an improper one to set to novices, writing, most of them, in a foreign language.

Then again Question VI (a) is as follows :—

Express the following by means of appropriate collective nouns, *two partridges, twenty boys, one-hundred and forty-four buttons.*

Now the collective noun for twenty is, as we all know, *score*, but we think it would be very far from "appropriate" to use it with the noun "boys." We may speak of a "score of walnuts" or of "a score of cabbages," but whoever heard of "a score of boys?" We may next expect to hear of "a gross of girls!"

In another question we are asked to distinguish between "two cup-fuls (*sic*) of marbles" and "two cups full of marbles." Now when the word *full* is used as a suffix to form either an adjective or a noun, it drops the final *l*.

This is sufficiently shown in the following extract from Latham :—

"Spoonful" is as much a single word as "spoony;" and as much (at least in medicine) a definite measure as "peck." Hence, two *spoonfuls* is one thing, two spoons full, another. Two *monthfuls* of meat, by no means mean two *months full* of meat, any more than two *handfuls* mean two *hands full* of corn or anything else."

"Cup-fuls" is therefore doubly wrong; the word should be printed without any hyphen, and should contain but a single *l*, thus *cupfuls*. It is not creditable to the University that this error was allowed to appear in an Examination paper. If, as is very possible, it is a misprint, it should surely have been seen and corrected.

Question VII runs as follows :—

"I told you all about it. The above may be interpreted in three different ways, what are these?"

Now this sentence may be interpreted in at least *four* different ways, and not merely in three, for, with the exception of the preposition, each word may receive the emphasis, and if the Examiner could see but three ways, the candidate who gave one of the legitimate meanings might lose marks, and in any case, the incorrect statement in the question must have confused, and perhaps may have misled many of the candidates. Every question in a paper to be set to more than two thousand five hundred candidates should be most carefully stated, and every possible construction that may be put upon it should be cautiously weighed.

Mr. Cook is a new Examiner in India, but his part of the paper is exceedingly fair. We can find no fault with it. The questions are good tests, and neither too easy nor too difficult.

In the paper on the English Text, Mr. Kidd's first question has puzzled us considerably. We confess ourselves quite unable to answer it. Before asking for Medieval illustrations, the Examiner should have remembered that European History is a subject that is not studied by Madras candidates for Matriculation, and that such a question to them would therefore have no meaning. We have read something of European History, but still we are unable to find either Medieval illustrations or the inappropriate Scriptural allusions by which Evangeline is "blemished." Even if there are such blemishes, it is surely far too much to expect from Hindu candidates for Matriculation that they

should be in a position to sit in judgment on the poetical taste of Longfellow.

The second question in this paper requires an explanation of the most difficult stanza in the whole of the poetry, but still we think it fair that the Examiner should try to find out how far each candidate had mastered it, and the remaining questions of this part are certainly within the range of the Examinees.

Part II, set by Mr. Harvey is beyond the reach of the most captious critic. It shows the skill of a judicious Examiner.

Part III, by Mr. Bickle commences with the most difficult sentence in the whole of the account of *Cook's First Voyage*, but it is the only difficult question set by this Examiner. All the questions in this part are excellent tests.

Looking at the paper as a whole, it is plain that its greatest fault is its length. It is utterly impossible for any candidate, however well prepared in the subject, to answer all of the questions in the three parts in less than four or five hours. The "General English" paper also errs in the same direction. We cannot account for the numerous failures in this subject by alleging the difficulty of the questions, for taken one with another, the questions are not too hard. We fear that the length of the papers and the unparalleled severity of the marking must have chiefly brought about the unfavourable result. We have, however, heard one other cause assigned, and that too must have certainly helped to work the ruin of many candidates. Several hundreds of students were without English Text-books the whole of last year! The University secured the monopoly of the book, and then published an Edition which being far too small, was consequently exhausted early in the year, and though numerous applications were received for books later on, it was unwisely resolved that no second Edition should be published. Many a candidate who appeared last December, had therefore to borrow the English Text-book for study at intervals when it could be spared to him by friends who had been more fortunate than himself in making early application for copies. Hence we can scarcely wonder that when the time for Examination came, such a candidate would be but ill prepared to stand a test more rigorous than had ever been before applied, and that he sank "one more unfortunate" in the mass of victims borne down by the seething flood.

In any remarks we have already made, or hereafter may make on the late University Examinations, it must be distinctly understood that we do not for a moment wish to lower the general standard of Education in this Presidency, or of the University Tests in particular. On the contrary, we would rather raise both by degrees. But what we do desire is to see the annual results more uniform and symmetrical, so that they may no longer favour the opinion too generally held by our pupils that the Examination is a mere lottery in which they may try their luck. *Judex damnatur cum nocens absolvitur*, and no Examiner fit for his office, would under any conditions, think of passing a Candidate who showed himself deficient in the subject of his paper. The strictest of all Examiners are, as a rule, found to be Schoolmasters, for they best realize how small is the value of superficial knowledge, and how necessary it is that each candidate for University honours should be both thoroughly grounded, and fairly advanced in every subject he brings up for Examination.

An Examiner must be duly severe and inflexible; but above all, he must be just, sound of judgment, and free from caprice.

It is worthy of note that the highest Scripture Prize lately awarded for success in the Peter Cator Examination Higher grade was gained by a non-Christian candidate, a pupil of the Madras Christian College.

THE Hon'ble Mr. Justice West, M.A., F.R.G.S., has succeeded the Hon'ble James Gibbs, F.R.G.S., as Vice Chancellor of the Bombay University. The appointment appears to have given general satisfaction.

THE First edition of the notes on the Matriculation Prose and Poetry being now exhausted, we have, at the request of numerous subscribers, determined to bring out a revised and enlarged second edition, with summaries of the poems, additional notes by an experienced teacher, and very complete sets of examination papers. As will be seen from our advertising columns, this second edition is now ready; as it necessarily consists of but a small number of copies, early application for it is recommended.

THE notes on Cowper's *Conversation*, and on Pope's *Essay on Criticism* will be continued in our next issue.

The severity of the Examiners in the late Matriculation Examination of the Calcutta University has been the cause of much outcry. The Calcutta Examination was, however, leniency itself as compared with the recent Matriculation Examination of the Madras University. There, out of 2,647 Candidates, only 356 have been successful, one-seventh of the whole; whereas in 1877 one-third, and in 1876 considerably more than one-half were successful. The *Madras Journal of Education* is very severe on such an unjust and capricious test, and says that the Principal of one of the largest Schools in the Presidency, himself a tried Examiner, writes "all confidence in the Examinations will be lost, if this kind of thing goes on." The matter is serious, and if such caprice be allowed to continue, it cannot but discourage educational progress.—*Pioneer*.

H. R. H. the Princess of Wales has become patroness of the National Indian Association in the place of the late Princess Alice. At the annual meeting of the National Indian Association in London, the Chairman, Sir Henry Norman, expressed his opinion that Her Royal Highness's acceptance of the post would produce a good effect in India.

POPE's Poetical Anthology being out of print, the Tamil Poetical Anthology Number 2 published by the Director of Public Instruction is substituted for it as a Text Book for the Certificate Examination of 1st and 2nd Grade Schoolmistresses and of 4th Grade Schoolmasters. For 1st Grade Schoolmistresses and for 4th Grade Schoolmasters, the whole is set, but for 2nd Grade Schoolmistresses only the first 99 Stanzas.

IN a previous number we briefly noticed a work on the Modern languages of the East Indies prepared by Mr. Robert N. Cust, late of the Indian Civil Service. In a letter to Government Mr. Cust thus describes the nature and object of his work:—

I believe that I may say that no general survey has ever been prepared in so much detail and accompanied by language-maps. Indeed, it would not have been possible to make one until the present period, which has been extremely prolific in books and contributions to periodicals of linguistic research. I have to thank Sir Erskine Perry for the first suggestion of a language-map. I believe that a knowledge of the language of the people is a very important factor of a good government, and I fear that there is a tendency to introduce a Court-language unintelligible to the lower classes, and that in some parts of British India the baneful system of interpreters is had recourse to. In the Educational Department I fear that some important languages are ignored. There are a million of Gonds in the Central Provinces. Are there any Gond schools? The Missionaries find it necessary to teach in the actual vulgar tongue of the people.

My object in devoting three years' labor and undertaking the pecuniary risk of this volume is to popularise the knowledge of all the languages of India, and to place before the officers of Government a sketch of the languages spoken in each province. My book is no doubt full of errors, though perhaps my extensive acquaintance with officers of Government and Missionaries in every part of India, and my free access to the libraries of the India Office and Royal Asiatic Society, may have enabled me to avoid many. At any rate, I am ready to correct them if I can get the book circulated and attention drawn to it; and my object in addressing you is to request that the Secretary of State will please to take one hundred copies and distribute them among the different Provinces of India, with a letter calling attention to the very important subject of the vernacular language of each province. I would gladly place the volumes at the disposal of the Government free of cost, but the maps have been so costly. My work is not for profit, but for the benefit of India, and I hope in five years to publish a second edition. I take the liberty of calling the attention of Her Majesty's Secretary of State to the splendid services, in the cause of linguistic science, of Bishop Caldwell, Dr. Burnell of the Madras Civil Service, Mr. Beamer of the Bengal Civil Service, Professor Monier Williams of Oxford, and Dr. Ernest Trumpp of Munich. I might mention others: these scholars have, in addition to the toilsome duties of their office or profession, found leisure to make lasting contributions to linguistic science, and seem to deserve some honorary acknowledgment.

At the meeting of the Senate held last month the following was the chief business transacted:—

I. The consideration and adoption of the proposal to raise the fees for admission to the Examinations for the Degrees of Bachelor of Laws, Licentiate of Medicine and Surgery. The Syndicate recommended the following changes in the Bye-laws:—

B. L. Degree Examination, bye-law 96, for Thirty read Fifty.			
First L. M. S. Degree Examination, bye-law 120, for Ten read Twenty.			
Second do. do. do.	128, for Twenty read	Thirty.	
Preliminary Scientific do. do.	139, for Ten read	Twenty.	
First M. B. & C. M. Degree do.	148, for Twenty read	Thirty.	
Second do. do. do.	156, for Thirty read	Forty.	

II. To make the scope of the Examination in Logic and Morals for the B. A. Degree more explicit, the Syndicate recommended the following changes:—Bye-law 67, page 43, for "The History of Morals during the eighteenth century" read "The History of Morals in England, France, and Germany during the eighteenth century." These also were agreed to.

III. With a view to the introduction of the history of Sanskrit Literature into the B. A. and M. A. Examinations, the Syndicate recommended the following additions to bye-laws 68 and 81:—B. A. Degree Examination, bye-law 68, para. 2, add—"If the second language be Sanskrit, the first paper shall also contain questions on a prescribed portion of the history of Sanskrit Literature." M. A.

Degree Examination, bye-law 81, page 49, after "native system of Grammar" read "and the history of Sanskrit literature."

The following amendment was moved and adopted:—

"That, if the second language be Sanskrit, the second paper shall also contain questions on a prescribed portion of the History of Sanskrit Literature, but the questions shall not bear more than one-fifth of the total marks allotted to that paper."

Mr. Thompson pointed out that the wording of the amendment now passed was somewhat inconsistent with that of the previous part of bye-law 68, and, therefore, proposed that the original recommendation of the Syndicate should be referred back to them for reconsideration and revision, with due regard to the sense of the Senate as embodied in the amendment.

IV. On the motion of the Lord Bishop of Madras, Mr. F. S. Evans was unanimously appointed Registrar of the University in succession to Mr. D. Duncan about to proceed to Europe.

V. The Faculty of Arts proceeded to elect a member of the Syndicate in the place of Surgeon-General Geo. Smith, M.D., resigned. The Rev. W. Miller was elected by ballot, he having secured three more votes than Dr. King or Mr. Justice Mathiasamy Iyer.

VI. The Faculty of Medicine elected Dr. Cornish as President in the place of Surgeon-General Geo. Smith, M.D., resigned.

THE NEW RULE OF THE SYNDICATE.—An episode connected with the late Matriculation results will, I trust, be of some interest to the Higher Class Schools in the Presidency. From the Lutheran Central School, Tranquebar, three students are declared to have passed the late Entrance Test. One of these successful candidates having received his education in the said Institution for about 10 years, and having nearly completed the Matriculation course there, attempted to give the credit of his success to a school in the neighbourhood, which he joined less than three months before the date of his application. This unfair practice, on being brought to the notice of the educational authorities, caused some discussion. And upon the representation made to the Registrar of the Madras University, the question was formally laid before the Syndicate for their consideration and disposal. It was clearly seen that the matter called for remedy and required some wholesome rule in order to check a reprehensible step that was tolerated, if not encouraged, by some schools. The Syndicate has in connection with this subject directed the Registrar not to enter the name of any school which the candidate has not attended during the whole of the six months preceding the date of application for admittance to the University Examinations. This is doubtless welcome news to the Educational Institutions in the Presidency. Under this bye-law of the Syndicate recently passed, the success of the candidate in question has been accredited to the local Lutheran Central School alone.—*South Indian Post.*

MR. POWELL'S STATUE.—Colonel R. M. Macdonald, Director of Public Instruction, writing to the Acting Chief Secretary to Government on the 16th December last, said:—"In G. O., No. 427, of the 17th September 1878, sanction was granted for the erection of Mr. Powell's

Statue on the north side of the entrance hall of the Presidency College. Mr. Chisholm considers that the statue would appear to much greater advantage if it were placed upstairs under the dome, but this site was not selected by him originally, because a large sum was necessary to place the statue in this position, and it was understood that the funds subscribed had been nearly exhausted in paying for the statue and bringing it out. Four friends of Mr. Powell are willing to pay for the expense of moving the statue to this new site. Mr. Chisholm has drawn up a plan and estimate amounting to Rs. 1,626, and the gentlemen to whom I referred are willing to pay this amount *minus* an item of Rs. 648 for coloured glass. Mr. Chisholm considers that the surroundings should be worthy of the statue, and possibly Government may be willing to pay for the expense of putting coloured glass to the dome, but the item is one which can be omitted. I have ascertained that the native gentlemen who have put the statue up have no objection to its removal to the site above indicated, and I have the honour to request that Mr. Chisholm may be allowed to place it under the cupola. His Grace the Governor in Council has approved and sanctioned the removal of Mr. Powell's statue to the site under the centre of the dome, but does not consider coloured glass essential or even desirable. It is added, "The Government cannot give any grant."

EDUCATIONAL NOTES FROM CEYLON.

THE NEW DIRECTOR OF PUBLIC INSTRUCTION has arrived. Mr. Bruce was Principal of the Royal College, Mauritius. It seems that he has obtained some distinction as an orientalist; his present post will, of course, provide him with good opportunities for prosecuting his Oriental Studies. It is to be hoped, however, that he will not press orientalism on the schools to the disadvantage of English; and that the great need which there is here for a more practical education than boys generally receive, will not be neglected.

It is said that Mr. Colson, the late Acting Director has received an appointment in Natal. His departure will be a loss to the Department. Apart from his attainments, which were of no mean order, few Inspectors have taken such pains to get acquainted with the special necessities of education in Ceylon.

Things move slowly in the Public Instruction Office. Teachers are asking, "Where is the New Code for Grant-in-aid Schools?" The Legislative Council has concluded its Session and another will soon begin, and still not a word is heard of the "Revised Code." And more than that, the last report of the Director contains only the most distant allusion to it. It is to be hoped that it will not be allowed quietly to drop.

The Inspectors report very favourably on the Grant Schools and the system of payment by results. One of them Mr. J. H. Marsh throws out a hint in regard to the proposed Code so long in coming, and still on the way. His difficulty is about the proposed seventh standard. Hitherto there have been only six in which pupils could be examined, and the sixth standard which embraces all the others, includes only these heads, Reading, Grammar, Geography, History (England or India) Arithmetic, to Double Proportion and a paper in composition. English Schools may be examined

for vernacular passes according to the standards. It will be evident that there must be in every good English Grant School a very great deal of teaching which is in no way recognised by the Government. It will also be manifest that schools which might do much more in the way of education than they do, and that too of a most useful character, have no inducement held out to them by the Department. To remedy this state of things, as well as to provide for the great need that there is for Elementary Science instruction, it was proposed that a new standard should be added which should contain these extra subjects. These are Mr. Marsh's remarks on it.—“The propriety of establishing a seventh standard should, I think, be carefully considered before being fully adopted; for it appears to me to encourage what may be called *high* as distinguished from *thorough* education. I am far from objecting to the teaching of a little Mathematics, a little Latin, and a little Science in our higher Schools. If more were attempted it would probably result in failure.” Why it should result in failure, the Inspector does not state. It will, of course, be the Inspector's own business to see that the education is *thorough*, or to take care it is not paid for. This seventh standard is evidently bothering the department not a little.

The results of the Calcutta Examinations have reached us. Four boys passed the Entrance Examination from St. Thomas' College and one the F. A. From Wesley College six boys passed the entrance, one in the first division, four in the second, and one in the third. From Trinity College, Kandy, one passed the entrance, second division. The Galle High School, passed two in the second division.

The Local Examinations which were intended mainly to take the place of the Calcutta Examinations, when the Government broke off all connection with that University, do not appear to have answered the purpose for which they were instituted. The number of candidates year by year is very small, and only one or two Government schools appear to take any interest in them. Yet this institution might with a little alteration and a more liberal policy, be made more useful and more popular in Ceylon than any Indian University could possibly be.

Considerable attention has been paid by Mr. Colson and the Department to the improvement of the Normal Institution and also to the subject of providing Grant Schools with properly trained teachers. This is a matter of the very first importance, but I believe the people who keep the money do not see it in that light. They will do nothing at present but indulge in that favourite pastime of such officials, *waiting a bit*.

CORRESPONDENCE.

CUDDAPA ZILLA SCHOOL.

TO THE EDITOR JOURNAL OF EDUCATION, MADRAS.

SIR,—Permit me to point out an error in the tabular analysis given in your January number of the Matriculation results of the various schools in the Presidency for the last 10 or 12 years. The number of boys who passed from the Zilla School, Cuddapa, in 1876, is stated to be 4, when really 5 passed that year, 3 of whom were placed in the first class. (See page 42 of the same issue (January's) of your Journal, the Director's remarks on the Zilla School of Cuddapa).

The error is due to a misprint in the published list of the successful candidates of that year, one of the Cuddapa boys having been assigned to Cuddalore. It was corrected in the list sent me by the Registrar, i.e., Cuddalore had been scored out and Cuddapa written over it.

I am, Sir,

Yours faithfully,

CUDDAPA, March 1, 1879.

THO. R. SCOTT,

Head Master, Zilla School, Cuddapa.

We thank our Correspondent for calling our attention to the error, which we hope to rectify in future tabular statements. We have received similar corrections from the Principals of the London Mission School at Bangalore and the Church Mission College, Cottaam.

ED. M. J. OF E.

BISHOP'S PRIZES

FOR KNOWLEDGE OF THE HOLY SCRIPTURES.

Open to all Native lay Members of the Church of England.

1. Examinations will be held about the middle of each year for the awarding of these Prizes, at Madras, Trichinopoly, Palamcottah, Cottaam, Masulipatam, and such other places as may be hereafter notified to the Candidates.

2. The subjects of Examination will be the Greek Testament and the Vernacular Scriptures. Special portions will be selected for each year.

3. The Examination in the Greek Testament will be entirely by written questions, which will be issued to the Superintendents of the several Examinations, who will be requested to seal up the answers of the Candidates and forward them to the Bishop or to the person whom he may appoint to be Examiner in Greek Testament.

4. The Examination in the Vernacular Scriptures will be partly oral and partly by written questions, and will be conducted by persons appointed by the Bishop.

5. The Examiners in the Vernacular Scriptures will be at liberty to put questions on the Bible generally, as well as in the selected portions.

6. There will be one Greek Testament Prize of Rupees 35 to be awarded to the Candidate who stands first in the Examination; and three of Rupees 5 each for such Candidates as shall be judged deserving of prizes.

7. There will be 23 Vernacular Scripture Prizes, viz., five of the value of Rupees 30 each; eight of Rupees 10; and ten of Rupees 5.

8. All the Prizes of Rupees 30 will be accounted as First Prizes; all those of Rupees 10 as Second; and all those of Rupees 5 as Third Prizes.

9. The Prizes will be assigned to the respective districts thus:

	Rs. 30.	Rs. 10.	Rs. 5.
Madras, Tanjore and Tinnevely together.....	Three	Five	Six
Travancore*.....	One	Two	Two
Teluga.....	One	One	Two

* Students in the Institution at Cottaam may only compete for the first Prize and one of the second Prizes.

10. The Prizes may be given either in money or in books, or partly in one and partly in the other.

11. No Candidate competing for the Greek Testament Prize will be allowed to compete for a Vernacular Prize.

12. No person who has obtained the first Greek Testament Prize may compete for any of the Prizes.

13. No person who has obtained a first Vernacular Prize may compete for any Vernacular Prize.

14. Any person who has obtained a lower Prize, whether for Greek or for Vernacular, is disqualified from winning in the same language any except a higher prize.

15. Candidates intending to compete for these prizes must send in their names not later than the 30th of April to the persons appointed by the Bishop.

16. The subjects appointed for 1879 are :

- | | |
|-------------------------------|---|
| in Greek Testament..... | 1. St. Matthew. |
| in Vernacular Scriptures..... | 1. Ezra, Nehemiah, Esther. |
| | 2. St. Matthew. |
| | 3. Isai. lii, liii, liv, lv, Memoriter. |

For 1880.

- | | |
|-------------------------------|---|
| in Greek Testament..... | 1. St. John, i—x. (inclusive). |
| | 2. The two Epistles of St. Peter. |
| in Vernacular Scriptures..... | 1. Deuteronomy. |
| | 2. St. John's Gospel. |
| | 3. (a) For Tamil Candidates, Trench on the Miracles, i—xiv. |
| | (b) For Malayalam and Telugu Candidates, the first five of the xxix Articles with Scripture proofs. |
| | 4. Epistle to the Philippians, Memoriter. |

17. Candidates intending to compete for these prizes in 1879 must send in their names not later than the 30th of April, as follows :

In Madras.....	to the Rev. W. T. Sathianadhan.
" Tanjore.....	" " W. H. Kay.
" Tinnevely.....	" " Daniel Samuel.
" Travancore.....	" " Koshi Koshi.
" Kistna District.....	" " W. Clayton.
" Cuddapah.....	" " J. Clay.

EXAMINATIONS FOR THE CIVIL SERVICE OF INDIA.

THE OPEN COMPETITION OF JUNE AND JULY 1879.

N.B.—The Regulations are liable to be altered in future years.

1. On June 17th, 1879, and following days, an Examination of Candidates will be held in London. At this Examination not fewer than Candidates will be selected, if so many shall be found duly qualified. Of these, will be selected for Presidency of Bengal, [for the Upper Provinces, and for the Lower Provinces,] for that of Madras, and for that of Bombay.*—Notice will hereafter be given of the days and place of Examination.

* The number of appointments to be made, and the number in each Presidency, &c., will be announced hereafter.

2. Any person desirous of competing at this Examination must produce to the Civil Service Commissioners, before the 1st of April, 1879, evidence showing :—

(a) That he is a natural-born subject of Her Majesty.

(b) That his age will be above seventeen years on the 1st of June, 1879, and under nineteen years on the 1st of January, 1879.* [N.B.—In the case of Natives of India this must be certified by the Government of India, or of the Presidency or Province in which the Candidate may have resided.]

(c) That he has no disease, constitutional affection, or bodily infirmity unfitting him, or likely to unfit him, for the Civil Service of India.†

(d) That he is of good moral character.‡

He must also pay such fee as the Secretary of State for India may prescribe.‡

3. Should the evidence upon the above points be *prima facie* satisfactory to the Civil Service Commissioners, the Candidate will, upon payment of the prescribed fee, be admitted to the Examination. The Commissioners may, however, in their discretion, at any time prior to the grant of the Certificate of Qualification hereinafter referred to, institute such further inquiries as they may deem necessary ; and if the result of such inquiries, in the case of any Candidate, should be unsatisfactory to them in any of the above respects, he will be ineligible for admission to the Civil Service of India ; and if already selected, will be removed from the position of a Probationer.

4. The Examination will take place only in the following branches of knowledge :—

	Marks.
** English Composition.....	300
†† History of England—including a period selected by the Candidate.....	300
†† English Literature—including books selected by the Candidate.....	300
Greek.....	600
Latin.....	800
French.....	500
German.....	500
Italian.....	400

* At the Open Competition to be held in 1880, Candidates will be required to be above 17 on the 1st June, and under 19 on the 1st January, of that year. At subsequent competitions, they will be required to be above 17 and under 19 on 19th June of the year in which the competition is held.

† Evidence of health and character must bear date not earlier than the 1st March 1879.

‡ The Fee for this Examination will be £5, payable by means of a special stamp according to instructions which will be communicated to Candidates.

** Marks assigned in English Composition and Mathematics will be subject to no deduction.

†† A considerable portion of the marks for English History and Literature will be allotted to the work specially prepared. In awarding marks for this, regard will be had partly to the extent and importance of the periods or books selected and partly to the thoroughness with which they have been studied.

Marks.

*** Mathematics (pure and mixed).....	1,000
*** Natural Science: that is, the Elements of any two of the following Sciences, viz. :- Chemistry, 500; Electricity and Magnetism, 300; Experimental Laws of Heat and Light, 300; Mechanical Philosophy, with outlines of Astronomy, 300.	
Logic.....	300
Elements of Political Economy.....	300
§§ Sanskrit.....	500
§§ Arabic.....	500

Candidates are at liberty to name, before April, 1st, 1879, any or all of these branches of knowledge. No subjects are obligatory.

5. The merit of the persons examined will be estimated by marks; and the number set opposite to each branch in the preceding regulation denotes the greatest number of marks that can be obtained in respect of it.

6. The marks assigned to Candidates in each branch will be subject to such deduction as the Civil Service Commissioners may deem necessary, in order to secure that "a Candidate be allowed no credit at all for taking up a subject in which he is a mere smatterer."***

7. The Examination will be conducted by means of printed questions and written answers, and by *rici voce* Examination, as may be deemed necessary.

8. The marks obtained by each Candidate, in respect of each of the subjects in which he shall have been examined, will be added up, and the names of the Candidates who shall have obtained a greater aggregate number of marks than any of the remaining Candidates, will be set forth in order of merit, and such Candidates shall be deemed to be selected Candidates for the Civil Service of India, provided they appear to be in other respects duly qualified. Should any of the selected Candidates become disqualified, the Secretary of State for India will determine whether the vacancy thus created shall be filled up or not. In the former case, the Candidate next in order of merit, and in other respects duly qualified, shall be deemed to be a selected Candidate. A selected Candidate declining to accept the appointment which may be offered him will be disqualified for any subsequent competition.

9. Selected Candidates, before proceeding to India, will be on probation for two years, during which time they will be examined

10. The Examination will range from Arithmetic, Algebra, and Elements of Geometry, up to the elements of the differential and integral calculus, including the lower portions of applied Mathematics.

11. The standard of marking in Sanskrit and Arabic will be determined by reference to a high degree of proficiency, such as may be expected to be reached by a Native of good education.

periodically, with a view of testing their progress in the following subjects:—*

	Marks.
1. Law.....	1,250
2. Classical Languages of India—	
Sanskrit.....	500
Arabic.....	400
Persian.....	400
3. Vernacular Languages of India (each).....	400
4. The History and Geography of India.....	350
5. Political Economy.....	350

In these Examinations, as in the open competition, the merit of the Candidates examined will be estimated by marks, and the number set opposite to each subject denotes the greatest number of marks that can be obtained in respect of it at any one Examination. The Examination will be conducted by means of printed questions and written answers, and by *rici voce* Examination, as may be deemed necessary. The last of these Examinations will be held at the close of the second year of probation, and will be called the "Final Examination," at which it will be decided whether a selected Candidate is qualified for the Civil Service of India. At this Examination Candidates will be permitted to take up any one of the following branches of Natural Science, viz. - Botany, Geology, and Zoology, for which 350 marks will be allowed.

10. Any Candidate who, at any of the periodical Examinations, shall appear to have wilfully neglected his studies, or to be physically incapacitated for pursuing the prescribed course of training, will be liable to have his name removed from the list of selected Candidates.

11. The selected Candidates who, at the Final Examination, shall be found to have a competent knowledge of the subjects specified in Regulation 9, and who shall have satisfied the Civil Service Commissioners of their eligibility in respect of age, health, and character, shall be certified by the said Commissioners to be entitled to be appointed to the Civil Service of India, provided they shall comply with the regulations in force, at the time, for that Service.

12. Applications from persons desirous to be admitted as Candidates are to be addressed to the "Secretary to the Civil Service Commissioners, London, S.W.," from whom the proper form for the purpose may be obtained.

October, 1878.

The Civil Service Commissioners are authorized by the Secretary of State for India in Council to make the following announcements:—

(1.) Selected Candidates will be permitted to choose, according to the order in which they stand in the list resulting from the open competition, as long as a choice remains, the Presidency (and in Bengal the Division of the Presidency) to which they shall be appointed.

* Full instructions as to the course of study to be pursued will be issued to the successful Candidates as soon as possible after the result of the open competition is declared.

* This choice must be exercised immediately after the result of the open competition is announced, on such day as may be fixed by the Civil Service Commissioners.

ed, but this choice will be subject to a different arrangement, should the Secretary of State, or the Government of India, deem it necessary.

(2.) The Probationers, having passed the necessary Examinations, will be required to report themselves to their Government in India not later than the close of December, 1882.

(3.) The seniority in the Civil Service of India of the selected Candidates shall be determined according to the Order in which they stand on the list resulting from the Final Examination.

(4.) An allowance of £150 a year will be given during each of the two years of their probation to all Candidates who pass their probation at some University to be approved beforehand by the Secretary of State, provided such Candidates shall have passed the required Examinations to the satisfaction of the Civil Service Commissioners, and shall have complied with such rules as may be laid down for the guidance of selected Candidates.

(5.) All selected Candidates will be required, after having passed the second periodical Examination, to attend at the India Office for the purpose of entering into an agreement binding themselves, amongst other things, to refund in certain cases the amount of their allowance in the event of their failing to proceed to India. A surety will be required.

(6.) After passing the Final Examination, each Candidate will be required to attend again at the India Office, with the view of entering into covenants. The stamps payable on these documents amount to £1.

(7.) Candidates rejected at the Final Examination of 1881 will in no case be allowed to present themselves for re-examination.

For the guidance of Candidates who may have a difficulty in making their selections under the heads of English History and Literature, the following lists for the open competition of 1879, are given as indicating the character and amount of reading that would be regarded as satisfactory.

HISTORY OF ENGLAND.—Any one of the following periods, to be studied specially in the Text-books named:—

1. Henry II. to Edward III., A.D. 1154—1377.—Stubbs' Select Charters; Stubbs' Constitutional History of England.

2. The Tudors, A.D. 1485—1603.—Hallam's Constitutional History of England; Froude's History of England.

3. The Stuarts, A.D. 1603—1714.—Hallam's Constitutional History of England; Macaulay's History of England.

4. A.D. 1714—1805.—Lord Stanhope's History; Sir T. E. May's Constitutional History; either Massey's Reign of George III. or Lord Stanhope's Life of Pitt.

POETRY.

ENGLISH LITERATURE.—Shakespeare.—Three plays, one from each of the following groups:—

(a) Macbeth, Othello, Lear, Hamlet.

(b) Coriolanus, Julius Cæsar, King John, Henry V.

(c) Tempest, Merchant of Venice, Romeo and Juliet, As You Like It.

And any two of the following:—

1. Chaucer.—Prologue to the Canterbury Tales, with the Prioresse's Tale, and the Clerk's Tale.

2. Milton.—First four books of Paradise Lost, or Paradise Regained, or Comus and Samson Agonistes.

3. Dryden.—Absalom and Achitophel, and The Hind and Panther.

4. Pope.—Imitations of Satires and Epistles of Horace.

5. Gray.—Poems.

PROSE.

Bacon.—Essays, or Advancement of Learning.

And any two of the following:—

1. Milton.—Areopagitica; and Locke—On the Conduct of the Understanding.

2. Clarendon.—History of the Rebellion, from the Treaty between the King and the Parliament, at the end of Book VI., to the Death and Character of Falkland in Book VII.; and Dr. Fox.—Memoirs of a Cavalier (ch. viii. to the end).

3. Addison.—Coverley Papers, Essay on Imagination, and Criticisms on Milton.

4. Johnson.—“Six Chief Lives of the Poets,” viz:—of Milton, Dryden, Swift, Addison, Pope, and Gray; with Macaulay's Biography of Johnson.

5. Burke.—Reflections on the French Revolution; or Appeal from New to Old Whigs, with Speech on American Taxation.

6. Macaulay.—Essays on Addison, Byron, Walpole, Mackintosh, Temple, and Madame D'Arblay.

GOVERNMENT REVIEW OF EDUCATIONAL WORK 1877.

NEARLY fourteen months had elapsed, from the close of the year 1876-77, before the Government had placed before them the educational administration history—complete—of that year. In their Order reviewing the operations of the year 1875-76 the great delay which had occurred in reference to that year was the subject of remark, and the Director was required to submit his report not later than the 30th June in each year. Instead of the report being submitted earlier, it was received even later than in that year. The Government fully admit the great difficulties which the Director undoubtedly experiences in completing the statistical information of the year, especially in the case of the numerous private and quasi Government institutions of an elementary character; but they consider that other causes more directly under the Director's control, such as delays in printing, must be at work.

2. At the outset of his report the Director remarks upon the disastrous character of the year under review, and the effect it had upon educational progress. That the effects of the famine thereon have been serious is undoubtedly the case; but the Government regard the fact that, viewing the Presidency as a whole, the education has received no check, but has rather advanced, as a most satisfactory indication of the hold this great forward movement has taken upon the minds and sympathies of a considerable portion of the populations of Southern India.

3. In paragraph 4, the Director draws attention to the increasingly heavy work devolving upon Deputy Inspectors in consequence of the immense development of elementary education within the last few years. The staff which was increased in 1872 from 19 to 38 is still insufficient. The Government readily admit that this is the case

in many localities, and it will rest with the Director to bring forward a carefully matured scheme for supplying extra strength; but in so doing he will not fail to remember that, in the opinion of Government, the quality of the Inspecting Officers, and not their number, should be the first consideration. If this principle be adopted, it will necessarily follow that the additional officers will belong to the Provincial Staff, and not be paid from Local Funds, these funds being at present sufficiently weighted by the charges cast upon them for the lower Inspecting Agency known as Inspecting Schoolmasters, and, for some time to come, will not be available for paying any portion of the charge for the Superior Agency of the Department.

4. The system of examination of Mahomedan Schools first introduced not having proved successful, the Government sanctioned towards the close of the year the appointment of a special Mussalman Deputy Inspector for the whole Presidency. Time has not elapsed sufficient to judge of the reform, but it seems to promise well. Much will depend upon the activity, earnestness, and discreetness of the officer selected for this new and important post.

5. The Government regret the necessity which arose for the decisive action of the University in regard to the powers of control to be exercised by the body of Examiners over each individual examiner; but it was fully called for. A general lowering of a test, at a time when the number of candidates for examination is so rapidly increasing, would have been most disastrous to the cause of true educational progress in this Presidency. The Government are not satisfied that the abolition of the *vivâ voce* Examination for the B. A. degree was equally expedient. The Senate of the University will no doubt carefully watch the effects of the change and will doubtless, if necessary, return to the former practice. The change in the bye-law regarding the attendance of students at law lectures seems eminently judicious.

6. The total number of candidates for the several examinations of the University was greater than in any preceding year, being 3,036 against 2,639 in 1875-76 and against 1,173, the number that appeared ten years ago, *viz.*, in 1866-67. This was mainly due to the increase under candidates for Matriculation, for in one previous year only was the number of candidates for the F. A. Examination greater, *viz.*, in 1869-70, when 531 men appeared against 418 in the year under review, whilst in 1871-72 131 candidates appeared for the B. A. degree against 129 in 1876-77. This gradual increase in the number of candidates for Matriculation is no proof that the number of lads attending Matriculation Classes in the several Higher Schools of the Presidency has proportionately increased; for, as pointed out by the Director, lads present themselves year after year and long after they have left school. It would perhaps be well if a record were kept by the University, or rather a statement prepared annually showing the number of reappearances of unsuccessful candidates for each examination. It is a notable fact, though counter to the general impression, that youths who have once succeeded in passing the Entrance Examination do not then give up the struggle to attain a higher educational status. Of the 5,243 matriculates up to the close of 1874-75, approximately 4,191 have appeared for the F. A. Examination, or 80 per cent., of whom however 1,651 only have so far succeeded in passing; whilst of those who had passed the F. A. Examination

prior to 1875-76, *viz.*, 1,333, 947 or 71 per cent. had up to the close of 1876-77 already appeared for the B. A. Examination, of whom no less than 533 had obtained that degree. Considering the straitened circumstances of many students, casualties and other disturbing influences at work, the Government do not regard the history of these examinations from this point of view as unsatisfactory. A comparison with the sister Universities in India on this matter would be useful, and the Director will refer to the matter in his next report.

7. As regards the classes of the community represented at the University Examinations, the Government are glad to note the advance among Mahomedans, and Hindus other than Brahmins, in the Entrance Examination, but regret the decline under East Indians, which also appears in the F. A. Examination. In this as well as in the B. A. Examinations, Hindus not being Brahmins, show, comparatively, a decided advance.

8. Mr. Porter's remarks on the increasing number of graduates have been perused by Government with much interest. They cordially endorse his opinion that "there is obviously nothing here for regret or discouragement. On the contrary, there is an average of success which speaks strongly of the intelligence and energy of the graduates of the Madras University." They would add that the assertion that Government are filling the country with discontented young men, even if true, would from many points of view be a favourable circumstance; for it is unquestionably from the class of men whom a liberal and high-toned education has made dissatisfied with their position, whether social, intellectual or moral, that the true progress of a country springs, and that life and energy are imparted to the State. The man, whose intellectual and moral power is stronger than that of his fellows, will certainly strive to better his condition in some other line, if Government service is denied to him, and will soon forget his disappointment in the work of life; whilst the State gains indirectly, by his cultivated intelligence and extensive knowledge, in the long run, more lasting advantage than it would have gained directly by his service in some official capacity.

9. The Government are glad to note the generally satisfactory condition of the Government Arts Colleges, though the unusual severity of a F. A. Examination resulted in a falling off in the number of successful candidates. This was also the case in regard to the B. A. Examination results in the Combaconum and Presidency Colleges. The progress of the Provincial School, Rajahmundry, since raised to the rank of a College, is a subject of congratulation. It is noted that the Upper and Middle Departments taken together were more than self-supporting. There are grounds for believing that the Telugu Districts will in time rival the Tamil Districts in intellectual activity. The presence of numerous large landed proprietors should, if their sympathies could be more widely enlisted in the movement, greatly accelerate this progress.

The history of aided higher education is marked by the changes which have been carried out in the constitution of the Central Institution of the Free Church of Scotland. The Collegiate Department of this Institution has now been constituted a separate College, to which the chief Protestant Missionary Societies contribute. An

evidence of the progress of the Institution is the number of the F. A. candidates, which rose from 44 to 69, and that for the B. A. Examination from 14 to 24. The condition of the Doveton College is seemingly not very thriving. The Government however trust that the changes made by the Committee will result satisfactorily.

10. The number of Collegiate Schools remained unchanged; though one school, Rajahmundry, has passed from this grade to that of a College, its place has been filled by the Vizianagram Samasthanam School. There was a slight increase in the number of pupils, viz., 2,849 against 2,791 in 1875-76, whilst the number of successful matriculates rose from 132 to 199. On the other hand only 19 boys were successful in the F. A. Examination against 34 in the preceding year. The Noble High School, Masulipatam, appears to be advancing steadily, though the attendance is still far behind that of most of the schools of this class. The Inspector's remarks, that "for the perfect order and discipline maintained throughout it is a model institution" and that it is "the best formed school he has seen in India," are noted. The Government are also pleased to observe the pains taken by the managers of this school to promote a love of outdoor games. They trust that many other Institutions will follow the example set here and also at the Patcheappa's High School.

11. Of the ten Higher Class Schools in the Northern Division, four show a slight increase in the number of pupils, six a falling off, the aggregate result however being an increase of 35 pupils. There was also a slight increase in the number of youths matriculating. In the 2nd Division, which comprises the four districts that suffered so greatly from famine, there was a slight decrease in attendance which is small compared with the 1st Division; but the number of matriculates rose from 24 to 42. The backward state of education in the Ceded Districts is engaging the attention of Government. They trust that the District as well as the Educational Officers will use every effort to remedy this condition of things. In the 3rd or Central Division there was also a falling off in the number of pupils. This was confined to Chingleput and Madras, South Arcot exhibiting a slight advance. The falling off was probably wholly due to the prevalent distress. The Government learn with pleasure that the Trustees of Patcheappa's High School have re-organized the staff, securing thereby a saving in expenditure, of Rupees 347 a month, without affecting the efficiency of the Institution. The state of the schools in the 4th Division exhibited little change, and does not call for remark; but in the 5th Division (Southern Districts) there was an increase in the number of pupils, whilst the number of matriculates was nearly doubled. In the 6th Division there was a decided improvement, but this is confined to Malabar.

12. The Government are glad to learn that the Director of Public Instruction has issued a revised curriculum. The principle upon which it is framed is approved. They are also pleased to notice that more attention is to be paid to copy-writing, dictation, exercises and translation, especially the latter. Exercises and translations tax the time of teachers out of hours more severely, but they are essential to thorough instruction in language and style.

13. As regards physical training, the Government are glad to learn that the question is receiving attention. The Inspectors will impress on all School Managers within their districts, and Masters

under their control, the importance of gymnastic exercises, especially in this country, where boys do not generally engage in out-door sports. As funds admit, the Director will establish gymnasia at all the Higher Class Government Schools.

14. The Director carried out during the year the remodelling of Government Anglo-Vernacular and Taluq Schools. The immediate result was naturally a reduction in the numbers attending these schools, as the lowest or purely vernacular classes were abolished. The arrangement by which accommodation is provided in the Government school-building for a Results School, if conducted by the inferior master who has been dismissed, is temporarily approved. The Director will however watch the effect of the abolition of these classes very carefully, especially as regards the attendance in the Government Schools. It is still an open question whether the system abolished did not provide the most efficient feeder to the higher classes, whilst the School Fee Fund profited by the fees of the numerous pupils in the elementary class. The Government consider also that it will be very difficult to confine the teaching in the subsidiary Results Schools to the first and second standard. The presence too of a class or classes subject to less severe discipline, is not calculated to effect favorably the discipline in the higher school.

15. The statement in the margin exhibits the number of pupils in Middle Class Schools in each Division. In the 5th and 6th Divisions only has the numbers risen. One of the causes of the falling off has already been referred to. The backward condition of the 2nd Division has already been the subject of remark. The position of the 5th Division, which comprises the rich districts of Tinnevely,

Madura and Coimbatore, is still unsatisfactory. The rapid increase of Vernacular Schools in two at least of these districts will probably in time provide a remedy. The Director regards the state of these schools generally as exhibiting considerable improvement; but he still considers the most effective means of rendering them more efficient would be the establishment of a middle-class examination. His opinion is shared by Government, but they are desirous that the scheme should be carried out by means of the University. The University authorities do not concur in this view, but the Government hope that in time the scheme will receive their support.

16. The Government regret to notice the falling off in the attendance at the elementary Mahomedan Schools. The cause seems to be chiefly the prevalent distress. The employment of masters of superior qualifications will probably lead to considerable improvement in these schools.

17. As regards Lower Class Local Fund Schools, although in consequence of the famine progress was not so great as in the previous year, still the number of schools rose from 654 to 851, and the attendance from 19,755 to 24,573, including 659 girls. The improvement was chiefly in the 1st Division, which to a great extent escaped

	31st March. 1876.	31st March. 1877.
First Division. . .	1,707	1,595
Second " . . .	1,061	1,035
Third " . . .	2,653	2,476
Fourth " . . .	3,930	3,738
Fifth " . . .	1,809	1,835
Sixth " . . .	2,887	3,068
Total. . .	14,047	13,747

famine. The inclusion of English in the list of subjects which may be taught in these schools appears to meet the wishes of the people. Most of the schools are on the combined system, which is now under the consideration of Government.

18. There was also a satisfactory increase in the number of Municipal Schools, viz. from 41 to 69, and of pupils from 2,699 to 3,919. This is chiefly due to the opening of schools at Madura, Trichinopoly and Srirangam. The Government regret that some of the Municipal Commissioners show an indisposition to utilize the services of the Deputy Inspectors in the organization or management of these schools. The Presidents should impress upon them that expediency dictates that advantage should be fully taken of the special knowledge of these officers. At the same time the Government view with favor the efforts, faulty it may be in some cases, but still earnest, which several of these Boards are making to educate the children of their towns.

19. The working of the Results Grant Rules continued satisfactory. The attendance in aided schools rose from 132,505 to 160,218, whilst the number of unaided schools preparing for examination fell from 4,362 to 3,776, and the pupils from 87,014 to 74,368. The arrangement by which an aided school is thrown back amongst unaided, if it happens not to have received in the year the grant which it has earned, seems open to objection. The Director should arrange, if possible, for noting in the returns the number of those unfortunates whose want of success is due to no fault of their own. The Government fully admit that Municipalities should exercise greater liberality in regard to these schools, but at the same time must not be forgotten that Municipal expenditure on education averaged one per cent. more than in the preceding year. No further remarks are called for here as the matter is now before Government in connection with a recent letter from the Director of Public Instruction on the subject. The average grant earned throughout the Presidency by each school was Rupees 47-6-2 against Rupees 52-13-7 in 1875-76. In the 2nd and 4th Divisions however the average grant was slightly in excess of the previous year's figures, whilst it is in the 5th and 6th Divisions the average earnings have fallen off. Each Division, the 6th excepted, earned in the aggregate a larger grant. It is a satisfactory indication of the progress, small though it be, which female education is making in the Presidency, that apparently the number of girls presented for examination rose from 3,167 in 1875-76 to 6,967. The revision of the Results Grant Rules was approved after the close of the year. The Government will anxiously watch the working of the new rules by which, it is hoped, an effective distribution of the funds at the disposal of Local Boards for the purpose will be secured.

20. The Government will be glad to learn Mr. Logan's views on the Mappilla Schools, as well as the Director's. The latter officer passes no remark on Mr. Garthwaite's observations quoted in p. 66.

21. The proposed scheme for the extension of elementary education has necessarily been in abeyance, but with the return of prosperity, it is hoped, the ways and means of gradually introducing it will be found. Meanwhile the Government await the reports which were called for on the subject.

22. It is with much pleasure that the Government note that there were 2,815 Girls' Schools aided by results grants in existence at the close of the year against 2,329 in 1875-76, whilst the number of pupils had risen from 23,793 to 28,151. Under Hindus there has been an increase of 32 per cent., and under Native Christians of 5 per cent. The latter the Director thinks is partly connected with the falling off under East Indians. It is observed that so far from seven-eighths of the female education being in the hands of Missionary bodies, no less than 45 per cent. of the children are under other Agency and in Government Schools. Considerably more than half the attendance is in Tinnevely, Madras and Malabar, but with the exception of Bellary, it is pleasing to note, that every district shows advance. The main defect in the Government Girls' Schools is the employment of male teachers. It is hoped that their places may soon be supplied by female trained teachers.

23. The progress of the Industrial School, Black Town, is satisfactory. The school performs an important work among the poor East Indians and Europeans. The Committee should carefully keep in view that for poor Eurasians, clerical instruction is of almost equal importance with industrial.

24. The results hitherto achieved, from an educational point of view, by means of Government Normal Schools, has not been encouraging. The Government have recently called on the Director to review the position of these schools. The subject is also under consideration in connection with the draft rules now before Government. The Female Normal School, Madras, appears to show satisfactory progress, which reflects credit upon the Superintendent, Miss Spence. The Government admit the force of the objections urged by the Director against throwing open the female teachers' certificate examination to all female candidates without restrictions as to age or to the intended calling of the candidate; but pending the establishment of some educational test for girls, they are not at present willing to restrict the entrance in any way further than by maintaining the entrance fee now demanded. The number of pupils in the Normal Department in aided Normal Schools, the Government regret to observe, has fallen off. The reason for this has not been explained.

25. Considering that the year under review was one of famine in most and distress, in consequence of prevailing high prices, in the remaining districts, the Government are glad to find that, though there was a falling off in the total number of Schools by 115, there was an aggregate increase in that of scholars by 3,468. The variations in the attendance at the several grades of schools is satisfactorily explained by the Director. It is observed that the chief increase was under Private Institutions receiving aid.

26. The table of area and population and educational condition of each district is instructive. The adverse variations are in most cases explained by the famine. It is however satisfactory to observe that in some districts which suffered severely from famine, e.g., Salem, Kistna and Trichinopoly, the proportion of population to one pupil shows a decrease. The Government regret to notice the decrease in the number of Mussalman children, though under Mahomedan girls there is an increase, but this doubtless resulted from the prevalent distress, which was felt severely by the Mussalmans, who are generally an impoverished race.

27. The total income from school fees, though slightly less than in 1875-76, on the whole shows a rapid but steady progress, and has risen nearly 400 per cent. in ten years; whilst the average fee has risen from Rupees 8-5-4 to Rupees 13-10-0 in Government Schools against Rupees 2-11-9 and Rupees 3-10-3 in Private Schools. The average cost to Government of College pupils in Government Schools is Rupees 257-9-1 against Rupees 59-9-1 in Private Institutions; the proportion is lower in Higher, Middle and Lower Class Schools, but is still adverse to Government direct management. It is true however as pointed out by the Director, as regards the percentage of fees to total cost, that, though in Colleges and Collegiate Schools there is a difference of 1-9 per cent. in favor of Aided Institutions, in Higher and Middle Schools the percentage is markedly in favor of Government; but the more important point is, whether the Government is affording an equally good education to the people at no greater cost than a similar education is secured by Private Agency; or, in other words, whether the State is making the people pay more money in a Government School than they pay in an Aided School for the same article. From this point of view it seems to be undoubtedly the case that the balance is very greatly in favor of Private Agency. Looking therefore to the increasing demands upon the State for grants-in-aid, and the cheapness of the system, it is as much the true, as it is the admitted policy of Government, since the despatch of 1854, to reduce gradually expenditure on Government Institutions, where there is a Private, Local or Municipal School doing equally good work and capable of continuing it. The Director will bear this principle in mind, and, wherever and whenever the opportunity occurs, act in accordance therewith.

(True Extract).

H. B. GRIGG,

Acting Under-Secy. to Govt.

THE INCONSISTENCY OF GOVERNMENT IN RESPECT TO EDUCATION.

No one in the present day will deny that it is the duty of the Government to provide the mass of the people with the elements of a sound education. There may be differences of opinion as to the amount of education that Government is in duty bound to provide, but so long as the mass of the community is unable to read and write, it is necessary to bring elementary education within their reach. No private effort can overtake the need of the people in this respect, as has been demonstrated even in England. Only the ubiquitous Government can do this. It is different, however, when we consider what is called the higher education of the people. After a certain amount of useful information and mental training has been given to the entire rising generation, the duty of Government to provide more than this for a select few is not so manifest. While some support the action of Government in educating the rich and influential (*i.e.*, those who can naturally afford to provide their own advanced education, if they require it) up to the topmost rung of the educational ladder, the great majority of thoughtful men, of all shades of opinions, believe that the duty of the Government to the people does

not call for this, while some, even of the servants of Government, say that she is not only going out of her way, but even creating political danger to herself by her system of higher education.

When we refer to the great foundation and basis of all educational legislation, *viz.*, the despatch of 1854, we see it laid down that the Government shall retire from any interference with the higher education of the people of India, as soon as private means of education exist. Not only is Government herself to close her schools and colleges, but she is to aid as fully as is necessary all private efforts for the promotion of this class of education. It is the veriest truism to say that the principles laid down in the above despatch by the Secretary of State are not acted on by the various Governments in India. The existence of the costly Zillah Schools, Provincial Colleges, and the Presidency College itself, show this. Nor can it be said that private efforts have not rendered these Government institutions unnecessary, for in almost every place where these exist, there are private institutions equal or superior in efficiency to them, and perfectly qualified to supersede them without an iota of detriment to the cause of education. The Government cannot gainsay the efficiency or worthiness of these private institutions, but since a ramified educational department exists, the pride of the department or of Government will not allow of a reduction or abolishment. The glory of the department must be first considered; its necessity is a very subordinate consideration. The despatch of 1854 is simply trodden under foot, in order to spend lakhs of Government money in the endeavour to rival and crush private enterprise in education.

We may be referred to an "order" by his Grace the Governor of Madras as a proof that we are mistaken in supposing the famous despatch to be despised and dishonoured by the present Madras Government. In the order dated October 23rd 1878, the principles of the despatch are referred to and re-affirmed, and the Director of Public Instruction is directed to apply these principles very rigidly. Wherever and whenever an efficient private school exists side by side with a Government school of the same standard, the former is to be encouraged and aided, and the latter is to diminish and vanish away. The work of the Government school is thus found and acknowledged to be unnecessary and an uncalled for expense, because the private school is doing the same work equally well. If we are referred to this order, we freely admit that on paper it is all that could be desired. But it would seem, judging from events, that it was never intended to be acted on. It was a piece of political farfarronade to deceive the public, and, perhaps, to deceive also the Government of India and the Secretary of State. The words of the order say one thing, the action of the Government says the exact opposite and proves the words of the order to be mere empty rhodomontade. The order says that Government institutions must be allowed to lapse in favour of a private school of the same educational standing in the same place. The action of Government says, Crush out of existence all private effort by increasing the aid to Government Schools and by raising an inferior Zillah School to the status of a Provincial College. Look, for a moment, at the places where there exist side by side, at the present moment, both Government and Private Schools of equal standing. In Bellary there is a Provincial College which has not passed a single student at the recent

Matriculation Examination. By its side is the Wardlaw Institute which shows its superiority to the Government School by passing two candidates. Does the Government contemplate giving up their own pretentious establishment at Bellary, in favour of a better Private School? No, not at all, notwithstanding the brave words of October 23rd. Then at Cuddalore, there is a Zillah School, and by its side St. Joseph's Institution. The Private School has proved itself to be equal to the Government School in the recent examination: but the State School is not to be reduced in status or abolished. Again, at Salem, there is a High School side by side with the Zillah School and doing equally efficient work, and yet the Government School is not removed. At Nellore, also, there is a Private School successfully rivalling the Government School, but no proposal to remove the latter is entertained. And, in other places, the same thing exists. The funds of the Government are frittered and wasted away in maintaining expensive schools when there is not only no need for them, but where their very existence hinders the development and success of private effort in education. The whole effort of Government appears to be directed towards crippling and annihilating all labours but its own in the work of education, and this at the burdensome expense of the taxpayers.

Nor is what we have said above the whole of what we have to urge against the action of Government in this respect. The words of the order above mentioned distinctly say that the preference is always to be given to the private school, whenever education in that particular locality is under consideration. Now we are informed that the managers of the private school, at Cuddalore or Salem—we believe Salem is the place—made a formal application to Government that the Government school at the place should be reduced in status or utterly abolished, on the reasonable ground that two schools of the same status in one place were unnecessary, and that the existence of the State school was not only unnecessary and a vain expense, but was actually interfering with the success of the private school. Moreover, the petitioners offered to conduct the education of the place absolutely free of cost to Government. This was in entire accordance with the principles enunciated and the words uttered in the despatch of '54, and again re-iterated by the Governor of Madras in his order of October 23rd, 1878. But so far from being prepared to carry out their own suggestions, so far from being careful to make their actions fit their words, so far from having a genuine desire for economy and a wish to encourage private efforts in education, they take special care to show to the public that they have no intention whatever of doing anything of the kind. And the way they show it is by announcing that the Zillah Schools at Salem and Cuddalore are not only not to be reduced or abolished in favour of equal or superior private schools in these places, are not only to go on spending large sums of money in strong endeavours to crush out private efforts, but are to have a largely augmented and expensive establishment, and are to add a college department to their present position. These appointments, in the very teeth of the brave words of the "order," and of the application of the managers of the private school, show that the Government has no regard for its own statements. The addition of a College Department to the above school may be condemned on its own merits. It is not absolutely required

in either case, and in the case of Salem, where but two matriculates passed the last examination, the addition of an F. A. class is simply ridiculous. But we wish at present to confine our remarks to the action of the Government as contrasted with its words. While professing economy, to go and largely increase expenditure is simply inconsistent. "Consistency, thou art a jewel," but a jewel that is conspicuous by its absence in certain times and places. If private effort is to be hampered and destroyed, be it so; only proclaim the fact in words as well as in deeds. If Government action is the only one approved of, be it so; only don't pretend to prefer other action even when demonstrated to be efficient and successful. The recent action of the Madras Government as shown in its order of February 1st, 1879, stultifies its words as shown in its order of October 23rd, 1878.

We leave the Government to reconcile or justify its words and its deeds. The following are the exact terms of the order referred to above:—

Last Paragraph of G. O., dated 23rd October 1878.

Para. 27.—The total income from School fees, though slightly less than in 1875-76, on the whole shows a rapid but steady progress, and has risen nearly 400 per cent. in ten years; whilst the average fee has risen from Rs. 8-5-4 to Rs. 13-11-0 in Government Schools against Rs. 2-11-9 and Rs. 3-10-3 in Private Schools. The average cost to Government of College pupils in Government Schools is Rs. 257-9-1 against Rs. 59-0-1; in private Institutions, the proportion is lower in Higher, Middle and Lower class Schools, but is still adverse to Government direct management. It is true, however, as pointed out by the Director, as regards the percentage of fees to total cost, that though in Colleges and Collegiate Schools there is a difference of 1-9 per cent., in favour of aided Institutions, in Higher and Middle Schools the percentage is markedly in favour of Government; but the more important point is, whether the Government is affording an equally good education to the people at no greater cost than a similar education is secured by private agency; or, in other words, whether the State is making the people pay more money in a Government school than they pay in an aided Institution for the same article. From this point of view it seems to be undoubtedly the case that the balance is very greatly in favour of private agency. Looking therefore to the increasing demands upon the State for grants-in-aid, and the cheapness of the system, it is as much the true, as it is the admitted policy of Government, since the despatch of 1854, to reduce gradually expenditure on Government Institutions, where there is a Private, Local or Municipal School doing equally good work and capable of continuing it. The Director will bear this principle in mind, and wherever and whenever the opportunity occurs, act in accordance therewith.—Madras Times.

* THE STATE OF CHRISTIAN EDUCATIONAL INSTITUTIONS.

THE time has indeed gone by—if it ever existed—when it might reasonably be hoped that all education in India could be made to wear a Christian aspect and directly to forward Christian ends. But it is still possible for Christian schools and colleges to take so high a place as to make all men understand that enlightenment is not synonymous with indifference to religion,—as to impress much of a Christian character upon their own pupils, and, if God bestow His blessing, ultimately to turn the whole awakening thought of India towards that one Redeemer in whom alone men's souls can truly live. Under the influence of the Western thought that is penetrating them from a thousand centres, the peoples so long bound up in Hinduism are entering upon new paths. As they have been in bygone centuries they cannot remain much longer. It is still within reasonable expectation that education inspired by a deep and earnest Christianity may be used by the Holy Spirit to turn the whole of the mighty and inevitable movement into a movement towards the light and joy of knowing God revealed in Jesus Christ whom he has sent. Therefore, amid countless difficulties, Christian education has been till now maintained. Where it is efficiently maintained it meets with no little sympathy from all who give attention to matters of the kind, except from decided opponents of Christian truth. That it meets with the approval of Government is shown by the fact that considerable pecuniary aid is given by Government in maintaining it. Few things, in fact, give more satisfaction to Christian men connected with Government than their being able, by means of the aid given to Christian education, to take a share that they cannot take directly in promoting the deepest welfare of the land they govern.

That it meets with the approval of many of the Hindus—though, of course, not by any means of all—is shown by the popularity and influence that efficient Christian schools and colleges have attained among them. This will best appear if I mention a few facts about the Institution and College in Madras. Our foremost aim is to bring its pupils and students into living contact with the principles and facts of God's own revelation. It is an efficient place of instruction in all kinds of knowledge. Unless it were so, it could not continue to exist at all. And it is our wish to do with all our might whatever has once been undertaken. Thus it comes about that history, and philosophy, and literature, and much besides, are taught with as much zeal and ability as we possess. But our aim is to make all our teaching and all the influence it gives us, contribute to the moulding of character upon Christian lines and the holding up as the sum of all God's thoughts and all God's will that Incarnate Word, whom we have been honoured with the call to serve. The centre of our teaching and our effort is the hour that is given daily in every class to instruction in that written Word in which all knowledge finds its centre, and practical explanation. Nor is this instruction a perfunctory or a merely formal thing. It is true there is far

too little of intensely personal and spiritual interest on the part of the students, yet it has always been my experience that when the teaching was at all what it ought to be, the amount of preparation, the attention given, and the interest plainly felt, would put to shame some young men's classes in Christian congregations in a Christian land. That interest is often shown in questions and discussions of a very enlivening kind. So much so, that I have seldom found my own mind so much upon the stretch as in the daily Scripture lecture. So much so, that I have often got far more insight into the force of portions of the Divine Word in an hour of religious teaching among my students than in many hours of listening to lectures on divinity in my own student days.

Now, though such are the well-known character and aims of our Institution, I have no hesitation in saying that it is, and has for some years been, the most popular place of instruction in the South of India. For example, as regards its college department,—there is, not far away, a non-Christian college supported by Government, and in the present state of Hindu feeling connection of any kind with Government exerts an influence in favour of an institution—educational, or of any other kind—which it is hardly possible to over-estimate, and quite impossible to make fully intelligible to men who have never been out of Britain. The Government college is maintained at some four times the expense of ours. It has endless advantages, and no disadvantages except a situation perhaps a little less convenient, and a slightly larger fee. I do not know the numbers in attendance this year, but in 1877 they were about two hundred and twenty, and one hundred and fifty for the Christian and non-Christian colleges respectively. Then from the school department of the Institution, though it has accommodation for about eight hundred pupils, hundreds of candidates for admission are kept out every year for utter want of room. The spirit, too, that is shown by those who get admission is not incommensurate with the earnestness with which they seek it. These young men are far, indeed, from perfect. Few know that so well as I do. If there were any object to be served, it would be easy to fill pages with an account of their defects and of the disappointments of many kinds that those who take an interest in them have many a time to bear. But if they were perfect, what need would there be for our being among them at all? And it would ill become one who has received numberless proofs of their faithfulness and affection to abstain from saying that, with all these defects and with all the errors of their creed, they are yet such that it is no painful duty, but a perennial pleasure to labour for their good.

Then, again, it is worth attention that the fees paid in the college department amount to such a sum as to make the proportion of the entire expense, contributed by the students immensely greater than in any other college in Southern India. It is only fair to say that this arises partly from our expenditure being so extremely small. Salaries are almost disgracefully low, and of many things that greatly increase our power for good poverty unfortunately us. But even with this limitation, it is striking that that draws by far the largest proportion of its expenses the Hindu people is not one that has the boundless power of Government to back it—not one in which prejudic

* From "Indian Missions and how to view them" by the Rev. W. Müller, M. A., Principal of the Madras Christian College.

consulted, but one which, to the best of the ability of its managers, is animated by a Christian spirit, and devoted to the attainment of Christian ends. The local resources of the Institution—that is to say, funds that come from the people of the land, either directly in the form of fees or indirectly through the aid from Government, are such, that, after paying for prizes, for scholarships, for the non-Christian teachers who, in the absence of a sufficient number of Christian ones, are still to some extent employed, for servants, furniture, and all other necessary outlay, they leave more than eight hundred pounds a-year to aid in the support, of missionaries, or other Christian instructors.

Facts like these, of which only specimens have been given, could not be true, if there were not a large and increasing body of native opinion favourable to institutions that bear such a character as ours. It needs little proof that if such a college retain anything like such power, the value of its influence of the whole tendencies of thought and for the highest Christian purposes, will exceed a thousandfold the great labour and the small expense that have been needed for establishing it.

So much for the practical appreciation of our efforts among the Hindus. Of the approval they meet with from Christian missionaries it is hardly necessary to say a word. That appears from the fact that some of the leading societies already contribute to the college funds; and others are likely to give similar help ere long. Putting together the funds thus contributed and the local resources already mentioned, we have the striking result that, while the entire outlay on the Institution is about £5000 yearly (and the amount of work done for this sum surprises every one who has examined its details), only £1300 of this, or scarcely more than one-fourth, is drawn in any form whatever from the Church by the labours of whose agents it has been set up. It happens, no doubt, sometimes that missionaries newly come from home, who naturally enough judge everything by a home standard, find fault with the mode in which our work is carried on. But of men who have had any considerable experience of Indian work there is scarcely one, and perhaps not even a single one, in Southern India who is not in hearty sympathy with our Institution, who is not anxious to see it developed to the full and its ideal more completely realized.

I have little doubt that I shall appear to have spoken boastfully under this whole head. I do not, however, wish to do so, and I have been simply giving some indication of what is the state of matters now. I do not for a moment dream that it will continue so favourable always. Not by smooth and steady progress does God in this world ever lead to lasting victory. Certainly it is His rule for all His real fellow-workers that

“Not upon a tranquil lake
Our pleasant task we ply,
Where all along our glittering wake
The softest moonbeams lie;
Where rippling wave and dashing oar
Our midnight chant attend,
And whispering palm leaves from the shore
With midnight silence blend.”

therefore I fully expect that desolating storms will come, and come perhaps soon and suddenly, though the horizon shows few clouds at present. They may come from failure and faithlessness in ourselves or in the Church that should uphold us, or perhaps from causes for which we are not to blame; but come in some shape undoubtedly they will. Only when they come, and however terrible they may be, may God give us grace to live through them and to endure with patience until the sun of His favour again shines out, and His work begins to prosper in our hands once more.

SOUTH INDIAN PUBLICATIONS.

DURING the last few years, much has been written about progress in India, both moral and intellectual; but the truth has been so little considered by the authors of these highly-coloured statements, who have been all mere partisans of some fanciful scheme or other, that it is fortunate that Mr. H. Cotton and General Treuenheere have begun to enlighten people in England with some indisputable facts. Printing presses, first introduced more than three hundred years ago, are now common all over India; and this might be regarded as a mark of progress, but the most cursory survey of the publications issued will raise serious doubts as to the existence of “a transition period” such as we hear of continually, both in and out of India. I shall, to support this view, mention a few facts I have gathered from the official lists of publications, and from what I have observed of the book-market in various places in South India; I cannot go beyond this, for I am only acquainted with the extreme south, and conclusions of this kind, it is obvious, can only be safely drawn with regard to a very small part of this vast continent, peopled as it is by so many different races.

The results at which I have arrived, and which I shall give, will be the more striking if I say a few words about the state of education in this Presidency. For more than fifty years a high-class education has been open, almost gratis, to all natives who desire it, and for the last twenty years there has been a university at Madras, and numerous scholarships and prizes have been founded. The masters—at first missionaries, more recently Government officials—have been men of marked ability and energy; as a rule, very superior to the masters of ordinary public schools in England. The population of this Presidency (including native States) is about forty millions; the gross expenditure by Government on the higher education was about £28,000 during 1876, the last year for which I can find a return. The nett amount I cannot discover; but besides this expenditure by Government, there must be an enormous amount spent by missionary societies and private individuals. The only possible way of showing how far these advantages are appreciated is to state that this year the university graduates numbered sixty-five; up to date the total number of graduates of the university is 711. A first-rate medical education is just as easily accessible, and some thirty-six students passed the Medical College the year before last: I cannot find a later return. Several of these graduates are from native States. It is obvious that for so small a number to work on a population of forty millions the only way is by books and periodical publications. This would be a very effectual way also,

for nearly all the members of the higher and middle classes can read and write, and—thanks to the Indian institution of village schools—elementary education is as common in South India as in the most favoured parts of the world. But there is not the least sign of such activity among the university graduates of this Presidency. The Government (official) list of publications is, of course, a mere makeshift. The compiler of it, to do his work efficiently, would need a knowledge of some eight languages at least; and no one acquainted with the books hawked about South India can fail to see that the list is often very defective. It is also very brief. The compiler is usually a native of the class termed “educated.” The reader will, therefore, not be surprised to find a sneer here and there at some of the numerous Christian publications; but what will surprise him most is to find evident traces that the compiler is a devout Hindu, and not merely indifferent to all religions, as some would tell us that the “educated” men always are.

Last year (1877) was an average year, and during it 636 publications appeared in the British parts of the Madras Presidency; of the publications in native States there is no list. Of these, only sixteen can be attributed to persons who have had an education of the higher kind under Europeans, and six of the writers are graduates. One of these brought out two very elementary school-books. Another, after trying his hand at an English play, which afforded much amusement to all classes and excited unmeasured ridicule, has now published a vernacular comedy. The sixteen books comprise seven very elementary school-books, five of the same kind on Law, two on Religion, a copy of verses to the Empress, and the play already mentioned. So far as these books can be taken as basis for an opinion, the University and High Schools might as well have never existed. Two hundred and twenty-five of the remaining items are what would be termed religious publications, being mostly tracts. The Christian Missionaries of various denominations furnish about ninety-one apart from editions of the Bible, &c.; but the Hindus claim ninety-seven, and the Muhammadans thirty-seven. On medicine eleven Hindu books and one Muhammadan were published last year, besides the Hindu book on veterinary medicine: all these are miserable trash, and there is no sign that European medicine has ever been taught at all in the country. Astronomy is taught more or less in the Government schools, but there is not the least trace of this in the list of books printed last year: for, though there were six Hindu and one Muhammadan treatise on astrology printed, there is no indication of scientific astronomy. In the whole list there is only one book treating of the history of a country beyond India, and that is a Muhammadan's History of Turkey. The remaining books on the list are chiefly elementary school-books on Arithmetic and English, and for the most part also aids to “cram.” Beside these there is a large number of cheap and bad reprints of the sacred books of the Hindus and Muhammadans, and also a few Sanskrit poems. The last are nearly all careless reprints of Calcutta and Bombay editions and do not show the least trace of scholarship. A great many songs also occur in the list, and some appear to be very objectionable: for the most part they are religious.

But if after looking at a list of this kind one visits a few native booksellers, it will at once be seen that by no means all the produc-

tions of the press are entered. The most valuable part of the stock consists of religious books such as we find in the list, but every book-vendor has also an immense stock of almanacks, which we do not find in it. These almanacks are purely astrological, and are full of the grossest superstitions. It is plain from them—as may also be inferred in other ways—that the Hindus of South India at the present day are completely ruled by astrological superstitions. It is in this way, I think that the impossibility of understanding the motives of the Hindus is partly to be explained. Beside the almanacks there are numberless books on fortune-telling, &c., to be found in every native bookseller's shop, and they are largely purchased and read. In such a book I found lately traces of evil influences from Europe; a small Tamil tract, I saw in an educated man's hands puzzled me much by the title, but with the owner's aid I at last found that it was merely a Tamil translation of *Napoleon's Book of Fate*, a way of fortune-telling which seems to have been in favour in England, years ago, among kitchen-wenchers. A few educated Hindus, no doubt, tell Europeans that Hinduism is decaying, but it may be strongly doubted whether this has any deeper foundation than what is here called a desire to “please master.” The educated Hindus now-a-days wear as prominent sectarian marks on their foreheads as the most bigoted fanatics; and where eighteen years ago I found some curiosity about European science and literature, I now find utter indifference. Quite lately, two good specimens of the small educated class of Hindus in this Presidency have given up excellent prospects to become religious ascetics. One has established a sort of missionary society, and the other wanders about preaching. Another safe inference from the list of books printed last year is that the Muhammadans, though they frequent but little the Government schools, are by no means the ignorant and illiterate class that they are commonly asserted to be.

In fact, those who are so thoughtless that they would fain see at present a transition stage in South India cannot have perceived the enormous social changes that would thus be brought about. Out of a population of 33,000,000 in British territory, 1,095,445 are Brahmans, and of these less than 9,000 are Government servants. All these are (it must be recollected) priests by birth and profession, and most of them actually live, more or less, by priestly or analogous offices. The higher castes—about 16,000,000 in number—employ and mainly support them. Thus a “transition stage” would involve, firstly, the relinquishment by the Brahmans of an important source of income which is necessary to their existence, for there is no trade or other calling they could all adopt; and secondly, the sudden and causeless abandonment of Hinduism by the middle classes, who are not brought at all, so to speak, in contact with foreign culture. It is obviously not to be expected that those Brahmans (*e.g.*, the officials) who could do it would lead the middle classes away from Hinduism; if personal interests have no effect on a few individuals, caste feelings and interests would prevent them. The lowest castes are those which furnish the larger number of converts to other religions; but the higher castes only object to this because such a change often deprives them of agricultural labourers for their estates, and raises endless difficulties between owners of land and their tenants. It cannot, however, be doubted that the lower castes imitate the

higher castes so far as they can, rather than Europeans, even when they are in contact with the latter. So far as we know the past of South India; the result of contact with foreigners has always been a revival of Hinduism. I need only mention the last great revival in the south in the fourteenth, fifteenth, and sixteenth centuries, during the progress of the Muhammadan conquest. That another such revival has already begun can, I think, hardly be doubted.—*Academy.*]

A. BURNELL.

UNIVERSITY OF MADRAS.

First Examination in Arts.—1878.

Monday, 16th December, 10 A.M.—1 P.M.

ENGLISH POETRY.

Examiner:—JOHN BRADSHAW, LL.D.

The Tempest; Paradise Lost, Book II, and Lytton's Secret Way.

I. (a.)—The *Tempest* may be regarded as a great allegory, and various interpretations of the allegorical significance of the several characters have been proposed. Mention at least two for Prospero and for Caliban.

(b.)—A recent critic interprets the character of Ferdinand as representing Fletcher, and Prospero as intended for Shakespeare.—Who was Fletcher? and what resemblances are found in the acts and speeches of Prospero to justify the latter interpretation?

(c.)—The Ariel of Goethe's *Faust* may be contrasted with the Ariel of the *Tempest*. In the former he calls upon his attendant elfish spirits, to prepare the soul of Faust for renewed energy by bathing him in the dews of Lethe and by driving back remorse. Contrast, on the other hand, how Shakespeare's Ariel works upon the human conscience, and complete the following passage:—

Ling'ring perdition (worse than any death
Can be at once) shall step by step attend
You and your ways; whose wraths to guard you from
(Which here in this most desolate isle, else falls
Upon your heads) is nothing, but
And

(d.)—Two main ideas (each of which may be expressed by a single word) run through the *Tempest*, forming as it were the keynote to the Play?

(e.)—The Epilogue gives echo to them, and falls in with the moral purport of the whole?

II. (a.)—Give the characteristics of Mammon and Beelzebub as portrayed by Milton; and (b.) show how the proposal of each in the Council bore out his character. (c.) Moloch adduces two objections that might be raised to his counsel, and replies to them. State (in prose) the objections and his replies.

III. (a.)—Give in direct narration the substance of the conversation

between Omartes and the priest after the former refused the terms of Zariades, beginning—

"And rightly," said the King,
Did thy prophetic mind rebuke vain glory."

(b.)—Give (in prose, but as nearly in the words of the original as you can) the replies of Zariades to the traitorous offer of Seuthes.

(c.)—(1.) What experiment does Bulwer Lytton say he attempted as regards the metre of the *Lost Tales*?

(2.) He refers to an example by a great poet?

(3.) What reasons does he assign for rejecting hexameter and alternate hexameter and pentameter?

(4.) What does he say his object was in selecting the rhythm he has adopted in these *Tales*?

IV. Explain by a free paraphrase, but without omitting any point:—

(1.) He'll be hanged yet,
Though every drop of water swear against it.

(2.) Though with their high wrongs I am strook to the quick,
Yet with my nobler reason 'gainst my fury

Do I take part; the rarer action is
In virtue than in vengeance.

(3.) You brother mine, that entertained ambition,
Expelled remorse and nature.

(4.) Will he, so wise, let loose at once his ire,
Belike through impotence or unaware,
To give his enemies their wish, and end
Them in his anger, whom his anger
Saves to punish endless?

(5.) Let us not then pursue,
By force impossible, by leave obtained
Unacceptable, though in Heaven, our state
Of splendid vassalage.

(6.) Before mine eyes in opposition sits
Grin Death, my son and foe, who sets them on,
And me, his parent, would full soon devour,
For want of other prey, but that he knows
His end with mine involved.

(7.) Truth so fills this soul
It could not lodge a falsehood even in dream.

(8.) Make mine such talismans and spells,
As banish from the soul

Dreams that annul its longing for the Daylight.

(9.) Soon in that dark pass
Marched war, led under rampired walls by treason

V. Explain the allusions in the first four and the italicised word in the last two of the following:—referring in each case to a passage in one of your three Texts in which the reference or usage is similar:—

(1.) no evil thing that walks by night

Blue meagre hag, or stubborn unslaid ghost

That breaks his magic chains at curfew time—*Comus*

(2.) What was that snake-headed Gorgon shield

That wise Minerva wore—*Ib.*

- (3.) Amber stream,
The drink of none but Kings—*Par. Regained*.
(4.) By *Demogorgon's* name,
At which ghosts quake
Hear and appear— —Dryden.
(5.) If [the ghost] *judged* on the crowing of the cock—
Hamlet.
(6.) Do not believe his vows, for they are brokers,—
Not of the *eye* which their investments show. —*Ib.*

VI. (a.)—Give the meanings of the italicised words in the following connections:—(1) we cannot *miss* him; (2) *wicked* den; (3) Is the storm *over-blown*? (4) now I *want* spirits to enforce art to enchant.

(b.)—State and illustrate the senses in which Milton uses—

- (1.) Venturous
- (2.) Evasion
- (3.) Prodigious
- (4.) Reduce
- (5.) Success
- (6.) Converse

(c.)—Cite three Latin constructions from *Paradise Lost*.

(d.)—To illustrate what is reference made in the Second Book—to Tantalus; the Caspian; Lapland; and Bellona?—

VII. (a.)—Quote from the *Tempest* one example of each of the following:—

- (1.) A grammatical inflection now discarded.
- (2.) A word the accent of which has since changed.
- (3.) A word then being introduced which has since been more Anglicised in form (e.g. *salvage* now *savage*.)
- (4.) The prefix *in*—with a word where we now use *un*—
- (5.) A word then used literally, now metaphorically only.

(b.)—Point out in each of the following a peculiarity of the grammar or construction of Shakespeare's day:—

- (1.) I should sin
To think but nobly of my grand mother.
- (2.) Therefore wast thou
Deservedly confined into this rock.
- (3.) On their sustaining garments not a blemish,
But fresher than before.

- VIII. (1.) Quote Milton's *simile* for the silence that reigned when Beelzebub rose to address the assembly.
- (2.) The *simile* for the wideness of the gates of Hell when thrown open.
- (3.) The *simile* for the difficulty of Satan's journey after leaving Chaos.
- (4.) Lytton's *simile* for the 'shadow of some troubled thought' that fell over the face of Argiope?
- (5.) Quote the *metaphor* and *epithet* applied to Famine in the *Secret Way*.
- (6.) "The monstrous animals," says Addison, "produced in the infernal world, are represented by a single line, which gives us a more horrible picture than a much larger description would have done." Quote the line.
- (7.) Quote the passage from St. James on which the allegory of Sin and Death is based.

- (8.) Quote from the *Tempest* three sayings which have passed into proverbs, and name the speaker of each.
- (9.) Give the dates of—the birth of Milton; of Shakespeare of the First Edition of *Paradise Lost*; of the *Tempest*; of the publication of the First Folio collection of Shakespeare's Plays.
- (10.) Mention three of the most important Editors or Commentators on Milton and on Shakespeare in the eighteenth century.

Monday 16th December, 2—5 P.M.

ENGLISH PROSE.

Examiner:—M. R. WELD, B.A.

Cæsar and Scott's Essay on Chivalry.

I. Explain by paraphrase the following sentences indicating any metaphors that occur in them.

- (1.) Augustus cemented his throne with the blood of his friends.
- (2.) Cæsar manages to make Herda too hot for the Pompeian Generals.
- (3.) Cæsar is hurried into a battle before he knows where he is.
- (4.) It was impossible to Pompey that the sweepings of Rome should prevail over himself and over the Roman Senate.
- (5.) Cæsar's mouth waters as he recounts them.
- (6.) It was essential that he should select a lady to be the Polar star of his thoughts.
- (7.) Some enterprise that bath a stomach in it.
- (8.) The minstrel is at a loss to say whether the palm of true love should be given to the Knight or to the lady.
- (9.) The sword did not always reap a good harvest.
- (10.) He mixed superstitions with a leaven of blasphemy.

II. Give the derivations and meaning or meanings (including those now obsolete if any; of the following words;

Kernel.	Transport (S).	Commentary.	Patrician.
Villain.	Harness.	Bachelor.	Gentle.
Knight.	Lusty.	Knave.	Lurdane.
Romance.	Damsel.	Acquit.	

III. (a.)—It has been said that Cæsar was perfect, and that his name is the greatest in history. Who made the assertions and to what extent are they true?

(b.)—Discuss Cæsar's clemency, sense of duty, his love of his country, and the motives which urged him to undertake the conquest of Gallia.

(c.)—Discuss the following statement with examples from ancient and modern history.

"In looking back at the annals of the world we generally find that despotic power has first grown out of popular movement against authority."

- IV. (a.)—Give the modern names of the countries included in ancient Gallia, its divisions, the names of the tribes, with whom Cæsar first engaged in hostilities, and who were considered the allies of Rome, indicating the locality inhabited by each.
- (b.)—Describe the fighting round Gergovia and Alesia, and state the happy allusion made to it in a subsequent speech of Cæsar's.
- V. (a.)—Describe the circumstances under which Pompey took up his position at Petra, Cæsar's operations against it, and Pompey's counter operations.
- (b.)—Give a very brief account of the battle of Pharsalia indicating how Pompey thought he could win it and how Cæsar's foiled him.
- VI. Give the substance of Cicero's criticism on Cæsar's commentaries. What is the chief characteristic of Cæsar's style. Illustrate this by comparison with other authors.
- VII. (a.)—Modernize the following passages—
- (1) Every wight that would, his thankès, have a passant name.
 - (2) Everich after his opinion.
 - (3) I rede ye flee.
 - (4) His vysage fayre, sanguyne and smyling, his eyen gray and amorous, wher as he lyste to set his regarde.
 - (5) He was of good and easy acquayntance with every man and amorously wold speke to thee; he was short in counsayle and answers.
- (b.)—Write a brief explanation of the following passages—
- (1) "The pain of history consists in the injustice of the wolf towards the lamb; joined to the conviction that thus and no otherwise could the lamb be brought to better than a sheepish mode of existence.
 - (2) "It may be better for Pompey that he should stamp his foot somewhere out of Italy."
- VIII. Trace the Germs of the institutions of chivalry in the customs of the Gothic or Germanic tribes.
- IX. Name and describe the degrees of chivalry.
- X. Describe the style of Scott and of Trollope, illustrating your answer by quotations from the 'Essay on Chivalry' and 'Cæsar'. (Note peculiarities, and points of resemblance or contrast).

Tuesday, 17th December, 10 A.M.—1 P.M.

GENERAL ENGLISH.

Examiner.—H. B. GRIGG, B.A.

Put into plain and terse prose extract (a)

Paraphrase extract (b).

(a.)—Ring out, ye crystal spheres,

Once bless our human ears,

If ye have power to touch our senses so

And let your silver chime

- Move in melodious time;
And let the base of heaven's deep organ blow;
And with your ninefold harmony,
Make up full consort to the angelick symphony.
For, if such holy song
Inwrap our fancy long,
Time will run back, and fetch the age of gold;
And speckled vanity
Will sicken soon and die,
And leprous sin will melt from earthly mould;
And hell itself will pass away,
And leave her dolorous mansions to the peering day
- (b.)—We have shewn that the war just concluded is no isolated episode in history; it is only one war of a series, brought about by the same means and with the same objects as all former contests between Russia and Turkey. We are now face to face with Russia without her mask. The pretence of Livadia has been dismissed. Russia claims by right of conquest to hold the territories she has gained. The question now is the one which rose before the Crimean war: with one important exception. Then the Powers had to deliberate how much Russia should be permitted to take—now it is how much she shall be permitted to keep. At first sight a most important distinction. But it will not, we think, be difficult to shew that we have the solution in our own hands, and that England holds the effectual key of the situation.
- II. Explain the following figures of speech—and give an example of each.
- Allegory—metaphor—simile.
- III. Point out the allusions in the following passages:—
- (1) In short the whole comedy was an El Dorado of wit.
 - (2) For truth is precious and divine,
Too rich a feast for human swine.
 - (3) A Triton among minnows.
 - (4) Lap me in soft Lydian airs.
 - (5) Gospel light first dawned from Bullen's eyes.
 - (6) The devil can cite scripture for his purpose.
- IV. What are the principal metres used in English poetry, and to what description of poetry do you think each best suited?
- V. Quote an English proverb enforcing each of the following virtues:—
- (1) Thrift, (2) truthfulness, (3) decision of character, (4) courage (5) charity.
- VI. Explain the meaning of each of the following extracts with special reference to the words italicized:—
- (1) Most perfect hero, tried in heaviest *plight of labours* huge and hard.
 - (2) Their own *conceits* they followed still.
 - (3) The glorious uncertainty of its (law) is of *naïve* use to the *professors* than the justice of it.

(4). The *divine right of kings* to govern wrong.

VII. What is meant by the history of a language? Illustrate your answer by reference to the history of the English language.

VIII. Express the following quotations in modern English, not paraphrasing:—

- (a). After began he for to wexe wyse and riche. He was governour and Prince of the land of Corrodane, and he govoured it full wysely, and in such mannere that when the prince was ded, he toke the lady to wyfe that highte Gadridge.
- (b). Her avauntage is, that thei lerneth her gramer in lesse tyme than children were wont to do. Dis-avauntage is, that children of gramer scole kun-neth no more Frensch than can her lifte heel.
- (c). He hazardeth sore that waxeth wyse by experience.
- (d). There is a young shepherdess knitting and withal singing; and it seemed that her voice comforted her hands to work, and her hands kept to her voice music.

IX. Eliminate the prefixes in the following words—give their force, and state to what language they are more directly allied. In each case what other prefix of different linguistic origin has a similar force?

foreswear—anarchy
conference—differ
beshrew—epidemic
award—insolent

X. Distinguish between gender and sex. How are distinctions of gender marked in English?

XI. What is the verb? How may verbs be classified? What is the vital distinction between strong and weak verbs.

XII. Name the era and author of the following works:—

Don Juan—Sentimental Journey—In Memoriam—Vision of Piers Ploughman—the Canterbury Tales—L'Allegro—Arcadia.

Tuesday, 17th December, 2—5 P.M.

PHYSIOLOGY.

Examiner.—Surgeon-Major E. F. BROCKMAN, F.R.C.S.

I. (a). Describe a method of preparing a specimen of blood for microscopical examination. (b) What microscopical power is necessary to display the physical characters of the blood? (c) Describe what is to be seen in a freshly prepared microscopical specimen of human blood.

II. What is meant by “amoeboid movement?” What structure of the body would you select by which to demonstrate such movements.

III. Enumerate the parts of the body in which “valves” are found. What purposes do they fulfil?

IV. Describe the Mechanism of an Inspiratory act, and the results thereby produced on the (1) blood and (2) inspired air.

V. What are Proteid, Amyloid and Oleaginous Foods? In what does Chyme differ from Chyle?

VI. What is “rigor mortis,” and in what kinds of tissue does it occur?

VII. Explain the following terms:—Peptone, Ptyalin, Molar, “reflex action,” “peristaltic action,” “valvulae conniventes.”

VIII. What are the structures entering into the formation of a joint? Describe a “hinge-joint,” a “ball-and-socket” joint, and a “pivot-joint;” and give an example of each.

IX. Describe the peculiarities of the cardiac cavities, and how they differ from each other. What changes occur in the Heart during a “Ventricular systole?”

X. Name the different passages along which the inspired air passes to reach the lungs. What is signified by:—

- (a).—Complemental air.
- (b).—Residual air.
- (c).—Tidal air.
- (d).—Supplemental air.

Wednesday, 18th December, 10 A.M.—1 P.M.

LATIN: GRAMMAR &C.

Examiner.—R. B. MICHELL, M.A.

I. Et te tua fata docebo. Mention any other verbs, besides this, which take a double accusative (of the person and of the thing).

II. How is ergo used otherwise than as an adverb? Quote an example of such use from the 6th Book of the Æneid.

III. Comment on the construction or idiom of the italicized parts of the following extracts from your text-books:—

- (a) *Noctes atque dies patet atri janua Ditis.*
- (b) *Sed revocare gradum, superasque evadere ad auras.*
Hoc opus, hic labor est.
- (c) *Constituit. nigrantes terga juvencos*
- (d) *Euse ferit. ipse atri velleris agnam*
- (e) *Hos juxta damnati crimine mortis*
- (f) *ardentem et torva tuentem*
- (g) *solidoque adamante columnæ.*
- (h) *Dulci laborum decipitur sono.*
- (i) *Vidimus flavum Tiberim*

Ire dejectum monumenta regis.

- (j) *audax omnia perpeti*
gens humana.

IV. What are the forms of Diminutives of Substantives in Latin? Give rules for their formation, with examples.

V. Distinguish, in meaning, securus from tutus; lituus from tuba; cupio from desidero; hostis from inimicus; te consulit from tibi consulit.

VI. Write etymological notes on the following words: lex; jus; integer; auspex; negotium; pecunia.

VII. Translate the following extracts from your text-books, and explain the parts in italics :—

- (a) *nec vero velim, quasi decurso spatio, a calce ad carceres revocari.*
- (b) *Ille nefastus erit per quem tria verba silentur.*
- (c) *Agamus igitur pingui Minerva, ut aiunt.*

VIII. Mercuri, facunde nepos Atlantis. Mention other adjectives, besides the one in this line, which are formed by the same suffix, added to their roots.

IX. Repens; malis; canis; vere; fore; suis; seni; severis :—To what two or more Parts of Speech does each of these words belong? Parse, and give the meaning of each, and the quantity of each of its syllables, according as it belongs to one Part of Speech, or another.

X. *Lat. infāmis, Eng. infamous; Lat. veterānus, Eng. veterān; Lat. insuperābilis, Eng. insuperable.* Give other instances of English words derived from Latin, showing that it is a characteristic of the English language, that the accent is thrown forward on the earlier syllables of words, and that consequently later syllables which were long in Latin become short in English.

XI. How was the appointment of a Dictator made at Rome? What peculiar circumstances attended the appointment of Quintus Fulvius as Dictator, as related by Livy in his 27th Book? Why was a Dictator appointed then?

On what other occasion, narrated in that Book, and on account of what extraordinary position of affairs, was a Dictator elected, and who was he?

XII. To whom, and what events does Vergil refer in the following lines?

Aggeribus socer Alpini atque arce Monæci.
Descendens; gener adversis instructus Eois.

Wednesday, 18th December, 2—5 P.M.

LATIN: TRANSLATION AND COMPOSITION.

Examiner.—R. B. MICHELL, M.A.

1. Translate into English :—

- (1.)—Elephanti plures ab ipsis rectoribus, quam ab hoste, interfecti. Fabrice scalprum cum malleo habebunt; id, ubi sævire bellum ac ruere in suos coeperant, magister inter aures positum, ipso in articulo, quo iungitur capiti cervix, quanto maximo poterat ictu, adigebat. Ea celerrima via mortis in tantæ molis bellum inventa erat, ubi regendi spem vicissent; primusque id Hasdrubal instituerat, dux quum sæpe alias memorabilis, tum illa præcipue pugna. Ille pugnantes hortando, pariterque obeundo pericula, sustinuit; ille fessos abnuentesque tædio et labore, nunc precando, nunc castigando, accendit; ille fugientes revocavit, omissamque pugnam aliquot locis restituit; postremo, quum haud dubie fortuna hostium esset, ne superesset tanto exercitui suum nomen secuto, concitato equo se in cohortem Romanam immissit. Ibi, ut patre Hamilcare et Hannibale fratre dignum erat, pugnans cecidit.

- (2.)—“Anchisa generate, deum certissima proles,
Cocyti stagna alta vides, Stygiamque paludem,
Di cuius jurare timent et fallere numen.
Hæc omnis, quem cernis, inops inhumataque turba est;
Portitor ille, Charon; hi, quos vehit unda, sepulti.
Nec ripas datur horrendas et ranca fluentia
Transportare prius, quam sædibus ossa quierunt.
Centum errant annos, volitantque hæc litora circum:
Tum demum admissi stagna exoptata revisunt.”
- (3.)—Necnon et Tityon, Terræ omnipotentis alumnus,
Cernere erat, por tota novem cui jugera corpus
Porrigitur; rostroque immanis vultur obunco
Immortale jecur tondens, fecundaque panis
Viscera, rimaturque epulis, habitatque sub alto
Pectore; nec fibris requies datur ulla renatis.
Quid memorem Lapithas, Ixiona Pirithoumque?
Quos super atra silex jam jam lapsura cadentique
Imminet assimilis.
- (4.)—Omnia vero quæ secundum naturam fiunt sunt habenda
in bonis. Quid est autem tam secundum naturam, quam
senibus emori? quod idem contingit adolescentibus,
adversaute et repugnante natura. Itaque adolescentes
mori sic mihi videntur, ut quum aquæ multitudine vis
flammæ opprimitur; senes autem, sicut suæ sponte,
nulla adhibita vi, consumptus ignis extinguitur; et,
quasi poma ex arboribus, si cruda sunt, vi avelluntur,
si matura et cocta, decidunt, sic vitam adolescentibus
vis aufert, senibus maturitas; quæ mihi quidem tam
jucunda est, ut quo propius ad mortem accedam, quasi
terram videam videre, aliquandoque in portum ex longa
navigatione esse venturus.
- (5.)—Immortalia ne speres, monet annus et alium
Quæ rapit hora diem.
Frigora mitescent Zephyris, ver proterit æstas.
Interitura, simul
Pomifer auctumnus fruges effuderit, et mox
Bruma recurrit iners.
Damna tamen celeres reparant celestia lunæ;
Nos, ubi decidimus,
Quo pater Aeneas, quo dives Tullus et Ancus,
Pulvis et umbra sumus.
- (6.)—Intactæ fueratis, aves, solatia ruris,
Assuetum silvis, innocuumque genus;
Quæ facitis nidos, quæ plumis ova fovetis,
Et facili dulces editis ore modos.
Sed nihil ista juvant, quia linguæ crimen habetis,
Dique putant mentes vos sperire suas.
Nec tamen id falsum; nam, Dis ut proxima quæque,
Nunc penna veras, nunc datis ore notas.
Tuta diu volucrum proles, tum denique træsa est,
Juveruntque Deos indicis exta sui.
- (7.)—Quare quum et bellum sit ita necessarium, ut negligi
non possit, ita magnum, ut accuratissime sit adminis-
trandum, et quum ei imperatorem præficere possitis,

in quo sit eximia belli scientia, singularis virtus clarissima auctoritas, egregia fortuna: dubitabitis, Quirites, quin hoc tantum boni, quod vobis ab diis immortalibus oblatum et datum est, in rempublicam conservandam atque amplificandam conferatis?

II. Translate into Latin:—

Against this mixed multitude, consisting of persons of all ages and ranks, and straggling through the fields, mostly unarmed, Hamilcar the Carthaginian sent forth his cavalry, who having received orders not to hurt any of them, only threw their squadrons in their way, to cut them off from the city in their scattered flight. The general himself, having taken his station on an eminence, which commanded a view of the fields and city, ordered a cohort of Bruttians to advance to the walls, and invite the leaders of the Locrians to a conference, and, with the promise of Hannibal's friendship, to exhort them to surrender the city.

A ONE-SYLLABLED COMMUNICATION.

A FEW SHORT WORDS ON WAR AND STATE-CRAFT.

TO THE EDITOR OF THE "FALL MALL GAZETTE."

SIR,—It is some months past since I writ you a note in quite short words, in which I said that in such short words, much good lore might be set forth, if a man would but take the pains. And now I think it is full time one should try so to do once more: for the folk who spend much ink and use long words (and there be of them that pass for right wise too) do now set forth a new and strange lore of state-craft, which doth so touch the things of peace and war, as the use of the same hath from old time and till now been in this realm, that, if they shall have their own way with no let, it is full hard to see how the work of this land may be done in time to come.

Sir, we rule a great land far in the East, a land of men who speak not our speech and think not in our ways. We gave them peace when they had war, and we give them food in bad times, when their old kings, save a few of the best, would have let them starve; and we judge them by their own laws, and take not gifts as their old kings did, nor look to the right hand or the left. Yet, though we strive to be just in all things with them, we must needs fail at times, for that their ways and their laws are strange to us; and they love us not much, nor is it like they should. All this is a great weight on our backs, and no small thing to bear; yet it is a great thing to have done in the world and there is much more good we may yet do there; and though it bring us no gain, I think most of us are proud of our work, and would not cast it off if we could. On the north-west march of that land are great hills, and wild folk dwell in them. They love not peace nor law, but lift our folk's crops and herds when they get a chance; and then we have to send men to smite them with the edge of the sword and burn their huts. But if a strong man will come from the back of the hills and show them spoil to be had in the plains, with him they will go down with great joy. So they have been wont to do, and so they would now if such

a man came. And at the back of those hills is a prince who bears rule on folk not much less wild and rough than these. So long as he would be friends with us we let him be; and so we did for long years: there are some now who say we did so too long. But on the far side of his land is a great realm, and the men who rule it are not yet wise, but their state craft is young and rude, though it is sharp and heeds not the truth so much as we do in the West. For they are half of the East; and in the East they have not yet found out the worth of the truth, though these be fine things writ of it in their old books. And they say the king of this realm, whom they call Czar, is in his heart good, and would fain be a man of peace. How that may be it is hard to know; but it is a sure thing that his men of war lust for more and more land in the East, and it seems he has no might, if he has the will, to hold them back. Some six or eight months past, when the Czar smote the Turk and would fain make spoil of him, we thought we should go near to have to fight the Czar; and though we have made our peace and have not fought, we know not how long it may last. Now the prince of the rough folk whose land doth march with ours would not have one of our men sent to dwell with him, though we did more than once ask him. For he said, My folk are rough, and I know not if your man would be safe. And if it went ill with him at the hand of my folk, what then could I say? And so we let it be. But lo, now the Czar hath sent to him not one man but a troop; and they have arms with them and new guns; and if the tale be true, men of skill to make more and show the troops of this prince the new ways of fight that have been found out in the West. And the prince let them not from their way to him; but they have come in, and they dwell in his town as friends. I think it is plain to see that this means no good to us. So we sent to say, This will not do; if you mean no harm to us, then you must let in a man of ours as well as the men of the Czar. You must be friends with both or keep out both. For if the men of the Czar are there with you, and you and your folk do as the Czar and his men list, we shall have no peace on our north-west march. But that prince would not so much as let us bear to his town the words we had to say, and he sent back our men and said he would have none of us. So those who rule the East land for us have said that they must hold him as foe; yet they sent him one last word, to see if he would change his mind and be wise in time. It may be that when we dealt with that prince, in days past we have not been wise, and that if we had been wise he might still be our friend. That tale we shall have to thrash out one of these days, and there be some in high place who may not come too well out of it. But that does not show what else could be done now.

There is an old saw in our books, "The Queen can do no wrong;" but there are now men who have found out such a new way of state-craft that they seem to think men who are set by the will of the whole folk to treat of peace and war and bear rule in fair lands in the Queen's name can do no right. And as I have said, there are some in this band who pass for wise men, which I think is sad. But so it is, that these men of the new sort rise up and say that all this which is to be done to guard our north-west march is quite wrong: It is true they are in their right to say so. For in this land

each man is free to have his own mind on all things that touch the folk's weal, and to speak it too. And if one thinks him wrong, he can but try to bring him round to one's own mind; for thus must free men deal, and it is best in the long run, though it may seem slow to get men to be of one mind. And so far there is no harm: though it seems odd that men who have borne rule in their day, and know more than they may tell, and might bide their time too to speak their mind in the House of Lords, should be so fain to mix in this gear, not to say take the lead in it. But this is not all; for these men would fain go to the chief lord of this folk's house and say to him, We bid you give charge to the lord of the East that he stay his hand, and send forth no man of war past the north-west march till the mind of this land be more known. Yea, and it seems they would have nought done in such a thing till the Queen should call the great folk-moot, and the Queen's men should know their will. And it is in this rede of theirs that seems to me a new and a fond thing. Time waits for no man small or great, nor yet for the folk-moot; and what if a foe should vex us in far lands and spoil our goods or ere a folk-moot could be had? Thus it hath been used of old time that as well in things of peace and war as in all things of State which need not new laws to be made, the men which are set to bear rule by the choice of the folk and of the folk-moot shall do the thing that seems best in their eyes for the folk's weal, and shall do it with their whole strength. And when the folk-moot is met, then shall there be speech of the thing they have done, and they shall show it all forth that men may judge their work. And if they have done well, they shall have praise; but if ill, they have blame and be cast out, and serve the folk no more for that time, but there shall be new men in their room to see to the land's weal and give rede to the Queen in things of State. But if they are to do nought of their own head, but give ear to them that go to and fro in the street, that so they may learn what most men would fain have them do, I see not what gain it is to this land to have men set to bear rule at all.

It is a sad thing to say, but this is in part their own fault. For there was one in a high place a year or two past to whom there came a band of men to talk of things of State; and he spoke to them in this wise: Fair Sirs, I am right glad to see you; for I have no will of my own but to do the mind of those who put me here, and all I care for is to know that. Now this was not a brave nor a wise thing to say; and I am sure that if this folk is wise, and will not be vain and puffed up with the talk of fools, it will not think well of those who treat us thus. For it will say to such an one: "Lo, we have set you to deal with things of State, for that we held you a wise man and put our trust in your skill. And if your wit reached not to do right in these things, how much less shall our wit? for we have no skill in them, and know not the things which you know. Come not then to ask us what you shall do, but go and do your work to the best of your skill; then come and show us how you have done it, and you shall know our mind, if we be well pleased or no." When I bid a man bake bread or make shoes for me, shall I not laugh at him if he come back to me and pray me to teach him his own trade? I think I should get no more bread or shoes from that man. But I fear some of our new sort, who think no state-craft but their own is good for aught, have come to think that it is as light

a thing to rule a great realm as to make shoes and bread—yea and a less thing. For no man who has his wits will say nay to this, that a man who will make shoes must learn the trade first. Our new wise men should do well to look at an old book of things said by that wise man of Greece whom his folk put to death in a mad fit, for that, as they said, he brought in strange gods; but their hate was in truth of his own plain speech. They would find some things to think on in that.

But as for this band who would fain have gone up to talk with him who now bears chief rule, that lord hath sent them word back; and he hath made it with great skill of tongue, as his wont is fair and smooth to see, but in truth it is right sharp: and it is what in plain speech we call a snub. And though I am a Whig, and love not that lord's ways of state-craft, I think he is quite right this time, and I hope it will do our new sort of wise men some good.—I am, sir yours, &c.

II.

MISCELLANEOUS.

DARWIN.—In a series of sketches of eminent men the *World* has given some graphic pictures of their home life and peculiarities. We quote the following from an article on Mr. Darwin:—"Mr. Darwin's books are founded upon no hasty generalisations from facts collected by others, but on patient and independent observation. Yet so persistent have been his labours that a mere catalogue of them would fill a column of this journal. Since his return from the memorable voyage of the *Beagle*, he has been constantly present to the scientific world. It was a happy thought of Captain FitzRoy to offer, on setting out in 1831, to give up part of his own cabin to any naturalist who would accompany the ship on her now historic survey. Mr. Darwin had just then taken his degree at Cambridge, his preliminary studies having been made at Shrewsbury School, under Dr. Butler (afterwards Bishop of Lichfield), and then for two years at the University of Edinburgh, when he devoted some time to marine zoology; and read his first papers before the Plinian Society, on the movement of the ova of *Flustra*. On hearing of Captain FitzRoy's offer, he at once volunteered his services without salary, but on condition that he should have the entire disposal of his collections, all of which deposited in various public institutions. His work covers an immense area of thought, extending over zoology, botany, and geology, in each of which he has made the mark of an original and powerful mind, enriched by long research. The bulk of work of this kind conveys but the dimmest idea of the toil involved in the collection of material, and spent in experiment and observation. In actual writing, Mr. Darwin works on a plan of his own, in very short spells—never exceeding a couple of hours—and never commenced until the evidence has been carefully collected, arranged, and duly pondered over. In one respect, despite his vexatious attacks of illness, Mr. Darwin must be considered a fortunate man. During the whole of his life he has been in easy circumstances, above the toil of earning an income. Unlike many philosophers, he has not had the mortification of spending his best hours in the drudgery of official routine, or the hardly less wearisome task of teaching. He has been enabled to devote his entire time to his favourite pursuits, and since his marriage with his cousin, Miss Emma Wedgwood, has resided at Down, amid the rich and varied scenery of one of the prettiest parts of Kent. Thus, free from the disturbing influences of the world, he can well afford to treat with admirable good-humour the attacks of scientific

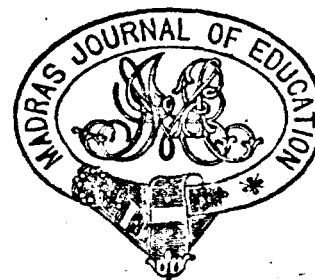
opponents, and the jokes of ignorant folk incapable of understanding either his books or himself. When young he pursued field-sports with the combined interest of the hunter and the naturalist; but of late years he has found his chief relaxation in reading the popular novels of the day, feeling, like Auguste Comte, that the scientific bow requires frequent unbending. In his treatment of books and specimens, he resembles Mr. Carlyle—caring nothing for them when read or thoroughly investigated. His books and plants are always at the service of his friends and neighbours, among whom one of the nearest is Sir John Lubbock. Finally, let it be remembered that Mr. Darwin has exercised no common degree of moral influence on the scientific world. Completely possessed with the idea of absolute truth at all hazards, he abhors tampering with or shaping facts to suit preconceived theories. It is, perhaps, hardly too much to say that no man has exercised a more powerful influence on the study of natural history since Aristotle himself."

THE English *Spectator* writes:—"A great controversy has been raging as to the proposal that all middle-class schools should be inspected by Government Inspectors, just as all elementary schools are. Some of the head-masters say it would degrade the character of the profession, and render independent men reluctant to enter it; since their reputation and character might be thus placed at the mercy of very inferior men. But we very much doubt whether the necessity for any compulsory measures will arise. It is quite certain that the best middle-class schools—whether private or public—are more and more *courting* inspection from the Universities of Oxford, Cambridge, and London; and that very soon parents will not be willing to send their children to schools which cannot show evidence from some independent inspection that they teach in the right method, and turn out a good average of well-educated boys. The need of inspection in order to secure confidence is so great, that the schoolmasters who shrink from it will, before very long, be schoolmasters without scholars."

APPOINTMENTS, &c.

Appointments made between the 16th January, 1879 and 14th February 1879.

- Mr. L. C. Williams to act as 2nd Master, Presidency College.
- N. Vaidinada Iyer, 4th Assistant Provincial College, Combaroom to act as 2nd Master, Provincial School, Bellary and Curator of the District Book Depot.
- K. Venkataratnam Puntulu to be 2nd Telugu Puudit, Presidency College.
- B. C. Ramasawmy Iyer to be Head Master Substantive *pro tem* of the Taluk School, Udimalapettah on Rs. 40 per mensem.
- S. V. Melagin Row, to be 4th Master Substantive *pro tem*, Zillah School, Kurnool, on Rs. 40 and to act as 3rd Master.
- A. V. Bheema Row to act as District Curator, Kurnool.
- Mr. L. Dique to be Assistant Master, Zillah School, Cuddalore.
- L. Ramadasayar to be Assistant Master, Substantive *pro tem*, Zillah School, Salem on Rs. 125.
- T. V. Subramier to be Assistant Master Substantive *pro tem*, Zillah School, Salem on Rs. 100.
- T. V. Sreenavasa Iyer, to be Assistant Master, Substantive *pro tem*, Zillah School, Salem on Rs. 70.



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THE MONTH.

SCHOOL Anniversaries and Prize distributions are now the order of the day. Our new Chief Justice, The Hon'ble Sir Charles Turner C.J.E., has already presided at several of these meetings, thus showing the interest he takes in Education. At the Anniversary of the Madras Christian College, his Lordship the Bishop of Madras presided, and in his speech plainly declared that he is not among those who hold that money spent by Missionary Societies on the higher education is misspent, but that he conceives it to be the duty of the Societies to retain the influence they thus hold on the minds of the rising generation of the most intelligent classes of the Indian community.

The Convocation Address by the Right Rev. Bishop Caldwell was a great success. The speech was much better heard than the speech of last year. This we think was owing to the judicious way in which the speaker controlled a voice not naturally strong, and the result in no way justified the opinion so freely expressed after the Convocation of last year, that the great hall of the Senate house, whatever be its other merits is acoustically a failure. The whole of the learned Bishop's speech was wise and practical, but we cannot here refrain from quoting the noble words in which he points out to every educated Hindu a wide field,

of philanthropy at his very door, in the enlightenment of the labouring poor :—

There is another department of educational work of great national importance which has not yet come to be regarded by Natives of the better classes with as much favour even as female education. I refer to the education of the labouring poor. Here is a noble and most extensive field for the exercise of that enlightened, large-hearted philanthropy which it is the great ultimate aim of the higher education to foster; and if this field has generally hitherto been left uncultivated and uncared for by educated Natives—if their efforts for the diffusion of the benefits of education have too generally been confined within the limits of the classes to which they themselves belong—all the more credit will be due to those generous spirits who break through the barrier of class exclusiveness and set themselves to promote the greatest happiness of the greatest number.

I think I may say without exaggeration that the world does not present a finer sphere for turning theories of doing good into practice than that which educated Natives will find opening before them in every direction, if they set themselves to help forward the education and elevation of the hitherto neglected masses. It may safely be said that one fourth of the rural population in this part of India belongs to classes for whose improvement nothing has ever yet been done, except by Europeans. One set of rulers after another has arisen and fallen, but the condition of the labouring classes has remained unchanged. They themselves did not care for education. Even the wish to become wiser or happier than they were at length died out. And if by any chance any of them did entertain a wish to rise, they were precluded from rising by the prejudices of the upper classes. I ask now what nobler object educated Hindus can propose to themselves than that of teaching these myriads of "dumb, driven cattle," that after all they are men. Dispel their ignorance, strike off their fetters, allow them to entertain some hope of bettering their condition, and even the horrors of those periodical famines, from which they suffer more than any other class, will be found to be capable of mitigation. If you do good only to the members of your own class and order who can requite you again, "what reward have ye?" The truest beneficence consists in doing good to those who are beneath you, who cannot requite you in any way in kind, and who possibly may have sunk so low as to be unable to requite you even with gratitude.

From an Analysis of the List of Candidates who failed at the late Matriculation Examination, it appears that 75.5 per cent., failed in English, 62.25 in general knowledge, 43.05 in Mathematics, and 27.3 in the Vernacular language. Only 2.1 per cent., failed from a deficiency in the total number of marks, and only 1.75 were absent. Of the 2,641 who registered their names, 312 failed in all subjects, 679 in three subjects, 636 in two subjects, and 558 in one subject only. 50 candidates absented themselves from the examina-

tion, and only 356 were successful, viz., 20 in the First and 336 in the Second Class.

GREAT inconvenience being experienced from the delays which take place in the submission of the Annual Returns of Government and Aided Institutions, the Director of Public Instruction has requested that the establishment and salary grant bills due on the 1st April 1878, may not be passed by the Accountant General unless they are accompanied by a memorandum from the Principal, Headmaster or Manager of the institution, certifying that the Returns have been duly despatched and that the salary bills of the Deputy Inspectors due on the 1st May, may not be passed unless the Inspector of the Division certifies that he has received their Annual Reports and Returns, or that the delay in the submission of such Reports and Returns is not due to any negligence on the part of the officer concerned.

We have much pleasure in congratulating Rao Bahadur Gopal Rao, on the distinction deservedly conferred upon him in the Sanad which we quote below. Schoolmasters are the most useful servants of the State, but it is very seldom indeed that their services are so gracefully recognized by Governments. The honour shown to a man is too often, and in India especially, measured by his pay, and as a rule, Schoolmasters have small pay and little honour.

SANAD.

To

TANJORE GOPAL RAO,

Officiating Principal of the Provincial College, Combaconum.

In recognition of your high character as a Native Educationist, I hereby confer upon you the title of "Rao Bahadur," as a person a distinction.

FORT WILLIAM,

1st January 1879.

(Signed) LYTTON,

Viceroy and Governor-General of India.

In our January number, we pointed out the hardship of the sudden reduction of grants to Institutions engaged in the Higher Education in the Town of Madras, and suggested that Government should be memorialized on the matter. We are glad to observe that this was one of the points brought before his Grace the Governor in the Memorial of the Missionary bodies recently presented to him.

and that the Governor has consented that the reduction of grants shall not take effect until July instead of from the 1st of April as proposed. This will allow time for the various Missionary bodies to receive instructions from the parent societies at Home as to how the reductions are to be met, and will otherwise give time to the local secretaries to devise ways and means.

It has been hitherto the practice for salary grant bills to be submitted for the countersignature of the Director of Public Instruction, when any change is made in the amount of the grants or when a grant is transferred from one teacher to another.

As copies of all Proceedings relating to changes in the grants are communicated to the Account Department, all that is necessary in the Accountant General's opinion is for the Managers of schools to quote in their salary grant bills the No. and date of any Proceedings sanctioning such change. No countersignature will in future be required.

It is officially notified that in accordance with Bye-laws 49 and 64, candidates for the F. A. and B. A. Examinations must produce certificates of attendance for a period of eighteen months at an affiliated Institution. A supply of forms of certificate will be furnished in due time to all Institutions.

The period of eighteen months is to be calculated up to the date of the application and certificate, and is to include the ordinary holidays and a moderate amount of necessary casual leave.

It is not deemed necessary that the prescribed period of study should immediately precede the application for admission to the examination, or that candidates who fail should be compelled to join a recognised Institution for an additional period of eighteen months. Attendance at any previous time at a College or Collegiate School now affiliated will be considered by the Syndicate as satisfying the conditions laid down in the Bye-laws above mentioned. But in every case a certificate of such attendance must accompany the application.

The Syndicate has power to consider and decide on exceptional cases as contemplated by Section XII of the Act of Incorporation. But as no general rule has been laid down beforehand with regard to these exceptions, each case will have to be considered on its own merits. The Syndicate, however, wishes it to be clearly understood that applications for exemption from the operation of the rule cannot be received earlier than the 1st or later than the 31st of the month of July preceding the examination.

• Mr. Venkatarama Pantulu's name appears by an oversight to have been omitted from the first list of new Fellows of the University, and we are glad to see that in a supplementary notification the omission has been supplied. We

however, notice a still stranger omission. On looking down the list of Fellows, we are unable to find the name of Mr. J. Murdoch, LL.D., of the Glasgow University, and Agent of the Christian Vernacular Education Society for India, than whom there is no man in Madras more worthy of the honour. Dr. Murdoch is an indefatigable worker in the cause of Indian Education, and very few men in the country whether Government officials, or private individuals have done a tithe of what he has done to advance that cause directly and indirectly. It is strange indeed that though his work has been recognized by Glasgow, his own University, his name should have been so long passed over by the University of the country where his best years have been spent. No one, we are sure, would be less likely to seek such honour for himself, for his whole life is spent in quiet, unremitting labour, but in honouring such a man as Dr. Murdoch the University would thrice honour itself.

CANDIDATES in Sanskrit for the B.A., degree of 1881, are informed that they will have to prepare Pages 1—198 of the Calcutta Edition of *Kadanuburi*.

Out of 5 candidates for the M.A., degree the undermentioned Candidates have just passed the examination :—

Branch I. Second Class.

Chinnasawmi Mudalyar, A. B.A., St. Joseph's College, Negapatam, and Private Study.

Branch V. Second Class.

Kodandaramayya, G. B.A., Madras Christian College and Private Study.

We learn from the *South Indian Post* that Mr. Chinnasawmi Mudalyar, is the son of Annasawmi Mudaliar of Combaconum; he took Latin for his optional language. Mr. Chinnasawmi Mudalyar was a student of St. Joseph's College, Negapatam, and began to study for this degree only six months prior to the examination. Up to this year, we believe that only one candidate before Mr. Chinnasawmi had passed in languages for the M.A., degree of the University of Madras (3rd Class), taking "Sanskrit" for his optional language.

To Mr. G. Kodandaramayya, the Norton Prize has been awarded.

THE Degree of Bachelor of Sciences is to be established in connection with the Bombay University.

MR. Basil Lavery, the respected Principal for so many years of Pachiappa's High School has been appointed to act as Secretary to the Commissioner for the Uncovenanted Civil Service Examinations in place of Mr. George Duncan, who has proceeded to England, on two years' furlough.—The *Madras Standard* thus speaks of the appointment :—

The appointment of Mr. Basil Lavery, ex-Principal of Pachiappa's High School, as Mr. Duncan's *locum tenens* during the latter gentleman's absence on leave will meet with general approval. Mr. Lavery's great experience as an educationist and his distinguished services in connection with Pachiappa's High School mark him out as one well fitted to occupy any position in the educational department. The Secretaryship to the U. C. S. Examinations is not quite a sinecure, considering the very large number of candidates examined for the U. C. S., Special and Medical tests. Much vigilance and caution are necessary for the prevention of those occasional frauds and irregularities that arise from dishonesty or culpable negligence in these examinations.

MR. David Duncan, Professor of Logic and Moral Philosophy has gone home on furlough, and Mr. Ranganatha Mudaliyar occupies *pro tem.* the Professor's Chair.

Mr. David Duncan has good prospects at home, and it is rumoured that the Presidency College runs the danger of losing one of its ablest Professors.

REVIEWS.* We have before us a Tamil Grammar written in English by Mr. John Lazarus, a Native Graduate of the Madras University. The work shows considerable labour and ability, but we may well ask *cui bono*? We are told that the work is intended for Tamil Students of their own language, Tamil, and yet it is written in English. This seems as reasonable as writing an English Grammar in French for English boys, or a French Grammar in English for French boys. We regret that Mr. Lazarus did not like his predecessor Mr. Arivānandam Pillai, spend his time and labour on a Tamil Grammar in Tamil for Tamil readers. We fear that few of the youths "in the 6th and 5th classes of Government and Aided Schools" for whom Mr. Lazarus tells us he intends his work, will profit by it, but we can conscientiously recommend the book to Europeans as a useful and convenient book of reference.

* A Tamil Grammar designed for use in Colleges and Schools. Madras : Addison and Co.

ANOTHER book lying on our table is a Telugu Lempriere or Classical Dictionary called the పురాణనామచంద్రిక (Purāṇa-nāma Chandrika)* by Y. Venkataramayya Garu, Fellow of the Madras University. This appears to be a most useful work. Although a good English scholar, Mr. Venkataramayya has risen superior to the vulgar temptation to writing in English, and has produced a work that may be readily consulted by scholars learned in the Vernacular only. For this many a Telugu pandit will thank him. The book shows much research, and we can readily believe the author, when he informs us that it has been a labour of love for many years past. We hope that he may soon be induced to bring out a Tamil translation of his work. The plan of the Dictionary will be best understood from Mr. Venkataramayya's own words which we here give :—

"The object of this work is to supply in a convenient form, a cheap book to Telugu Students, to aid them in studying the standard works of Hindu Literature. It contains the names of all Hindu deities, saints and sovereigns, places of sanctity and worship, systems of religion and philosophy, &c., &c., arranged alphabetically with short explanatory and descriptive notes. Telugu Literature is so replete with these names, and Hindu Mythology and religion are so intimately connected with the literature of the country that it is impossible to acquire any proficiency in the latter without some knowledge of the former. Five tables showing the genealogy of the principal characters that figure in the Puranas are also appended to the work, and although these may bring out in a striking form some of the inconsistencies and anachronisms that are so difficult to account for, they will generally be found to throw much light on the accepted lineage of several illustrious personages.

The work does not pretend to be complete or exhaustive, but it is hoped that it will be found to contain enough of information for all practical purposes, and be a ready and convenient hand-book to the Student."

We have received from the Rev. W. McMordie, M.A., of Queen's College, Belfast, a copy of a very useful little work called "Studies in English."† It is designed to assist Indian students, and as might be expected, is very far superior to the so called "guides" published in English from time to time by native students with a sorry smattering of the language they profess to teach. With regard to one or two statements, however, we must join issue. On page 119, for instance, we are told that we can correctly say

* పురాణనామచంద్రిక published by Pushparatha Chetty.

† Mission Press Serat.

"The train has arrived *just now*." We believe that this usage of *just now* is a provincialism, and that there is no authority for it in any good author, the phrase being properly used only with reference to *past* time, e.g., "The train arrived *just now*."

Again on page 135, we are told that when a native says "The *water* of Bombay does not agree with me" he really means, "The *climate* of Bombay does not agree with me." This we think is not correct, for a Hindu actually believes that his bodily health greatly depends upon the nature of the *water* of the district in which he lives, and he does not therefore use *water* in the sense of the English word *climate*, but in its literal sense, as Mr. McMordie can easily ascertain by questioning any intelligent native.

MR. KITTEL'S KANARESE DICTIONARY.

Towards the preparation of a Kanarese Dictionary by Mr. F. Kittel of the Basel Missionary Society the Secretary of State has determined to contribute £1,000 from the Indian Revenues.

The Mysore Administration has offered to contribute Rupees 5,000 and the Government of Madras £100 towards this work; the Bombay Government has not made any offer, but will probably be prepared to contribute in the same proportion as Madras relating to the greater demand on account of the Kanarese-speaking population of that Presidency.

It is possible that the Nizam's Government may be willing to subscribe for some copies of the Dictionary. Concerning this Dictionary Mr. Kittel has addressed the following letter to the Under Secretary of State for India:—

I have the honor to acknowledge the receipt of your letter, dated the 11th December, in which I am informed that His Excellency the Secretary of State for India desires to have it pointed out to me that the Kanarese language as spoken in the districts north of the River Tungabhadra differs in several particulars from that spoken to the south of that stream, and that it is of importance to make provision for the adequate representation in the dictionary of the language as spoken in North Kanara (which ought rather to be designated the Southern Mahratta Country, for I suppose that His Excellency's informant assumed that North Kanara was the name of the country north of the Tungabhadra, while it lies to the south-west of that river and is the official appellation of the northern districts of the province called Kanara because Kanarese has been for some centuries its Government language).

Northern Kanarese bears perhaps the same relation to Southern Kanarese as the dialects of some English counties to one another; the form of government, laws, institutions, customs, and traditions are nearly identical throughout the whole Kanarese country, and the Kanarese language, excepting style and the use of borrowed terms, is everywhere substantially the same. As English dictionaries do not treat of the specialities of local dialects, but of common English, so a Kanarese Dictionary has first of all to introduce the

Kanarese language apart from local dialectic peculiarities. However I shall not forget to adduce any important points of difference in the course of my work, and shall be much obliged for the use of modern Kanarese writings of respectable authors, which have got a name among Kanarese readers of the present day, and which may fairly represent the northern dialect if I may use the term. But I fear such works are very rare. To do full justice to the desire of Viscount Cranbrook it may perhaps be advisable for me to spend one or two months to the north of the Tungabhadra during the final reduction of the work. To Kanarese literature, in the proper sense of the word, i.e., the standard works of the language of the old, middle, and later period of the whole country, some of which are almost got by heart by most native scholars, the difference of Northern and Southern Kanarese is not applicable. It is a well-established fact that the difference between Kanarese classical writers, apart from grammatical affixes, simply rests on the difference in their talents and style, which, together with the difference of old and new affixes, will become apparent from the copious quotations from them given in my work that, rejecting subjectivism in whatever shape in this respect follows the plan adopted by the authors of the well-known St. Petersburg Sanscrit Dictionary. Thus my work I trust will prove to be an accurate representation of what Kanarese is and has been to the south as well as to the north of the Tungabhadra.

The labour I have to spend on the work in preparation is very great, as it aims to supply the want of a standard work on the Kanarese language and literature, on the etymology of Kanarese and Dravida (i.e., the not Sanscrit complex of languages to which Kanarese belongs), and on the question as to how much the Sanscrit language has been enriched by Dravida. It is quite impossible in our time to put aside any one of these considerations in the preparation of a Kanarese Dictionary, and I feel sure that the English Government can and will afford its help only to a work of this kind. Because the work is likely to take up my whole time for some more years, as about two-thirds of the first rough copy are now finished, and meanwhile keeps me back from direct Missionary labor, it would be a great comfort to me to have the prospect of Government assistance for the future, having hitherto been supported, for the sake of the dictionary, by the private liberality of Dr. A. C. Burnell, a gentleman in the Madras Civil Service, (Tanjore), so that my Home Committee (who are, of course, bent upon direct Mission work) would be relieved from the burden of supporting a mere literary workman, and I should be very thankful indeed to Viscount Cranbrook for his kind patronage extended to literary labours after the example of the Honourable East India Company, who in former days have also honoured themselves in patronizing Indian literary undertakings.

To this letter the following reply has been received:—

With reference to your letter of the 17th December, on the subject of the Kanarese Dictionary on the preparation of which you are engaged, I am directed by the Secretary of State for India in Council to inform you that he has had under his consideration the question of the extent to which assistance may properly be given to the work from Indian Revenues with the following result.

On the understanding that 700 copies of the work shall, when completed, be supplied to this office, Viscount Cranbrook will authorize the payment to the Basel Missionary Society of your salary

of £150 a year for five years, commencing from the 1st of April next, and on delivery of the above number of copies he will sanction a further payment of £250 as a contribution towards the expense of printing.

Of the 700 copies, it is proposed to forward 300 to Bombay, 100 to Madras, and 200 to Mysore, while the remaining 100 will be retained in this office for distribution as the necessity may arise. I am to add that Lord Cranbrook leaves entirely to the discretion of the Society the number of copies of which the whole edition shall consist.

I am desired to request that you will communicate this offer to the Society, and that Lord Cranbrook may be informed whether they accept it, and to whom the contributions of Government shall be made payable.

A grace has been passed, by the Cambridge University deciding to add another important feature to the work of the University, viz., the training and examination of teachers. Hitherto, no special effort has been made to prepare persons for the work of tuition. I am, of course, alluding now to higher and middle-class schools. Special colleges exist, up and down the country, for preparing male and female teachers for public elementary schools, but an university degree with or without honours has hitherto been about the only guarantee that head masters have had for the capabilities of those who have aspired to be their junior and assistant masters. The head mistresses of higher class female schools have been still worse off, but Girton college, and the Society for promoting Cambridge lectures and classes for women have recently laid themselves out for the special work of training teachers. A short time ago a series of memorials of the most important character, both as regards the number of signatures they bore and the high educational and social position of the memorialists, were presented to the University of Cambridge, as well as that of Oxford, soliciting the universities to undertake the work of training teachers. The memorials were referred for the consideration of a syndicate, and as the result of its deliberations, the Senate was recommended, and yesterday agreed to appoint a syndicate for three years to organize a course of lectures on the Theory, History and Practice of Education, and to organize and superintend examinations on the same subject and to award certificates of proficiency on the result of the examinations. I allude to this here because this is an agency by which the Universities of Oxford and Cambridge may benefit India as well as England by furnishing a more qualified class of men for the work of tuition.—*Madras Times*.

At the recent Convocation of the University of London, Dr. Carpenter (Registrar) reported that the University matriculation Examination then going on, had brought up seventy or eighty more students than appeared last January. Among the new candidates were eleven young ladies, and he anticipated a larger number of lady candidates at the summer examinations. Mr. P. Magnus moved—“That it is desirable that the Senate should institute examinations in the theory and practice of education open to graduates of the University.” Although he could not entirely agree with the prayer of a petition of the College Preceptors presented last year to the

Senate of the University, that they would institute degrees on the theory and practice of education, he thought the time had come to distinguish between the competent and incompetent teacher, between him who had studied educational method, and him who had not. At St. Andrew's and Edinburgh professorial chairs of education already existed, where lectures were delivered to students who were afterwards tested in the knowledge they had gained. The University of Cambridge had recently determined to institute such lectures; and Oxford had the subject under consideration. It was highly desirable that the University of London, to which so many teachers belonged, should not withhold from these teachers the opportunity of gaining the certificates of proficiency which members of their profession who had graduated at the Universities would be able to obtain. Mr. H. Nesbitt seconded the motion. Mr. W. Shaen suggested that a matter of this importance should be referred to the annual committee, and discussed upon their report in a fuller house. He was entirely in favour of the University taking up this subject, and being therefore anxious that action should be taken in the wisest possible way, he moved, as an amendment, “That it be referred to the annual committee to consider and report on the subject of examinations in the theory and practice of education.” Mr. R. F. Weymouth seconded the amendment, which was supported in speeches favourable to University action on the subject by the Rev. P. C. Parker, Mr. Lynn, Mr. T. Kimber, Mr. R. H. Hutton (who recommended the committee to consider with special care the question of examinations on the practice of education), Mr. J. G. Fitch, and other members. Mr. A. P. Hensman expressed an unfavourable opinion of Mr. Magnus's proposal, which he thought impracticable, and said he could neither support the motion nor the amendment. Ultimately the amendment was carried.

THE B. A. RESULTS OF 1879.

Of the 237 candidates who registered their names, 234 sat for the examination, out of whom 140 have passed, that is to say nearly 60 per cent. No one has attained the distinction of a first class degree, but 63 have been placed in the second, and 77 in the third class. The following Analysis shows the numbers passed from the various institutions:—

Presidency College.....	35
Madras Christian College.....	27
Trivandrum College.....	11
Combaconum College.....	10
Rajahmundry College.....	4
Doveton College, Madras.....	2
Central College, Bangalore.....	2
St. Joseph's College, Negapatam.....	1
Maharajah's High School, Mysore.....	1

.....	93
Private Study.....	47

Total... 140

(The Presidency College heads the list, close upon it follows the Madras Christian College. The Trivandram College has the honour of the third place, while we are surprised to find Combaconum passing only 10 candidates and standing fourth.

The Results are far better than anyone seems to have expected from the extraordinary length and difficulty of the papers. It is evident that the Examiners must with such questions have been satisfied with a very low standard, and that they were in this respect therefore the antipodes of the Matriculation Examiners, who with questions which on the whole were very easy, actually succeeded in plucking about 86 per cent. of the candidates. Anomalies such as these will occasionally occur, but we feel sure they would be far less frequent, if the syndicates of our Indian Universities more fully would profit by the experience of men like Dr. Storrar, the late Chairman of Convocation of the London University. —Dr. Storrar says :—

“One conclusion which I arrived at, at a very early period after my connexion with the University of London, was this—that the best chance of finding the best examiners was to look for them amongst that class of men whose lives has been largely devoted to the business of education. I believe that while, on the one hand there is no such thing as getting the qualifications for examiners by inspiration; on the other hand, the man who has been devoting himself, after having acquired a thorough knowledge of the subject, from day to day and from month to month, and from year to year, finding out his mistakes and failures in seizing upon the apprehension of boys and girls, will be the best qualified to stand midway as an umpire between the standard of examination and the qualifications of the candidates. Because there cannot be a greater mistake than to suppose that it is desirable to fix examinations at a high pitch, so as to make them needlessly difficult. I believe the great object of a good examiner should be to do justice to the candidates, to find out what they know, to give them a fair chance with what they do know, and then to endeavour to weigh faithfully the claims of one candidate against another. I think it is a very common refuge of bad examiners to ask very difficult questions. Two or three gentlemen whom I have known, who really were very distinguished men in their several departments—two of them not long since dead—one of whom was Professor De Morgan, Professor of Mathematics at University College (a man I need not spend much time in speaking of), and the other a well-known Professor of Chemistry, and at one time Master of the Mint,—recommended the proposal to candidates of simple definite questions involving principles. These questions would be answered, in some way or other, by lads who knew anything at all about the subject, and then there was almost unlimited scope for a boy of advanced knowledge to give evidence of the wider extent of his information. I therefore feel that that is one very great consideration—the election of men to examine who have had much experience in

teaching, simply upon the principle that the man who is engaged from day to day in putting in knowledge is best qualified to educe it. The truth is, if he is a good teacher, he will be, in teaching, from day to day examining, and therefore training himself from day to day in the art of examination.”

A great number of private students have been successful, and as it seems that this is the last examination at which such students will be permitted to appear, we heartily congratulate them.

Our University has up to the present time taken the London University for its model, and we regret that in this particular of enforcing attendance at a College class, the Madras University has ceased to follow the example of its prototype. The founders of the London University justly considered that thousands of youths who were from circumstances utterly unable to enter upon a College course at Oxford, Cambridge or Durham would be stimulated to study, and thereby advanced in culture, and made more useful members of Society and of more profit to the State, by a less exclusive system, and they accordingly established that University as an examining body to set its seal upon literary and scientific merit, and the result has been a grand success, for the influence of the new University has made itself felt where light from the older Universities had never shone, and it is now proposed to extend these benefits by instituting a new University at Manchester on the same liberal basis.

If then in a small country like England, with three Universities already in existence, and with facilities for travelling which brought each University within a few hours of each man's door, it was found that a great work remained to be done by a University not insisting upon residence or on a collegiate course as qualifications for its honours, far greater is the necessity for measures as liberal here in India where Education needs much more encouragement. For a vast Presidency like Madras, with inter-communication so difficult, and with a people so averse to travelling, there are provided on the eastern coast-line but three colleges in which candidates for degrees are prepared, while there are none in the interior or in the west of the Presidency. If the new rule remains uncanceled, how many poor students in remote villages, eager for knowledge and ambitious of University distinctions will be discouraged, and will lapse into apathy or sloth. With the *Madras Times* then we earnestly hope that “the University may yet save itself from the

obloquy which the perpetration of such an injustice must earn for it."

The *Natal Mercury* is glad to hear that a Headmaster has been at last appointed to the Durban High School, in the person of Mr. C. G. Colson, the late acting Director of Public Instruction in Ceylon. "Mr. Colson graduated at Clare College, Cambridge, in 1871, and received the appointment of Inspector of Schools in Ceylon in 1875. As he will have to go to England before going to Natal he can scarcely be expected to arrive there before the end of April."

THE annual Convocation of the Senate of the Calcutta University has just taken place under the presidency of the Vice-Chancellor (Sir Alexander Arbuthnot). Amongst the visitors were General Grant, the Lieutenant-Governors of Bengal, and the Metropolitan. In his opening address, the Vice-Chancellor mentioned that at the entrance Examination there were 2,617 candidates, of whom 1,099 passed; for the First Arts Examination, 923 candidates, of whom 267 passed; for the Bachelor of Arts Examination, 326 candidates, of whom 91 passed; for the M. A. Examination, 48 candidates of whom 28 passed; for the B. L. Examination, 84 candidates of whom 47 passed; for the License in Civil Engineering, 21 candidates of whom 5 passed; and for the degree of Bachelor in Civil Engineering, 7 candidates, of whom 1 passed.

"As long as German hearts beat, Lessing will be spoken of as the creator of new German life in art and science." With this sentence a contributor to the "*Deutsche Blätter*" commences a series of articles on Lessing's pedagogics. Although the author of "*Emilia Galotti*"—by which work he is perhaps best known to English readers—like Goethe, never sat in the seat of the learned, that is, a professor's chair; yet, living as he did in the latter half of the eighteenth century, when the current of thought was beginning to set strongly in the direction of educational improvement, and all manner of startling theories were being propounded, he devoted much attention to the subject, and in his "*Nathan the Wise*," as well as scattered through his writings, are many pregnant hints for teachers. Thus, while, according to Herder, he may be regarded as, next to Luther, the chief creator of modern German prose, he is at the same time very highly esteemed throughout the Vaterland as an authority in all educational questions. An enemy to all formal systems, he early imbibed the doctrine, "*Non scholæ, sed vitæ discitur*;" and in a letter to his mother, giving her an account of his college life, he speaks of a radical change in his views which speedily followed his entrance upon the university curriculum at Leipsic. Suddenly he awoke to the conviction that mere book learning is not enough to produce true culture. He says elsewhere, "Knowledge acquired from books is called learning; one's own experience is wisdom; and the shortest chapter of the latter is worth millions of the former." Again, "He who does not learn more from books than the books themselves contain has not half used them." In a similar epigrammatic style he says of letter-writing, "The whole art lies in

learning to write without art." Elsewhere, referring to the much-vexed question as to what constitutes genius, we find him approving of the safe and practical view of Rousseau, that "diligence produces talent, rather than talent diligence." Again, "Lessing speaks of the true teacher as the sculptor who, from the rough block of marble, conceives the divine form which he afterwards evokes; nay, more, he is the real father, and that father belies his name who neglects to act as guide in his son's education." Nathan the Wise is represented as bringing to his work as a teacher "a heart full of love." This is good advice. A loving heart will always find the best key to open the heart of the child. Lessing, therefore, does not approve of corporal punishment, except in extreme cases, among which he classes deliberate falsehood and deceit. The child is not to be driven along the rugged paths of knowledge, but kindly led, and every step of the way encouraged by all legitimate inducements—emulation, rewards, honour—until the proper goal of all moral training is at length reached; the love of virtue for its own sake; to do good because it is good, and not because of some arbitrary reward attached to it, a doctrine which reminds us of the well-worn saying—"Oderunt peccare boni virtutis amore." These are, of course, principles more or less operative in every earnest teacher's life, and in respect of such lofty aims it may well be said, as Kühner somewhere remarks, that "to go back to Lessing is to go forward in the work of education."

The Schoolmaster.

THE POLICY OF GOVERNMENT TOWARDS AIDED EDUCATION.

AN influential deputation representing the various Missionary bodies engaged in Education in this Presidency, lately waited upon his Grace the Governor to point out how for some time past the administrative policy of the Educational Department has tended to the discouragement of Aided Education and to the strengthening of Government Institutions in direct contravention of the repeated declarations and wishes of the local and imperial Governments. The deputation was favourably received by his Grace who promised to furnish a written reply after consultation with the Members of Council.

We have the pleasure to give here the text of the written Memorial:—

Your Memorialists, who represent various Missionary Societies and other bodies largely engaged in the work of education throughout this Presidency, desire humbly to approach Your Grace with reference to the working of the Grant-in-Aid system, to ask the attention of Your Grace in Council to certain features in the educational administration by which the due operation of that system seems to be limited and hindered, and to pray that such measures may be devised as may seem best fitted to promote the free development of the Educational Policy for India declared by Her Majesty's Government, and cordially adopted by Your Grace in Council.

2. Your Memorialists base their present representation on the Educational Despatch of 1854, in which Her Majesty's Government laid down the following liberal lines as the policy to be pursued in the education of the people of India :

(1). Her Majesty's Government declare that they have been led to the "conclusion, that the most effectual method of providing for the wants of India in this respect will be to combine with the agency of Government the aid which may be derived from the exertions and liberality of the educated and wealthy natives of India and of other benevolent persons."

(2). The mode in which independent agency was to be fostered, and their anticipations of its effect are set forth in the following paragraph :—

"We have, therefore, resolved to adopt in India the system of Grants-in-Aid which has been carried out in this country (England) with very great success; and we confidently anticipate, by thus drawing support from local resources, in addition to contributions from the State, a far more rapid progress of education than would follow a mere increase of expenditure by the Government; while it possesses the additional advantage of fostering a spirit of reliance upon local exertions and combination for local purposes, which is of itself of no mean importance to the well-being of a nation."

(3). With regard to the system of administration, the following general directions are laid down :—

"We desire to see local management under Government inspection, and assisted by Grants-in-Aid, taken advantage of whenever it is possible to do so, and that no Government Colleges or Schools shall be founded for the future, in any district where a sufficient number of institutions exist, capable, with assistance from the State, of supplying the local demand for education."

(4). Although Her Majesty's Government were of opinion that it would "probably be necessary for some years, to supply the wants of particular parts of India by the establishment, temporary support and management of places of education of every class in districts where there was little or no prospect of adequate local efforts being made for this purpose;" yet it was intended that the maintenance of purely Government Schools and Colleges should be only temporary, and that they should gradually be withdrawn, as the growth of independent institutions made it possible to be done. On this point the following words are clear :—

"We look forward to the time when any general system of Education entirely provided by Government may be discontinued, with the gradual advance of the system of Grant-in-Aid, and when many of the existing Government Institutions, especially those of the higher order, may be safely closed or transferred to the management of local bodies under the control of and aided by the State."

3. Your Memorialists gratefully acknowledge that the policy embodied in this Despatch has been fully approved by the Madras Government, and they are glad to observe that Your Grace in Council, in an Order on the last published Report of the Director of Public Instruction, gave expression to it in the following terms :—

"Looking therefore to the increasing demands upon the State for Grants-in-Aid, and the cheapness of the system, it is as much the true as it is the admitted policy of Government since the Despatch

of 1854, to reduce gradually expenditure on Government institutions, where there is a Private, Local or Municipal School doing equally good work, and capable of continuing it. The Director will bear this principle in mind, and wherever and whenever the opportunity occurs, act in accordance therewith."

With these words before us, Your Memorialists cannot but be fully satisfied as to the purpose of Your Grace in Council; and the remarks which occur in connection with them render it unnecessary for us to vindicate the preferability of the aided system on the ground of economy, not to speak of its influence in fostering the spirit of freedom and local self-government.

5. Turning now to the practical administration of the policy, Your Memorialists gratefully remember that in 1864 full effect was given to it in this Presidency by the introduction of a Revised Code of Rules for Grants-in-Aid, in which the main principle adopted was that of salary grants. These Rules were framed only after the fullest enquiry and consultation with the representatives of all bodies engaged in educational work throughout the Presidency, and the scheme made it possible for a well-equipped and efficient school to obtain the most liberal aid.

5. By the adoption of this Code a powerful stimulus was given to the progress of aided education. Missionary Societies and other bodies engaged in educational work now felt that full effect was likely to be given to the principles laid down in the educational Despatch, and the anticipations, which we have quoted above, expressed in that Despatch, were speedily realized. At the close of 1863-64, the year immediately preceding the introduction of the Revised Rules for Grants-in-Aid, there were on the rolls of aided institutions 20,095 pupils, and the Grants-in-Aid during that year amounted to Rs. 50,642-9-7. Six years later, at the close of 1869-70, aided institutions had on their rolls 95,035 pupils, and received in Grants-in-Aid during that year Rs. 3,07,811-14-7. Such a development of independent education would manifestly have been impossible but for the liberal scheme established by the Madras Government in accordance with the policy of the Despatch; and the further development of aided agencies or their continuance will doubtless depend on the effective application of the same liberal principles.

6. In 1869 the financial necessities of the Government led to a restriction being imposed on the issue of new Grants-in-Aid, except for Girls' Schools. This restriction, however, it was hoped, was only to be temporary. In reply to a Memorial, addressed in the beginning of 1871, to His Excellency, Lord Napier, by members of the Madras Missionary Conference and others connected with aided education, His Excellency the Governor in Council in an Order dated 6th March 1871, "resolves to intimate to the gentlemen who have addressed the Government, that he is fully alive to the importance of maintaining the development of the Grant-in-Aid system, and that the present restrictions will be removed as soon as the state of the funds available to this Government for educational purposes will allow."

Relying on the conditional promise thus made, independent bodies have continued and even extended their efforts, but the restriction has not yet been withdrawn.

7. When we compare the expenditure on Grants-in-Aid from

Provincial Funds for 1869-70 with that for 1876-77 as given in the Director's Reports, we find that it has not increased but diminished, having fallen from Rupees 3,07,881-14-7 in the former year to Rupees 2,78,682-2-4 in the latter. During the same period, however, we observe that the gross expenditure on Government Colleges and Schools for general education from the same funds had risen from Rupees 2,13,827-8-2 to Rupees 3,09,999-7-6. In other words while Grants-in-Aid had been during these seven years reduced by 9·4 per cent. the expenditure on direct Government education had increased by 45 per cent. Your Memorialists do not take it upon them to judge how it became necessary to increase so largely the outlay on Government institutions, which admittedly do their work at much greater cost to the State than aided institutions, while a restriction was maintained on the legitimate operation of the Grant-in-Aid scheme; but they respectfully submit that *prima facie* it would have been more in accordance with the declared policy of Government, if the additional funds had been expended on fostering aided education. It is unnecessary also to point out to Your Grace that if the larger funds available for education are absorbed by Government institutions, the hope of seeing the restriction removed as promised, and the Grant-in-Aid scheme carried out in its entirety must be abandoned. At the same time the confidence of independent agencies in the encouraging policy of Government must correspondingly be weakened, and their efforts in the cause of education restrained.

8. Your Memorialists would here beg to state that they do not object to a revision of the present Grant-in-Aid rules, or to any modification of them, which, on due consideration of the progress of education or other circumstances, may seem advisable. What alone they deprecate is any tendency to reverse the declared policy of Government—the policy, viz., of fostering and extending aided education in preference to a purely Government system,—or to hinder by special restrictions the free operation of any well-considered Grant-in-Aid scheme framed in accordance with this policy. That your Memorialists have good grounds to entertain serious apprehensions regarding this matter will appear not only from the contrast already pointed out between the increased expenditure on Government Institutions on the one hand, and the diminished Grants-in-Aid on the other, but from the following instances to which we crave the special attention of your Grace in Council.

(1.) Your Memorialists have to complain that important changes are made in the administration of the Grant-in-Aid scheme without due consideration being shown to the bodies specially interested, and without any opportunity being given them to express their opinion regarding arrangements by which they are materially affected, until remonstrance has become too late. In January last, for example, an order was issued by the Director of Public Instruction largely reducing the grants to aided Institutions in Madras, without any previous consultation with the Managers, and making the reduction take effect from 1st April, thus allowing only the very inadequate period of little more than two months to make provision for the extra charges thus thrown on them.

It appears, further, from the Director's letter to Government of 13th December 1878, that he submitted to Government in January

of last year a revised Code of Rules for salary grants, and that this Code is now under the consideration of Your Grace's Government. The Director's proposals have been submitted without any consultation with the Managers of the Educational Agencies to which they are to be applied, or any information being vouchsafed as to their nature and bearing. Up to the present moment all representatives of aided education are in entire ignorance of the new scheme under which they may find themselves placed without previous warning. This procedure is in such complete contrast with that followed when the Revised Rules of 1864 were framed, that your Memorialists cannot but fear that it may indicate a different line of policy.

(2.) Your Memorialists beg to point, secondly, to the enlargement of the school department of the Presidency College, through the opening of the lower classes in 1875-76. The Director justified this measure on the ground that it was necessary to strengthen the Presidency College, and that it would involve no additional expense. Even if we set aside for the moment the Educational Despatch of 1854, and admit that the strengthening of the Presidency College, against aided Institutions were a legitimate end in itself, we cannot admit that as a College it needed such a buttress. The calculation, moreover, that the new classes would be self-supporting can only have been made by leaving out of account in respect of them all charges for buildings, general management, servants, pensions to masters, and the like. However this may have been, the expectation has not been fulfilled, for it appears from the Director's Report for 1876-77 that while the total expenditure of the middle department formed by those classes was Rupees 3,978-14-2, the income from fees was only Rupees 1,940-8 or not quite a half of the expense. But what we desire mainly to call Your Grace's attention to in connection with this case is, that there was no need in Madras of these new classes, and that they could only be supplied by drawing away pupils from aided Institutions, which were perfectly adequate to educate them. The weakening effect on these Institutions must have been the greater that such an influential Government Institution as the Presidency College would naturally draw to itself the best pupils. Your Memorialists must respectfully submit that they cannot see how this measure can be reconciled with the instruction of the Despatch which lays down that no "Government School shall be founded for the future in any district where a sufficient number of institutions exist, capable, with assistance from the State, of supplying the local demand for education."

(3.) Your Memorialists beg leave to point, thirdly, to the action of Government with regard to the Madras Christian College. This Institution, which is the only fully-developed College amongst aided institutions and in whose management almost all the Missionary Societies engaged in education have now a part, deserves the fullest consideration on the ground both of its efficiency and of its representative character. But while during the last few years it has greatly grown, and its expenditure has therefore largely increased, the aid given to it has, notwithstanding repeated and pressing applications, remained stationary. At present it receives as a Grant-in-Aid rather less than 20 per cent. of its cost, although while still in a partially developed condition, it was receiving like other aided institutions about 40 per cent. This refusal of increased aid might

possibly be justified on the ground of want of funds; though, as we have shown above, funds were found during the period for a greatly increased expenditure on direct Government Education. But it might reasonably have been expected that the first opportunity would be seized, when funds were available, to give it some of the additional aid to which it was entitled. Such an opportunity presented itself when the reduction of grants to Schools in Madras was recently made. But while the Director allows that a College requires more aid than a School, he assigns to the College Department of this Institution only Rupees 450 a month, although it has a staff of six Professors, two Assistant Professors, and other Officers, involving an expenditure of six times that sum. At the same time he reduces the grant to the School Department to Rupees 150 a month. The effect of the whole arrangement is to reduce the grant to the Madras Christian College by nearly Rupees 3,000 a year, even though that grant is already less than a fifth of the entire expenditure. Your Memorialists respectfully submit that such treatment of an aided institution of this kind is calculated to awaken the gravest apprehension as to the tendency of the present educational administration, and to justify them in calling the attention of Your Grace in Council to the case.

(4). The fourth and last instance to which Your Memorialists would point is the action recently taken regarding the Government Schools at Cuddalore and Salem. At each of these towns there is a Grant-in-Aid School, side by side with the Government School, and competing with it on equal terms. Each was plainly a case in which, according to the principles of the Despatch, the aided School should have been fostered, and so soon as it was capable of supplying the educational wants of the place, the Government School have been withdrawn. It is laid down in the Despatch that this is the process to be followed specially in the case of Higher Schools. Instead of this we hear with deep regret and apprehension that the Zillah Schools have been erected into Provincial Schools with a Collegiate Department. There does not seem, in our humble opinion, to be any justification for this step in either case on the ground of necessity, as there are Collegiate Schools at no great distance, to which those may resort who wish to prosecute their studies beyond the Matriculation Standard. On the other hand various results will follow which are much to be deplored. In the first place, the aided schools can do no longer compete on equal terms with the Government Schools, but are most likely to be beaten out of the field. Secondly, the change will in each case involve a very heavy additional expenditure, as a Collegiate department, especially when it is small, involves heavy charges and yields but a small income. In present circumstances when the free operation of the Grant-in-Aid system is entirely hindered from want of funds, and grants are being reduced because of pressing necessities, we respectfully submit that an additional outlay on direct Government education of in all likelihood not less than Rupees 10,000 a year is greatly deprecated. Lastly, such action is calculated to have the worst effect on all independent agencies, as it seems to threaten the reversal of the declared policy of Government, and to manifest a purpose to foster purely Government education in opposition to at the direct expense of aided institutions.

9. We therefore pray Your Grace in Council to take the foregoing into your gracious consideration, and specially to favour Your Memorialists with an answer on the following points:—

(1.) Whether it may not be possible to give free operation to a Grant-in-Aid scheme framed in accordance with the policy declared in the Despatch of 1854:

(2.) Whether the Revised Rules now submitted by the Director may not be published for consideration of those interested in aided education, before Your Grace in Council passes final orders upon them:

(3.) Whether some representatives of aided education might not be appointed to consult with the Director or with Government, regarding matters directly affecting that important branch of educational agency: and

(4.) Whether in the instances to which we have pointed as appearing to our humble judgment to be out of harmony with the policy prescribed by the Educational Despatch and by Your Grace in Council, the resolutions arrived at may not be reconsidered.

And Your Memorialists will ever pray, &c.

In replying, His Grace mentioned that two of the points specially referred to were under consideration by the Government on separate appeals—namely, the case of the Madras Christian College, and that of Salem. His Grace noted, with reference to para. 5 of the Memorial, that while in 1863-64, aid was given by Government at the rate of about Rupees 2½ per head, in 1869-70, it was given at the rate of over Rupees 3 per head, and asked whether education had become more expensive during the interval. The deputation said that it was so, as the increase had been to a large extent in higher education which was always more expensive. With reference to para. 7, his Grace enquired whether in the expenditure on Government Colleges and Schools was included the outlay on the Agricultural College, and was informed that the Memorial confined itself to institutions for general education. Some conversation also took place with reference to the new results' grants rules, though these are not referred to in the Memorial. His Grace informed the Deputation that it has been resolved to defer the reduction of the grants to institutions in Madras for at least three months, in order to give time for the settlement of questions that had arisen.

NOTES ON COWPER'S CONVERSATION.

(Continued from the November Journal.)

59. *Asseveration*. Abstract for concrete.
61. *Or true or false*. A Latinism. In poetry, it is common to find the word "or" followed by "or," where in prose we should have "either" followed by "or."
66. *Till affirmance breeds a doubt*. Cf. "The lady doth protest too much." *Hamlet*.
67. *A Persian, &c.* This introduction of a short illustrative anecdote is in Cowper's true style.
- Servant of the sun*. Cowper appears to be thinking not of the Persians, but of the Parsees or Fire-worshippers.
74. *With all his graceful airs*. In his most polite manner.
75. *The rank*. I.e., the rank of man.
86. *Swords*. This is another example of a bad rhyme. Swords is intended to rhyme with "words" in the previous line.
87. *Decide no question*. Cf. Goldsmith's *Deserted Village*. In describing the argumentative schoolmaster, he declares that
"E'en though vanquished, he could argue still."
91. *Soph*. Sophister, false reasoner.
100. *Common*. A common is a piece of unappropriated land on which any man's cattle may graze.
107. *Set*. The Imperative is here used to imply a condition = if you set.
145. *Where men of judgment creep, &c.* Cf. Pope's *Essay on Criticism*:—
"For fools rush in where angels fear to tread."
163. *The point of honour*. That nice sense of honour, which, as Burke says "felt a stain like a wound."
175. *Decease*. Now seldom used as a verb.
180. *Fear*. I.e., moral fear.
187. *The bar*. God's tribunal.
189. *Use*. Custom, usage.
490. *On reason's verdict*. When calmly judged by reason.
191. *To set my life upon a throw*. To hazard my life.
- A moral sensible and well-bred man, &c.* Cf. Epictetus—"No one can insult you, if you will not regard his words or deeds as insults."
- A Trojan combat*. Dares was a Trojan, and one of the companions of Æneas. He was engaged in a pugilistic encounter with Entellus, which is fully described in the 5th Book of the Æneid.
242. *Guy Earl of Warwick*. Guy Earl of Warwick is fabled to have been a warrior of immense bodily strength. He went on a pilgrimage to the Holy Land, and after his return he lived unknown in a cave about two miles from Warwick Castle, at a place on the Avon still known as Guy's Cliff. Although many of the accounts

concerning him are undoubtedly fabulous, he is probably an historical personage.

Fair Eleanor. This appears to be Cowper's mistake for "Fair Felice" the devoted wife of Guy.

244. *Giant-killing Jack*. Jack the Giant-killer is the hero of a tale book very popular with young children in England.

265. *Venus*. Venus, the Goddess of Love and Beauty is fabled like the Hindu Lakshmi to have risen from the sea.

268. *A milder herb*. I.e., Tea. Cowper elsewhere sings the praise of "the cup that cheers but not inebriates."

269. *To oppose*. Here used in its literal sense = to place opposite.

270. *Nose*. Obj. governed by "oppose."

271. *Gnomon*. The nose is so called because it is the most prominent feature of the face. The word literally means that which points out.

Phiz. Face. A vulgar abbreviation of physiognomy.

279. *A world of talk*. "World" is here used as a collective noun in the sense of "a great deal." "Globe" is similarly used by Bacon, e.g., "a globe of precepts."

Civet. The perfume obtained from a kind of gum excreted by a small animal called the civet cat.

290. *The thing*. The fine gentleman, here contemptuously spoken of as neuter.

292. *A-la-mort*. As if dead, half-dead.

299. *Budge*. "Wearing a fool's cap to look like a philosopher. Cf. *Comus* l. 707."

"Those budge doctors of the Stoic fur." *Note in Globe Edition*. Wedgwood explains *budge* as "the dressed fur of lambs."

300. *A fool with judges, amongst fools a judge*. This play or jingle of words is common in English authors. Cf. "If he be not fellow with the best king, thou shalt find the best king of good fellows." *Shakespeare*.

"This man (Chesterfield) I thought had been a lord among wits, but I find he is only a wit among lords." *Johnson*.

"A wit with dunces, and a dunce with wit." *Pope*.

"Temple was a man of the world amongst men of letters, a man of letters amongst men of the world." *Macaulay*.

"Steele was a rake among scholars, and a scholar among rakes."

Quoted by Bartlett.

When you knock it never is at home. This like several other lines in Cowper seems to have been suggested by Pope. Compare

"You beat your pate and fancy wit will come;
Knock as you please, there's nobody at home."—Pope.

(To be continued).

NOTES ON POPE'S ESSAY ON CRITICISM.

(Continued from the August number).

36. *For wits.* As witty persons.*Poets.* Obj. after for understood.39. *Heavy.* Dull, clumsy.

Mules. A mule is the progeny of a male ass and a mare; the union of a horse and a she-ass produces a *hinny*. The false wits and poetasters are likened to mules on account of their barrenness.

40. *Witlings.* The diminutive is here used to express contempt. The word is in the obj. case governed by "call."

Numerous as. As numerous as. *Numerous* qualifies "witlings."

41. *Insects.* Nom. to "are" understood.

The banks of Nile. Note the omission of the article. This in prose would now be an error, for we always speak of the Nile, the Thames, &c., but formerly the article was omitted even in prose before the names of rivers: Cf. "Were baptized of him in Jordan," Matt. iii. 6. "Then cometh Jesus from Galilee to Jordan," &c. Some editions place a semicolon after "Nile," but a comma is the proper stop.

42. *Things.* Nom. in apposition to *insects*.*What to call.* How to name.43. *Their generation's so equivocal.*

The critics seem to have found difficulties in the construction of this passage which do not really exist. In prose order the passage would read:—

"Their generation is so equivocal, that one knows not what to call those unfinished things, the half-learned witlings which are as numerous in our isle as half-formed insects on the banks of the Nile."

Equivocal generation is the production of plants without seed, or of insects or animals without parents in the natural way of coition between male and female; which is now believed never to happen, but that all bodies are *univocally* produced.—HARRIS.

44. *Tell.* Enumerate. *Tell* was often used in the sense of to number or count over; and the nom. *tale* was used in the sense of a reckoning. Milton thus speaks of the shepherd counting over the number of his sheep:—

"And every shepherd tells his tale
Under the hawthorn in the dale."

45. *A hundred.* Understand *tongues*.47. *Bear.* Inf. governed by *seek*. Justly bear = deserve.48. *Be sure yourself and your own reach to know.*

"Know yourself." "Γινῶθι σεαυτόν," this famous oracular saying is ascribed to Solon, one of the seven wise men of Greece. It was

written in golden letters over the temple of Apollo at Delphi. It is quoted by Juvenal as a maxim descended from heaven,—*E caelo descendit γνῶθι σεαυτόν*. In various forms the maxim is repeated in the writings of the Hindus e.g., *Ātmānam ātmanā paśya*, "Know thyself by thyself," in Sanskrit; உன்னையறிவாயாகி இன்னக்கொரு கேடுமில்லை, "If thou knowest thyself, no evil can befall thee," in the Tamil *Kaivalyanavanitam*, and తనను తానే గమ్య "Look into thyself," in Telugu. Cf. Pope in the Essay on Man:—

"Know then thyself, presume not God to scan
The proper study of mankind is man."

48. *Reach.* Capacity.53. *Pretending.* Ambitious, far stretching.

56. *While memory prevails &c.* Cf. the French proverb—*Beaucoup de mémoire et peu de jugement*,—A good memory and a poor judgment.

58. *Where beams of warm imagination play, &c.* So Cowper speaks of the poet as "lost in his own musings."

60. *One science only will one genius fit.* Thus a historian cannot be expected to excel as a poet, a lawyer has not a perfect knowledge of medicine, and a physician generally knows but little of jurisprudence.

So vast is art, so narrow human wit. Cf. Longfellow:—"Art is long and life is fleeting." One of the Aphorisms of Hippocrates the most celebrated physician of antiquity is, "Life is short, art is long, opportunity fleeting, experiment fallacious, and judgment difficult." There is a sloka to the same effect in the Sanskrit Panchatantra: *Anantopāram kila sarva śāstram svalpam tathāyur bahavaścha vighnā*. To the sea of knowledge there is no shore, but life is short and hindrances are many. So in Tamil:—

சுல்விக்கரை யில் சிற்பவந்தான் செல்
மெல்லநிறை இல் பிணிபல.

Human wit. "Wit" is here used for wisdom or intellectual capacity. It will be a good exercise to collect from this poem, lines in which the word "wit" occurs in different senses. It is used by Pope with at least five different significations.

Art. Among the ancients Grammar, Logic, Rhetoric, Music, Arithmetic, Geometry and Astronomy were the Arts most esteemed, together with Painting and Sculpture. Besides these Arts, there are the Mechanical Arts.

63. *Parts.* Sections.

64. *Like Kings.* Arnold says the reference is probably to Louis XIV of France and Charles XII of Sweden; the former had lately lost a great part of Flanders, and the latter had lost the Swedish provinces on the Baltic, owing to ambitious wars.

66. *Each might his several province well command.* Each man might excel in his own peculiar walk. *Several* is here used in its old sense of separate, distinct. (Cf. 2 Kings xi. 5.)

Would all but stoop to what they understand. If all would be humble enough to undertake that only which they know fitly how to perform.

68. *First follow Nature.* It was long the practice of the School of Poets to which Pope belongs to neglect this precept of their great high priest. Crabbe, Cowper and Goldsmith led back English Poetry to Nature from the dead hollow of conventionalism into which it had fallen :—

"On Miucio's banks, in Cæsar's bounteous reign,
If Tityrus found the Golden Age again,
Must sleepy bards the flattering dream prolong,
Mechanic echoes of the Mantuan song?
From Truth and Nature shall we widely stray,
Where Virgil, not where Fancy, leads the way?"—Crabbe.

Frame. Form. This tendency of letters, and especially of the letter *r*, to change places is called Metathesis.

70. *Divinely.* Heavenly. The word is cognate with the Sanskrit *div*, to shine, hence the Sanskrit *Deva*, God, and the *L. divitiæ*=shining gold, wealth.

74. *That fund.* *I. e.* nature. The true artist, however, does not servilely copy nature, but invests it with the faculty of compelling human interest.

75. *Works without show.* Cf. the famous Latin saying, *Ars est celare artem.* The greatest art is to conceal art.

76. *Informing.* Animating, inspiring.

81. *As much more, i. e.* as much more wit to know how to properly use the wit they already have. They may have *genius*, but they need judgment also.

Its use. Its proper use.

84. *The Muses' steed.* The winged courser of v. 86. This is Pegasus, the horse that is fabled to have sprung from the blood of Medusa. It is said that by striking the earth with his hoof, he produced the fountain Hippocréné from which whoever drank was inspired to write verses.

Generous. High caste, well-bred. *L. genus, race.*

Mettle. This is really the same word as metal, it is used metaphorically in the sense of temper.

88. *Rules of old.* First principles.

92. *Here how learn'd Greece &c.*

Pope here gives the same advice as Horace gave to the Romans :—

Vos exemplaria Græcæ

Nocturna versate manu, versate diurna.

Study the Greek models of composition by day and by night.

(To be continued).

THE UNIVERSITY CONVOCATION.

THE convocation of the Madras University held yesterday evening in the Senate House for the purpose of conferring degrees attracted a very crowded attendance of all classes of the community, the Ladies Grenville also honouring the occasion with their presence. Precisely at five o'clock His Grace the Chancellor, the Vice-Chancellor, and the Fellows of the Madras University marched in procession and took their respective seats. His Grace announced the purpose of the convocation, and Mr. Evans, the Registrar of the University, read the names of the candidates who had been declared by the examiners to be qualified for degrees. The prescribed questions having been put by his Grace and answered by the candidates, the degrees were conferred with the usual ceremony; the candidates for the B. L. Degree being presented by Mr. E. Thompson, the candidates for the L. M. Degree by Dr. M. C. Furnell, the candidate for the B. C. E. Degree by Colonel Macdonald, the candidates for the M. A. Degree by Mr. D. Duncan and the Rev. W. Miller, and the candidates for the B. A. Degree by Mr. E. Thompson, the Rev. W. Miller, Mr. Kristnama Chetty, Dr. King and Mr. Cook.

The degrees were next proclaimed by Mr. Evans, after which Bishop Caldwell delivered the following address :—

In promising to deliver the address to the Graduates on this occasion, it appeared to me that there were two reasons why any remarks I might venture to make might deserve to be received with indulgence. These were, first, my known sentiments of good-will towards the Natives of India of every class, and secondly, my grey hairs, which bear witness to the more than forty-one years during which I have endeavoured, as far as lay in my power, to promote the best interests of my adopted country.

Educated Natives may fairly be expected both to contribute to the enlargement of the bounds of human knowledge in everything that pertains to their own country, and also to endeavour to exemplify in their intercourse with society and their public duties, the benefits of the education they have received. The study of the history, ancient literature, and archæology of the country will never reach anything like completeness of development or realise results of national importance till it is systematically undertaken by educated Natives. Learned Natives of Calcutta and Bombay, trained in European modes of thought, and vying with Europeans in zeal for historical accuracy, have already made a promising beginning in this department of research. I trust that the Native scholars of the South will resolve that they will not be left behind in the race. The most important aid educated Natives can render to the study of the history of their country is by means of a search after inscriptions, many of which, hitherto unnoticed and unknown, they will find inviting their attention on the walls of the temples in almost every village in the interior. The only ancient Indian history worthy of the name is that which has been spelled out from inscriptions. Popular legends and poetical myths, by whatever name they are dignified, may be discarded, not only without loss, but with positive advantage. No guide but our own intelligence is better than a faithless guide. Something has already been done in the direction of the search for and decipherment of inscriptions by Europeans, though less syste-

matically in Madras than in Calcutta and Bombay, but much remains to be done and will always remain, till educated natives enter upon this branch of study with the zeal with which so many people in Europe have devoted themselves to it. Natives possess various facilities for this study, which are denied to Europeans living in India. They have no reason to fear the sun. They can generally stop in their journeys without inconvenience and examine any antiquity they see; and whilst Europeans must be content with examining only the inscriptions on the outer walls of temples, inscriptions in the interior also can be examined by Natives. They will also be allowed to examine inscriptions on copper plates in the possession of respectable Native families which would not readily be allowed to pass into the hands of Europeans. A humbler, but still very important branch of archæological work lies open to every educated Hindu in the Tamil districts in this Presidency. Let him set himself, before it is too late, to search out and discover the vernacular works that are commonly supposed to be lost. The names only of many Tamil works of the earlier period survive, and many works must have been composed at a still earlier period of which even the names have been forgotten. Tamil literature seems to have known no growth. Like Minerva, the goddess of learning amongst the Greeks, it seems to have sprung, full-grown and fully armed, from the head of Jupiter. The explanation of this is that every work pertaining to, or illustrative of the youth of the language appears to have perished. Probably, however, a careful search made by educated Natives in houses and *mathas* would be rewarded by some valuable discoveries.

What an extensive and interesting field India presents for the comparative study of languages, and nowhere will ampler scope be found for this study than in the districts, directly or indirectly, under the Madras Government. The Dravidian family, which has its chief home in this Presidency, includes, according to the most recent enumeration, 14 languages and 30 dialects; in addition to which Sanskrit, Hindustani, and English claim attention. The comparative study of the languages of India has remained up to this time in the hands of Europeans, but it is a branch of study to which educated Natives might be expected to apply themselves with special zeal and in which, if they applied themselves to it, I feel sure that they would attain to special excellence. The people of India have surpassed all other peoples, ancient or modern, in the earnestness and assiduity with which they have studied the grammars of their various tongues, and to this must be attributed the wonderful perfection several of those languages have reached as organs of thought, and much of the acuteness for which the Indian mind is famed. But the study of the languages of their country by Indian scholars has never become comparative, and, therefore, has never become scientific. It has fallen behind the scholarship of Europe in grasp and breadth, and consequently in fruitfulness in results. If, however, educated Natives resolved to apply themselves to a study so peculiarly suited to them, I consider it certain that excellent results would soon be realised. If they began to compare their vernaculars one with another, ancient forms with modern, and both with Sanskrit, they would soon find that language had a history of its own, throwing light on all other histories, and that instead of being the

driest of subjects, it was one of the richest in matters of wide human interest. A further advantage of priceless value might also, it is to be hoped, be realised in time in the commencement and development of a good modern Vernacular literature—a literature equal—if that were possible—to the ancient literature in beauty of form, and superior to it—which would be possible enough—in the value of its subject-matter.

A most interesting, but hitherto in India almost untrodden, path of progress opens itself now to the educated Native in the study of Nature. In this branch of research Hindus in all ages have fallen as much behind other nations as in the study of grammar they have excelled them. The only branch of natural science heretofore studied in India was Astronomy, and that had fallen from its high position and been compelled to do menial service to a silly astrology. Several branches of natural science have had a place given them of late in the curriculum of Indian University studies, and there seems reason to hope that a considerable number of educated Natives will henceforth learn to observe. To see is not to observe, and to learn up and pass examinations in the observations of others is not to observe. You are surrounded in the tropics with facilities and incitements to observation which do not exist in Europe. All nature is constantly in a state of excitement, vibrating between excess and defect, and constantly calling upon you to observe its changes. The habit of observation will prove of the greatest possible advantage to the Indian student, in checking that too ready belief in authority and that fondness for dreamy speculation which are so natural to Natives of the tropics. It may also be expected, if maintained for a sufficient length of time, and by a sufficient number of persons, to contribute to the solution of many questions which now appear insoluble.

It should be an anxious question with every educated Native how he can best exemplify the benefits of the education he has received. The first answer that rises to the mind is that he should endeavour to do to others what has been done to himself by labouring for the promotion of education all around. The lamp of knowledge which has been placed in his hands should be held aloft for the enlightenment of others. The well of knowledge which has been opened in his mind should be kept sweet and pure by copious communications to others of its healing waters. This rule applies not only to things known, but to principles also. The methods of thought and principles of action in which he has been trained should be propagated. Wherever he goes, in whatever situation he may be placed, the educated Native will find ample scope for carrying into effect those ideas respecting the importance of female education, which in theory at least seem now to be generally admitted, and which seem steadily passing, especially in the great towns, from the region of theory to the region of practice.

There is another department of educational work of great national importance which has not yet come to be regarded by Natives of the better classes with as much favour even as female education. I refer to the education of the labouring poor. Here is a noble and most extensive field for the exercise of that enlightened, large-hearted philanthropy which it is the great ultimate aim of the higher education to foster; and if this field has generally hitherto been left

uncultivated and uncared for by educated Natives—if their efforts for the diffusion of the benefits of education have too generally been confined within the limits of the classes to which they themselves belong—all the more credit will be due to those generous spirits who break through the barrier of class exclusiveness and set themselves to promote the greatest happiness of the greatest number.

Here I must appear to diverge for a moment to another subject, which nevertheless is not another, but the very essence of the subject in hand. In studying Mental Philosophy you have doubtless been taught the philosophy of morals. You have made your acquaintance with various theories of moral obligation, and doubtless someone of those theories has been specially recommended to you. But why were you taught the theory of obligation? Not surely for the gratification of your curiosity merely, that you might be enabled to realise the loftiness of the position occupied in the economy of human nature by Duty and the fitness of following where Duty calls. Man's highest duty to man—his highest moral obligation—is the duty of beneficence, the duty of doing good to others. The obligation not to do evil belongs to a lower stage of morals than the obligation to do good. "Thou shalt not" is only introductory to "Thou shalt." There is much high moral teaching—not unmixed with teaching of a different character—in the books with which some of you probably were familiar before you came in contact with the moral teaching of Europe. In particular, with regard to the highest development of beneficence—doing good to others though it be to our own hurt, doing good to those who do us evil—Indian literature is rich in maxims and illustrations of the highest excellence. There are two great defects, however, in Indian teaching on this subject. The first defect is the absence of an adequate motive. The second is one which I trust the educated Natives of our time will do their best to remedy. That is, the absence, or at least the extreme paucity, of real, not mythical, examples of this justly lauded devotedness in doing good—the absence in India of any thing corresponding to that long list of philanthropists whose names have made the annals of England so illustrious.

I now return to that branch of beneficence with which I commenced—the education of the lower classes, especially the lower classes in the rural districts, and I think I may say without exaggeration that the world does not present a finer sphere for turning theories of doing good into practice than that which educated Natives will find opening before them in every direction, if they set themselves to help forward the education and elevation of the hitherto neglected masses. It may safely be said that one-fourth of the rural population in this part of India belongs to classes for whose improvement nothing has ever yet been done, except by Europeans. One set of rulers after another has arisen and fallen, but the condition of the labouring classes has remained unchanged. They themselves did not care for education. Even the wish to become wiser or happier than they were at length died out. And if by any chance any of them did entertain a wish to rise, they were precluded from rising by the prejudices of the upper classes. I ask now what nobler object educated Hindus can propose to themselves than that of teaching these myriads of "dumb, driven cattle," that after all they are men. Dispel their ignorance, strike off their fet-

ters, allow them to entertain some hope of bettering their condition, and even the horrors of those periodical famines, from which they suffer more than any other class, will be found to be capable of mitigation. If you do good only to the members of your own class and order who can requite you again, "what reward have ye?" The truest beneficence consists in doing good to those who are beneath you, who cannot requite you in any way in kind, and who possibly may have sunk so low as to be unable to requite you even with gratitude.

But though the lower classes may have sunk very low, morally as well as intellectually, it must not for a moment be supposed that they are unimprovable, as they are sometimes said to be by those who do not wish them to improve. How is it that their social life is so much superior to that of the savages of the Andaman islands, who are probably in the same condition now that the Indian aborigines were originally? It is not because they have been able to appreciate and appropriate those elements of civilisation which have percolated down to them from the Aryan higher classes? The degree in which they differ from the barbarous aboriginal races in other parts of the world exhibits the degree in which they are capable of improvement. And if they have reached the condition in which we find them without the help of education—a condition which probably they reached two thousand years ago—how much higher might they not be expected to rise if they were taken by the hand and helped forward by the educated classes?

I may here add, that I do not admit that there is anything contrary to caste rules in the course I recommend. There are certain Sastras, it is true, in which the observance of the rules of one's own caste is represented as virtually the highest morality; but the teaching of such Sastras is neutralised by that of others, and there is no Sastra in which members of the higher castes are prohibited from promoting the education, the civilisation, the moral well-being, of the lower. The only exception to this—the prohibition of Brahmins teaching the Vedas to Sudras—is an exception which relates only to a particular function of a particular class.

In pleading that educated Natives should endeavour to exemplify the benefits of the education they have received by philanthropic labours, especially by labours for the promotion of the education of the long neglected masses, I do not forget that the time of many of them will be largely occupied by their official duties. A certain proportion of them, however, will doubtless elect to be employed in education, and in their case official duties and philanthropic labours will be in the same direction. The promotion of education in various ways and amongst various classes of people, in the town or district in which he is employed, in addition to the ordinary work of his own school, will be quite in accordance with a good educationist's conception of his duties. Without ceasing to teach he can encourage others to teach. He can also with special propriety urge the uneducated classes to show themselves desirous of learning. A still larger proportion of educated Natives will doubtless be employed, as hitherto so in future, in the public service. I do not ask or wish such persons to neglect the duties they owe to the Government they serve, whose pay they receive; for the sake of unpaid philanthropic labours for the benefit of the community, nor do I expect them in

any good work they undertake to promote it by large donations of money. If they resolve to content themselves with their salaries and their unstained honour they will find that they have not much money to spare. What I may fairly ask and wish them to do is to use for the good of the community whatever influence they possess or may acquire. Though their salaries may be small, their influence in the Native community is very great. It is an influence much greater in proportion than that of any officials holding similar positions in England. We see from time to time in the rural districts not only tanks and choultries, which are in accordance with the ideas of charity which are traditional in India, but also schools and dispensaries erected by wealthy Natives, mainly through the influence of local Native officials. That influence would also doubtless lead to excellent results, if it were exerted as I have recommended, in behalf of the education and elevation of the labouring poor. Any advice in this direction given by Europeans would probably excite only jealousy and suspicion, but an enlightened public-spirited, zealous Native official might persuade the zemindars and wealthy ryots residing in his district to do almost anything he wished for the public good.

It may be objected that in the remarks I have now made you have heard nothing new or original. Very true. There is no originality in anything I have said. But what India requires, as it appears to me, is not originality, but a firm resolution on the part of each educated Native to make himself useful in the sphere in which he finds himself placed, to act up to his convictions of duty, to carry into practice those theories of obligation, those theories, in particular, of the obligation of beneficence, of the obligation of doing good to others, which have constituted the highest element in the education he has received. It does not much matter in what department of things, or in what direction people first begin to carry their convictions of duty into practice, provided they actually do begin somewhere. Duty is like the circumference of a great circle of a sphere, such as that which girds the earth, passing through both poles. Wherever you commence, if only you steadfastly go on, you will touch in succession every point in the circumference and unite at length in one majestic, unbroken circuit the two poles of life, the human and the Divine.

The address was listened to most attentively, and several portions elicited much applause from the audience.

His Grace the Chancellor dissolved the convocation, and the proceedings came to a close.

MADRAS CHRISTIAN COLLEGE.

THE annual distribution of prizes to the pupils of the Madras Christian College took place yesterday evening in the Hall of the College. The Right Reverend the Bishop of Madras presided, and there was a large attendance of the friends of the institution, among whom were Bishop Caldwell, Colonel Macdonald, Mr. D. Duncan, Mr. B. Lavery, Mr. Margoschis, Mr. Mahomed Yusuf Saib Bahadur, Mr. E. Thompson, Mr. Viziarangum Mudaliyar, Mr. P. Ramasawmy Chettiar, the Rev. S. Morley, the Rev. E. Sell, the Rev. A. H. Arden, the Rev. T. Eathianathen and Mr. R. B. Michell.

The proceedings were opened with a short prayer by Bishop Cald-

well, and the Rev. W. Miller, the Principal of the College, then read the following report:—

In briefly noticing the history of this Institution in 1878, it seems desirable to begin with what has been done for it in Britain. For years, as is well known, it has been our steady aim to place the College on a permanent basis, and to connect it as directly as possible with all the agencies that are labouring for the moral and spiritual good of Southern India. The partial attainment of this end was announced in our Report two years ago. The end in view has been so far attained that our Institution has now a right to be regarded as representing more or less directly all the Churches of the Reformation that are at work in this part of India, and has therefore received the name of the Madras Christian College. The object will not, however, be completely gained until all of these Churches that work along educational line, are efficiently and permanently united in the support and management of the College—until therefore the College be separate from any school department, as a proper College must be. Not till then will it realize the ideal of a liberal education energized by that religious element without which no complete or healthy culture of the human mind is possible. The success of an attempt like this would in course of time affect for good, and affect most powerfully, the whole mortal life, and indirectly even the material well-being of the land. On this account it has always caused us deep regret that those in Britain who have most power to help, have been so slow in seeing the importance of the proposals we have laid before them. Yet we are thankful that progress has been steadily, even though slowly made, and especially thankful that in the past year decided and most hopeful steps have been taken towards the attainment of all that we desire. For instance, the principles on which the Institution is carried on have received the emphatic sanction of the Committee of the Free Church of Scotland; and in various ways that Church has reiterated her determination to persevere in the work to which God has so plainly called her. The General Assembly has expressed cordial approval of the attempt to broaden and solidify the basis of the College. So too the heartiest general sympathy in this attempt has been expressed by all the Missionary bodies that may reasonably be expected to take part in it. More than that,—the general principles on which the scheme of united support and management should proceed have been agreed on by most of these bodies, and are now under the friendly consideration of the others. The details of the scheme have not yet, it is true, been much looked into; and in connection with them, difficulties of various kinds will undoubtedly arise. Yet the spirit in which the subject has been taken up by all concerned, encourages the hope that in course of time every difficulty will be solved in one way if not in another. Thus while far from presumptuously certain of success, we have good ground for humbly hoping that in the not very distant future this College may stand forth as a tolerably worthy representative of the Church's quiet confidence that every phase of truth is compatible with her divine life and fitted to be a means of uniting the soul of man to Him who is the fountain of all light and who has given the Son of his love to be the Saviour of the world. For such decided progress we are largely indebted to controversies that have been raised both in Scotland and in India

about the character and usefulness of the College. These discussions drew an amount of attention which would probably never been aroused without them; and to secure the attention of those who seek for the lasting good of India has always been the very thing we stood most in need of. A College such as we aim at permanently establishing can hardly hope ever to become very strong in worldly wealth or worldly influence. Yet if strong in the hidden life of God's inspiring, and strong in the united prayer of a too much divided Church, it will most certainly become the means of blessing and of gladdening millions long after those who have laid its foundation amid the darkness are resting in forgotten graves. But if so great an end is to be gained, patient, and in some degree successful labour is needed here, as well as attention and efforts elsewhere. This has not been wanting in the year under review. As regards numbers, and considering the year as a whole, no great change falls to be reported. The average number on the roll of the school throughout the year was 806, and on that of the College 215, making a total of 1,021. Work among all these pupils and students has been carried on with so much steadiness and efficiency that the College Council cannot but record their gratitude to all who have been engaged in it. The Council would especially tender hearty thanks to the very numerous friends who have aided in examining the classes, and whose names are given as usual in a note.*

Among the chief occurrences of the year we must note the loss the College has sustained in the death of one who presided at the Meeting of Council which inaugurated its new departure, and who ever manifested the most tender and farseeing interest in its progress,—the Rev. David Fenn. We only unite with all Christian workers in Southern India in mourning a loss to us that is anything but a loss to him. A new Professor, the Rev. A. Alexander, M.A., arrived in June to fill the place of the Rev. R. N. Macdonald. Mr. Miller returned in November and Mr. Cooper is now about to go on furlough. Messrs. P. V. Runga Charriar, B.A., Samuel Srinivasagam Pillai, B.A., and V. Sadaseviah, resigned their places as teachers in the school department for employment elsewhere. All

had done faithful and useful work, and we regret the loss of services that had been proved to be efficient, but they left with the full knowledge and approval of the Principal, and their places have been suitably supplied. It should be mentioned also that Physical Science was added to the curriculum as an optional subject for the two Senior College classes, according to the University scheme of study. It has proved decidedly popular with the students. Turning to the usual tests of how the work has been done,—insufficient tests no doubt yet the best that are readily accessible,—we are glad to note that the success of the students has been as marked as ever in the Cator Scripture Examination—the only available public test of that kind of knowledge which we value most. In the Higher Grade the first places taken by a non-christian student whose acquaintance with the Bible dates but a few years back. Another of our students stands fourth, another fifth, and six more have obtained certificates of honour. In the Lower-Grade one ordinary prize, the highest extra prize and fourteen honorary certificates have been gained by pupils of the Institution. Considering that the majority of our candidates have had no home training in the Scriptures, and that none of them received any special preparation beyond the reading of the prescribed subjects in the ordinary classes, results like these must be pleasing to all friends of christian education. The Council regrets that it cannot speak with so much satisfaction of the results attained at the University examinations. The list indeed of the new Bachelors of Arts is not yet published; and in the First Examination in the Arts *twenty-five* students passed, one being in the first class. Considering the unprecedented number of failures this may be looked upon as fair,—or indeed comparatively as creditable. But in the Matriculation Examination only six pupils were successful. The examination, it is true, has been quite unexampled for severity, only 353 passing out of 2,647 candidates, and some schools that for the most part figure fairly in the lists being this year totally unrepresented. In such circumstances it is impossible for those who are not behind the scenes to determine how much of the blame of failure rests upon this Institution and its pupils. But that some of the blame should fall on them the Council can hardly doubt. A little light is perhaps cast upon the causes of so novel a phenomenon by a certain falling off in ways which the Council, from its point of view, regards as of greater consequence than failure to pass any examination. The attendance has been less regular than heretofore, the percentage of absentees being about *ten*. Worse than this,—an evil rampant enough in Madras but from which this Institution has been hitherto exempt, began to show itself. We refer to the way in which pupils and students about to appear for University examinations absent themselves from their classes a long time before the session ends. There has been nothing indeed like that wholesale disappearance of a class of which complaints are sometimes made in the public prints; but it is a thing quite new for us to find that a large proportion of pupils in the classes going up to University Examinations—perhaps about 30 per cent,—hardly put in an appearance after the middle of October. Such irregularity, accompanied as it too often is by dishonest evasion of the payment of fees, must bear evil fruit in regard to passing examinations, and in regard still more to moral character.

* We have thus to thank G. Bidie, Esq., M.B.; John Cook, Esq., M.A.; D. N. Cruickshank, Esq., M.A.; Rev. J. Cooling, B.A.; William Elder, Esq., L.R.C.S. & F.R.; Rev. N. G. Goldsmith, M.A.; Rev. J. Hudson, B.A.; Rev. G. Legate, M.A.; D. Sinclair, Esq., M.A.; Rev. E. Sell; Rev. J. A. Vane, B.A.; C. Waters, Esq., M.A.; G. K. Winter, Esq., M.B.A.S.; Mr. Abdul Razaq Sahib; Mr. H. Cooney, B.A.; Mr. J. S. Huften, B.A.; Mr. J. Lazarus, B.A.; H. N. Lewis, B.A.; P. Maduranayagam Pillai; Mahomed Ishack Sahib; Mr. Samuel Streenuvasagam Pillai, B.A.; Mr. J. Solomon Nadar, B.A. M. E. R. C. Audiasavulu Naidu, B.A. & B.C.E., N. Appa Row Garu, B.A.; T. Aiyacannu Nalkor, B.A.; C. Chendrasekara Sastri, B.A.; G. Coopooaswamy Iyah, B.A. & B.L.; N. Cundaaswamy Moodelly, B.A.; T. Devaraja Pillai, B.A.; M. D. Gopala Charriar, B.A. & B.L.; C. Jankiramaiah, B.A.; P. M. Kailasam Pillai, B.A.; C. Kanakasabai Pillai, B.A.; N. Krishnaswamy Moodelliar, B.A.; P. Krishnaswamy Chetty, M.A. & B.L.; C. Krishna Sastriar M. Krishnam Chariar; S. Manavaliar Garu; D. Narayanaswamy Naidu, B.A.; V. Nithianunda Moodelliar, B.A.; T. T. Runga Charriar, B.A.; S. Runga Charriar, B.A.; S. Runga Row, B.A.; A. Ruthnaswamy Moodelliar, B.A.; N. Shadagopa Charriar, B.A.; N. Subba Row, B.A.; M. Subramaniam Iyer, B.A.; Sreenivasa Chetty, B.A.; V. Soondararamiah, B.A.; & B.L.; C. Sreenivasa Charriar; C. M. Thamotharam Pillai, B.A. & B.L. M. Tirunnavaras Chariar, B.A. & B.L.; V. Vasudeva Sastriar, B.A.; S. Vadivelu Moodelliar, B.A. V. Viswanada Iyer, B.A. and B.L.; P. Venkatappiah Pantulu, B.A.

It is not merely that those who are absent inflict injury on themselves, but their example destroys the morale and spirit of the class, so that, as happens so often in the larger school of active life, the innocent as well as the guilty are made to suffer. We do not propose to inquire further into the causes of a change so lamentable. We have some confidence that it will not recur after so severe but salutary a lesson as to its effects. In spite, however, of aberrations such as this, we have seen in the past and hope to see more largely in the future a growing sense among the *alumni* of the Institution of the supreme importance of attention to duty and of all that bears a distinctly moral aspect. From the majority of them we cannot expect much sympathy with our own unalterable conviction: that security for a high and noble life is to be found only in the knowledge of God and of Jesus Christ whom he has sent. Such sympathy is not wholly wanting, and it will grow and spread until in God's good time it fill this land. But it is much for the present if even a little success attend the patient effort to make young men not only acknowledge but practically feel that to do one's duty in the sphere where God has placed one,—to overcome temptation,—to live so that character is moulded by Divine Law and quickened by unselfish motive is more than to pass all possible examinations,—more than to win the greatest honours of the world. No sacrifice need be grudged, no toil is wasted, that contributes even a little to the growth of such a feeling. It is all too feeble, and its growth is checked by too many hindrances and drawbacks, yet it is both deepening and spreading here. Thus, whether we look at what is being done among the Churches or at the signs of the times around us, we are encouraged to meet the future hopefully. We are not ignorant of the difficulties that lie before us. We know how strong the many forces are that are arrayed against us, but in spite of every adverse influence the living God is able, if he sees fit, to give success to our endeavours. Therefore we are far from despairing of success. We even venture humbly to expect it. But whether in the end we succeed or fail, it is well that the attempt to turn the course of the whole huge stream of change that has begun to roll through India towards God and everlasting truth. It may be we shall fail, as men count failure; but it may be too that failure will turn out, in ways we cannot guess, to be the truest victory. It has happened often in the history of the world:—in regard to things of greatest moment it is almost perhaps the rule, that the beaten cause is the one that triumphs in the end. So it was with Him of whom we desire to be followers in all things. His comfort, in the hour apparently of hopeless defeat but really of boundless victory, was that thought which he has left to inspire all who are struggling amid difficulties for noble ends:—"Except a corn of wheat fall in the ground and die, it abideth alone; but if it die, it bringeth forth much fruit."

The medals and prizes were next distributed, and his Lordship the Chairman, addressed the meeting to the following effect. "Every one present on the occasion could not but join his Lordship in congratulating the Principal of the College and all connected with the institution, in the first place, on the large number of pupils attending the College. There were about a thousand pupils, and his Lordship supposed that this was the largest number of pupils in an institution in the Presidency; and when the competition prevailed

among schools at the present day was considered, it must be held that it required a great deal of energy, talent, and real labour to keep together so large a number of pupils in an institution. Therefore, whilst they congratulated the Principal and all connected with the institution on the large number of the pupils, they must attribute so successful a result to the energy, talent, and zealous labours of the Principal and all connected with the College. An important feature in the institution was its Christian character. For some years, there had been a good deal of difference of opinion on the question as to whether funds collected for Missionary purposes should be spent on schools. There were many who were of opinion that the money thus raised should be devoted entirely to the work of evangelizing, while there were others who held that it was not wrong to use the funds for the support of schools. His Lordship was of opinion that, as far as could be done, both agencies should be employed, and that it was most important that the young should be trained from their earliest years in regard to the truth. More recently, there had been a great deal of difference of opinion as to the question whether Christian Missionary Societies did right in spending upon the higher education, and there still seemed to be a difference of opinion on the point. On this question also his Lordship was of opinion that the Managers of Christian Missions should not lose their hold upon the young men who would hereafter exercise so great an influence on others. His Lordship therefore felt very great sympathy with the efforts made in the Christian College and other high schools for training the young in the right way. Addressing the pupils, his Lordship said that they might be quite sure that when his Lordship and others like him who had some experience of life saw so large a number of young people before them, they could not feel their hearts drawn towards them with the desire that they might be guided by the lessons they learnt and not be misled and carried away by old and foolish prejudices. His Lordship would say that Christians were sure of the salvation of their souls, and that there was one medicine for the healing of all souls. Directing the attention of the pupils to the Lord Jesus Christ of whom they had doubtless read, his Lordship at some length, most earnestly exhorted his hearers to follow Him. His Lordship said that he had ventured thus earnestly to speak to the pupils as he considered their souls precious. His Lordship concluded by urging upon the pupils to be diligent in their studies and to profit by the training they received in the Christian College. The Chairman was thanked for presiding, and the proceedings were brought to a close with the benediction.—*Madras Times*.

THE DIRECTOR'S POLICY.

(From the *Madras Times*).

THE recent action of the Director of Public Instruction has caused a great deal of commotion in the educational world, nor is it difficult to see the reason why. But the questions that rise up when the matter is discussed are many and diverse. It is impossible to blame everything that has been done, just as it is impossible to approve of everything. There seems, however, to be one thread of the same colour running through the whole of the educational woof, and that

is hostility to all non-governmental educational institutions. We say this advisedly, for though it will probably be denied by some, a careful study of the actual policy adopted will lead any one to conclude that a Director *friendly* to such institutions would never have done what the present Director has done. Granting, for the sake of argument, that what is done is right and just in the abstract, it is yet clear that the feeling which prompted it and directed it was a feeling of opposition and hostility. If a statesmanlike policy of economy had directed such action, reductions would have been effected as much by knocking down unnecessary Government schools as by reducing the aid to private schools. More money is spent on Government schools where private ones can do all the work, than is cut off by the recent reduction in aided schools. Since, however, no Government school, however worthless and unnecessary, is reduced by a single pie, while thousands of rupees are cut off from first-class private schools of acknowledged excellence, it is clear that the spirit animating the measures of economy is partial to one kind of school and blind to its faults and needless expense, and at the same time hostile to another kind and determined to diminish its strength, however usefully that strength may be employed. We think this must be clear to an impartial observer.

Having said so much on the spirit manifested in the recent action of reducing the grants to certain aided schools, we by no means wish it to be understood that we think such action unjustified. Without having any particular school in mind as we write, we may say that, in our opinion, the grants made to aided schools were made and ought to be made solely as helps to education. Certain schools were doing useful work, these schools needed help, therefore they were aided. This seems to us just and fair. The amount of help rendered was, or was supposed to be, just as much as was required to carry on that work. If, in course of time, it is found that the expenditure on the school is less than the income from all sources, the Government has a right to say, "You don't need so much help as formerly, therefore we shall decrease our Grant-in-Aid." Government money must not be stored up in the treasury of the school, nor used in any other way than the donor directs. All schools, therefore, showing profits, i.e., a less expenditure than income, are justly liable to a reduction of Government aid. Such schools should either do a greater work so as to spend their income, or give up their surplus income. If expansion, amidst so much competition in a Presidency town, is impossible, then let the grant be reduced and the profits be used for extension of education elsewhere. So far, we think, the Government action is quite justifiable. It is, however, rather too sharp practice to give a meagre three months' notice of the reduction, and still sharper to allow the schools affected no alternative. It would have been well to give a longer notice, and to warn the profit-making schools that if no additional educational work were done, the grant would be shorn of as much as was superfluous.

The mode of spending the money thus saved shows still stronger the bias of the Educational Department, and the hostility to private educational efforts. The funds thus judiciously saved would have been wisely used in strengthening and extending primary education in the Mofussil. Madras is honey-combed with high-class schools; the Mofussil is very sparsely supplied with elementary schools

The need of extending the educational franchise laterally is patent to all. Here was a wide field for the exercise of the Director's zeal for primary education. A splendid opportunity afforded itself for bringing the fruits and sweets of learning within the reach of the poorest and most isolated village in the Presidency. Both private and Government schools could have been opened, and existing ones improved; but nothing of this was done. The opportunity afforded was not of the kind wished for. Not to increase and strengthen education among the masses, but to cripple and strangle all private efforts in the promotion of knowledge, was apparently the object selected in the expenditure of the money saved. Two places where private efforts rendered Government schools totally unnecessary were selected, and additional funds were allotted to the schools in these places. At Cuddalore and Salem where private schools were in full force, and where Government efforts were, therefore, a criminal waste of money, the feeble Government schools, instead of being removed (and thereby a large amount of money saved) were erected into Provincial schools, and additional sums of public money spent where none at all was needed. If a truly impartial and statesmanlike policy of economy, a determination to avoid the expenditure of money where such expenditure was absolutely unneeded for had been adopted, the schools at Cuddalore and Salem would have been swept away, and the money thus additionally saved, would have been spent where the need was greatest. Instead of this, the Educational Department would appear to have said to itself, "Here is a fine chance of killing half-a-dozen birds with one stone. Let's cut down these private institutions in Madras and use the money to crush private institutions in the Mofussil," and as it willed, so it acted. This seems to us to show unmistakably the bias of the Department. And we now see Provincial Schools established, not because they are wanted (for the fingers of one hand are more numerous than the students in the newly-formed F. A. class in one of the schools), but because their presence will not only reveal but embody and carry out the hostility of the Educational Department to private educational efforts.

It is said, and it may be with truth, that a well-conducted Government school is no greater expense to the State than an aided school, as the income by fees is in the latter case lost to Government. But in the case of unaided schools, where no help whatever is received from Government, such a statement has no force. No Zillah school is absolutely costless to the State. Now, in the case of Salem, the Managers of the private school ask no help and receive no help from the State, and they pledge themselves to supply the educational needs of the place absolutely without a pie of Government money. Such an offer appears a public boon, and one that the Government would accept with alacrity; but, on the contrary, the economic Government prefers to appoint additional teachers and incur largely increased expenditure, for the pleasure of having a Provincial School where the collegiate students number almost as many as their teachers, as a Governmental costly rival to a private efficient school without Government aid. Economy is not the true end and aim of these arrangements; so much is clear and unmistakable. The real object appears to be Government supremacy and private extinction, at any cost. The two questions touched on above are widely distinct.

Whether Government should aid private schools to act as rivals to its own schools in the same place, is one question. Whether Government should spend fabulous sums of money in bolstering up its own schools as rivals to private schools which are unaided, and should heap up the expenditure till the unaided, school is suffocated and buried is quite another question. Both these questions are being agitated at the present time, and they both demand careful attention.

The oft-quoted Despatch of 1854 is clear and explicit: so is the order of the Madras Government of October 23rd, 1878. But the action of the Educational Department is in defiance of both. Which is to prevail? Which is master? Does the Madras Government intend to abide by the above Despatch and order, or does it not? If it does, is the Educational Department to set the Despatch and the Madras Government at defiance, or not? The Department appears to seek its own ends *per fas et nefas*, and to cast to the winds all Government words, promises, and orders. If the matter were destined to be settled within the limits of the Presidency, we should have small hope of justice being done to the expressed wish of the British Government in the above-mentioned Despatch. The murmurings of the gathering storm are already heard, and what is begun in Madras is likely, ere long, to be laid before the Government at home, when the present policy of Madras will be examined in the light of the despatches and orders which now seem to be considered by the Educational Department as not worth the paper on which they are written.

REMARKS ON THE UNIVERSITY.

(From the Director's Report).

At the request of Government I brought before the Syndicate the question of making the University more self-supporting. Certain changes have accordingly been made, the general result of which will be to effect a saving of about Rupees 6,680 per annum. Hitherto there have been ten papers of three hours each for the Matriculation Examination. This examination has been curtailed by four hours, which have been deducted from the papers in Mathematics and Geography. The *vivâ voce* portion of the B. A. Examination has also been abolished, and the marks allotted to the several subjects have been redistributed. It has also been determined to make a slight reduction in the fees paid to the Examiners for the B. A. Degree. Another series of changes has been necessary to check an abuse which was beginning to show itself in connexion with what has been known as the general meeting of Examiners. Under Bye-law 43, the Matriculation Examiners have hitherto held a meeting at which each Examiner was required to submit his papers, and also the value which he intended to assign to each question, and, in the event of a difference of opinion, the decision of the majority of the Examiners present prevailed. There were similar Bye-laws for the F. A. and B. A. Examinations. For the M. A. Examination the rule was different, as although a meeting was held at which each Examiner was required to submit his papers to his colleagues for remarks and suggestions, the adoption of them was to be left to his own discretion. This latter rule seems *primâ facie* a better one than

the former, under which a paper prepared by an Examiner selected for his special knowledge of the subject may be altered by gentlemen selected for their knowledge of some entirely different subject. A good Sanskrit or Tamil scholar is not necessarily a competent judge of a Mathematical paper, or a Mathematician of a paper in Chemistry. Certain gentlemen appear to consider that the standard of some of the University Examinations is too high, and this year a determined and successful attempt was made to lower the standard of the Matriculation Examination with the aid of the Bye-law above referred to; similar attempts might have been made to lower the standard of the F. A. and B. A. Examinations. Bye-laws 43, 58 and 73 have therefore been modified, and as they now stand they prescribe that at the Matriculation, F. A. and B. A. Examinations each Examiner shall submit his paper together with the marks he intends to assign to each question to his colleagues in the same subject for remarks and suggestions, but that the adoption of them shall be left to the Examiner's own discretion. The general meeting of Examiners has thus been abolished. The only other change which remains to be noticed is one in Bye-law 95, which prescribes that candidates for the degree of Bachelor of Laws must attend certain courses of lectures for two consecutive years. A degree in Arts is necessary as a qualification for a degree in Law, but as the rule has hitherto stood, it was contended that a student might be attending law lectures while engaged in studying for his degree. This was never intended and the words "subsequent to graduation" have been inserted to prevent this objectionable course being resorted to.

For Tabular Statement see next page.

Result of the University Examinations from 1857 to 1877.

• The results of the University Examinations from its establishment to the close of the last official year are given in the annexed table :—

YEARS.	MATRICULATION.			FIRST ARTS EXAMINATION.			BACHELOR OF ARTS EXAMINATION.			BACHELOR OF CIVIL ENGINEERING EXAMINATION.			BACHELOR OF LAW EXAMINATION.		
	Passed.			Passed.			Passed.			Passed.			Passed.		
	From Government Institutions.	From Private Institutions.	Number of Candidates examined.	From Government Institutions.	From Private Institutions.	Number of Candidates examined.	From Government Institutions.	From Private Institutions.	Number of Candidates examined.	From Government Institutions.	From Private Institutions.	Number of Candidates examined.	From Government Institutions.	From Private Institutions.	Number of Candidates examined.
1857-58	41	29	70	No examination.	7	7	No examination.	2	2	No examination.	1	4	No examination.	1	4
1858-59	79	11	90	Do.	7	8	Do.	1	1	Do.	2	5	Do.	2	7
1859-60	57	22	79	Do.	8	10	Do.	2	2	Do.	3	6	Do.	3	9
1860-61	52	23	75	Do.	13	10	Do.	6	6	Do.	5	11	Do.	5	16
1861-62	80	35	115	Do.	33	10	Do.	6	6	Do.	6	12	Do.	6	18
1862-63	195	49	244	Do.	47	12	Do.	21	21	Do.	10	31	Do.	10	41
1863-64	252	58	310	Do.	50	19	Do.	29	29	Do.	10	39	Do.	10	49
1864-65	390	93	483	Do.	86	23	Do.	39	39	Do.	10	49	Do.	10	59
1865-66	565	137	702	Do.	109	34	Do.	53	53	Do.	11	64	Do.	11	75
1866-67	555	142	697	Do.	164	35	Do.	57	57	Do.	11	68	Do.	11	79
1867-68	895	128	1023	Do.	210	35	Do.	59	59	Do.	13	72	Do.	13	85
1868-69	1,066	128	1,194	Do.	210	35	Do.	59	59	Do.	13	72	Do.	13	85
1869-70	1,320	131	1,451	Do.	198	34	Do.	53	53	Do.	14	76	Do.	14	90
1870-71	1,200	167	1,367	Do.	234	33	Do.	100	100	Do.	14	76	Do.	14	90
1871-72	1,358	189	1,547	Do.	235	33	Do.	74	74	Do.	9	27	Do.	9	36
1872-73	1,413	109	1,522	Do.	233	33	Do.	33	33	Do.	9	27	Do.	9	36
1873-74	1,536	227	1,763	Do.	284	43	Do.	83	83	Do.	8	21	Do.	8	29
1874-75	1,704	269	1,973	Do.	417	285	Do.	88	88	Do.	22	39	Do.	22	61
1875-76	1,911	248	2,159	Do.	536	342	Do.	85	85	Do.	26	43	Do.	26	69
1876-77	2,120	212	2,332	Do.	450	396	Do.	106	106	Do.	33	50	Do.	33	83
Total	2,469	337	2,806	869	782	1,651	947	329	204	17	37	4	48	67	115

REMARKS.—Besides the results entered in this table, three candidates obtained the degree of Doctor of Medicine—one in 1858-59, another in 1870-71, and a third in 1872-73. Two candidates passed in 1868-69, one in 1872-73, and three in 1873-74 for the degree of Bachelor of Medicine and Master of Surgery; also one secured a Licence in Medicine and Surgery in 1867-68. Two candidates passed in 1874, three in 1875, and two in 1876 for the Preliminary Scientific Examination in Medicine. One passed the first M.B. and C.M. Examination in 1876.

The degree of Master of Arts was obtained by one candidate in 1869, by five in 1870, by one in each of the years 1872, 1873, 1874, 1875, 1876 and by three in 1877. All the candidates save six, were ex-students of the Presidency College. Of the six exceptions, one was a Bachelor of Arts of the University of Bombay, one was a private student, and the others were ex-students of the Combaconum Provincial College, Sullivan's Gardens Seminary, Trevandrum College, and the Free Church Mission Institution.

The degree of Master of Laws has been conferred on three candidates—one in 1870, another in 1871 and the third in 1874.

ZILLAH AND AIDED SCHOOLS.

(Continued from page 46).

THE attendance in the Zillah School of Chittoor has fallen off, especially in the lower department. On the death of C. Tiruvengada Naidu, Mr. Bilderbeck was appointed Headmaster, but never joined, as his services were required, first as Professor of History in the Presidency College, and afterwards as an Assistant to Mr. Metcalfe at Rajahmundry. Mr. Burroughs was accordingly placed in charge of the Chittoor School, but he remained for only a few months, as he was required to take the place of Mr. Moss at Mangalore, and Mr. Ramachendriah was appointed to act as Headmaster. The school did not acquit itself well in the Matriculation examination, as only 8 out of 30 candidates passed, all in the second class. In the Comparative examination, the upper fourth class was only moderately successful.

The attendance in the Zillah School of Salem has also fallen off and only 12 boys went up for the Matriculation examination, of whom 9 passed, two in the first class. The upper fourth class acquitted itself very indifferently at the Comparative examination.

The Town School, Combaconum, is managed by the Principal and masters of the Provincial College and is a very important institution. Mr. Gopal Row, who inspected the school in September, states that the knowledge of English shown by the fifth class was superior to that of average matriculates and that a very high standard was maintained in all the classes. A Matriculation class has since been formed.

All the other schools in the list show an advance on last year as regards the number of pupils who succeeded in matriculating.

In the 5th Division, the Subscription School of Tuticorin has been transferred to the middle class, and a new Hindu School at Palamcottah has received a grant and been brought under inspection. The number of schools of the higher class remains therefore unaltered. The increase in the attendance is small, but the number of pupils

who matriculated has risen from 25 to 56, of whom only two were placed in the first-class.

The Hindu Anglo-Vernacular School, Caroor serves as a high school to the results schools in the town, and it avoids all rivalry with them by having no lower department. Mr. Marden found the school in a very satisfactory condition when he inspected it in June 1876, the highest class being a preparatory matriculation class. This was as far as the masters then employed could carry the school. The managers have since secured the services of a First Arts man.

Mr. Marden inspected the Zillah School of Madura in December. The general result of his examination was decidedly satisfactory. The apparent severity with which promotions were regulated last year had, he thought, told well on the work of the year. The school greatly distinguished itself in the Matriculation examination. Sixteen out of twenty pupils who went up direct from the sixth class passed, and one was placed in the first class. Five other candidates who had attended the school for about six months all passed, one in the first-class. The upper fourth class occupied rather a poor position in the Comparative examination of Provincial and Zillah Schools. The Headmaster, Mr. Phillips, who had been for some time in a very feeble state of health, died just at the close of the year.

Mr. Marden inspected the S. P. G. High School at Ramnad in July. The school passed a moderately good examination. In the Matriculation examination six out of eleven candidates passed, against five last year.

The Anglo-Vernacular School, Shivagunga, was inspected in July. The standard had been raised, the staff had been strengthened by the appointment of two First Arts men and a matriculate above the old Headmaster, and the general result of the inspection was satisfactory. Two pupils are entered in the Gazette as having matriculated from this school, but the highest class as yet formed is a preparatory Matriculation class.

The Hindu Anglo-Vernacular School, Tinnevely, passed twenty-two out of thirty pupils at the Matriculation examination, and the staff has been very much strengthened, there being three graduates against one last year. Mr. Kershaw was not, however, altogether satisfied with the state of the school when he visited it in March. Boys had been systematically promoted to classes for which they were unfit for fear they should desert and join a rival school recently started, and he thought that the managers were wrong in keeping up a large preparatory class, for which there was no accommodation, merely because it was profitable. The teachers in this school are very poorly paid. There are two First Arts men drawing only Rupees 16 each.

Mr. Kershaw inspected the Church Missionary Society's Anglo-Vernacular School at Tinnevely in March and found it in a most unsatisfactory state. The teachers were men of very humble qualifications and the boys were unfit for the classes in which they had been placed. The general result was that the teaching throughout was of a very unsound character. Specimens of some of the exercises sent up by Mr. Kershaw have been forwarded for such action as the Madras Committee may deem necessary, but I have not yet been informed what steps have been taken to place the

school in a more efficient condition. Five out of nine pupils passed the Matriculation examination.

The Hindu Anglo-Vernacular School, Palamcottah, is a new school, which has recently received a grant. Mr. Marden inspected it in February and was on the whole satisfied with the state of the school. A number of pupils had however been admitted into the fifth class who were not at all fit to join it, and the rules regarding free scholarships, had not been observed. Six pupils went up for the Matriculation examination and two passed.

The number of Higher-class Schools in the 6th Division is reduced from four to three, owing to the transfer of the Brecks' Memorial School to the middle class. The attendance has on the whole increased, and the number of pupils who matriculated has risen from nineteen to thirty-eight, of whom three were in the first class against one last year.

The Local Fund High School, Palghaut, was inspected by Mr. Garthwaite in September. The upper classes passed a very good examination. The standard of some of the lower classes was not quite so high as it should have been. Since the inspection, the two lowest classes, which were abolished some years ago, have been re-established on the ground that they were needed as feeders to the upper classes. The large increase in the attendance is mainly due to this cause. Thirty-one pupils were sent up to the Matriculation examination and twenty passed, two in the first class. Under Government Order, No. 117 of the 21st March 1877, this school is to be constituted a Zillah School.

The Zillah School of Tellicherry has improved in every way. The attendance has increased considerably, especially in the upper school. Ten out of fourteen pupils passed the Matriculation examination against six last year. The upper fourth class occupied a respectable position in the Comparative examination and the other classes passed a fair *vis-à-vis* examination when Mr. Garthwaite inspected the school in March. Mr. Garthwaite thought, however, that there was still a want of adequate supervision on the part of the Headmaster.

There has been an apparent falling off in the attendance at the Anglo-Vernacular School of Cannanore. Mr. Garthwaite's inspection was held "late in March and the promotions from the affiliated elementary School, which supplies the place of the lowest class, having been deferred until after the inspection, the names of the boys promoted were brought on the rolls only on the 1st April." The result of Mr. Garthwaite's inspection showed that the upper classes were doing fairly, but that the lower classes required better teaching. At the Matriculation examination, eight out of sixteen boys passed, one in the first class—a very creditable result, considering the weakness of the staff.

The Brecks' Memorial School passed two pupils at the Matriculation examination, but as the upper classes have been abolished, this school will be noticed in the next section of this report.

I noticed in my last report the circumstances which had led to the the revival of a Comparative examination of the upper fourth classes of Provincial and Zillah Schools. This examination was held on the 13th November 1876 and three subsequent days. Two days were devoted to papers of questions, mainly prepared by the Inspectors of schools, by whom the greater part of the written portion of the

examination was conducted. A *viad voce* examination in English, conducted by the Headmaster of each school, was held during the last two days.

The Zillah School of Cuddalore headed the list in the average number of marks, and the Provincial School of Rajahmundry passed the largest number of candidates. The Provincial School of Mangalore also passed a large number of candidates, and the Zillah School of Kurnool secured high average marks for the few pupils sent in. The Provincial School of Calicut and the Zillah Schools of Cuddapah, Tellicherry and Chittoor all did fairly. At Madura and Salem the results were poor, very bad at Berhanapore, and disgraceful at Bellary. On the whole there was some improvement. As was the case in the previous year several of the papers set were too long and too difficult, and it became necessary to take one-fourth, instead of one-third, of the maximum number of marks as the standard entitling a boy to promotion to the fifth class.

Revision of Curriculum in Government Schools.

Many years ago a scheme of study was drawn up for Provincial and Zillah Schools, and from time to time various modifications have been made in the course. Four years ago the Committee for the Revision of School Books recommended a good many changes in the Books in use, and suggested that the Zillah School course should extend over seven instead of six years. Some orders were accordingly issued on the subject by the late Director, but I found from numerous references which came in that there was a good deal of uncertainty with regard to the work to be done in each class, and, after consulting the Inspectors of Schools, I issued a revised curriculum on the 17th June 1876. Hitherto specific portions of books have not been generally prescribed, and although some of the Inspectors and Headmasters have endeavoured to supply this defect, it has happened that in many schools pupils have been promoted from one class to another after reading very small portions of their text books. The style of teaching which prevails in our Normal Schools seems to have to some extent developed this tendency, but no foreign language can be effectively acquired in this way. In the University examinations this is guarded against by prescribing tolerably large portions for study. In the revised curriculum, not only the book, but the portion which is to be read in each class, is defined, and arrangements have been made for enforcing more attention than has been hitherto paid to copy writing, dictation, exercises, and translation, all of which have been very much neglected. There has also been a good deal of confusion arising from the standards of the lower classes being entirely different from those prescribed for Taluk Schools and Results Schools. This has been remedied. The introduction of a more definite curriculum has not been confined to Government Schools. Many managers of Aided Schools have applied for a copy of the scheme and have introduced it into their own schools.

Physical Training.

At the commencement of the official year, a copy of my letter to Government regarding the introduction of a system of physical education into the schools of this Presidency was communicated to the Inspectors of Schools and Heads of Government and Aided Colleges

and Schools, with information regarding the system pursued in the other Presidencies and the amount available for expenditure. Very few replies were received during the year. The

Tanjore.
Combaconum.
Negapatam.
Trichinopoly.
Salem.
Vellore.
Chittoor.
Calicut.
Mangalore.
Tellicherry.
Cannanore.

Inspectors of the 4th and 6th Divisions recommended in general terms the establishment of gymnasia at the stations noted in the margin, but entered into no particulars, and nothing has yet been done in these Divisions. In the 5th Division, Mr. Marden proposed that an ex-student of the Zillah School of Madura, who was a proficient in the native system of gymnastics, should be entertained on a salary of Rupees 10, which was to be supplemented by fees from the pupils,

who were stated to be willing to pay two annas a month to be instructed by him. This arrangement has been sanctioned as a temporary measure. In the town of Madras, grants amounting to Rupees 428-15-2 have been given for gymnastic apparatus to the Doveton College, the Civil Orphan Asylum, and Patcheappah's High School, and the question of establishing a gymnasium open to all schools is under the consideration of a Committee. At Chedumbrum, a grant of Rupees 89-4-3 has been given for gymnastic apparatus to Patcheappah's branch school and a grant of Rupees 3-8-4 month towards the salary of a gymnastic teacher.—*Report of the Director of Public Instruction.*

MISCELLANEOUS.

ENGLISH COMPOSITION—is not always a strong point with those who have the reputation of being "scholars." A man may know a great deal, and yet have little skill in placing his thoughts on paper. Some striking examples of this weakness were placed before the public the other day in the publication of some correspondence found among the property of the notorious convict Kurr. He had plenty of "ideas," but he lacked the facility of expression, and had advertised for "literary assistance." That is a kind of help which is always at hand. There is, at least, the willingness to help; for even those who cannot write believe themselves highly qualified. Some hundreds of applicants expressed their willingness to give the required assistance, but Benson was the "happy man" to be selected. One candidate expresses himself qualified because that, "having corrected for the press, he had had considerable experience in literary composition." A second declared that he was an experienced "writer of prose and verse for the public press, &c.," but we are left in doubt as to the force which the writer meant to apply to " &c." A third, a clerk in the city, declares in his offer "that I hope by constant attention to business, and perfect respectability, to justify my selection to the vacant situation." A fourth, perhaps the most precious of the whole as an illustration of faulty composition, is from a university man: "I am a university man," he writes, "and, therefore, well versed in general literature and science." Would that the conclusion were inevitable; but we know not a few university men who are very far indeed from being "well versed" in both branches of study. He had more to say of himself, however: "I have a thorough knowledge of art, my pictures having been accepted at the Royal Academy; I have travelled a good deal, and therefore have a knowledge of the French language." Again we doubt the "therefore." It is given to many men to travel a good deal; but not to all of them is it conclusive that a knowledge of the French language follows as a matter of course.

THE SAHARA.—A German geographer, Von Hollwald, in a book on Africa speaks of "an ignorant scheme recently projected in England for the inundation of the whole Western-Sahara, the practicability of which is not only not supported by any known facts, but is shown to be futile by the most superficial acquaintance with them." The details of this "ignorant scheme" may be studied in a book on *The Flooding of the Saharas* (Sampson Low and Co.) by Donald Mackenzie, where they do not certainly at first sight bear out the sweeping condemnation of the German. Some three hundred miles inland from the west coast at Cape Juby there is a vast depression in the desert, known as El Juf, and bearing the marks of comparatively recent desiccation. A long valley running inland from Cape Juby, suggests the idea of a former communication with the Atlantic, and tempts speculators with the possibility of again renewing it. The practicability of such an enterprise can of course only be ascertained by a careful survey of the whole country; and such a survey is impossible without first establishing a friendly understanding with the natives. To effect this Mr. Mackenzie proposes to begin with making a port at Cape Juby, and thence joining one of the caravan routes to Timbuctoo, which skirts the desert in this direction. The direct connection between this route and Europe would at once open up an enormous trade with the great cities and fertile regions of the semi-civilised Soudan, and would thus be a great benefit in itself as well as the possible precursor of one far greater. The Soudan employs at present no inconsiderable amount of European goods, but as these are all brought through the desert by laborious caravan routes from Morocco and Algiers, it is evident that their consumption would be immensely increased, and the cause of civilization proportionably advanced by opening up the much more direct road from Cape Juby.—*The Guardian*.

APPOINTMENTS, &c.

Appointments made between the 15th February, 1879 and 15th March, 1879.

S. P. Sundaram, to be Substantive *pro tem*, an Assistant Master, Presidency College, vice Satagopa Iyengar, resigned, as a temporary arrangement.

M. D. Masillamany Pillay, B.A., 3rd Master, Zillah School, Madras, to be 3rd Master Zillah School, Berhampore vice Visvanatha Iyer.

His Grace the Governor in Council is pleased to appoint

The Right Reverend Bishop Sargeant, D.D.,

Michael Gould, Esq., M.A., Queen's College, Cork, Queen's University, Ireland, LL.B., London University, Administrator-General.

Surgeon-Major G. Bidie, M.B., University of Aberdeen, Secretary and Statistical Officer to the Surgeon-General, Indian Medical Department.

J. Cook, Esq., M.A., University of Aberdeen, Principal, Devon Protestant College.

The Reverend A. W. Atkinson, M.A., Trinity College, Dublin, Head Master, Bishop Corrie's Grammar School.

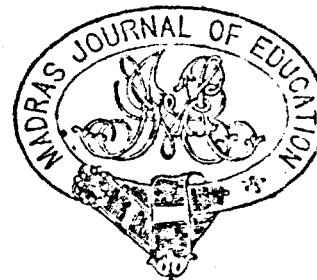
The Reverend A. H. Arden, M.A., Christ's College, Cambridge, Secretary, Church Missionary Society.

M. R. Ry. Y. Vencataramiah Sastri, Madras.

M. R. Ry. A. Sankara Aiyar, B.A., University of Madras, Dewan Peshcar, Trichoor.

Mr. E. Ry. A. L. Venkataramana Pantulu Garu, M.A., B.L.

Mahomed Yusuf, Esq., Presidency Magistrate, to be Fellows of the Madras University.



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THE MONTH.

At the late Meeting of the Senate, Mr. Rae very properly drew attention to the want of accuracy in the tables published by the Syndicate giving information as to the numbers going up from the various Educational Institutions for the Matriculation Examination. It is manifestly both incorrect and unfair to put down to the account of a School all candidates who may choose to enter themselves as going up from that School. Many candidates have a notion that they more easily find favour in the eyes of an examiner and have a better chance of passing, if they enter themselves as coming up from an accredited Institution. Hence we have known youths to put themselves down as coming from Schools they have not attended for years. Such candidates invariably omit the word "private study" in their applications. Another case we have recently heard of is that of fifteen pupils in a Fifth or pre-matriculation class going in for the Matriculation Examination without the knowledge of the Head Master and entering themselves as pupils of the School. All of these candidates failed, and were debited to the School in the list of failures.

In another School, a Matriculation Class consisted of only sixteen pupils, and yet in the Syndicate's Report, twenty pupils are entered as registered for the Examination. The inference is either that four pupils of the Preparatory Class, or four candidates not at all connected with the School must have made use of the name of the School in their applications. We think that the publication of such a table is quite unnecessary in the Syndicate's Report, however useful it may be for departmental

purposes to the Director of Public Instruction. This officer could moreover readily obtain under signature of the Principal of each School in the Month of October (1) the number of pupils in the Matriculation Class at the end of September and (2) the number who then sent in applications for Matriculation both with and without the Principal's recommendation. These figures could be obtained through the Inspectors of each division, and could appear in their proper place, viz., the Director's Annual Report, instead of in the Report of the Syndicate.

In the account of the Presidency College Anniversary in another column will be found an important official utterance of the Director of Public Instruction, and a criticism of certain statements referring to the cost of the Middle School in connection with the Presidency College which have been made in a Memorial lately presented to Government by the Managers of Aided Schools.

In connection with the correspondence on the inspection of middle-class schools, a Fellow of Cambridge writes to the *Times*:—"I am not likely soon to forget the visit of a youthful 'Inspector of returns' to a school in which I was much interested, which was doing a thoroughly good work, but which, after the Inspector's report, was soon closed as inefficient—the elder boys at once 'going up high' in the school to which they were transferred. I know something of examinations, both in the passive and active voices: and sure I am that never were examinees more thoroughly frightened, hurried, and surprised into forgetfulness and bewilderment than were those boys by that young gentleman. In the midst of my very real pain I could not help recalling the remark once addressed to another inquisitor, 'Master Constable, you go not the way to examine.' But, of course, I dared not quote it; I was but a curate. I, for one, certainly cannot wish that the arena for such exhibitions should be widened." "The young gentleman" is quite accustomed to play these pranks, and elementary schoolmasters are familiar with the tricks which hurry, frighten, and surprise the pupils on the day of inspection. The "awfully clever" young man from the University is too often "a snob." The real gentleman knows how to conduct himself any where. Those who are doubtful of the blessings conferred upon schools by inexperienced and yet self-satisfied examiners have reason for their lack of faith.

School prize:—Mr. P. Karanakara Menon, Collector's Sheristady Calicut, has offered to give Rs. 50 annually for prizes in the shape of gold rings,—one of Rs. 30 for English Composition and one of Rs. 20 Malayalam Composition. At present, he will pay this sum annually, but he proposes eventually investing a sum sufficient to yield this amount. His Grace the Governor in Council notices with satisfaction P. Karanakara Menon's liberality.

RESULTS OF THE DECEMBER EXAMINATION OF GIRLS.

WE now redeem the promise, given in our issue for December, to give a comparative statement, showing the number of female candidates sent up by each school to the last Certificate Examination, and the number passed. The following is such a statement, with the schools arranged according to the number passed by each:—

No.	School.	NUMBER SENT IN AND PASSED.								
		I. Grade.			II. Grade.			III. Grade.		
		Passed.			Passed.			Passed.		
		Sent in.	1st Class.	2nd Class.	Sent in.	1st Class.	2nd Class.	Sent in.	1st Class.	2nd Class.
1	Govt. Female Normal Class	5	2	3	2	2				
2	Normal Schl. Practising Dpt.	5	4	1	5	1	6	3		
3	Sarah Tucker Training Inst.				3	1	16	11		
4	Wes. Mis. Schl. Pop. Broadway.	2	1	1	12	1	4	11		2
5	Davidson Street Girls' School.	4	2	2	4	3	10	7		
6	Presentation Convent Schools.	3	2		9	3	11	3		
7	Training Schl., Megnanapuram.				5		5	5		
8	Training School, Nazareth.							12	8	2
9	St. Joseph's Convent Sch., Calicut.				3			9	9	
10	Mrs. Kohlhoff's Semry., Vepery.				5	1	1	8	6	
11	Female Orphan Asylum.				4	2	1	7	5	
12	St. Francis Xavier Girls' School, Madras.									
13	German Mis. Girls' Boarding School, Calicut.				5	2	1	11	5	
14	Dorseton Girls' School.	1						9	8	
15	St. Anne's Convent Girls' Sch., Mangalore.			1			2	5	3	
16	Coonoor Day School.				1	1		6	6	
17	Wesleyan Mis. Sch., Bangalore.				2	2		4	2	
18	F.C.M. Girls' Day Sch., Madras.	4			6			3	2	
19	Wesleyan Mission Boarding Sch., Royapettah.				8		12	11	1	
20	Convent Girls' Sch., Bangalore.							5	3	
21	Emmanuel Church Girls' Sch., Madras.							4	3	
22	F. C. M. Chetty Girls' School, Madras.							3	3	
23	St. John's Parochial School, Bangalore.				4			5	2	1
24	Christ Church School, Nellore.				2			3	2	1
25	Day School, Coimbatore.				1	1		1	1	
26	Remount Depot Sch., Muthigiri.							2	2	
27	Civil Female Orphan Asylum, Madras.							2	2	
28	American Mis. Sch., Madras.				3			3	2	
29	Potannar Railway School.							2	2	
30	Christ Church Sch., (Madras).				3			4	2	

No.	School.	NUMBER SENT IN AND PASSED.								
		I. Grade.			II. Grade.			III. Grade.		
		Sent in.	Passed.		Sent in.	Passed.		Sent in.	Passed.	
			1st Class.	2nd Class.		1st Class.	2nd Class.		1st Class.	2nd Class.
30	London Mis. Hindu Girls' Sch., Vepery				5			5	3	2
31	Protestant Orphanage, Bellary	1		1						
32	Ex-pupil Lawrence Asylum									
33	Forp Catholic Girls' School, Vizagapatam				4	1		1	1	
34	F. C. M. Poor School, Madras.				2					
35	London Mission Orphanage, and Day School, Madras.							1	1	
36	Church of England School, Rajahmundry							4	1	
37	New Town Girls' Sch., Madras.							1	1	
38	London Mission Girls' School, Bellary							1	1	
39	John Pereira's Union School, Madras				1			4	1	
40	Mission Normal School, Madras.							1	1	
41	F. C. M. Girls' Sch., Chingleput							3	1	
42	Boarding Girls' Sch., Madras				2			7	1	
43	Indian Instruction Society's Female Normal Sch., Madras							4	1	
44	Private Study.	10	2	2	22	2	4	13	2	1
45	Miss L. Gaudoin's Private Sch.				2			1		
46	Roman Catholic Sch., New Town.							1		
47	Miss Berlie's Seminary, Pursewakam				2					
48	L. M. Boarding School, Vepery				1			7		
49	Hindu Girls' School, Pursewakam							3		
50	Royapettah Catholic School							2		
51	R. C. School, Palaveram				2			2		
52	F. C. M. Black Town, Branch.							1		
53	Balika Patasala							3		
54	American Mis. Girls' School, Chittoor							2		
55	Government Girls' Sch., Salem.							3		
56	Caste Girls' School, Tanjore							3		
Total		35	13	11	133	22	28	260	139	9

Seven schools thus sent up candidates for the First Grade, one of the seven, the Free Church Day school, being for Natives only. No one of the four sent by this school was, however, successful. On the whole, 24 passed out of a total of 35. Or, if the ten entered as private students be excluded, we have 20 passed out of 25 presented, or 4 out of 5, a proportion that shows, either

a very easy examination, or exceedingly good preparation for it. Theoretically, the Standard for the First Grade is a high one, as follows :—

English.—Selections in English Poetry, No. 2.

Do. in do. Prose.

Grammar, as in Sullivan or McLeod.

Tamil.—3rd Book of Lessons, Public Instruction Press.

Pope's Poetical Anthology.

Pope's 2nd Grammar.

Telugu.—3rd Book of Lessons, Public Instruction Press.

Vemana Selections.

Venkiiah's Grammar.

[*Canarese*, *Malayalam* and *Urigo*, to agree with Tamil and Telugu as far as practicable.]

History.—Morris' India and England.

Geography.—Manual.

Arithmetic.—Generally but omitting Compound Proportion, Duodecimals, Cube Root and Stocks.

Method.—Fowler's work, or Murdoch's Hints.

Needle-work.—Ability to cut out and make up a shirt or jacket.

N. B.—Very discreditable writing, figures or spelling will cause a candidate to be rejected. For lesser deficiencies in these respects deductions will be made from the marks which would otherwise be assigned to the answers.

The candidates that passed, took no Vernacular language, but the remaining subjects are quite sufficient for a very testing examination. It will be seen from the figures that the Government Normal School, the Wesleyan School, the Davidson Street School, the Doveton School and the Lawrence Asylum passed all the candidates they sent in, while the schools of the Presentation Convent passed two out of three. This is very remarkable success, and would seem to indicate a very easy examination. The four first grade Native Candidates all failed. As they have the same questions as English-speaking candidates except in language, the result would seem to imply that the Vernacular language papers were the most difficult.

For the Second Grade there were 133 candidates, of whom 50 passed, 22 in the first class, and 28 in the second, the proportion of failures was thus very much higher with these candidates than with the First Grade Candidates. It has, we believe, been very generally found that the Second Grade standard is too much above that for the Third Grade for the work to be done even in two years. It is as follows :—

English.—2nd and 3rd Books of Lessons, Madras School Book Society.

Selections in Poetry, No. 1.

Grammar (Elementary knowledge.)

Tamil.—3rd Book of Lessons, Public Instruction Press.

Pope's Poetical Anthology.

Catechism of Grammar.

Telugu.—3rd Book of Lessons Public Instruction Press.
Vemana Selections.

Sheshaya's Grammar.
[Canarese, Malayalam and Uriya, to agree with Tamil and Telugu as nearly as practicable.]

History.—Brief Sketches of Europe and Asia.

Geography.—Manual. Europe and Asia generally; India in particular.

Arithmetic.—Including Vulgar Fractions, and Simple Proportion, but omitting Decimals, as well as what is not required for 1st grade.

Method.—Fowler's work, or Murdoch's Hints.

Work.—Ability to make up a shirt or jacket which has been cut out.

N. B.—Very discreditable writing, figures or spelling will cause a candidate to be rejected. For lesser deficiencies in these respects deductions will be made from the marks which would otherwise be assigned to the answers.

Except in English this is not really much below the standard of the First Grade, and the comparatively large amount of failure is not to be wondered at.

In the Third Grade the proportion of passed to examined rises to more than 55 per cent; but, considering the very low Standard of Examination for that Grade, it should be much higher, if there had been judgment in the selection of Candidates and care in their preparation. The Standard is, in fact, *much too low*, and, in our opinion, ought at once to be raised. It is as follows:—

English.—1st and 2nd Readers, Madras School Book Society.

Tamil.—1st and 2nd Readers, Public Instruction Press.

Telugu.—Do. do.

So in other languages.

Geography.—India, Outlines of Asia and general notions of the World.

Arithmetic.—Four Simple and Compound Rules.

Work.—Ability to hem neatly.

N. B.—Fair proficiency in hand-writing, making of figures and spelling will be required.

The books laid down for language are so elementary that it is not unusual to find in schools a class below that preparing its pupils for the Third Grade, actually reading *third* and even *fourth* readers, while the Third Grade Candidates are reading the second. Practically, the Arithmetic is made to include 'applications and easy problems.' The Geography would, we think be sufficient if to it were added "Outlines of England, and the way to it from India." To the three subjects included above we should like to see *Method* added. The examination is intended for *teachers*, and the fact that pupils are sent in to it should not be allowed to affect its character and divert it from its proper object, which is to test the qualifications of teachers; and no such test, even for the lowest grade, can be considered

complete if it does not test the candidates *theoretically* and *practically* as teachers.

There is at present much too wide a gap between the Third and Second Grade standards, while there is not difference enough between the Second and First Grades; and we think the time has come for a recasting of the whole scheme. As the examination is held in December, there is sufficient time for notifying any change to enable the schools to work according to a revised scheme from their re-opening after the summer holidays; and we would invite the attention of the Director of Public Instruction to the question.

THE MEETING OF THE UNIVERSITY SENATE.

THE Annual Meeting of the Senate took place in the Senate House on Saturday, the 26th April at 5 p.m. for the transaction of the following business:—

I. Consideration of the Syndicate's Report.

II. Election of the Faculties and their Presidents.

III. Election of the Syndicate.

IV. With a view to the introduction of the history of Sanskrit Literature into the B. A. and M. A. Examinations, the Syndicate recommend the following changes in the Bye-laws:

B. A. Degree Examination, Bye-law 68, para. 2, add—"If the second language be Sanskrit, the second paper shall also contain questions on a prescribed portion of the history of Sanskrit Literature, but these questions shall not bear more than one-fifth of the total marks allotted to that paper."

Bye-law 70, Scheme of Examination, Optional Language, Classical, Wednesday 2—5. In the case of Sanskrit for "Translation" read "Translation and the history of Sanskrit Literature."

M. A. Degree Examination, Bye-law 81, page 49, after "Native system of Grammar" read "and the history of Sanskrit Literature."

The following changes in Bye-laws 62, 75, 93, 105, and 176 are recommended by the Syndicate: for "2nd Monday in February" read "3rd Monday in January."

A letter from the Secretary of the Cobden Club offering to the University of Madras an annual Silver Medal for competition in the study of Political Economy.

The meeting was rather a full one; and the Vice Chancellor, Mr. Justice James, began by stating that the first business before the Senate was the consideration of the Syndicate's report, which was already in the hands of the Fellows.

THE REV. G. M. RAE wished to make a remark before the report was adopted. He observed, in it, certain extracts from the Examiners' reports, and it had become the custom to insert such extracts. He was not prepared to say they might not be of such a character as to be of value, if they directed the attention of teachers to points of general application, but it seemed to him that some of those given were useless. He objected, in particular, to the following by Mr. Metcalfe:—"I was told that 'pressure of air' 'centrifugal force' and 'the force of up' whatever that may be—enabled a man to climb a toddy tree—while only 'volcanic action' or the 'aid of Pro-

vidence' could bring the water over a canal bank."—Now all who know any thing about examining knew that it was always possible to pick out ridiculous bits that would raise a laugh, and if such were printed in the Syndicate's reports examiners would be prompted to supply them. But he objected to such comical extracts as serving no good purpose. More careful editorial supervision in the selection of matter for extracts had become necessary. Another matter he would advert to was the list of candidates for the Matriculation Examination in connection with the schools where they were said to be educated. It was well known that these lists were far from accurate, that boys said they came from schools which never sent them up, and so their failure was debited to institutions in no degree responsible for it. He wished to ask the Syndicate whether any steps were being taken to remedy the evil, and if so what. For his own part he thought there was little need of any such list at all in the case of candidates for Matriculation. They were not properly speaking within the cognisance of the University, until they had passed the Matriculation Examination; and he did not think that the Senate or Syndicate were particularly concerned to know where they came from. With undergraduates the case was different, and the rule requiring a certificate of attendance at an affiliated institution ensured accuracy in their case.

Mr. E. THOMPSON replied that the entries of students as to their places of education he thought were generally correct. It was true that, occasionally, a boy who had left school some three or four months before sending in his name forgot to add 'private study;' but the number of such cases would be so few that they would not affect the general accuracy of the figures. It was the intention of the Syndicate to print a few very plain directions on the back of the application, that every boy would be able to understand; and this was all that could be done. The Senate had decided that the Matriculation was open to all, and declined to put applications under the control of Head-Masters or Inspectors, and this being so, all applications must be accepted: and the Syndicate thought the plan he had mentioned would secure all possible accuracy.

Col. SHAW STEWART then moved that the Report of the Syndicate be adopted.

Mr. V. KRISHNAMACHARI seconded the resolution.

THE Rev. W. STEVENSON observed that the report was very meagre. It gave statistical tables, and nothing else. Nothing, for example, as to what the Syndicate had done or intended to do. The tables for the Matriculation Examination gave 2648 as the number registered, while only 356 passed, or about one in eight. Now this was a result that must, he should suppose, have caused anxiety to the Syndicate and been a subject of deliberation; yet the report said not a word of what they had done or intended to do. Some years ago when it was thought the Examination had been too easy, and that too many had passed, steps were taken to remedy the evil. The recent results as urgently called for the deliberation of the Syndicate; and they should know whether any thing had been done with a view to securing greater equality in the Examination. Such variations exercised a very disturbing influence; and caused the University to fail as a guide to masters. With such unequal results, no one knew what to repeat, and the regulations certainly required modification.

Turning to the results of the last F. A. Examination; these were nearly as unfavorable; and this was the more startling from the fact that the candidates in that Examination were all picked men. They had already been through the sieve of the Matriculation Examination; and when two-thirds of such candidates failed the result called for the serious consideration of the Syndicate and the Senate. The B. A. results were of an altogether opposite character. Whether the disastrous results of the other two Examinations may have exercised any influence on this one, he could not say; but he thought it possible there might be some connexion. Now these were important matters, and he thought the report should have given the Senate some information as to what the Syndicate thought, and what steps that body proposed to take to secure more uniform results. The meeting of Examiners to discuss the papers had been done away with, and some substitute should be found.

One other matter in the report he would refer to, namely, the complicated form in which the accounts were rendered. It was so complicated that he could get no information from it. [It was here pointed out that another page contained a summary which showed the nett cost to Government of the University for 1878-79 to have been Rs. 404 only].

Col. R. M. MACDONALD replied that the fluctuations in the results of the Examinations were undoubtedly serious; and the Syndicate had considered the question, the result was that a Sub-Committee had been appointed to consider and report what steps it was desirable to take with a view to securing greater uniformity; the Syndicate were not, therefore, at present in a position to offer any opinion. Mr. Stevenson had said that the large number of the successful B. A.'s might be due to the fact that the F. A. Examination had been so strict.* So it was probable that future F. A. Candidates would be more successful from the severity of the Matriculation Examination.

[The motion to adopt the report was then put to the Senate, and carried *nem. con.*]

The Senate next proceeded to assign new Fellows to the different Faculties and to remove the names of those left.

Faculty.	Moved by.	Seconded by.
Arts.	Col. Macdonald.	Mr. J. T. Fowler.
Law.	do.	Rev. G. M. Rae.
Medicine.	do.	Dr. Cornish.
Engineering.	do.	Col. Shaw Stewart.

The Presidents of the different Faculties were next elected as follows:—

Law.	Name.	No. of Votes.	Elected.
	Sir C. Turner.	2	Sir C. Turner.
	Mr. Justice Innes.	1	
	" Muttusami Iyer.	1	
Arts.	Col. Macdonald.	16	Col. Macdonald.
	Mr. Justice Innes.	1	
	Rev. W. Miller.	1	

* This was a misapprehension. For what Mr. Stevenson really said, see above. ED. M. J. OF EDUCATION.

Medicine.	Dr. Cornish.	9	Dr. Cornish.
	" Furnell.	1	
Engineering.	Col. Rogers.	1	Col. Rogers [by casting
	" Mullins.	1	vote of the Vice Chan-
			cellor].

The Faculty of Arts next proceeded to elect five members of the Syndicate with the following results:—

Col. Macdonald...	18 Votes.	} Elected.
Mr. E. Thompson ...	18 "	
Rev. W. Miller ...	15 "	
Rev. Dr. Strachan ...	9 "	
Mr. Muttusami Iyer ...	9 "	
" Chentsal Rao. ...	8 "	
Dr. King ...	4 "	
" Cornish. ...	3 "	
Rev. W. Stevenson ...	3 "	
Hon. V. Ramiengar ...	2 "	
Mr. V. Krishnamachari ...	2 "	
Hon. Mir Humayan Jah ...	1 "	
Mr. D. Duncan... ..	1 "	
Rev. E. Sell ...	1 "	

The results of the voting in the other Faculties were as follows:—

Law.	Hon. Mr. Justice Kernan.	3 Elected.
	Sir C. Turner.	2 "
Medicine.	Dr. Furnell.	4 Elected.
	" Cornish.	3 "
Civil Engineering.	Col. Rogers.	1 Elected [by casting Vote
	Mr. Chisholm.	1 of Vice-Chancellor.]

THE REV. W. MILLER next brought up No. IV. (see page 151), regarding the introduction of the History of Sanskrit Literature as a subject of Examination. The question had, he said, been already discussed at a previous meeting of the Senate, and the Syndicate had done no more than put into proper form the decision then recorded.

MR. V. KRISHNAMACHARI seconded the Resolution; which was carried *nem. con.*

COL. MACDONALD then proposed No. V. (see page 151) as a Resolution, the effect of which was that the B. A. and other degree Examinations would be held in January instead of February. It was, he said, desirable to have these Examinations earlier, so that convocation might be earlier.

THE REV. W. MILLER, in seconding the Resolution would mention one important reason in favour of the proposed change. It had been felt as a grievance and a difficulty that Convocation follows so close on the publication of the results of the B. A. Examination. These results are not known, and from the large numbers now attending the Examination, cannot be known for weeks after the Examination ends—the results has been that there are only ten days or so between the publication of the lists and the holding of Convocation. Now this is not sufficiently long, as some of the candidates return home

after the Examination, and do not hear of the results in time to enable them to attend the Convocation, and on this account the charge was necessary.

[The resolution was then carried unanimously.]

THE VICE-CHANCELLOR then brought up No. VI. and read a letter from the Secretary of the Cobden Club offering a Silver Medal for competition in Political Economy to the first M. A. in the subject.

THE REV. DR. STRACHAN enquired whether, if the best paper upheld conservative opinions, the Cobden Club would give the Medal.

MR. J. COOK asked, whether, supposing the man first in Political Economy did not pass, he would get the Medal.

THE REV. W. STEVENSON thought there could be no question that the Senate should cordially and gratefully accept the offer; and refer the consideration of all details to the Syndicate.

After some consultation between Sir C. Turner, and the Vice-Chancellor, the latter said Sir Charles suggested that it would be better to give the medal for competition among the B.A., rather than among the M.A., candidates when it was remarked that Political Economy is not a subject of Examination for the B.A., degree.

MR. V. KRISHNAMACHARI, observed that there was already the Norton Prize in the same subject.

THE REV. W. STEVENSON would let the Syndicate discuss all details as to Political Economy not being a subject of Examination for the B. A., degree, it might be a question whether it should not be.

DR. FURNELL observed that it was not said that the medal was offered to Students; it might be for any body.

THE VICE-CHANCELLOR replied that it must be a successful Master of Arts.

SIR C. TURNER seconded Mr. Stevenson's resolution that the offer be cordially and gratefully accepted. It would, he considered, be absurd as Mr. Cook had pointed out to give the medal to the best passed man. It should be given for the best paper in Political Economy and not to the best passed man.

The Resolution was then passed unanimously; and so closed the business of the Meeting.

EXAMINERS' REPORTS.

(From the 23rd Annual Report of the Syndicate of the Madras University).

MATRICULATION.—Mr. Metcalfe who set a portion of a paper in Physics says: "The paper, at least my half of it, although rather easier than usual, has been very ill done. I should suppose judging from the answers, that about one-third of the candidates have never studied the book at all. Some of them were candid enough to admit it and asked me "not to take unnecessary trouble over this paper." Several merely wrote out the questions. About 50 per cent. were of opinion that if the lower part of a barometer were immersed in water the mercury would fall if it was cold water and rise if it was hot—about 40 per cent. that it would fall being 13.5 times heavier than water. I was told that "pressure of air" "centrifugal force" and "the force of up" whatever that may be—enabled a man to climb a toddy tree—while only "volcanic action" or the "aid of Providence" could bring the water over a tana bank."

P. V. Ramaswami Raju remarks of the Tamil papers examined by him as follows:—

"A careful examination of the answers to part I of the Tamil Translation paper has disclosed various errors, but for which many of the candidates would have secured higher marks. These errors may be classified as follows:—

I. *Spelling*—(1.) In this respect the prevailing fault was the use of π and ρ . This was found almost throughout the books.

(2.) The substitution of σ for ζ chiefly in the books sent in from the more southern parts of the Presidency. Some of the best books were not exempt from this colloquial blunder.

(3.) The use of the Grantha character in the writing of Sanskrit words. This, however, was limited to a small number of books only.

II. *Style*.—The most marked defects under this head were these:—

(1.) The general absence of idiomatic language.

(2.) The large use of vulgar and provincial expressions.

(3.) The free introduction of English, Hindustani, and Malabatta phrases. The first and the second were generally employed by a great majority of the candidates; but the third exclusively disfigured the composition of the students examined at Tanjore."

F. A. EXAMINATION.—Mr. W. A. Porter in his report says, "My subjects were Plane Trigonometry and the XIth Book of Euclid. By the time I had read a dozen or so of the papers I had become aware of a curious uniformity of error in the answers to one of my questions the 6th proposition of the XIth Book. A large number had failed at precisely the same point of the proof after writing out the early part of it with perfect accuracy. As the phenomenon was a curious one I paused to investigate it, and with the aid of the Text-book was soon able to account for the uniformity of the error. They had in fact all strayed into a neighbouring proposition the converse of the one set in my paper. It so happens that there are a couple of lines word for word identical in the two proofs, and it was at this point of junction as it may be called that the fatal blunder was made and that so many took the wrong line. A transition of this sort could not of course be made without a breach in the continuity of the reasoning, and would be impossible to any one who was reasoning at every step, while it would be natural and easy to those who were performing a mere feat of memory with no better guidance than the casual association of words."

"Out of 642 Candidates who sent up papers in my subject, 361 completely failed in this point."

As regards the answering in Trigonometry, Mr. Porter says, "The first question in the paper was to define the sine of an angle and its circular measure. More than half the Candidates defined the former as "perpendicular by hypotenuse" and the latter as "arc subtending the angle by radius" or more briefly as "arc by radius." These are undoubtedly the words of the book, but they form in each case the tail of a sentence the beginning of which explains what perpendicular and what arc are respectively intended. I think no person who was reasoning at every step could by possibility give "arc by radius" as a definition of circular measure without stating

what the circle was of which the arc was a part. The number of Candidates who gave this answer was 352. Many of these probably knew the fact they omitted. I do not quote it as a proof of ignorance but to show the unthinking way in which the papers are generally done."

Mr. F. S. Evans says of the results in Arithmetic, "Out of 659 Candidates, no less than 401 have failed to obtain the minimum; and of the 183 Madras Candidates more than two-thirds have failed." "It appears to me that the present system of making English only compulsory is calculated to have a very injurious effect on the study of Mathematics. As a knowledge of Mathematics is now not compulsory for the attainment of the B. A. Degree, it would seem that many students after passing the Matriculation Examination are accustomed to pay very little attention to this subject; hoping to pass the F. A. Examination by obtaining a sufficient number of marks in other subjects."

Moreover, the present system at the F. A. Examination of allowing Candidates who fail in Mathematics *on the whole*, to count the marks they obtain in Arithmetic, Euclid and Algebra together, or in Trigonometry, provided they obtain the minimum in these part-subjects, seems to me especially calculated to make them neglect the more difficult parts of these subjects."

Dr. G. U. Pope one of the Examiners in Tamil: writes, "I cannot too strongly condemn the style of the prose portion of the prescribed text in which I have examined. It is a mere paraphrase of the poetical Works of Vālmiki and Kamban, abounding in every species of absurdity and full of examples of bad taste. It is ungrammatical, bombastic, and stuffed with Sanskrit words, phrases and idioms."

"While the papers are, as a whole, very good; and while there are many signs of a beneficial influence exerted upon their Vernacular studies by their English training. I must say that almost every paper shows the necessity for a more accurate and scientific study of Tamil, if the language is not to degenerate, and if the lessons in it are to be a means of discipline to the students."

"It is evident that Tamil is well taught in Trichinopoly. It seems to be quite neglected in Kumbhakonam and in Tanjore. Some from Madras are quite the best; while the few from Negapatam are very good."

Mr. V. Krishnama Chariyar remarks about the papers in Tamil examined by him: "I have the honour to observe that the points which I reported upon in connexion with the papers in the same subjects in the Matriculation Examination of 1877 require almost as much attention in the higher examinations as in the lower. Several faulty translations and renderings, Tamil in form but English in idiom were sent in; and in original composition the bulk of the Candidates made but little effort to secure purity of style and appropriateness of expression."

"As I remarked last year, the language teaching in affiliated institutions seems to be too much confined to oral lecturing on the text-books. In order to bring about an improvement, I think that smaller portions of text should be prescribed than now, to admit of a more thorough study and sifting examination of the same, and of more home reading and written exercises at school."

Dr. G. U. Pope says of the B. A. papers:—"It appears to me that

the study of Tamil Grammar is neglected by the Students in general. More stress should I think be laid on this subject. I was also astonished to find so few able to scan the poetry. They seem to know less about the metres than English boys generally do about the metres of Virgil and Horace. Meanwhile Tamil is very rich in able books on Tamil Grammar—both prose and poetical."

Captain Coaker in his report says of the Civil Engineering papers:—"I regret that I am obliged to disqualify in Architectural and Topographical Drawing three Candidates who have done well in all other subjects. The papers set are of the same standard as those of previous years but the errors in designing are so glaring, and the want of knowledge of drawing so great, that I cannot recommend any one of them for a pass."

So far as I have seen, the Candidates have always been weak in this branch. Although a man may not be expected to submit a design of the best dimensions in every particular, I am of opinion that, for the B. C. E. Degree, he should be able to design a work, which, if built, would fulfil the purpose for which it is intended; and to make correct working drawings of the same. In both these particulars the designs now submitted undoubtedly fail."

THE PRESIDENCY COLLEGE.

The anniversary of the Presidency College was held yesterday evening in the College Hall at Chepauk. The Hon'ble Sir Charles Turner, C.I.E., presided, and there was a very large attendance.

The proceedings were opened by Colonel Macdonald, the Director of Public Instruction, addressing the meeting as follows:—

Mr. Chairman, Ladies and Gentlemen.—The history of the Presidency College during the past year is fully given in the report, which will be read presently by Mr. Thompson. The college has met with brilliant success in the B. A. examination. The senior F. A. class was rather a poor one, and the results of the F. A. examination have not been as good as usual. In estimating the result of the Matriculation examination, the ordinary standard of comparison cannot be applied, for there has never been a year in which the failure has been so universal. The proportion of successful candidates from this institution is far above the general average of the Presidency, but much below the proportion usually reached here. These fluctuations in the standard of the University examinations are a very serious evil. Two years ago the examiners went into the opposite extreme and passed several hundreds of candidates who would never have had a chance of passing in any ordinary year. This year there seems reason to believe that a good many have been plucked who would have passed in any ordinary year. In some quarters it is supposed that the abolition of what used to be known as the Meeting of examiners is the cause of the catastrophe of this year. Under that system all the Madras examiners used to meet for the purpose of reading and criticising each other's papers, and when a difference of opinion arose as to the nature or number of the questions or the value proposed to be assigned to them, the decision of the majority of the examiners present prevailed. A paper carefully prepared by a gentleman selected for his special knowledge of some particular subject might be lengthened,

shortened, made easier or more difficult, by gentlemen selected for their knowledge of some other subject. Thus a body of gentlemen, wholly ignorant of Sanskrit, might have the Sanskrit examiner entirely at their mercy, the English and Vernacular examiners, who are always in the majority, might mangle the mathematical papers, or make a disastrous incursion into the domain of physical science. This extraordinary system prevailed in the Matriculation, First Arts and B. A. examinations, but in the M. A. examination the procedure prescribed was entirely different. There the rule was that a meeting should be held at which each examiner should submit his papers to his colleague for remarks and suggestions, but that the adoption of them should be left to his own discretion. Thus there was glaring inconsistency in the practice pursued, for which there seemed no sufficient justification, and the system which prevailed in the three lower examinations was one obviously open to grave abuse. The evil of it was seen in its full magnitude at the Matriculation examination held in December 1876, when the standard of the examination was, with the aid of this bye-law, suddenly lowered and the unprecedented number of 1,250 candidates were declared to have passed. But although the general meeting of examiners has now been abolished, each examiner is still required to submit his papers to his colleagues in the same subject, and if the new bye-law is properly carried out, the papers are, or ought to be, subjected to a good deal of criticism and to criticism of a more discriminating kind than that which was allowed formerly. In English, for instance, which is the most important of all subjects, and in which 75 per cent. of the failures of this year occurred, each matriculation examiner should have his paper criticised by five colleagues, and if six picked English examiners cannot be trusted to deliberate on the merits of an English paper, I do not see what guarantee we have that a sounder result will be arrived at by associating with them some twenty or thirty other gentlemen, whose forte lies in some different direction. It is possible of course that the bye-law may not have been fully carried out this year, for certainly here and there questions have been set which do not seem altogether appropriate, but even the parties most interested do not appear to attribute the failure of this year to any marked difference in the difficulty of the paper. It may, therefore, be partly due to many pupils having gone in who were unprepared to pass. The natural tendency of such an examination as that of December 1876 must have been to demoralize both teachers and pupils, and many candidates who had no right to present themselves may have hoped to scrape through in the same manner as the candidates of that year. But there are two other causes in operation which are undoubtedly lowering the general standard of proficiency. A few years ago, when the scale of school fees was raised, a practice commenced of boys leaving the Matriculation class some time before the end of the year, nominally for the purpose of private study, but really to escape paying school fees, and now, instead of boys dropping off one by one in December or November, whole classes have taken to disappearing in October, or even about the end of September. Many pupils thus lose what is perhaps the most valuable part of their year's instruction. The other cause is that schools, which ought to be content with being middle-class schools, are attempting to work up to the Matriculation standard without any

proper staff, and that in many instances boys are prepared for the Matriculation examination by masters who are in no way fit to have charge of a Matriculation class, and who are sometimes only Matriculates themselves. There are 34 schools in this Presidency and 15 out of the Presidency which have failed to pass a single boy at the late Matriculation examination. Many of these schools belong to the category to which I am referring, and when the total number of boys sent up by these unsuccessful schools is calculated it will be apparent that they form a not inconsiderable element in the ratio of failure. Altogether the various causes to which I have referred seem sufficient to account for a good deal of failure owing to the boys themselves being below the ordinary level, but they do not account for the whole of it, and some of it must, I think, be due to greater severity in the standard of marking, I am not at all prepared to say that the ordinary standard has hitherto been sufficiently high. There are facts which seem to show that it was not. For many years complaints have been made that our matriculates could neither write nor spell, and various unsuccessful attempts have been made to get these evils corrected. Writing was, however, considered beneath the dignity of a University, and spelling, it was assumed, must be sufficiently tested by the ordinary examinations. Nevertheless, the fact is well known that not only the matriculates, but the First Arts men and the Bachelors of Arts, and even the Masters of Arts of this University cannot be relied on to spell correctly. Under these circumstances Government declined in 1875 to continue to recognize the matriculation examination as a sufficient test of general education for the public service, and all matriculates who wish to obtain employment in Government offices are now required to pass the University civil service test in writing and spelling. I regret to state that out of 481 matriculated students who appeared for this test in 1877-78, only 213 passed, and that 174, i.e., about 36 per cent. failed in spelling. It is evident therefore, that persons unable to spell to the extent required for this humble test have been hitherto allowed to pass the matriculation examination and the fact certainly seems to show that the ordinary standard for a pass has been too low. But if the standard is too low, it should be raised by degrees. The whole question of securing greater steadiness in the standard of the University examinations is now under the consideration of the Syndicate, and although it is attended with some difficulties, I trust that these difficulties will not be found insurmountable. Mr. Thompson alludes in his report to a change which will, I hope, not be detrimental to the College, while it will be of importance in other ways. I allude to the abolition of the chair of Vernacular literature. This was the only appointment of the kind in this Presidency, if not in India, and there has always been great difficulty in filling this chair. The Vernaculars recognized by the University are Tamil, Telugu, Canarese, Malayalam, Uriya and Urdu. It is impossible to find a professor of all these languages or even of the four Dravidian languages. The higher literature of the Dravidian languages is written in a very difficult dialect, and it is almost the work of a life-time to master the literature of any one of these languages. It is found that the young men who pass the University examinations in these languages are often unable, a few years after they have taken their degree, to construe the very poems

in which they have passed their examinations, and even a Pandit is rarely able to make out the meaning of the more difficult poems without special study. As a professor of vernacular literature must necessarily be a person of considerable general culture in addition to being a vernacular scholar, some gentleman who was known to be a good Tamil scholar has always been selected for this post, and it has been left to him to acquire the other languages as best he could. Even with regard, however, to Tamil it has not been possible to dispense with the Pundits, and the Professor has not occupied the same position as is filled by the Professor of English Literature with regard to English or the Professor of Sanskrit with regard to Sanskrit. Practically the duties of the Professor have been almost identical with those formerly fulfilled by the Superintendent of Vernaculars. Advantage has been taken of a vacancy in this chair to reduce the appointment to its original status, and to create out of the saving thus effected an additional mastership in the Zillah School of Salem, with a view to the formation of a First Arts class in that institution. As considerable misapprehension prevails on this subject, I may mention that this measure forms part of a general scheme, which has been long under consideration. In the Public Instruction report for 1875-76, I pointed out the unequal manner in which the educational wants of this Presidency were supplied by the Colleges and High Schools then in existence. All the Government and aided colleges educating up to the B. A. degree were concentrated in the Town of Madras, and in the small district of Tanjore. An enormous advantage had thus been given to the Tamil population of this Presidency. Of the remaining districts only seven had institutions working up to the First Arts standard. It was represented that at least one College was required for the great Northern districts, and that every district ought, if possible, to be provided with one institution educating up to the First Arts standard. The Provincial School of Rajahmundry has been since raised to a college by reductions in other Government schools, and four young men from this College have taken their degree this year. Three Zillah schools, namely those at Berhampore, Cuddalore and Salem have this year been permitted to open First Arts classes, but no additional burden has been thrown on Government by these measures. At Salem the cost has been met in the manner already mentioned. At Berhampore an additional master has been obtained by abolishing two Taluk Schools. At Cuddalore a master has been obtained by transferring a man from the Madras Normal School. In two other districts the want to which I have referred has been ~~suggested~~ by private or aided institutions. The Maharajah of Vizianagram's High School, the Hindu Schools of Vizianagram and Tinnevely and the Church Missionary Society's High School, Palamcottah, have all developed into second grade Colleges within the last two or three years. But there are still six districts in which there are no institutions working beyond the Matriculation standard. I refer to Ferozpoor, Cuddapah, Nellore, North Arcot, Madurai and Chingleput. I do not consider that an institution of this grade is greatly needed in such a district as Chingleput, but I hope a day may come when each of the other five districts will have the same educational advantages as have been now placed within reach of the other portions of this Presidency. The problem in all these cases is to find the necessary

funds. In the present state of the finances, changes are effected mainly by a re-distribution of expenditure, and this process is necessarily a very slow one. The report notices the fact that a Mahomedan who was formerly a student of this College has taken the degree of Bachelor of Arts this year. There has been only one instance before of a Mahomedan graduating in this Presidency, although special encouragement is given to deserving Mahomedan students. About three years ago, when the system of scholarships was revised, one scholarship was specially reserved in the F. A. examination and two in the matriculation examination for Mahomedans without any restriction with regard to districts, but under the usual conditions relative to age. One of the scholarship holders, who is in the Rajahmundry College, will, I hope, come up for his degree next year, but I am sorry to say that it has not been always possible to award the scholarships. This year, for instance, not a single Mahomedan has passed the F. A. examination. The rule requiring that the F. A. scholarship shall be attained by the age of 20 and the Matriculation scholarships by the age of 18 has been found to bear hardly on Mahomedans, who usually commence learning English at a later age than Hindus. That rule has been now abrogated, and as no Mahomedan has taken the F. A. scholarship and three Matriculation scholarships have been set free at Berhampore, Salem and Cuddalore, six Matriculation scholarships instead of two have been this year given to Mahomedans. Several of them are very promising students, and I trust that four or five years hence a Mahomedan graduate will not be quite so rare a phenomenon as has been the case hitherto. Mr. E. Thompson, the Principal of the College, next read the report of the work of the school from which we quote as follows:—

The advance in the strength of the College noticed in last year's report has been almost entirely lost owing to the small number of successful candidates at the recent Matriculation and F. A. Examinations. On the 31st March the number on the Rolls was 163 against 136 of last year, but it was since increased to 168. I regard this falling off as only a temporary check to the gradual increase of our numbers: the present Matriculation class is unusually strong numerically, and as there is every probability of a considerable increase in the numbers passing the lower University Tests in December next, both from our College and other institutions, it seems reasonable to expect that next year the College will contain more students than ever. In the Junior Department notwithstanding the size of the Matriculation class, there is also a diminution of strength from 205 to 187. This is entirely owing to the small number of boys in the fifth class, the Anglo-Vernacular School at Triplicane, from which recruits for this class were mainly drawn, having now become a fully developed High School; the boys that formerly came on to us remain for the most part in the school in which they have been brought up. The results of the First Examination in Arts were not creditable to the College; only 14 students passed, and they were all in the second class. The class was known to be weak in quality though comparatively strong in numbers, but much better results would have been obtained but for the wilful neglect of mathematics and history shown by a considerable number of pupils. The fact that a degree in arts can be obtained without any mathematics at all, at least in the last stage of the competition, has, I fear, led to the

neglect of this important study by those who are preparing for the lower tests, of which Pure Mathematics forms a part. The sharp lesson, however, taught last December will, it is hoped, have an effect upon future classes. Turning to the remaining University Examinations the state of things is much better. It is indeed true that only 18 out of 59 succeeded in matriculating, but this is a brilliant result as compared with the average throughout the Presidency, the year being one of unexampled disaster. With the B. A. results, by which of course the success of the college must always be mainly tested, we have every reason to feel satisfied. Thirty-three students passed out of forty-two candidates, and to these must be added four more who, unsuccessful last year, succeeded in satisfying the examiners this time. Among these latter was the only Mahomedan who received his degree at the late convocation. It is true that no student was placed in the first class, but it is I believe an open secret that our first man only failed by one mark to attain that coveted distinction, and our second man would undoubtedly have obtained the honour had he not selected Physical Science as his optional subject. Much has been written, and still more said about the inequality of the tests in the optional subjects at the B. A. Examination, Natural Philosophy, Physical Science and Logic and Morals. All our students, eight in number, who took up Physical Science were indeed successful, but their average marks contrasted unfavourably with the averages in the other two branches, and the maximum mark in this branch was greatly below the corresponding maxima in Natural Philosophy and Logic with Morals. I fear that these facts, hardly more encouraging than the results of the two preceding years, will have the effect of deterring students from taking up that interesting branch of study, and my fears are greatly strengthened by the circumstance that in our recently formed B.A. class of 43 students only one pupil has selected Physical Science. The Mathematical test last February is by some regarded as unusually severe, but it is nevertheless true that the highest marks gained in the optional subject were gained by candidates in that branch, and this will be sufficient in the case of men who feel a taste for Mathematics to encourage them to take up Natural Philosophy. Accordingly I find that the Mathematical section of our third class is stronger this year than it has been for some time. Logic and Morals continue the most popular branch, and this is likely to be the case until the University papers in these subjects rise to the level of the others. The difficulty of fairly equalizing the tests in these three subjects cannot be insuperable, for a reference to the marks of the fourth class, which will be found as usual in the appendix, proves that the problem has been solved by the Professors of this College. The averages obtained in our College Examination last December were 46 $\frac{2}{3}$ per cent. in Natural Philosophy, 46 $\frac{1}{2}$ in Logic and Morals and 49 $\frac{1}{2}$ in Physical Science. This is a most satisfactory result, and if the same equality were attained in the Examinations of the University, there would then be no other reason for a student preferring one branch to another than that of personal preference or aptitude for a particular study, the only proper ground for selection. Our college Examinations in December were conducted wholly by the Professors and Masters, but I have again to thank Mr. V. Krishnama Chariyar for his annually repeated kindness in deciding upon the

merits of our Tamil and Telugu essays as well as the exercises sent in for the Morehead Translation Prize. Mr. Rangarya Chettiyar has also been kind enough to value the College Translation from and into Telugu, as we have unfortunately no master who is sufficiently conversant with English and Telugu to perform that duty. The study of Sanskrit is growing more and more popular in the college. Though our total strength is below that of last year the number of Sanskrit pupils has risen from 48 to 57, and it is an encouraging feature that the lowest class contains a number of very promising young pupils. The Sir Goday Vari Sanskrit Prize was this year carried off by T. Sankara Row, an ex-student of this college, and I believe that he and A. Krishnasami Aiyar, who headed this year's B. A. list, will be found entitled to the two valuable prizes offered annually by the Maharaja of Vizianagram. Persian is in almost all cases now preferred to Urdu by our Mahomedan pupils, and the same language has been selected by a Brahmin student of the first College class. The Legal Branch of the Lower Class College continues to be more than self-supporting. The students at the two courses of 1878-79 numbered 63 and 66 respectively, and as the fees of 60 students are sufficient to cover the stipend of the Professor, a small surplus has been realized. Under G. O. No. 169 dated 28th May 1878, some additions have been made to the Law Library of the College. The cost of educating each pupil in the college in 1878-79 is more than fifty rupees less than it was in the preceding year, in the High School the saving is about twenty rupees, and in the Middle School the cost remains practically at the same figure. It is necessary to say a few words with regard to the cost of the Middle School in consequence of a statement made in a Memorial recently presented to His Grace the Governor and printed in the *Madras Times* of the 7th instant. The memorialists say that when the lower classes of this College were re-established in 1875-76 the Government were informed that the change would involve no additional expense; and a little further on they remark that the expectation has not been fulfilled inasmuch as in 1876-77 the fees obtained from these classes failed to cover half the expense. The statement is so entirely misleading and has had unfortunately such a wide publicity given to it, that it is necessary to expose its fallacy. The reason why the expense is double the income is that this Middle School is debited with portions of Dr. Oppert's salary, of the pay of the Sanskrit, Persian and Vernacular Pundits, the Writing Master, Clerk, College servants, &c. But it is obvious that if these middle classes did not exist the whole of these charges would be borne by the College and High School, as they were in the interval between 1868 and 1876, and that the only additional expense caused by these classes consists of the salaries of the two English masters employed to teach them and of a small amount of stationery consumed by the boys. In the year quoted by the Memorialists the salaries of these masters amounted to Rs. 2,440, and the fees they admit to have been Rs. 1,940, so that Rs. 500 were available for paper and pens! Instead therefore, of the hopes held out at the re-opening of these classes not being realized, they have been abundantly fulfilled, for each year a small contribution has been made by these classes to the general expenses of the Institution. Regarding the necessity of the buttress, as the memorialists call these classes, I

need not repeat what has been urged in former reports; it is sufficient to remark that if an aided College has a Junior Department of 800 boys the Government College may surely be allowed one-fourth of the number. As to the "weakening effect on aided Institutions" which in the opinion of the memorialists is exercised by these classes I can only say that the Institutions they allude to must, indeed, be in a precarious condition if they can be effected to any appreciable extent by the education here of 60 or 70 boys, mostly dwellers in Triplicane, the Anglo-Vernacular School of which suburb certainly does not afford them the same sound education that they can get with us.

In asking the chairman to distribute the prizes, Mr. Thompson said that he regretted to state that the Government prizes not having as yet been received, they could now only give the special prizes. These prizes and the certificates were distributed.

The Chairman then addressed the assembly. He observed that since his arrival in Madras he had been called upon to pay his footing by presiding on no less than four occasions in as many weeks at the anniversaries of educational institutions. He regretted this for the sake of his audience, who could not hope for novelty from him unless they convicted him of inconsistency. It was well-known he regarded education of greater importance to no country than to the India of to-day. He defended himself from the charge brought against him in the *Indian Mirror* that in describing the labour of India as a gold mine he had overlooked the absorbance of the capital required to develop it on costly administration and the absence of industrial training. He professed he had always declared the greatest benefactors of India to be those who revived decaying industries or established new industries; that the successful investment of foreign capital in India must attract more; that he urged the youth to fit themselves to direct their employment, and that the advance of the era of prosperity in India, which he predicted, would be accelerated or retarded in proportion to the more or less speedy recognition of the principle that India must rely on indigenous talent, and cannot afford to be a large importer of talent, whether in administration, arts, sciences, the professions, or commerce. Commenting briefly on the lucid Report of the Principal, and finding no reason for regret that the Matriculation classes have fared no better than similar classes in other institutions, the Chairman proceeded to discuss the objections usually raised to the expenditure on high education. He declared that the aided schools, which generally could not divide missionary from educational aims, had no right to complain that the Government provided schools free from the suspicions of such influences, and that the competition thus engendered afforded not only healthy stimulant to both classes of institutions, but a means of testing the efficiency of the aided schools. He replied to the objection that high education should be paid for by those who desired it by pointing out that in this country the Government is obliged to come forward and supply the lack of endowments which place the highest education within the reach of such large numbers of the people of England. He believed it capable of proof that such education reimbursed the State for its expenditure. To evoke the spontaneous loyalty of our Indian fellow subjects the leaders of native opinion must be provided with a sound and

thorough education. They would then appreciate, with a justice we have already proof of in the more enlightened native journalism, the general equity of the aims of Government and the spirit of its laws. They would prize and not abuse their privilege as British citizens, and fit themselves for the highest functions in the service of our common Empire. To the Presidency College applied the description that had been given of Maynooth—"its office is to form the characters of those who will form the characters of millions." Its pupils carry its influence to thousands whom its direct teaching cannot reach. Adverting to the statue erected to the memory of Mr. Powell, the first Principal, the Chairman pointed to his eminent pupils Sir Madhava Row, the Hon. Muthusawmy Aiyar, C.I.E., Hon. Sheshiah Sastri, Hon. V. Ramiengar, C.S.I., C. Rungachari and P. Ranganatha Row, and the minds these had influenced and would influence as "footsteps in the sands of time" which would preserve better than the chiselled marble the memory of Mr. Powell. These distinguished men handed down to three successors in the student's chambers of the College examples they were incited to imitate and aims they were constrained to embrace, and the present Principal could point in the Council Chamber, in the Civil Service and at the Bar to pupils of his own who had already made good their first steps in paths of distinction. It would, however, be objected that much of the literature which had necessitated legislation most distasteful to Englishmen was the outcome of the education given by the State. He confessed and conceded this argument. The objection was not wholly unfounded in fact, but it really proved his case, for such literature was largely the outcome of imperfect education, but not of the education on which he insisted. Its language, its sentiment, its logic, all went to prove its imperfection. In a measure, too, the disloyalty of this literature was the sour weed that sprang up in the stagnant marsh of disappointed ambition. But it had been asked by Macaulay, "Shall we keep the people of India ignorant that we may keep them submissive, or do we think we can give them knowledge without awakening ambition, or do we mean to awaken ambition and give it no legitimate vent?" The English Government had pledged itself to find a vent for the legitimate ambition of all, and in proportion to their fitness such a vent would certainly be found. To prove that the policy he advocated was not novel, the Chairman quoted the peroration to Lord Macaulay's speech on India delivered in 1833, and pointed out that half a century was not completed since this prophetic wish found expression in noble words, and already there were indications of its fulfilment; there were already numbers in this land desirous, and many capable, of the privileges of citizenship. To this city there had been recently conceded by no means the first instalment of such privileges, and when the common acquiescence of our enlightened fellow-subjects conceived the hour had arrived for advancing the demand, England would not be slow to concede to her Indian subjects the full privileges of citizenship for which so many of her wisest sons had laboured to fit them. The chairman concluded his address with a tribute to the memory of the late Maharajah of Vizianagram, whose death had robbed society of an ornament, the poor of a most unstinting benefactor, and India of one of her truest nobles.

ALGEBRA.

*Solutions of the First Class Algebra Paper set at the Pupils'**Examination of the College of Preceptors, Christmas, 1878.*

(By J. McDOWELL, M.A.)

1. If
- $a = 3$
- ,
- $b = 2$
- , and
- $c = 0$
- , find the value of

$$10\sqrt{(5a + \frac{1}{2}b)} - 4\sqrt[3]{(16a^2b + 8ab^2 - 25c^2 + 24)}.$$

$$10\sqrt{(5a + \frac{1}{2}b)} - 4\sqrt[3]{(16a^2 + 8ab^2 - 25c^2 + 24)}$$

$$= 10\sqrt{(15 + 1)} - 4\sqrt[3]{(16 \times 9 \times 2 + 8 \times 3 \times 4 + 24)}$$

$$= 40 - 4\sqrt[3]{(8 \times 51)}$$

$$= 40 - 8\sqrt[3]{51}.$$

1. Find the G. C. M. of
- $14x^3 - 17x^2 + 11x - 3$
- and
- $6x^2 - 3x + 4x^3 - 1.6x^2 - 3x^3 + 4x^2 - 1 = 3x^3(2x - 1) + (2x + 1)(2x - 1)$

$$= (2x - 1)(3x^2 + 2x + 1).$$

$$\text{And } 14x^3 - 17x^2 + 11x - 3 = (2x - 1)(7x^2 - 5x + 3);$$

$$\therefore \text{G. C. M.} = 2x - 1.$$

Express in their simplest forms:—

$$(i.) 1 + x^2 + x^4 - \frac{x - x^6}{1 - x^2} \quad (ii.) \frac{x}{1 - \frac{x}{x - \frac{x}{1 - x}}}$$

$$(i.) 1 + x^2 + x^4 - \frac{x - x^6}{1 - x^2} = \frac{1 - x^6 - x + x^6}{1 - x^2} = \frac{1 - x}{1 - x^2} = \frac{1}{1 - x}.$$

$$(ii.) \frac{x}{1 - \frac{x}{x - \frac{x}{1 - x}}} = \frac{x}{1 - x} = \frac{x^3}{x^3 - x + 1}$$

4. Solve the equations:—(i.)
- $\frac{5x-3}{3x-5} - \frac{3x-5}{x+1} = 2.$

$$(ii.) \frac{1}{6} (3y - 2x) = \frac{1}{2} (11x - 2y - 8) \quad (iii.) \frac{x-3y+2(9y^2-x^2)}{2x-5y} = 0$$

$$(i.) \frac{5x-3}{3x-5} - \frac{3x-5}{x+1} = 2.$$

$$\therefore 5x^2 + 2x - 3 - 9x^2 + 30x - 25 = 6x^2 - 4x - 10.$$

$$-10x^2 + 36x - 18 = 0, \therefore 5x^2 - 18x + 9 = 0, \text{ or } (x-3)(5x-3) = 0.$$

$$(ii.) \frac{1}{2}(3y - 2x) = \frac{1}{2}\left(11x - \frac{10x}{3} - 8\right) \dots\dots\dots(a),$$

$$\frac{x}{6} - \frac{y}{10} = 0 \dots\dots\dots(B),$$

$$\therefore x = 3 \text{ or } \frac{3}{2}.$$

$$\text{From (B)} y = \frac{5x}{3}; \text{ substituting in (A), } \frac{1}{2}(5x - 2x) = \frac{1}{2}\left(11x - \frac{10x}{3} - 8\right),$$

$$\therefore 15x = 23x - 24. \quad \therefore x = 3 \text{ and } y = 5.$$

$$(iii.) x - 3y + 2(9y^2 - x^2) = 0,$$

$$\therefore x - 3y = 0 \text{ or } 1 - 2(x + 3y) = 0,$$

$$\therefore x = 3y \text{ or } 2x = 1 - 6y.$$

Substituting in the second equation,

$$6y - 5y = 2, \text{ or } 1 - 6y - 5y = 2,$$

$$\therefore y = 2, \text{ or } y = -\frac{1}{11}.$$

$$\therefore x = 6, \text{ or } x = -\frac{6}{11}.$$

5. Reduce to its simplest form $-\left(x + \frac{1}{x}\right)\left(\sqrt{x} - \frac{1}{\sqrt{x}}\right)^2 - \left(x - \frac{1}{x}\right)^2$

$$\left(x + \frac{1}{x}\right)\left(\sqrt{x} - \frac{1}{\sqrt{x}}\right)^2 - \left(x - \frac{1}{x}\right)^2 = \left(x + \frac{1}{x}\right)\left(x + \frac{1}{x} - 2\right)$$

$$- \left(x - \frac{1}{x}\right)^2 = \left(x + \frac{1}{x}\right)^2 - \left(x - \frac{1}{x}\right)^2 - 2\left(x + \frac{1}{x}\right)$$

$$= 4 - 2x - \frac{2}{x}.$$

6. Express as the product of two real factors—

$$(i.) x^4 + 6x^2 + 25. \quad (ii.) x^2 - 7 + \frac{1}{x^2}.$$

$$(i.) x^4 + 6x^2 + 25 = (x^2 + 5)^2 - (2x)^2 \\ = (x^2 + 2x + 5)(x^2 - 2x + 5).$$

$$(ii.) x^2 - 7 + \frac{1}{x^2} = \left(x + \frac{1}{x}\right)^2 - 9 \\ = \left(x + 3 + \frac{1}{x}\right)\left(x - 3 + \frac{1}{x}\right)$$

7. The area of a plot of ground is 1200 square yards, and its length exceeds five times its breadth by 40 yards; find its dimensions.

Let x yards = its breadth, $\therefore 5x + 40$ = its length,

$$\therefore x(5x + 40) = 1200, \quad \therefore x^2 + 8x + 16 = 256,$$

$$\therefore x = -4 + 16 = 12 \text{ yards, its breadth.}$$

$$\therefore 5x + 40 = 100 \text{ yards, its length.}$$

8. A and B had £100 between them but after A had given £10 and B, £5 to the Abercrombie Relief Fund, the sums they had left were in the ratio of 10 to 7. Find, how much money each had at first.

Let £10x + 10 = the money A. had at first,

$$\therefore 7x + 5 = \text{ " B. " }$$

$$\therefore 17x + 15 = 100. \quad \therefore x = 5,$$

$\therefore$ A. had £60 and B. had £40 at first.

SANSKRIT MANUSCRIPTS.

In May 1869 a list of the Sanscrit works in the library of the late Rajah of Tanjore was procured from the Reverend Mr. Long, in consequence of a demi-official communication by Sir Erskine Perry suggesting that this collection might be purchased for Government.

This list was forwarded to the Government of Bombay with a request that Professor Bühler might be asked to give his opinion as to the propriety of purchasing the Sanscrit works enumerated therein or in any portion thereof.

In August 1869 the Government of Bombay submitted a copy of Dr. Bühler's report containing his opinion on the propriety of purchasing the Sanscrit works in question. Dr. Bühler said—

"On examining the list of the Sanscrit manuscripts which belonged to the late Rajah of Tanjore, I find that it contains a great many useful and a number of very rare or nearly unique books (*cûle list*). I am therefore of opinion that it would be in the interest of Sanscrit philology if the Government of India decided to buy the whole collection. Should this be impossible, I beg strongly to recommend that at least the works contained in the list may be bought, many of which are quite unknown, or procurable only with great trouble and expense."

On the 25th August 1873 the Government of Fort St. George submitted, as called for, their proceedings, which embodied a letter from Dr. Burnell reporting on the progress made by him with the catalogue of the Sanscrit manuscripts in the library of the late Rajah of Tanjore. Dr. Burnell reported that the total number of manuscripts in Tanjore library amounted upwards of 18,000, and these in eleven distinct alphabets, being from all parts of India; that in February 1872 the catalogue was nearly completed, but since that time he had been unable to do as much as he expected, though, on the whole, the work had advanced. The delay was due to the difficulty in procuring types, and the distance at which he lived from Tanjore. He observed "that the Tanjore library contains several good manuscripts of all the most important works known as yet, including a few that are new." He believed "that this library must sooner or later escheat to Government; the preparation of this catalogue will therefore protect property of enormous value. Sanscrit manuscripts have long been very dear, and the cost of making proper transcripts is now very heavy." As far as he could judge, "it would not be possible to form a collection like that of Tanjore at a less cost than £50,000, but many manuscripts are unquestionably unique." He added that, "as the Government has expressed a wish to promote Sanscrit studies, he has to some extent anticipated the publication of his catalogue by procuring manuscripts for scholars. Several have been sent to Calcutta, Bombay, and Europe."

On the 31st October 1873 the Government of India expressed full concurrence in the praise bestowed on Dr. Burnell for his disinterested services, and hoped to see the catalogue soon completed.

In November 1874 the Government of Madras submitted a letter from Dr. Burnell stating that he had not been able as yet to complete the revision of his manuscript (fair copy) of the catalogue of the Tanjore library, but hoped to do the work much faster provided his health permitted him to do extra work.

In June 1875 the Government of Madras forwarded a further letter from Dr. Burnell in which he stated that he had had "the duties of a District and Sessions Judge to perform since three years, and that he has had very little leisure, being in charge of very heavy courts. To do such work as this properly much time is obviously necessary." He would however "be glad to complete it as quickly as is consistent with the standard of completeness now required."

In November 1877 the Government of Madras submitted a further letter from Dr. Burnell in which he states that his catalogue has been printed as far as the article "Kosha", and that he hopes to be able to finish the revision of his manuscripts up to the end of section "Technical literature" during the leave in December and January ensuing. He expects to issue shortly the first part of his catalogue.

The Chief Commissioner of Mysore submitted in March 1870 a catalogue of Sanscrit manuscripts in the library of His Highness the Maharajah of Mysore. This catalogue was sent to the Government of Bombay for a report thereon by Dr. Kielhorn. On the 2nd April 1870 the Government of Bombay submitted Dr. Kielhorn's report. He said "that he compared this catalogue with those of the Sanscrit manuscripts in the India Office Library, of the Bodleian Library at Oxford, of the Royal Library at Berlin, and with other smaller libraries in Europe."

The result of this comparison was that of the 608 works of the catalogue under report 468 are already in Europe, as indicated by him. He therefore suggested that the remaining 140 manuscripts specified might be re-catalogued. Dr. Kielhorn's suggestions were communicated to the Chief Commissioner of Mysore with a form of the catalogue sent by the Government of Bombay for adoption. Further communication has not been received from the Chief Commissioner of Mysore. But a supplementary catalogue of Sanscrit manuscripts in the library of His Highness the Maharajah of Mysore prepared by Dr. Kielhorn, was received in May 1874.

It contains the particulars as to the age, &c., of the works which Dr. Kielhorn suggested should be exhibited in the catalogue.

Nothing appears to have been done in Madras towards carrying out the instructions of the Government of India. The duty was entrusted in December 1868 to Mr. Pickford, then Professor of Sanscrit in Madras, but that gentleman returned to Europe on sick leave and never returned. Two native gentlemen successively officiated in this place until 1872, when Dr. Oppert arrived. Dr. Oppert states that the contents of the orders of the Government of India dated 3rd November 1868 were unknown to him up to 18th May 1876, when he received a copy from the Director of Public Instruction. He remarks that, had he been acquainted with that order, he should have gladly acted according to it, the more so as he learnt there was a yearly allowance of Rs. 850 assigned to the Library to fulfil the demands of that order. Mr. Pickford had stated that he had two catalogues in hand when he left India, that one of them was fairly advanced and already in process of printing at the Foster Press, and that copies of both these catalogues were deposited in the Oriental Library. Mr. Powell, however, reported that he had had a search made for these catalogues by the native gentleman who was appointed to act for Mr. Pickford, and that they could not be found.

The Madras report also shows that Mr. Burnell's services were in November 1870 placed at the disposal of the Chief Commissioner of Mysore for the examination of Sanscrit manuscripts at Mysore.

UNIVERSITY OF MADRAS.

F. A. EXAMINATION PAPERS.

(Continued from page 92.)

TAMIL GRAMMAR, &c.

Examiner.—G. U. POPE, D.D.

I. செல்வம் வந்துற்றகாலத் தெய்வமுஞ் சிறிது பேனார் சொல்வன வற்றது சொல்லார் சுற்றமுந் துணையுநோக்கார் வெல்வதே நினைவதல்லால் வெம்பகை வந்தென்றெண்ணு வல்வினை வினைவுமோரார் மண்ணின்மேல் வாழுமாந்தர்.

- (1) Who said this ?
With reference to what ?
To whom ?
- (2) Which *nominals* here are derivatives ?
Divide them into classes.
Point out their roots, euphonic particles, and affixes.
- (3) Which words here are obviously Sanskrit ?
- (4) Express the whole in one Tamil sentence, with but one finite verb.

II. அண்டர்யாவருமலர்மழைபொழிந்தன ரந்தரதுந்தியார்ப்பக் கொண்டல்வாசனன் கொண்டமெய்யொழிந்ததன் கோல மெய்யுடன் வெளிநின்றான் கண்டொமன முருகியேகளித்திடுங் கன்னனுகக்கந்தெடுங்கட வுள் மண்டுபோரினில் வயந்தருமிதுவென மற்றொருகொற்றவே வெடுத்தே. வெலற்கருத்தில் விசயன்மேலொழித்தநீ வெஞ்சினமடங்கல் போனெஞ்சில் கலக்கமொன்றறப் பொருதிதல்புனைந்திடு கடோற்கசக்காரை தன்னுயிரே இலக்குவந்தெதிர் மலைந்தபோதிதற்கெனவேவென மறையை யுமியம்பிச் சொலற்கரும்புகழ்ச் சுரபதிகொடுப்பவத் தோன்றலுந்தொழுது கைக்கொண்டான்.

- (1) Who are the personages referred to here ?
What connexion have they with the story ?
- (2) What is an ஆகுபெயர் ?
Are there any in these lines ?
- (3) What epithets are there here ?
- (4) How do you parse தெய்வம் and அருள் ?
- (5) Are there any real adjectives in Tamil ?
- III. (1) What is the Tamil Grammatical term for each of the following reduplicated forms ?

- (a) நெறு நெறு ;
- (b) சில சில ;
- (c) அஞ்சினமஞ்சினம் ;
- (d) முனியேல் முனியேல் ;
- (e) மெள்ள மெள்ள நடந்து நடந்து.
- (2) Give the precise force of each of them.
- (3) Is any of them mentioned in the *Nannal* ?
- (4) Quote the stanzas, or give the precise connexion in which they occur.

- IV. (1) What fault do you find, in general, with the prose style of the குகப்பலம் ?

- (2) Give a short account of
- (a) சூர்ப்பதகை, of
- (b) துஷணன் and of
- (c) கரன்.
- (3) Analyze the following Sanskrit compounds :

- (a) மகாபுருஷோத்தமர்,
- (b) பாதாரவிந்தம்,
- (c) தபோபலம்,
- (d) தர்மஸ்தாபனோத்தமசு,
- (e) பிரளயகாலச்சண்டமாருதம்,
- (f) அதுவீரசிகாமணி.

Can you express them as tersely in Tamil ?

- (4) What are the component parts of பச்சை, ஒப்பு, குற்றம், கொண்டற்று, உலகத்தார் ?
Quote the rules of *Sandhi* when necessary.
Give also five other Tamil words similarly formed, each to each.

- (5) What is remarkable in the use of the "verbal participles" in the following sentences ?

- (a) சரப்பங்கரும் அவர் பத்தினியாரும்
அக்கினியில் பிரவேசமாகி ராமலட்சுமணர்கள்
மனமிறங்கி அவ்விடம்விட்டுச்சென்றனர்.
- (b) நீ காணச்செய்தான். நீ கேட்கச்சொன்னான்.

- (6) அக்கினியினாலே வெந்து கருகினமரம்
அமிர்தஞ் சொரியத் துளிர்விட்டதுபோல
இராமன்வரவால் முனிவர் சந்தோஷித்தார்கள்.

- (a) What figure of speech is used here ?
- (b) How would you convert the figure into a metaphor ?
- (c) What are the Tamil names for these two figures of speech.

- (7) Who was *Anasuya* ?
Give the particulars regarding the honor done to Sita by that person.
- (8) Name the invulnerable cannibal that appeared next in the forest of Dandaka and seized Sita.
What was his fate ?
Give in Tamil the substance of his final words to Rama.

- V. (1) What is the modern name of *Panchavati* ?
- (2) State in plain Tamil the natural beauties of that place as described in your text.
- (3) Name the vegetable products and the birds said to abound there.

- VI. (1) What words are used in the *Naladiyar* portion of your text for பசு, உரிமை, மதிப்பு, துன்பம், மகிமை and தான் ?
- (2) Quote one whole stanza in which the synonym of any of these words occurs.
- (3) Write down any phrases in which the poet's patron is addressed ; and show from these the character of the country over which he bore away.
- (4) Is there any internal evidence that these stanzas are not all the work of one poet ?
- (5) Give two examples from the *Naladi* of வருவன் மதி.
- (6) There is a stanza in which மின் is repeatedly used to form an imperative mood, 2nd plural ; quote it and give its meaning in terse English.
- (7) There is a stanza in which the extent of the subjects of human study is contrasted with the shortness of human life ; quote it, put it into prose Tamil, and append three essential notes to it.

- VII. Do you consider the following expressions admissible ?
How would you alter any of them ?

- (1) தேவர்கள் நடுங்கும்படியானசேவகம் ;
- (2) அவளுடைய அழகை என்னொருவாயினால் எப்படி சொல்லப்போகிறேன் ;
- (3) ஏழைவேடன் பிராணனையாகிலும்விட்டுக்கொள்ளலாகாதா ;
- (4) என்னமோ யோஜனையாய் வருகிறான்.

Wednesday, 18th December, 2—5 P.M.

TAMIL : TRANSLATION AND COMPOSITION.

Examiner.—V. KRISHNAMACHARIYAR.

I. (A) Translate into Tamil :

It appears that Caesar never failed to believe in himself. He is far too simple in his language, and too conscious of his own personal dignity, to assert that he has never been worsted. But his very simplicity seems to convey the assurance that such cannot ultimately be the result of any campaign in which he is engaged. He seems to imply that victory attends him so certainly that it would be futile in any case to discuss its probability. He feared no one, and was therefore the cause of awe to others. He could face his own legions when they would not obey his call to arms, and reduce them to obedience by a word. Lucan, understanding his character well, says of him that "he deserved to be feared, for he feared nothing." He writes of himself as we might imagine some god would write who knew that his divine purpose must of course prevail, and who would therefore never be in the way of entertaining a doubt. With Caesar there is always this godlike simplicity, which makes his "veni, vidi, vici," the natural expression of his mind as to his own mode of action.

(B) Turn the following into simple idiomatic Tamil :—

1. We have lately had no news from home.
2. He was not equal to the task.
3. The morals inculcated in this book come home to every man's bosom.
4. The owner of the ship did not know if it paid its own way.
5. These we think are empty compliments ; come to the point.
6. She is home-sick.
7. In all matters of intellectual progress, and in all the arts of ordinary life, the time to which we refer is a time of wonderful advance.
8. He who tells a lie is not sensible how great a task he undertakes ; for he must be forced to invent twenty more to maintain one.
9. I wish all your countrymen would take after you in honesty, indeed I do.
10. If you say that again, I shall at once go away.
If you were to say that again, I should at once go away.
If you had said that again, I should at once have gone away.

II. What Tamil words must be used to express the force of :—

- (a) Or denoting opposition.
- (b) Over when it denotes superiority.
- (c) Of when it means concerning or relating to.
- (d) That when it denotes a final end.
- (e) Upon when it means in consideration of.
- (f) By when denoting the absence of all others.

Write simple idiomatic sentences in English and Tamil to illustrate your answer.

III. Theme for a short Essay in Tamil (two pages) :—

"Men may be very glad that they live in our own day and not in any of the times which have gone before us."—*Freeman*.
[Particular attention should be paid to spelling, handwriting, and accuracy and appropriateness of expression.]

IV. Translate into appropriate English :—

- (a) மூத்தவரினையோர்வேத முனிவர்பிணிபின்மிக்கோர்
தோத்திரமொழிவோர்மாதர் தூதரென்றிவகைக்கொல்லின்
பார்த்திவந்தமக்குவேறு பாவமற்றிதனினில்லை
பூத்தெரிதொடையாய்பின்னு நரகினும்புகுவரென்றான்.
- (b) அருத்தியீதல்பொற் சுரதருவினுக்குமற்றிது நீ
யளித்தியோ வென்று.
விருத்தவேதியன்மொழிந்திடநகைத்து நீ
மெய்யுயிர் விழைந்திருந்தாலும்,
கருத்தினோனைக் களித்திலேனெனினெதிர்
கறுத்தவர்கண் ணினையிவப்ப
உருத்தபோரினிற் புறந்தருநிருப்போ
யுறுபதமுறுவனென் றுணாத்தான்.
- (c) அறிமினறநெறியஞ்சுமின்கூற்றம்
பொறுமின் பிறர்கடுஞ்சொல் போற்றியின்வஞ்சம்
- (d) ஒருநாள் தசரதமகராஜா சபாமண்டபத்தில் தனித்திருந்து
தன் மந்திரிமாரை வரவழைக்க மகாபுத்திரசாலிசனும் தா
கழிணியமின்றி அரசர்க்கு நீதியுரைப்பவருமாகிய அந்தமர்
திரிகன்வந்து கூடியபின் அவர்களைநோக்கி, நான் எமது
குலத்துப்பெரியோர் காத்துவந்தபடி இதுவரையிலும் உ
கள் சகாயம் பெற்று இயன்றமட்டும் பூமியைக்காத்துச்
சனங்களுக்கு நன்மைசெய்தேனெய்வது என் ஆத்துமா
வுக்கு நன்மை தேடினேனில்லை இப்போது அறிவையும்கு
கும்படியான மூப்பு எனக்கு வந்துவிட்டதனால் இனி அந்
தப்பாரத்தை என் குமாரனாகிய இராமனிடத்து இறக்கி
இளப்பாறுவதுமன்றி, பெரியோர்கள் பழியாதிருக்கும்
படி ஆத்துமலாபத்திற்குரிய சவநிட்டைபெற விரும்புகி
றேன். நீங்கள் இம்மையாட்சிக்கு இதுவரையிலும் துணை
ப்பட்டதுபோல மறுமையாட்சிக்கும் துணைப்பட வேண்
டுமென்று பிரார்த்திக்கிறேனென்றனர்.
1. அடாதுசெய்தவர் படாதுபடுவர்.
2. சகலத்தையும் துரத்து விடுகிறதும் தருமம் செய்கிறதும் இது
ரண்டுத்தவிர வேறென்று நிலவீது.

3. கட்டளைமீதல் அரசாக்கும் கீழ்ப்படிதல் குடிசளுக்கு மேற்றவை.
4. அவனுக்கு வயசுக்குத்தக்க வளர்த்தியில்லை.
5. நட்சத்திரங்கள் எத்தனையோ அத்தனையாய் உன் சந்திப்பெருகும்.
6. இது அவனாலே நடக்கும்: இல்லாவிடின் யாராலும் நடவாது.

Thursday, 19th December, 10 A.M.—1 P.M.

HISTORY.

Examiners.—{ Rev. C. COOPER, M.A.
Rev. A. W. ATKINSON, M.A.

The Answers to Parts I. and II. must be written in separate books.

Part I.

JULIUS AND AUGUSTUS CÆSAR.

I. Specify the objects for which Pompey was, on five separate occasions, invested with extraordinary powers, and show how his last assumption of such power, together with the measures that led to it, brought on the struggle between him and Julius Cæsar.

II. State the terms of (a) the compact entered into by the members of the Second Triumvirate, and how it was variously modified by (b) the Peace of Brundisium, and the Treaties of (c) Misenum and (d) Tarentum; by what operations of war, in the interval between (a) and (b), the senatorial party was broken up, and by what, subsequent to (d), the rivals for supremacy were reduced to two, viz., Octavius and Antony.

III. (a). Define the boundaries and enumerate the Provinces, of the Roman Empire at the death of Augustus. (b). Explain how the mode of their administration differed from that under the Republic, and with what benefits to the Provincials. (c). Show the special importance of Sicily, Africa, and Egypt to the City of Rome. and (d) give a very brief sketch of the connection of Egypt (prior to its becoming a province) with the personal history of each of the four great leaders in the civil war.

IV. State what officers of the Republican constitution Augustus combined in his own person, and what powers or prerogatives he exercised in virtue of these.

V. (a). Connect important events with the following dates B.C. 63, 55, 48, 44, and A.D. 14. (b). State over whom and by whom the following victories were gained: *Pistoria*, *Zela*, *Carriæ*, the *Teutobergian Forest*. (c). Describe the battle of Actium.

Part II.

EUROPEAN HISTORY.

VI. The political development of a people is very much influenced by the physical features of their country. In the light of this proposition contrast, somewhat in detail, the development of the ancient Greeks with that of their kinsfolk, the people of the Italian peninsula.

VII. (a).—Justify the statement:—"Rome is the central point of all European History."

(b).—Say *very briefly* what you know of any *four* of the following:—Pericles, Justinian, Charlemagne, Martin Luther, Napoleon Buonaparte.

VIII. Give (1) the geographical position of any three of the following places: (2) the dates of battles fought at them: (3) the rival combatants and their leaders: (4) the issue in each case: and (5) criticise the fitness of the term "decisive" as applied to the battles—

Marathon: Zama: Châlons: Tours: Waterloo.

IX. Write a page on *either* of the following:—

(a).—The Crusades.

(b).—The Monastic and Military orders.

X. Give some account of the French Revolution: writing, with dates, a short paragraph under each of the following heads: The causes that led to it. The summoning of the States-General. The action of the National Assembly. The reign of Terror. The execution of the King.

Thursday, 19th December, 2—5 P.M.

ARITHMETIC.

Examiner.—F. S. EVANS, M.A.

I. Find, by Practice, the cost of 50 reams 14 quires 18 sheets of paper at Rs. 18 12 as. per ream.

II. A clock loses 5 minutes a day. It shows correct time at noon on a Monday. After how many days will it again show correct time on a Monday?

III. Prove that

$$.076923 = \frac{.07}{1-.09} = \frac{.076}{1-.012} = \frac{.0769}{1-.0003} = \frac{.07692}{1-.00004}$$

IV. A field is 500 feet long and 30 feet broad, and a tank 30 feet long, 20 feet broad, and 12 feet deep is dug in the field, and the earth taken out of it is spread evenly over the field. How much is the level of the field raised?

V. Two persons rented some fields for £243 for 10 months. The one put in 27 oxen to graze for 3 months, and the other 270 sheep for 7 months. If 3 oxen eat as much as 11 sheep, how much of the rent ought each to pay?

VI. There are two compound metals, the one consisting of a mixture of copper and gold, and the other of a mixture of copper and silver. The values of one ounce of gold, silver, and copper are £5, 5 shillings, and 5 pence respectively. Find how much copper must be mixed with the first mixture, in order that the value of a given quantity of the first mixture may be 15 times the value of an equal weight of the second mixture, the latter mixture containing 80 per cent. of pure silver.

VII. A well is fed by a spring which flows continuously and uniformly into it. When there are 10,000 cubic feet of water in the well, 7 men can empty it in 20 days; and when there are 15,000 cubic feet of water in the well, 5 men can empty it in 50 days. How many cubic feet of water flow into the well in one day?

VIII. A merchant sells 49 quarters of wheat at a profit of 7 per cent., and a certain number of quarters at a profit of 11 per cent. The price of a quarter of wheat being £3-12-6, he would have lost £2-10-9 if he had sold the whole at a profit of 9 per cent. Find the total number of quarters of wheat sold by him.

IX. If £31,250 put out at Compound Interest amount in 3 years to £43,904, what is the rate per cent?

X. If the True Discount on a bill of £14,641 be £4,641 at 10 per cent. Compound Interest, how many years has the bill to run?

XI. A man has a certain amount of 5 per cent. stock. He sells out one-third of it at 104 and invests the proceeds in the 4 per cents. at 98. He sells out from the 4 per cents. when they have risen 2 per cent., and then repurchases the same amount of 5 per cent. stock at 102 as he sold out originally. His gain being £202, find the amount of 5 per cent. stock originally held by him.

Friday, 20th December, 10 A.M.—1 P.M.

ALGEBRA AND GEOMETRY.

Examiner.—P. RUGANATHA MUDALIAR, M.A.

I. Solve the equation

$$\frac{1}{2x^2 - 5x + 3} + \frac{1}{3x^2 - 5x + 2} = 6x^2 - 23x + 21.$$

II. If a and c have unlike signs, for what values of x has $ax^2 + bx + c$ a different sign from a .

If x is real, $\frac{(x-a-2b)(x-b-2a)}{(x-3a)(x-3b)}$ cannot lie between 1 and

III. Insert n harmonic means between a and b .

If the p^{th} term of a series in II. P. is q and the q^{th} term p , show that the p^{th} term is 1.

IV. Find the number of combinations of n things taken r at a time.

In how many ways can a pack of 52 cards be distributed equally among four persons so that,—(a) each may have ace, king, queen and knave of the same suit,—(b) each may have ace, king, queen and knave all of different suits.

V. Find the numerically greatest term in the expansion of $(1+x)^n$ taking n to be a positive fraction and x to lie

between one and zero. Ex. $1 + \frac{5}{11} \frac{123}{5}$

V. Show that the coefficient of x^n in the expansion of $\sqrt{\frac{(1+x)^3}{(1-x)^3}}$ in ascending powers of x is $\frac{7.9.11.23}{8\sqrt{4}}$.

VII. Triangles on the same base and between the same parallels are equal to one another.

ABCD is a quadrilateral figure whose diagonals intersect in E. AD, BC are produced to meet in O. OP is cut off from OA equal to AD and OQ from OB equal to BC. Show that the triangle OPQ is equal to the difference of the triangles AEB, DEC.

VIII. Angles in the same segment of a circle are equal to one another.

If two triangles have one side of the one equal to one side of the other, the angles opposite to the equal sides equal and the areas equal, they shall be equal in all respects.

IX. If a line be drawn parallel to the base of a triangle, it cuts the sides proportionally.

P, Q are points in the sides CB, CA of a triangle such that BP is twice CP and AQ thrice CQ. AB, QP are produced to meet in R. Show that RB is twice AB.

X. Similar triangles are to one another in the duplicate ratio of their homologous sides.

Friday, 20th December, 2—5 P.M.

TRIGONOMETRY AND EUCLID BOOK XI.

Examiner.—W. A. PORTER, M.A.

I. Define the sine of an angle, also its circular measure.

The circular measure of an angle containing a given number of degrees can only be expressed approximately. Why is this?

II. Find all the positive angles that have the same tangent as an angle a in the first quadrant; also all the negative angles that have the same cosine as a .

If $\tan x = \cot \frac{1}{2} x$, find the general value of x .

III. Determine the proper sign in each of the equations.

$$\cos \frac{1}{2} A + \sin \frac{1}{2} A = \pm \sqrt{1 + \sin A}$$

$$\cos \frac{1}{2} A - \sin \frac{1}{2} A = \pm \sqrt{1 - \sin A}$$

when A is an angle in the fourth quadrant.

For what values of A is $2 \cos \frac{1}{2} A = -\sqrt{1 + \sin A} + \sqrt{1 - \sin A}$?

IV. Prove that

$$\cos A - \cos B = 2 \sin \frac{B-A}{2} \cdot \sin \frac{A+B}{2}.$$

Transform

$\cos A \cos B - \cos(A+C) \cos(B+C)$ into the product of two sines.

V. In any triangle find an expression for the cosine of an angle in terms of the sides.

P and P' are any points in a line parallel to a given line AB, show that $\cot APB - \cot AP'B = CP'^2 - CP^2$ where C is the middle point of AB.

VI. Find the least angle of the triangle whose sides are 7, 9, and 11 respectively.

Given $\log 2 = .3010300$ $\log 3.9 = .5910646$.

$\log \tan 19^\circ 42' = 9.5539459$, $\log \tan 19^\circ 43' = 9.5543438$.

VII. Find an expression for the radius of the circle circumscribing a given triangle.

PP' is the chord of a circle parallel to the diameter AB, and AP' and BP are drawn intersecting in Q. If R and R' be the radii of the circles circumscribing PQP' and AQB respectively, show that $R'^2 - R^2 = a^2$ where $AB = 2a$.

VIII. Define a prism and a pyramid.

Cubes, parallelopipeds and tetrahedrons are particular cases of other solids defined by Euclid. Show this.

IX. If two straight lines be at right angles to the same plane they shall be parallel to one another.

X. If two straight lines meeting one another be parallel to two others that meet one another and are not in the same plane with the first two, the first two and the other two shall contain equal angles.

A pyramid with a rectangular base is cut by a plane parallel to the base, show that the section is a rectangle.

XI. Prove that a straight line can be drawn at right angles to a plane from a given point in it by the following construction:—through A drawn any line AB in the given plane and in the same plane drawn AC at right angles to AB; in any other plane passing through AB draw AD at right angles to AB, and in the plane CAD draw AE at right angles to AC; AE will be the perpendicular required.

AIDED NORMAL SCHOOLS.

(From the Director's Report).

THE Church Mission Training Institution, Masulipatam, sent up two students for the fourth grade and fourteen for the fifth grade. Neither of the former passed. Nine of the latter were successful. This is a great advance on last year. Mr. Kershaw visited the Institution in August and heard two lessons given, one by a fourth grade man and one by a fifth grade man. Both the Normal students "acquitted themselves fairly, and some of the remarks made by their fellow students were to the point." On the whole he was more impressed with the Normal Classes than on any previous occasion. The practising School also passed a fair examination. This Institution, it will be remembered, is for Pariahs.

Mr. Bickle gives the following account of the Dindigul Training Institution.

This school was examined by Mr. Marden in the early part of July last. The Normal Department then contained 55 students, 33 of whom were supported by the Christian Vernacular Education Society, and 22 by the American Mission. Since the previous inspection, a 4th Grade Class had been opened containing 6 students. There were thus at the time of the examination three classes, a 4th Grade Class, a 5th Grade Class, and a Preparatory Class. Thirteen of the 5th Grade Class were shortly to attend the Teachers' Certificate Examination, on which account they were only examined in their extra subject—English, in which they answered well. The other classes did well in most of their subjects of examination, and hence the general results of this branch of the Institution were very satisfactory. The Practising School containing 60 pupils divided into 5 classes also passed, on the whole, a very satisfactory examination. Thirteen students were examined for Teachers' Certificates, all of whom passed, six in the first class, and seven in the second, an excellent result. Eleven students were provided with appointments, *viz.*, five on salaries of Rupees 7 each in village schools of the C. V. E. Society, 4 on Rupees 6 each in schools belonging to the Madura American Mission, one on Rupees 7 under the Church Missionary Society, and one on Rupees 6 under the London Mission at Nagercoil.

Mr. Bickle has omitted to mention that one student appeared for the fourth grade, but failed.

The Church Missionary Society's Institution, Palamcottah, was not inspected. Four pupils matriculated against two last year, one out of seven passed for the fourth grade, and ten out of fourteen for the 5th grade. "Seventeen students received appointments as teachers during the year, varying in value from Rupees 7 to Rupees 25 per mensem."

The Sawyerpuram Seminary was inspected in March by Mr. Kershaw, who makes the following remarks: "Generally speaking, I was satisfied with the results of my examination. There is a good staff of masters, and on the whole the teaching seems to be careful and sound. The hand-writing, the execution of the paper-work, and the power of expressing themselves in correct English were considerably above the average of that of boys in schools of the same standard. The English Grammar was not as good as it should be; but the Arithmetic was the only really unsatisfactory subject. The school-house, furniture and maps were generally in a satisfactory condition. No set of apparatus has been supplied to the Institution for illustrating the physics taught by the Matriculation class." Ten students went up for the Matriculation examination and nine for the 4th Grade and every one passed. Seventeen out of 23 passed for the fifth grade. Twelve students obtained appointments, ranging from Rupees 5 to 15 Rupees a month in the schools of the S. P. G. Society.

The Sarah Tucker Institution is aided on the results system, and is the best girls' school in the Tinnevely district. The Normal students who receive scholarships are not examined on the results system, as their proficiency is tested at the Teachers' certificate examination. The standard of instruction has been raised this year and the subjects required for the first and second grades are now

studied. Eighteen girls appeared for the third grade and fifteen passed, 14 being in the first class. Sixteen students were sent out as teachers during the course of the year. One of these obtained an appointment of Rupees 20 in Lady Napier's School, Tanjore. The posts to which the others were sent ranged in value from Rupees 2 to Rs. 8.

The Free Church Mission Girls' Day School was not inspected this year, and the Normal Class attached to this school is not noticed by Mr. Duncan in his report. Two of the Normal students appeared for the second grade, but both failed. According to the report of the Mission, two other Normal students passed for the third grade but their names do not appear in the published list.

The Principal of the Civil Engineering College gives the following account of an attempt to obtain Examination Papers surreptitiously:—

"At the annual examination of the Second Department this year, I am sorry to have to report that a very disgraceful scheme was set on foot by some of the students to obtain the examination papers in Drawing and Estimating, which were set for the classes under examination for Overseers' certificates, and for Draughtsmen's certificates.

"The scheme was successful in as far as they obtained from the Government Lithographic Office copies of both the examination papers, as well as one of less importance, *viz.*, the estimating paper of the junior division of the class studying for Overseers' certificates. Fortunately before the examination took place, an anonymous letter warned me of the whole affair, and other papers were substituted.

The matter was immediately put into the hands of the Police, who I am glad to say with great expedition discovered the whole matter; though I am bound to say that Mr. Hamilton, the master of the Drawing class found the clue by which the whole plot was unravelled. One of the detectives represented himself to one of the students of the Drawing class as the father of a boy who was going to be examined for a draughtsman's certificate, and actually purchased for 5 Rupees a copy of the paper which had been printed in the Secret Department of the Government Lithographic Press, and from information extracted from this student, he contrived to catch one of the pressmen of the Lithographic Office with one of the stolen papers in his possession. For this, the pressman was tried and sentenced to 6 months' rigorous imprisonment.

"I am sorry to say that, although the scheme emanated apparently from the Drawing class, there can be no doubt from circumstances which have come to my knowledge, that the 1st class of the 2nd Department endeavoured to take advantage of the robbery, and that some of them had obtained copies of the stolen papers.

"Though it is suspected that many of the students were implicated, only three, and those all of the Drawing class have been proved to be guilty.

"These students have been expelled from the College, and application has been made to have them posted in the Gazette, as disqualified for the public service."

PUBLIC INSTRUCTION IN CEYLON.

We learn from the Report of the Ceylon Director of Public Instruction that thirty-six new Government schools were opened and eight closed, during the year. The total number of Government schools was thus brought up to 329, in which instruction was nominally given to 15,677 children. The average attendance was, he regrets to say, only 10,588 or 67½ per cent., a most unsatisfactory figure, and a falling off from previous years, which cannot, he explained by any satisfactory reasons.

Stringent measures are necessary to induce the teachers of Government schools in which the attendance is irregular to bestir themselves and collect the children regularly for school. It has been abundantly proved that except under very exceptional circumstances an energetic teacher can always command a regular attendance, an any rate in places which have been for some time supplied with the means of education, and where its benefits are to some extent known by trial or hearsay.

Fifty-nine new grant schools were registered for Grants-in-Aid during the year under report, and the total number presented for examination was 730, or 33 in excess of the number presented in 1876. Thus 26 old schools were closed or fell below the requirements of the code. The 730 schools presented for grant, claim a nominal gross attendance of 47,142 children.

Taking Government and grant schools together the total number of schools participating in the education vote for 1877 was 1,059, and the number of children nominally under instruction 62,819. The corresponding numbers for 1876 were 998 schools and 60,537 children.

During the year under comment all the schools in the Island were inspected as frequently as possible with the present limited staff.

The necessity of increasing the number of the subordinate inspecting staff is urged in the Inspectors' reports. The Director is of opinion that Government vernacular schools should be visited once at least every month. If this is to be done, two or more inspecting officers of the same class as the Sub-Assistant Inspectors are urgently needed; the necessity for this modest increase in the inspecting staff cannot be urged too strongly. Without more frequent inspections the Government schools will never be what they should be—models to the surrounding grant schools.

LOCAL EXAMINATION.—Only five candidates presented themselves for this examination, the smallest number ever known since the institution of the examination in 1862. It is, plain that the existing scheme requires a thorough re-modeling if indeed it should not be cleared away and replaced by something entirely new. With regard to the reason for this decline of what was once a popular examination, attention is called to the reports of the examiners which will be found in appendix B.

It is suggested for consideration whether it would not be wise to all in the Cambridge Local Examination Syndicate to aid as has been done in other colonies. A Cambridge certificate would have a real value, be highly prized, and there is every reason to believe it most eagerly sought after.

COLONBO ACADEMY.—On the 31st of December 1877, there were on

the school-roll 169 boys in all, of whom 33 belonged to the Upper Division. The average daily attendance during the month was 149.36.

In the early part of the year the Principal, Mr. G. Todd, after six years' service left the Island on leave. By his departure certain changes were necessitated in the staff. Mr. Cull, First Principal Assistant, was appointed to act as Principal during Mr. Todd's absence, and Mr. Ashley Walker was promoted to the post of First Principal Assistant. The Academy was again fortunately able to secure the services of Mr. Maffett, who had previously acted as Mathematical tutor, to the post vacated by Mr. Walker's promotion. In the Lower School, Mr. Fretsz, Master of the Fourth Form, after many years' service, was compelled to send in his resignation owing to ill-health.

The yearly examination of the school was held as usual in July, the following gentlemen kindly consenting to assist in the work of the Upper School:—Messrs. Wragg, C. C. S., Colson, Ahlanson Bailey, C. C. S., Ievers, C. C. S., Marsh, the Director, and Mr. W. H. De Alwis. It is perhaps to be regretted that no reports were received together with the schedule of marks forwarded by the several examiners.

In the Lower School the examination was conducted by the Acting Principal with the assistance of his colleagues.

The election to the English University scholarship was unavoidably postponed until the end of September. It was then adjudged to have been gained by T. E. Sampayo, captain of the school. Mr. Sampayo proceeded to England in November, and entered himself at Clare College, Cambridge.

The two scholarships attached to the Fifth Form, each of the value of 100 rupees, were awarded to J. F. Poulier (Classics and English), and A. Samerawickreme (Mathematics).

Upon the results of the examination the following elections were also made:—

To the junior mathematical prize, open only to students of the Upper and Under Removes, J. O. Anthonisz. The Rev. F. T. Falkner, Sub-Warden, St. Thomas' College kindly examined.

To the Rajapakse Prize for Latin also confined to the two Removes, O. Beven.

The examination for the senior mathematical prize, open to the whole Island, was held in July. Louis Joseph, of the sixth form of the Academy, was declared the successful competitor.

In 1876 a scholarship was founded in connection with the Academy to perpetuate the memory of the late Mr. C. A. Lorenz, and at the examination then held, E. Nell was elected first Lorenz scholar. Ill-health has unfortunately compelled him to notify to the Trustees his resignation of the scholarship, and a new election was announced for January last. The subjects for examination are Mathematics, English History, Literature and Grammar, History of Ceylon under the Portuguese, Dutch, and English rule, and as optional subjects Latin, and some branch of physical science.

Mr. A. C. Dixon, B. A., London University, received the appointment of Science Master to the Academy, and under his supervision it is confidently expected that a new sphere of usefulness in connection with the school may be inaugurated.

The cadjan sheds in which, for the last ten years, the work of the Lower school has been carried on have been condemned by the Public Works Department as unsafe, and a more permanent and less unsightly structure will replace the old buildings.

It has been judged expedient to introduce a slight alteration in the school terms. Hitherto the school year has begun in September, and the yearly examination fallen in July and August. Under the new arrangement, the school year will commence in January and the examination consequently take place in December. Upon the results of this examination, as heretofore, the election to the English University Scholarship will be made, and the scholar elected will proceed to England in time to take up his residence in the October term.

NORMAL SCHOOL.—At the close of 1877 fifty-three students were in training at the Normal School, of whom eleven were in the English, and forty-two in the Vernacular division of the school. From the subjoined table it appears that twenty-one teachers for English and forty-nine for Singhalese schools have passed with greater or less success through a three years' course of training since the establishment of the school in 1870.

The staff of this school was strengthened at the close of 1877 by the appointment of Mr. W. K. James as Science and Art Master. Drawing and the elements of natural science will, in future, form important elements in the education of each trained teacher, and thus it is hoped the germ of a desire for artistic and scientific culture may be implanted in that at present uncultured population which attends our elementary schools.

GOVERNMENT SCHOLARSHIPS.—The English University scholarships for 1877, was awarded at the examination of the Colombo Academy to Mr. T. E. De Sampayo.

The scholarships attached to the Local Examination were awarded to Messrs. T. A. Morgan and G. E. De Silva Aberawardene. The first obtained the scholarship of 240 rupees, and the second the scholarship of 120 rupees. As none of the other candidates obtained a sufficient per-centage of marks, the remaining scholarship of 120 rupees was not awarded.

The two scholarships attached to the Fifth Form of the Colombo Academy, each of the annual value of 100 rupees, were awarded to J. W. Poule and A. L. Samerawickrema.

THE KURNOOL LOCAL FUNDS BOARD AND MIDDLE CLASS EDUCATION.

THE question of the appropriation of Local Funds to middle class education has been attracting attention. In October last Mr. E. Thompson, Acting Director of Public Instruction, submitted the report on the Middle-class Schools of Kurnool, called for by Government. In doing this Mr. Thompson remarked:—On the receipt of the Board's Proceedings recorded in the same order, I forwarded them to Mr. Fortey, Inspector of Schools, 2nd Division, for an expression of his opinion on the question raised by the Kurnool Local Fund Board, and his views may be summarized as follows:—That G. O., of the 11th May does not justify the proposed action of the Local Fund Board, as it only calls for the opinion of Presidents:

that the existence of a few schools in a district where English is not a "luxury" but a necessity, now that English is so largely used in Courts and Public offices; that the Board have overstated the cost of the schools; that the fees are too low and ought to be raised; while in some cases the salaries of the Masters might be reduced; that such raising of the fees would be less unpopular than a house-tax and fall upon the parents, the proper people to pay; and finally, that if Government consented to take over the school at Nandial, the Board might then maintain the other three without an undue strain upon their resources. Mr. Fortey adds that the receipt of the Revenue Board's Proceedings was the first notice he had of the subject. It is very undesirable that Local Fund Boards should discuss and pass resolutions upon important educational questions without prior communication with the Inspector of the Division, but instances of this kind not unfrequently happen and often entail references and correspondence that might have been avoided. The four schools in question are the only ones in the whole district, except of course the Zillah School at Kurnool itself, in which English is taught, and it certainly does not seem an extravagant number for the Local Fund Board to maintain. Again, with regard to their cost, the statement of the Board is likely to mislead, if not fully explained; the impression conveyed by their words is that every year these schools cost the Board upwards of four thousand Rupees; this is true if only the last three years are taken into consideration in which period a considerable sum has been spent in buildings, but taking the six years of the Board's operations together and excluding buildings, the total cost of the four schools averages Rupees 2,838-10-7; from this sum the average amount received in fees, Rupees 313-13-6, and the Government Grant Rupees 440 must be deducted, and the average net cost to the Board becomes Rupees 2,084-13-1, about half the sum stated by the Board. I venture to submit that this sum is not too large a contribution from the Board's income, amounting to little over Rupees 500 for each school, especially as the net cost might easily be still further materially reduced, as pointed out by Mr. Fortey, by raising the fees and in some cases reducing the Masters' stipends. The Head Master at Nandial, a Matriculate, draws Rupees 40 a month, whereas if the school were a third-class taluq school, the standard of which it aims at, the Head Master would only get Rupees 30 at first, and the maximum to which he could rise in ten years would be only Rupees 35. I may remark with regard to the fees that the present rates are for the first, second, and third (highest) classes, one anna, two annas, and four annas, respectively, while the corresponding rates for Government Taluq Schools are four, six and eight annas. If the rates in the first and second classes were doubled, and the fee for the third class raised to six annas, a considerable increase of revenue would be effected. The Local Fund Board might, I think, in the circumstances of the case be desired to reconsider their resolution, but whatever their final action may be in the matter, it will be a great pity to sacrifice the schools. Mr. Fortey's last suggestion might, indeed, be carried out, and perhaps without any additional burden to Provincial Funds, as it has become a question whether it is any longer worth while to keep up the Taluq School at Poonamallee: if this question were decided in the negative, the establishment could be transferred to Nandial without extra cost to

Government, but even if this were done, the other three schools would still remain to be dealt with, and small and backward as they are I could not recommend their being taken over by Government, as the precedent might prove a most inconvenient one. The Board state their willingness to hand over the buildings of these schools to respectable Local Committees, but I greatly doubt if any such Committees could be formed. In advanced districts middle class schools may be almost or even quite self-supporting, but in such a district as Kurnool the undertaking would involve a steady monthly outlay that it is hardly likely any village committee would guarantee. As to Narnur, Peapalli, and Partikonda then it appears that the only alternatives are maintenance by the Local Fund Board or extinction, as the Board's statement, that it will contribute nothing directly from its general funds, appears to exclude aid in the shape of salary grants, and the standard of the schools prevents their being aided on the results system. It would therefore, I think, be best that the Local Fund Board should continue to maintain all the four schools, working them of course more economically as suggested above, but at least three smaller schools should continue as they are if His Grace in Council is pleased to take over the largest of them, the school at Nandial.

Mr. Fortey, M.A., Inspector of Schools, Second Division, in his letter dated Gooty, 19th August 1878, said:—

I have the honour to reply to your Proceedings, No. 3054, dated the 8th instant, calling on me to state my views on an extract from Proceedings of the Local Fund Board, Kurnool District, in which the Board decide that they will not support English Schools after the 1st of April next. I may remark that I know nothing of the intention of the Board before I received a copy of their Proceedings and that I was not consulted in the matter. It does not appear to me that G.O., No. 885, dated the 18th May 1878, affords a sufficient reason for closing the schools referred to, for that order does not state that Provincial Grants will be withdrawn from such schools, but merely calls on Presidents to state their opinions on that point. The Board speak of English education as a "luxury," but the existence of schools of some sort in which English is taught seems to me to be almost a necessity now that a great part of the official correspondence and of the Proceedings in the public offices is carried on in that language. The Board state that they expend on these schools Rupees 4,134 annually, but their account of expenditure for the year 1877-78, already forwarded to you, gives the total expenditure on these schools as Rupees 2,876-14-3. The sum realised in school-fees is very small, but the scale of fees fixed by the Board is much too low. In the school of Nandial, which is the most advanced, and has the highest paid teaching staff, the fees are one anna a month in the 1st class, two annas in the 2nd, and four annas in the 3rd or highest, whereas in the Government Taluq Schools the fees prescribed for these classes are four, six and eight annas respectively. Education is so backward in the Kurnool District that it seems a pity to close the only schools in the district (with the exception of the Zillah School at Kurnool) in which English is taught. If the Board would raise the scale of fees and make some slight reduction in the scale of salaries to Masters (the Head Master at Nandial, who has passed only the Matriculation examination, is paid Rupees 40 per mensem,

whereas Rupees 30 seems to me to be sufficient), perhaps they would find it possible to maintain these schools, and funds might be made available by exercising some economy in regard to purely elementary education upon which, as I have shown in my annual reports, a good deal of money is wasted. It is only a few days since that I received a report on a "combined school" attended by six pupils only, and the master of which receives a fixed salary of Rupees 7 per mensem or Rupees 84 per annum. The chances are that if this school were aided under the system of payment for results, it would not earn more than about 5 or 6 Rupees. It seems to me that the proper people to contribute to the expense of these schools are the parents of the pupils, and looking at the matter from this point of view the raising of the rates of school-fee is more appropriate than a house-tax, and likely to be less unpopular. If His Grace the Governor in Council is of opinion that the Local Fund cannot be expected to maintain all the four schools now in existence, I would suggest that the one at Nandial be converted into a Government Taluq School, provided that Provincial Funds are available. The Local Fund Board would then, I hope, be able to maintain the other three schools without any undue drain on their resources.

The question was referred to the Local Fund Board, Kurnool, for consideration and further report, and that body on the 26th January last, after carefully considering the question as desired by Government, are unable to change their resolution to the effect that Local Funds should not be spent on Middle class Schools, but only on elementary education. The Government accept the decision of the Local Fund Board, which they regard as reasonable under the circumstances.

COLLEGES AND SCHOOLS.

"With reference to G. O., No. 16, of the 18th January 1879, the Director in February last, wrote to Government to inquire whether any change should be made in the nomenclature of Government Colleges and Schools in this Presidency. These institutions are now called Presidency or Provincial Colleges, Provincial Schools, Zillah Schools, Anglo-Vernacular Schools, Taluq Schools, Mahomedan Schools, Hill Schools, Normal Schools, and Pensioners' School. The Presidency College consists of a College, a High School, and a Middle School, but a boy in one of the school classes is officially spoken of as belonging to the Presidency College. In the returns, this High School and Middle School will, in future, be treated as two separate institutions, and it seems desirable that they shall officially be known as the Presidency High School and the Presidency Middle School. The Provincial Colleges of Combaconum and Rajahmundry should, apparently, be in future called the Combaconum College and the Rajahmundry College in accordance with the practice which prevails in Bengal, where such Colleges are called the Dacca College, the Patna College. The School Departments would become the Combaconum or Rajahmundry High School and the Combaconum or Rajahmundry Middle School. In this Presidency, institutions which work up to the F. A. standard are classed as Collegiate Schools and called Provincial Schools. In Bengal such institutions are called second-grade Colleges,

e.g., the Midnapore College, the Rungpore College. These Colleges are under Head Masters, not under Principals. The term Collegiate School is in Bengal restricted to the School Departments of the Colleges. Thus, the Kishnaghur Collegiate School means not an institution working up to the F. A. standard, for the College is a full College working up to the B. A. degree, but the School Department attached to this College. Apparently, therefore, the College Departments of the Provincial Schools of Bellary, Mangalore and Calicut should, in future, be known as the Bellary, Mangalore or Calicut College, the term Provincial being dropped, and the School Departments should be known as the Government High School, Bellary, the Government Middle School, Bellary, and so forth, to distinguish these Departments from the High School and Middle School of the Wardlaw Institution. As the Zillah School of Berhampore has been recently allowed to open a First Arts Class, this Department should, be called the Berhampore College. In Bengal, as in this Presidency, Government Schools of the higher class have been hitherto known as Zillah Schools. Under the orders now received, the Upper Departments of these institutions should apparently be designated Government High Schools, the other departments being known as the Government Middle School, Kurnool, Government Primary School, Kurnool, &c. There are two grades of Zillah Schools, but at present Chicacole is the only recognised school of this grade.

"The term Anglo-Vernacular is applied in this Presidency to fully-developed Middle Schools, in which the highest class is the upper fourth or sometimes the fifth, and the term Taluq School to imperfectly developed Middle Schools, a second-class Taluq School being one in which the highest class should be the lower fourth, and a third-class Taluq School one in which the highest class should be the third. In practice, however, the standard is sometimes somewhat different. Thus the Anglo-Vernacular School of Cannanore is in reality a second-class Zillah School working up to the Matriculation standard. Some of the second-class Taluq Schools have an experimental upper fourth class, and some of the third-class Taluq Schools have experimental lower fourth class. On the other hand, Taluq Schools were formerly sometimes mere Primary Schools. The schools should, be called Government Middle Schools of the first, second, and third class, the primary departments being called Government Primary Schools. Some of the Mahomedan Schools are Middle Schools of the second and third class, and others are Primary Schools. They should, be designated accordingly. The Madrasa-i-Azam is a first-class Middle school, and I am inclined to think that it will be politic to allow it to retain this name. The Hill Schools of Goomsur, China Kinedi, and Pedda Kinedi are all Primary Schools, and might be designated Government Primary Schools. The same remark applies to the Pensioners' School, Tripasore. Among the aided and unaided Schools, several institutions styled schools are second-grade Colleges, viz., The S. P. G. High Schools, Trichinopoly and Tanjore, the Noble High School, Masulipatam, the Church Missionary High School, Palamcottah, the Coimbatore High School, the Vizianagram High School, and the Hindu School of Vizagapatam and Tinnevely. It is probable that the Managers of these institutions will have no objection, if asked,

to call the College Departments of these institutions Colleges."

His Grace the Governor in Council approves and sanctions the Director's proposals to adapt the nomenclature of Government Colleges and Schools in this Presidency as far as practicable to the nomenclature adopted in the Statistical Returns received from the Government of India. He will accordingly prepare and submit a Draft Notification for publication in the *Fort St. George and District Gazettes* to come into operation from the 1st of April 1879. He will also ascertain from the Managers of the institutions mentioned in his letter whether they have any objection to the College Departments being designated Colleges.

"TAKING PLACES".*

By Ascott R. Hope.

ONCE upon a time, when performing the duties of a Schoolmaster, I was honoured by a visit from a gentleman who announced himself as being in possession of the most advanced views on educational subjects, and seemed inclined to look upon my comparatively old-fashioned ideas with pity not unmingled with contempt. In a quiet, patronizing manner, he pool-pooled the systems and apparatus by which the gentle dew of instruction was being sprinkled on the minds of my pupils, and gave me to understand that he had changed all that long ago; and especially, on there being exhibited to him a register in which the boys were marked according to their places in the class, he handled it with a sort of amused curiosity, as if it were a relic of some antediluvian age. "Dear me," he said, "so you take places, do you? Dear me!" These last two words he repeated several times, with an expressiveness of tone which rivalled Burleigh's nod in the force of its meaning. It was evident that he looked upon us as very far behind the times.

I enquired of this gentleman how he would record the progress of his pupils, and he explained to me that he gave them marks at his discretion, according to the value of their answers. The boys always remaining in the same places, and all danger of unfairness or disturbance being thus obviated, while at the same time a becoming air of calm and dignity was given to scholastic proceedings, and a due check was put upon the restlessness and love of change which are found to characterize idle urchins.

This plan is not a new one, but I hear of its being adopted so much now-a-days that I am tempted to write in defence of the good old custom of taking places, at least in the case of boys up to a certain age. It may seem too small a matter to be treated in such a periodical as this, but I think it worthy of serious consideration.

I am not going to enter into the question of whether a spirit of emulation is or is not desirable in public teaching, but the affirmative being taken for granted, I hold that it is better to allow boys to take places in a class and mark them accordingly than to register the value of each answer they may give.

In the first place this latter plan takes up too much of the master's time and attention. Wherever possible a teacher should avoid

sitting at a desk and hampering himself with pen and paper or even a book. He should stand or walk about with the subject he is teaching in his mind, and his attention fixed wholly on his pupils. They should be before him like the notes of a piano, and with voice, hands, and eyes he should play upon them as it were, using his previously-acquired knowledge of their character and mental state to produce the execution and expression which prove him a masterly performer. Some teachers are fit for no higher performance than turning a sort of intellectual barrel-organ, but all really good teaching is done under a certain afflatus which, joined to experience, gives a man the power of striking the right notes and chords almost without knowing how. Now consider what sort of music you would get out of a musician whom you should require, as soon as he had struck a note, to record it upon paper. You can slowly turn the barrel-organ with one hand and write down its sweet strains with the other, but --to drop this metaphor--in teaching boys you must give up your whole mind to magnetizing their minds, so that you may lead them where you will. This is found so hard even when the whole mind is thrown into the task, that we must fear the results if we are to be tied down to the ever-recurring labour of petty calculations, which to some minds--and those not perhaps the least adapted for teaching--are a most irksome bondage. The schoolmaster's main business is to preach, too much serving of tables may curb and dull his energy, but no amount of such service or of the barrel-organ preaching which it makes possible will avail to arouse his congregation or to drive home his lesson.

(To be continued).

MISCELLANEOUS.

THE BUCKINGHAM CANAL.—During 1876-1877 19½ miles of the portion of the canal extending between the Kandluru and the Penner had been excavated. The work on the canal was, as before, entirely carried out by relief coolies, who, with a few exceptions, were natives of Nellore, the immigrants from the Ceded Districts having been, by the orders of Government, allowed to return to their own homes. The canal was divided into five sections, from Koramandel to Kasbah, from Kasbah to Krishnapatnam, from thence to the Penner, from the north of the Penner to the Muniver, and from the Muniver to the Kommanur Canal in the Kistna District.

The work in the first of these sections consisted in cutting a canal through the Pulicat Lake. Except in the deepest parts where work was impossible, the whole excavation was completed, and those excepted parts are naturally deep enough to allow of navigation. Some increase in the cost of this section was caused by the autumn monsoon rains, during which the water in the lake rose considerably.

The second section of the canal had silted up very much, and was impassable for any boats in March and April. The shallowest portions were deepened, and the reach was made navigable in May 1877. It has been originally proposed to bund up this section, and to lay it out while dry, but this course would have interfered with the large traffic in rice which came up about the time mentioned, it had to be abandoned.

Seventeen miles of the third section from Krishnapatnam to the Penner had been excavated to the full depth at the end of the previous year. By the middle of May 1877 the whole length was opened for navigation, and the off-take at the Kandluru and the boat basin were completed.

*Author of *Book about Boys* & *Book about Dominies*; *Stories of School-Life*, &c.

The Iskapalli Division, or the fourth section of forty-eight miles in length, was open for traffic in January 1878; some shallow portions in the Karldu sub-section still remained to be deepened, and the sectioning of the two banks was still in progress at the end of the year.

The fifth section thirty-six miles long, was also completed for navigation by January last, but not a little work on the Pakala sub-division was yet necessary. The last named two sections were amalgamated under the name of the Ramapatam Division.

APPOINTMENTS, &c.

Appointments made by the Director of Public Instruction between the 16th March, and 15th April 1879.

Mr. D. Joseph, B.A., 2nd Master, Berhampore College, to be 2nd Master, Salem College.

T. V. Subba Rao, B.A., 3rd Master, Cuddalore College, to be 2nd Master, Berhampore College, on Rs. 150.

C. S. Sami Iyengar, B.A., 5th Master, Cuddalore College, to be 3rd Master, on Rs. 100.

C. P. Guruswamy Iyer, Assistant Master, Combaconum College, to be 5th Master, Cuddalore College, on Rs. 50.

T. V. Sreenivasa Iyer, B.A., to be 3rd Master, High School, Chittoor, on Rs. 60 but to continue to act as 4th Master, Salem College.

C. Pranatharthahara Iyer, B.A., to be Head Master, Central School, Narsapore, on Rs. 100.

N. Vaiyapuri Mudaliar, Head Master, Central School, Narsapore, to be 2nd Master, High School, Kurnool, on Rs. 100.

C. Sabramania Iyer, B.A., to be 3rd Master, High School, Madura.

M. D. Masilamany Pillai, transferred to Berhampore.

V. Sreenivasa Iyer, B.A., to be 3rd Assistant, Combaconum College, on Rs. 250.

B. Hanumantha Rao, B.A., to be 4th Assistant, Combaconum College, on Rs. 200.

N. Vaithinada Iyer, B.A., 4th Assistant, Combaconum College, to be 1st Assistant, Calicut College, on Rs. 150.

N. Raghunatha Charri, B.A., to be 5th Assistant, Combaconum College, on Rs. 100, and Head Master substantive *pro tem.* Cuddalore College, on Rs. 200.

S. S. Narayanaswamy Iyer, B.A., to be 3rd Master, Calicut College, on Rs. 100.

Mr. S. Eshayya, B.A., to act as first Assistant, Combaconum College, *vice* P. Ranganada Mudaliar, &c.

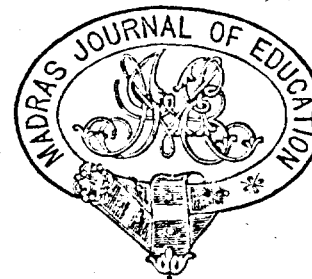
Mr. Hunter, Writing Master, and Clerk, Rajahmundry College, to be an Assistant Master, Bellary College, on Rs. 35.

B. Rajalingam, B.A., Assistant Master, Rajahmundry College, to be Head Master, High School, Chicacole, on Rs. 90.

M. Rameswaram, B.A., formerly Assistant, Master Anglo-Vernacular School, Guntoor, to be Assistant Master, Government High School, Berhampore, on Rs. 70.

K. Shankaraya Pantulu, to be Head Master, Normal School, Vizagapatam, on Rs. 40.

G. Balakrishna Naidu, to be Second Master, Government High School, Chicacole, on Rs. 60.



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THE MONTH.

In the issue of this Journal for January last year, we called attention to the strange fact that the University Examinations of Native Candidates in their vernaculars are conducted by means of questions propounded in English, and that the answers to such questions are given either in the Candidate's vernacular or in English as he pleases. We contended that an Examination in a vernacular language ought, with the exception of the questions on reciprocal translation, to be conducted wholly in that vernacular, for, as we then remarked, a youth who is well read in his vernacular often fails in that subject "because from an imperfect knowledge of English he is unable to see the point of a question propounded in that language. Such a youth, it may be said does not deserve to pass, and we may perhaps grant that he does not; but then the published results should show him that he fails not because he has an insufficient knowledge of his vernacular, but because he is deficient in his knowledge of English. Under the present system, a youth who may equal a Pandit in Tamil or in Telugu Scholarship is set down as having failed in the very subject in which he is so proficient."

We are glad to find that this matter is now occupying the attention of the Syndicate, and it is proposed that in future, in the vernacular part of the Examination, questions shall be both proposed and answered entirely in the vernacular language which each candidate takes up for examination.

ANOTHER point to which we again invite the attention of the Syndicate is the advisability of requiring candidates to write the whole of their answers on the books supplied to them by the University for that purpose, and that no answers or parts of answers be allowed to be written on separate sheets of paper, and subsequently attached to the answer books. This is, as we happen to know, the rule observed in many of the public Examinations at home, and it effectually stops a practice that is we believe more common than is generally imagined of candidates passing on answers they have written to other candidates to copy and adopt as their own, and also the practice of candidates coming with papers with answers already written upon them to certain questions that they speculate may be set by the Examiner. We have reason to believe that in this way maps and propositions of Euclid drawn and written out are often smuggled into the Examination room and attached to the answer books.

Such a rule as we now advocate would also compel candidates to pay greater attention to condensation, and would also tend to moderate the habit of "sprawling" and illegible writing by which many candidates fill up page after page, in the supposition that the examiner will regard the apparent quantity rather than the sense and style of what is written as answers.

DR. JOHN BRADSHAW the Inspector of Schools in the 4th Division has gone home on sick leave, and Mr. Alexander Munro, M.A., D.C.L., Oxon, and Barrister-at-Law, having arrived, it is supposed that as soon as he joins his appointment as Inspector of the Northern Division, Mr. James Bradshaw who since Mr. Kershaw's death has acted in that Division, will be appointed to act in the 4th Division till Dr. Bradshaw's return.

It has been noticed that the Examinations for the M.B. and C.M., titles of the Madras University attract but few candidates. Of those who sit for the first of these Examinations very few proceed to the second and final test, but prefer to go to England to complete their studies. This is to save time. In the Universities of Great Britain, students are permitted to proceed to these Examinations immediately after passing Matriculation, while in Madras hitherto there

has been the intermediate MONTH.

It is a question whether this Examination obligatory, and whether students may not be any longer required from Matriculation to the M.B. and also proceed at once to the C. Examinations.

GILCHRIST SCHOLARSHIP.—Under instructions from the Secretary of State for India, conveyed by Right Honourable Educational, No. 3 of the 3rd April 1879, it is hereby declared that the amount payable to Gilchrist Scholars in India on account of passage money to England will in future be Rupees 1,000 and not £100.

THE date of the commencement of the B.A., M.A., B.L., M.L., and B.C.E. Examinations has been changed from the second Monday in February to the third Monday in January. This change comes into force at the next Examinations.

At the annual graduation ceremony last month at the University of Edinburgh, the degree of LL. D. was conferred on Sir Walter Elliot of Wolfelee, K.C.S.I., formerly of the Madras Civil Service, who was in temporary charge of Fort Saint George, when the Government of India was assumed by the Crown. Sir Walter is 76. His latest honour, says a correspondent, has been bestowed on him chiefly in recognition of his labour in illustrating the history, civil and natural of Southern India, as Editor of the *Madras Journal of Literature and Science*, and otherwise. At the International Oriental Congress of 1874, Sir Walter was elected President of the Turanian Section.

M. JULIEN VINSON, formerly a pupil in the Colonial College at Pondicherry, has been appointed to succeed M. Garcian de Tassy as professor of Tamil in the Institute at Paris. M. Vinson was about twenty years ago in the capital of French India, his father then occupying a high position under the Government. The Pondicherry College has the reputation of having turned out some first-rate linguists.

The Poetical Works of John Milton. Edited, with Notes, Explanatory and Philological, by JOHN BRADSHAW, M.A., LL.D., Fellow of the University of Madras. Two Vols. Allen and Co., Publishers to the India Office.

A NEW and convenient edition of Milton's Poems does not of necessity indicate that *Paradise Lost*, *Samson Agonistes*, or *Comus* has a greatly increasing number of readers. Standard works of a high order have a fate like that of gold. So many copies of an English or foreign classic, and so many ounces of the precious metal, disappear, no one knows how; and, at the same time, currency is gained for material which, if not new, as at any rate the outward stamp of novelty. We may here briefly indicate the claims which Milton's Poems, as they appear afresh under the auspices of Dr. Bradshaw, have to be bought, and bound, and read or given away.

convenient in form and arrangement. The first volume covers the earlier poems, *Comus*, Sonnets, and *Samson Agonistes*, before the notes begin, and is without any given in its completeness of Milton's making. In the second volume breaks, except such *Paradise Regained* receive similar treatment. *Paradise Lost* and the two poems, with the notes, occupy nearly it is rather a pages, thus forming a book which is too thick to be seven hundred. But Milton's text would not bear curtailment, quite and brevity has evidently been aimed at in Dr. Bradshaw's notes.

Dr. Bradshaw informs us that he has wished to produce a "Student's Edition" of Milton. There are students of various kinds: some will prefer the elaborate form in which Mr. Masson has exhibited the poems; others will be better pleased with the result of Dr. Bradshaw's labours. The obvious objection to Mr. Masson's edition is that his three volumes are rather difficult to work. His apparatus must be, to some feeble minds, overwhelming. More than two hundred and fifty pages of introductory matter must be read or skipped before we reach the text of Milton; and the text does not subsequently flow on without impediment. Thus, in the second volume, a separate Introduction precedes *Paradise Regained*; *Samson Agonistes* has another Introduction; and so have the Minor Poems, taken both generally and severally. Mr. Masson's third volume contains Milton's translations and Latin poems, together with a large number of notes which cover the whole ground of Milton's poetical activity. Mr. Masson is thorough, as we all know, but his thoroughness is sometimes rather involved: he tells us a great deal in a manner which is confused by his very fulness of information. If we wish to get to the bottom of a Miltonian question, we should have recourse to his sometimes embarrassing volumes if we are content to read the poems under the more equable but less intense light afforded by an eclectic annotator, it may be wise for us to consult Dr. Bradshaw.

The nature of Dr. Bradshaw's notes is conformable to their history. His notes to *Paradise Lost*, as they now stand, are but slightly altered from the form in which they first appeared, at intervals during the last seven years, for the use of students for the first examination in arts in the University of Madras. He suggests that, as they were originally written for those whose mother tongue was not English, they may be found adapted to foreigners or general readers possessing but a limited acquaintance with our language and literature. Moreover, where interpretations vary, the notes of standard authorities have been consulted, the list of such authorities, as given by Dr. Bradshaw, beginning with one Scotchman, Patrick Hume, and ending with another Scotchman, Mr. Masson. Dr. Bradshaw has naturally applied to the other poems of Milton the same rules of annotation which he had previously observed in dealing with *Paradise Lost*. By not giving his readers great credit for acquaintance with English idioms or classical mythology, he may consult their convenience at some slight expense to their vanity. As a reviser of the text, and a deviser of original interpretations, Dr. Bradshaw has neither attempted nor accomplished much. The principal merit of his edition is that it gives us, in a condensed form, the results of the labours of other commentators on Milton, while,

by its arrangement, it leaves us at full liberty to have no companion but the poet himself.—*The Guardian*.

THE SELECTION OF EXAMINERS.

THE Syndicate of the Madras University will shortly proceed to select Examiners for the coming Matriculation, First Arts and Degree Examinations. The results of last year show that too much care cannot be exercised in making the selection.

In an Examiner, judgment is true, is needed in setting the questions, the laborious patience and conscientiousness must be added to a judicial mind in valuing the answers. It would be vain to expect a man to swim who had never been in the water, and it is almost as futile to expect a man to be a good Examiner who has not served a long apprenticeship to the Art. To set a good paper is not an easy matter, but it is the very least of the difficulties that beset an inexperienced Examiner. To see at a glance the point of an answer; to determine how far it is right, and where it is wrong; to know whether the error discovers ignorance of principles, or whether it merely results from faulty expression; to maintain throughout the same standard of marking in a thousand or more papers of answers, so that after marking the last papers, the Examiner on again taking up the first dozen and re-examining them shall see no reason to modify his original marking: all these are qualifications necessary in a perfect Examiner, and affect the results of the Examination in a most important degree. An excellent paper of questions set by an Examiner may be made worse than useless as a test, by his impatience, indiscriminate or caprice in examining the answers. This we submit is a chief reason why the University should not rashly appoint new and untried men to Examinerships. The papers they may set may be unexceptional, but such men lack the practical experience that can alone enable them to value the answers correctly. It is not too much to ask that this experience should not be purchased at the cost of the unfortunate candidates who pay their fees and present themselves for examination in the belief that they are presenting themselves for skilled and impartial judgment. The experience of the Examiner should rather be gained by many years' work in the examination of school classes where the immediate results to the Examinees of errors by the Examiner are not as likely to blight their whole future prospects. We believe with the

Chairman of the London University, whose opinion we lately quoted, that the best chance of finding good Examiners is to seek them among men whose lives are spent in educational work. As he observes, there is no such thing as getting a man qualified as an Examiner by inspiration, but the man who has spent months and years in teaching a subject and in finding out his own mistakes and failures in his attempts to make his teaching clear to his scholars, and who has gradually acquired the habit so necessary in a good Teacher or Examiner of placing himself in the attitude of the student, is the man who is most likely to do justice to the candidates, to find out what they know, and to weigh the claims of one candidate against those of another.

With some young and inexperienced Examiners it is a very common practice to set "catch questions" which may elicit absurd answers; while others anxious to show off their own knowledge and ability set questions far beyond the range of the Examinees, and seem to think it a duty to find out, not what the candidates know, but what they do not know. We have no sympathy with the habit of mind possessed by those Examiners who are ever on the look out for what is ridiculous or absurd in the answers of Examinees. This habit has we are sorry to say been of late getting too common in our own University Examinations, and in a very sensible speech at the last Meeting of the Senate was justly condemned by Mr. Rae. Here in India, we fear that Examiners are far too often oblivious of the fact that English is not the Vernacular language of the vast majority of the Examinees, and they are thus led in the first place to set unsuitable questions, and in the next, to pass unfair judgments upon the answers. What we mean will be clearly seen from the following remarks sent some time ago to the *London Times*, by a Calcutta correspondent:—

"The Calcutta University examinations of any year would supply curious material for reflection on the value of our educational systems. The prose test in the entrance examination this year includes *Ivanhoe*. Here are a few of the answers which I have picked up. The spelling is bad, but that I have not cared to give:—

"QUESTION:—"Dapper man?" (Answer 1.) "Man of superfluous knowledge." (A. 2.) "Mad" (Q.) "Democrat?" (A. 1.) "Petticoat Government." (A. 2.) "Witchcraft" (A. 3.) "Half turning of the horse." (Q.) "Babylonish jargon?" (A. 1.) "A vessei made at Babylon." (A. 2.) "A kind of drink made at Jerusalem." (A. 3.) "A kind of coat worn by Babylonians." (Q.) "Lay brother?" (A. 1.) "A bishop." (A. 2.) "A step-brother." (A. 3.) "A scholar of the same godfather." (Q.) "Sumpter mule." (A.) "A stubborn

Jew." (Q.) "Bilious-looking fellow?" (A. 1.) "A man of strict character." (A. 2.) "A person having a nose like the bill of an eagle." (Q.) "Cloister." (A.) "A kind of shell." (Q.) "Tavern politicians?" (A. 1.) "Politicians in charge of the alehouse." (A. 2.) "Men vulgars." (A. 3.) "Managers of the priestly church." (Q.) "A pair of cast off galligaskins?" (A.) "Two gallons of wine." On these questions and answers Mr. Herbert Spencer makes the following well deserved criticism:—

"The fact here drawn attention to as significant, is that these Hindu youths, during their matriculation examination betrayed so much ignorance of the meaning of words and expressions contained in an English work they had read. And the intended implication appears to be that they were proved unfit to begin their college careers. If, now, instead of accepting that which is presented to us we look a little below it, that which may strike us is the amazing folly of an examiner who proposes to test the fitness of youths for commencing their higher education, by seeing how much they know of the technical terms, cant-phrases, slang and even extinct slang, talked by a people of another nation. Instead of the unfitness of the boys which is pointed out to us, we may see rather the unfitness of those concerned in educating them.

If, again, not dwelling on the particular fact underlying the one offered to our notice, we consider it along with others of the same class, our attention is arrested by the general fact that examiners, and especially those appointed under recent systems of administration, habitually put questions of which a large proportion are utterly inappropriate. As I learn from his son, one of our judges not long since found himself unable to answer an examination paper that had been laid before law-students. A well-known Greek scholar, editor of a Greek play, who was appointed examiner, found that the examination-paper set by his predecessor was too difficult for him. Mr. Froude in his inaugural address at St. Andrews describing a paper set by an examiner in English history said, "I could myself have answered two questions out of a dozen." And I learn from Mr. G. H. Lewes, that he could not give replies to the questions on English literature which the Civil Service examiners had put to his son. Joining which testimonies with kindred ones coming from students and professors on all sides, we find the really noteworthy thing to be that examiners instead of setting questions fit for students, set questions which make manifest their own extensive learning. Especially if they are young, and have reputations to make or to justify, they seize the occasion for displaying their erudition, regardless of the interest of those they examine.

If we look through this more significant and general fact for the still deeper fact it grows out of, there arises before us the question—Who examines the examiners? How happens it that men competent in their special knowledge, but so incompetent in their general judgment, should occupy the places they do? This prevailing faultiness of the examiners shows conclusively that the administration is faulty at its centre. Somewhere or other the power of ultimate decision is exercised by those who are unfit to exercise it. If the examiners of the examiners were set to fill up an examination paper which had for its subject the right conduct of examinations

and the proper qualification for examiners, there would come out very unsatisfactory answers.

We commend these weighty remarks of Mr. Herbert Spencer's to the Syndicate of our local University, who are just about to enter on the responsible duty of appointing Examiners to test the work of the present year, and also in no small measure, to influence the teaching of future years; for we regret to say that too many both of our pupils and teachers work chiefly for the Examinations, to the comparative disregard of higher and more important and lasting interests. But this is another reason why the Examinations should be most carefully and judiciously conducted.

UNIVERSITY SYLLABUS.

The following list of Subjects for the Matriculation, F.A., B.A., and M.A., Examinations is published for general information:—

LANGUAGES.

Matriculation—1880.

English.

Selections to be published by the University.

Sanskrit.

Hitopadesa—Book IV.

Rāmāyana—Balakanda 57 to 67 Sargams.

Greek.

Xenophon—Anabasis, Books V and VI.

Homer—Iliad, Book XXII.

Latin.

Ovid—Tristia, Book I.

Cæsar—De Bello Civili, Book I.

Arabic.

Intikhab-i-Nafhat-ul-Yemen—First half.

'Ajab-ul' Ujab—Twenty Letters.

Persian.

Bustan—Chapters 4, 7, 8.

Akhlak-i-Muhsini—Chapters 1—20

Tamil.

Nitineri Vilakkam—First 50 Stanzas.

Bharata Venba—50 Stanzas from 305.

Rasselas—From Chapter 16 to the end.

Telugu.

Moral Selections from the Mahābhārata, Part I, by K. Anantachandlu.

Uttara Rāmāyana—Canto 7, by Tikkanna.

Chitra Ratnākaram—the whole by Sriramamurti.

Kanarese.

Bharata—Aranya Parva—23rd Sandhi—54 Stanzas.

" —Virata Parva—4th Sandhi—110 Stanzas.

" —Udyoga Parva—1st Sandhi—45 Stanzas.

Kathasangraha—Part I. From page 161 to 280.

Malayalam.

Irivathi—Nalu—Vrittam—Canto I.

Nalacharitram—Manipravalam—First 2 Cantos.

Vijnāna Manjari—Part I. From page 66—147.

Urdu.

Gulzār-i-Nasim.

Bagh-u-Bahār—(School Book Society's Ed.)

Uriya.

Raghu Vansa.

Uriya Poetical Reader, Part I.

FIRST EXAMINATION IN ARTS—1881.

English.

Shakespeare—The Merchant of Venice.

Milton—Paradise Lost, Book I.

Coleridge—The Rime of the Ancient Mariner.

Macaulay—Essay on Clive.

Ancient Classics for English Readers—Cicero.

Sanskrit.

Kiratarjuniya—1 to 4 Sargams.

Sakuntala—(omitting Prakrit passages).

Greek.

Sophocles—Oedipus Tyrannus.

Herodotus—Books IV and V.

Latin.

Livy—Book XXXVIII.

Cicero—Pro Murena.

Vergil—Æneid, Book XII.

Horace—Odes, Book IV, Odes 2, 7, 14; Epodes, omitting the 8th and 12th; and Carmen Seculare.

Persian.

Anvar-i-Suheili—Chapters 1, 2, 3.

Dewān-i-Mazhar.

Tamil.

Naishadam—First 7 Padalams (Expurgated Ed.)

Nāladīyār—First 10 Chapters.

Vinodarasamanjari—First 114 pages.

Telugu.

Jaimini Bharatam—Canto 8.

Pārijatapaharam—Canto 2.

Prince of Wales' Visit to India—Part II.

Kanarese.

Channa Basava Purana—Canto 5, 2 Sandhis, 78 Stanzas.
Jaimini Bharata—Sandhis 1, 2, 18, 19, 20, 21, Stanzas 327.
Mudra, Manjusha—First 2 Chapters.
Drustanta Manjari—Moral Class Book (Mangalore Ed.)

Malayalam.

Nalacharitam—Kathakali, Part I. From page 251 to 264.
Krishnappatu—Description of the Seasons.
Bharatam—Santi Parvam.

Urdu.

Bustán-i-Hikmat—(Cawnpore Ed.)
Dewán-i-Vazir.

Urdu.

Raghuvansa—(Calcutta School Book Society).
Ishun Charita—By Pukeer Mohun Senapaty, of Balasore. (Printed at the Baptist Mission Press, Calcutta).
History of India—By Beechund Putnaick. (Printed at the Baptist Mission Press, Calcutta).

B. A. DEGREE EXAMINATION, 1882.*English.*

Shakespeare—Hamlet.
Spenser—Faerie Queene, Book I, Cantos 2 and 3.
Selections from the Golden Treasury, viz., the Poems numbered as follows : 6, 27, 57, 70, 72, 78, 84, 118, 120, 122, 146, 154, 205, 218, 235.
Bacon—Advancement of Learning, Book I.
Carlyle—Hero Worship, Lectures III and V.
Newman—The Office and Work of Universities. Chapters I to IX.

Sanskrit.

Bhatti Kavaya—5 and 6 Sargams.
Naishada—Cantos 3 and 4.
Mahavira Charitra—1 to 4 Acts inclusive.

Greek.

Aeschylus—Agamemnon.
Aeschines—In Ctesiphontem.

Latin.

Tacitus—Annals—Books X and XI.
Cicero—Philippics—Orations 3, 4, 5, 6.
Persius—Satires 1, 2, 3.
Lucretius—Book V.

Persian.

Jahán Kush Nadiri.
Dewan-i-Ghant.

Tamil.

Ramayanam—Balakandam, 19 to 15 Padalams (M.S.B.S. Ed.)
Kural—From Chapters 66 to 80, with the Commentary of Parime-laragar.
Prabhóda Chandrodyam—4, 5, 6 Sargams.

Telugu.

Hari Vamsam—Part 1, Cantos 2, 3.
Anaktamalyada—Canto 5.
Sumanomanobhyranjanam—Canto 2.

Kanarese.

Rajasaikhara Vilása—Canto 8.
Poetical Anthology—Pages 405 to 532.

Malayalam.

Rajasúram—Kotha Kali—Pages 1 to 12.
Vattakkan Rūgmāngada Charitam.
Bhāratam—Bhismaparvam and Sālyaparvam.

Urdu.

Surur-i-Sultāni.
Dewán-i-Akish.

Urdu.

Batris Singhasan.
Swasthya Rakha—(Calcutta School Book Society).
Mahābhārat—Birat Parva (Calcutta School Book Society).

M.A. DEGREE EXAMINATION—1882.*English.*

Spenser—Faerie Queene, Book I.
Shakespeare—Richard III.
—Tempest.
Ben Jonson—Every Man in His Humour.
Dryden—The Hind and Panther.
Wordsworth—Excursion, Books I. II.
Shelley—Alastor.
Johnson—Lives of the Poets (Pope).
DeQuincey—Rhetoric and Style.
Coleridge—Biographia Literaria. Chap. I—XIII.
Carlyle—French Revolution. Vol. I.

Sanskrit.

Rig-Veda, First Mandala, Hymns XIII to XXIV inclusive (according to the Pada or Samhita Text published by Prof. Max Müller in 1873), with Sāyana's Commentary.
Manu, Books II, VII, VIII.
Dāsakumara—Charita.
Mrichchhakati.
Kalidasa—Sākuntalā
Bhavabhūti—Vira-Charita.
Kalidasa—Megha-dūta.
Vedānta—Śūra of Sadananda.

Greek.

Aeschylus—Persae.
 "—Choëphorae.
 Homer—Iliad, Lib. I, II, III.
 Thucydides—Lib. III, IV, V.
 Aristophanes—Equites.
 "—Vespae.
 Demosthenes—Philip. I, II.
 Plato—Theaetetus.
 "—Republic.
 Aristotle—Eth. Lib. IV, V, VI.

Latin.

Vergil—Georg., Lib. II.
 Horace—Satires.
 Plautus—Bacchides.
 "—Menaechmi.
 Juvenal—Satires XIV, XV, XVI.
 Terence—Heautontimoroumenos.
 "—Phormio.
 Cicero—De Oratore.
 Livy—Lib. I—X.
 Tacitus—Annal. Lib. II.
 Pliny—Epistolae, Lib. V, VI, VII.

HISTORY.

FIRST EXAMINATION IN ARTS—1881.

The Punic Wars.

B.A. DEGREE EXAMINATION—1882.

Hildebrande and His Times.

M.A. DEGREE EXAMINATION—1882.

The Twelve Cæsars.
 The Times of Charlemagne.

ETHICS.

M.A. DEGREE EXAMINATION—1882.

Stoicism in Ancient Greece and Rome.
 The Ethical writings of Hume.

The Commissioner for the Uncovenanted Civil Service Examinations notifies that the next examination in the subjects prescribed for the Special Tests under the Revised Rules published under date the 29th July 1869 will be held on the 25th and following days of August next.

Matriculation Class.

ALGEBRA.

I. Divide $(a+b-c)(a-b+c)(b+c-a)+8abc$ by $a+b+c$.

Resolve into factors:—

$$(ii.) \quad 2ab(2n)(1-4n)(1-n+8n^2)(1-5n+8n^2)-12n^3.$$

III. Find the G. C. M. of $a^3-(ab+ac+bc)^3$.

$$2n^8-3n^2+4n+5 \text{ and } 5n^8+4n^2+3n+5.$$

IV. Simplify:—

$$(i.) \quad \frac{m^2 - \sqrt{m^3 - n^3} + n^2 + mn}{m^2 + \sqrt{m^3 - n^3} + n^2 + mn} + \frac{m - \sqrt{m^3 - n^3} - n}{m + \sqrt{m^3 - n^3} - n}.$$

$$(ii.) \quad \frac{a+b+2ab}{(1+2a)(1+2b)} - \frac{b+c+2bc}{(1+2b)(1+2c)} + \frac{c-a}{(1+2a)(1+2b)(1+2c)}.$$

V. Solve the equations:—

$$(i.) \quad \sqrt{x+a-b} + \sqrt{x-a+b} = a-b.$$

$$(ii.) \quad \frac{1}{x} + \frac{1}{y} = \frac{7}{12}; \quad x+y=19-xy.$$

VI. A and B start to run a race to a certain post and back again. A returning meets B at 90 yards from the post and arrives at the starting-place 3 minutes before him. If he had returned immediately to meet B, he would have met him at one-sixth of the distance between the post and the starting place. Find the length of the course and the duration of the race.

I. $(a+b-c)(a-b+c)(b+c-a)+8abc$

$$= \{(a+b+c)-2c\} \{(a+b+c)-2b\} \{(a+b+c)-2a\} + 8abc,$$

$$= (a+b+c)^3 - (a+b+c)^2(2c+2b+2a) + (a+b+c)(4ab+4ac+4bc) - 8abc + 8abc.$$

$$= -(a+b+c)^3 + (a+b+c)(4ab+4ac+4bc)$$

$$= (a+b+c) \{ (4ab+4ac+4bc) - (a+b+c)^2 \}$$

$$= (a+b+c)(2ab+2ac+2bc-a^2-b^2-c^2)$$

$$\therefore \text{Ans.} = 2ab+2ac+2bc-a^2-b^2-c^2.$$

II. i. $(1-2n)(1-4n)(1-n+8n^2)(1-5n+8n^2)-12n^3$

$$= (1-6n+8n^2)(1-n+8n^2)(1-5n+8n^2)-12n^3$$

$$= (1+8n^2)^3 - (1+8n^2)^2(6n+n+5n) + (1+8n^2)(6n^2+30n^2+5n^2) - 30n^3 - 12n^3$$

$$= (1 + 8n^2)^3 - (1 + 8n^2)^2 (12n) + (1 + 8n^2) (41n^2) - 42n^3$$

$$= (1 + 8n^2)^3 - (1 + 8n^2)^2 (2n + 3n + 7n) + (1 + 8n^2) (6n^2 + 14n^2 + 21n^2) - 42n^3$$

$$= (1 + 8n^2 - 2n) (1 + 8n^2 - 3n) (1 + 8n^2 - 7n) - 42n^3$$

$$\therefore \text{Ans.} = (1 - 2n + 8n^2) (1 - 3n + 8n^2) (1 - 7n + 8n^2)$$

$$\text{ii. } abc(a+b+c)^3 - (ab+ac+bc)(a+b)(b+c)(c+a) \}$$

$$= abc \{ a^3 + b^3 + c^3 + 3ab^2 + 3a^2b + 3b^2c + 3b^2a + 3c^2a + 3c^2b + 3c^2c \} -$$

$$\{ a^3b^3 + a^3c^3 + b^3c^3 + 3(ab+ac)(ab+bc)(ac+bc) \}$$

$$= abc(a^3 + b^3 + c^3) + 3abc(a+b)(b+c)(c+a) - (a^3b^3 + a^3c^3 + b^3c^3)$$

$$- 2a(b+c).b(a+c).c(a+b)$$

$$= abc(a^3 + b^3 + c^3) - (a^3b^3 + a^3c^3 + b^3c^3)$$

$$= - \{ a^2b^2c^2 - abc(a^3 + b^3 + c^3) + (a^3b^3 + a^3c^3 + b^3c^3) - a^2b^2c^2 \}$$

$$= - \frac{1}{abc} \{ a^3b^3c^3 - a^2b^2c^2(a^3 + b^3 + c^3) + abc(a^3b^3 + a^3c^3 + b^3c^3) - a^3b^3c^3 \}$$

$$= - \frac{1}{abc} \{ (abc - a^3)(abc - b^3)(abc - c^3) \}$$

$$= - \frac{1}{abc} \{ a(bc - a^2).b(ac - b^2).c(ab - c^2) \}$$

$$= - (bc - a^2)(ac - b^2)(ab - c^2)$$

$$\therefore \text{Ans.} = (a^3 - bc)(b^3 - ac)(c^3 - ab).$$

$$\text{III. } 2n^3 - 3n^2 + 4n + 5$$

$$= 2n^3 - 2 - 3n^2 + 3 + 4n + 4$$

$$= 2(n^3 - 1) - 3(n^2 - 1) + 4(n + 1)$$

$$= (n + 1) \{ 2(n-1)(n^2+1)(n^4+1) - 3(n-1) + 4 \}$$

$$5n^3 + 4n^2 - 3n^6 + 2$$

$$= 5n^3 - 5 + 4n^2 + 4 - 3n^6 + 3$$

$$= 5(n^3 - 1) + 4(n^2 + 1) - 3(n^6 - 1)$$

$$= (n + 1) \{ 5(n-1)(n^2+1)(n^4+1) + 4(n^6 - n^5 + n^4 - n^3 + n^2 -$$

$$n + 1) - 3(n-1)(n^4 + n^2 + 1) \}$$

$$\therefore \text{Ans} = n + 1.$$

$$\text{IV. i. } \frac{m^2 - \sqrt{m^3 - n^3} + n^2 + mn}{m^2 + \sqrt{m^3 - n^3} + n^2 + mn} =$$

$$\frac{(m^2 + mn + n^2) - \sqrt{(m-n)(m^2 + mn + n^2)}}{(m^2 + mn + n^2) + \sqrt{(m-n)(m^2 + mn + n^2)}}$$

$$= \frac{\sqrt{m^2 + mn + n^2} \{ \sqrt{m^2 + mn + n^2} - \sqrt{m-n} \}}{\sqrt{m^2 + mn + n^2} \{ \sqrt{m^2 + mn + n^2} + \sqrt{m-n} \}}$$

$$= \frac{\sqrt{m^2 + mn + n^2} - \sqrt{m-n}}{\sqrt{m^2 + mn + n^2} + \sqrt{m-n}}$$

$$\text{Similarly the 2nd expression} = \frac{\sqrt{m-n} - \sqrt{m^2 + mn + n^2}}{\sqrt{m-n} + \sqrt{m^2 + mn + n^2}}$$

The denominators being the same add the numerators.

$$\text{Ans} = 0.$$

$$\text{ii. } \frac{a+b+2ab}{(1+2a)(1+2b)} - \frac{b+c+2bc}{(1+2b)(1+2c)} + \frac{c-a}{(1+2a)(1+2b)(1+2c)}$$

$$= \frac{1}{2} \left\{ \frac{2a+2b+4ab}{(1+2a)(1+2b)} - \frac{2b+2c+4bc}{(1+2b)(1+2c)} \right\} + \frac{c-a}{(1+2a)(1+2b)(1+2c)}$$

$$= \frac{1}{2} \left\{ \frac{(1+2a)(1+2b)-1}{(1+2a)(1+2b)} - \frac{(1+2b)(1+2c)-1}{(1+2b)(1+2c)} \right\} + \&c.$$

$$= \frac{1}{2} \left\{ 1 - \frac{1}{(1+2a)(1+2b)} - 1 + \frac{1}{(1+2b)(1+2c)} \right\} + \&c.$$

$$= \frac{1}{2} \left\{ \frac{1}{(1+2b)(1+2c)} - \frac{1}{(1+2a)(1+2b)} \right\} + \&c.$$

$$= \frac{1}{2} \left\{ \frac{(1+2a) - (1+2c)}{(1+2a)(1+2b)(1+2c)} \right\} + \&c.$$

$$= \frac{1}{2} \cdot \frac{2(a-c)}{(1+2a)(1+2b)(1+2c)} + \frac{c-a}{(1+2a)(1+2b)(1+2c)}$$

$$\text{Ans} = 0.$$

$$\text{V. } (x+a-b) - (x-a+b) = 2(a-b). \text{ (identically)}$$

$$\text{or } \{ \sqrt{x+a-b} \}^2 - \{ \sqrt{x-a+b} \}^2 = 2(a-b) \text{ i.}$$

$$\text{Also } \sqrt{x+a-b} + \sqrt{x-a+b} = (a-b) \text{ ii.}$$

Dividing i. by ii.

$$\sqrt{x+a-b} - \sqrt{x-a+b} = 2 \text{ iii.}$$

$$\text{Adding ii and iii } 2\sqrt{x+a-b} = 2 + (a-b)$$

$$\therefore 4(x+a-b) = 4 + 4(a-b) + (a-b)^2 \text{ (by squaring)}$$

$$\therefore 4x = 4 + (a-b)^2 \therefore x = 1 + \left(\frac{a-b}{2} \right)^2.$$

$$\text{ii } 1 + \frac{1}{y} = \frac{7}{12} \quad \therefore \frac{x+y}{xy} = \frac{7}{12} \quad (\text{adding unity})$$

$$\frac{x+y+xy}{xy} = \frac{19}{12} \quad \text{but } x+y+xy = 19.$$

$$\therefore \frac{19}{xy} = \frac{19}{12} \quad \therefore xy = 12 \text{ and } x+y = 7.$$

$$\therefore (x+y)^2 = 7^2 = 49. \quad \therefore (x-y)^2 = 49 - 48 = 1$$

$$\frac{4xy}{4} = 4 \times 12 = 48 \quad \therefore x-y = 1$$

$$\text{But } x+y = 7$$

$$\therefore \begin{cases} 2x = 8 & \therefore x = 4 \\ -2y = -6 & \therefore y = 3 \end{cases} \text{ Ans.}$$

VI. Let x = length of the course in yards.
and y = duration of the race in minutes.

Now, by the time A runs $x+90$ yards, B runs $x-90$ yds.

$$\therefore \frac{x+90}{\text{A's rate}} = \frac{x-90}{\text{B's rate}} \quad \text{i}$$

Also, by the time A runs $2x + \frac{1}{2}x$, B, runs $2x - \frac{1}{2}x$.

$$\therefore \frac{2x + \frac{1}{2}x}{\text{A's rate}} = \frac{2x - \frac{1}{2}x}{\text{B's rate}} \quad \text{ii}$$

Dividing i by ii

$$\frac{x+90}{2x + \frac{1}{2}x} = \frac{x-90}{2x - \frac{1}{2}x} \quad \text{or} \quad \frac{x+90}{\frac{5x}{2}} = \frac{x-90}{\frac{3x}{2}} \quad \therefore \frac{x+90}{5} = \frac{x-90}{3}$$

$$\therefore (x+90) \cdot 11x = (x-90) \cdot 13x$$

$$\therefore 11x + 11 \times 90 = 13x - 13 \times 90$$

$$\therefore -2x = -90(11+13) = -90 \times 24$$

$$\therefore x = 90 \times 12 = 1080 \text{ yards.}$$

$$\text{Again } \frac{2x}{\text{A's rate}} = y \quad \text{iii}$$

$$\frac{2x}{\text{B's rate}} - 3 = y$$

$$\therefore \frac{2x}{\text{B's rate}} = y + 3 \quad \text{iv}$$

Dividing iii by iv

$$\frac{\text{B's rate}}{\text{A's rate}} = \frac{y}{y+3} = \frac{x-90}{x+90} \quad (\text{from i})$$

$$\text{or } \frac{y}{y+3} = \frac{1080-90}{1080+90} = \frac{11}{11}$$

$$\therefore 13y = 11y + 33$$

$$\therefore 2y = 33 \quad \therefore y = 16\frac{1}{2} \text{ minutes.}$$

Ans. { The length of the course 1080 yards
The duration of the race 16½ minutes.

TRICHINOPOLY.

PHYSICS.

FOR MATRICULATION CANDIDATES.

(From a Contributor).

I. The Specific Gravity of sea-water being 1.025 and that of ice 0.9, what will be the total bulk of an Iceberg of which 100 cubic yards are above the surface of the water?

SOLUTION.

Let x = part immersed. Then

$$x : x + 100 :: .9 : 1.025$$

$$1.025x = .9x + 90$$

$$.125x = 90$$

$$125x = 90000$$

$$x = 720$$

$$\text{Ans. } 820$$

II. The sum of the readings of the Fahrenheit and the Centigrade Thermometers for the same temperature is zero. Find the readings.

SOLUTION.

Let x = degrees below freezing in Fahrenheit?

Then $\frac{5}{9}x =$ " " " in Centigrade, and by the question

$$(32-x) = \frac{5}{9}x$$

$$288-9x = 5x$$

$$288 = 14x$$

$$x = 20\frac{2}{7}$$

$$\therefore \text{Readings} = 32 - 20\frac{2}{7} = +11\frac{3}{7} \text{ Fahrenheit}$$

$$-11\frac{3}{7} \text{ Centigrade}$$

III. One lb. of ice at 0°C . is mixed with 6 lb. of water at 50° what is the temperature of the mixture.

SOLUTION.

Let x = temperature. Then as the latent-heat of water is 79.25

$\therefore$ The ice during melting gains 79.25 thermal units, and in being raised to x° it gains x thermal units, in all $79.25 + x$

The water in cooling from 50° to x° loses $6(50-x)$ thermal units.

But the gain of the ice = the loss of the water in thermal units.

$$\therefore 6(50-x) = 79.25 + x$$

$$300 - 6x = 79.25 + x$$

$$7x = 220.75$$

$$x = 31.53$$

COMBACONUM PROVINCIAL COLLEGE.

MR. PORTER, in his report of the 1st May 1878, on the Provincial College of Combaconum, made the following remarks regarding the inconveniences attendant on the increasing strength of some of the College Classes :—

"There has again been a marked increase in the numerical strength of the College. The numbers on the 31st March 1878 were in the Senior Department 245 against 200 at the same date last year, and in the Junior 316 against 294. In the School Department the numbers are pretty equally distributed over all the six classes which have thus an average of 52 boys each. The number is too great perhaps, but there is always a great pressure for admittance which it is difficult to resist as long as there is comfortable sitting-room in the class. Moreover the masters are all experienced and I observe no falling off in order and discipline, though undoubtedly the labour of the masters is greatly increased. In the College Department, the increase is wholly in the F.A. Classes, each of which numbers just over 100 leaving only 40 students for the two B.A. Classes. One of the F.A. Classes is held in the examination hall, which is large enough to accommodate a class of double the numbers, the other is held in the largest of the class rooms, and I must admit it is very inconveniently crowded. Indeed after passing 100, I had to refuse admission to several applicants, because there was absolutely not a corner of the room where another boy could be inserted. I believe we may look forward with some confidence to these numbers being kept up, and, if we had room, to their being increased. There are at present in this town four Matriculation Classes, from which 107 passed the examination last year, and increasing numbers of boys are coming here from Madura, South Arcot, and Trichinopoly. It is greatly to be regretted that we have not got one other large room able to accommodate comfortably a class of over 100.

"Classes of this size will no doubt necessitate some change in the style of teaching. When it becomes necessary from the size of a class to speak above a conversational tone, it is necessary to study brevity and terseness, which again involves more careful preparation, and probably the teaching will tend to become more and more like the carefully prepared lecture of a Professor in a Scotch University. On the other hand it will tend to assimilate itself to the Scotch system in another point not perhaps so desirable. That is, as written examinations cannot be given so frequently as before, the students must be left much more to themselves as regards their own preparation and study. Already I have had to diminish the amount of composition in the F.A. Classes by one-half and give it only once a fortnight instead of once a week. Any one accustomed to correcting composition papers will see that even this is a very severe tax on the time and energy of a teacher. In Mathematics there is less difficulty in seeing that every student does a fair amount of work. By giving a certain number of examples to be worked at home, and examining every day a few taken at random, it is, I think, quite possible to secure a fair amount of attention to the work of the class even with our present large numbers.

"It appears that fully four-fifths of the whole come from the district of Tanjore, the remaining one-fifth being drawn from the five other southern Collectorates.

The Director remarks :—

"The great increase in the attendance in spite of the enhanced fees is remarkable. It seems a matter for serious consideration whether the time has not come for increasing the strength of the College staff by the appointment of one or more Assistants. It is not probable that Government will object to this if it can be done without increased expenditure. At the present rates fifty College pupils pay for an Assistant on Rupees 200 and seventy-five pupils for an Assistant on Rupees 300, but room cannot apparently be found for any further increase in the number of College classes without abolishing one or more classes in the School Department. If Mr. Porter is of opinion that any measure of this kind is desirable, the Director will be prepared to address Government on the subject."

Mr. Porter was soon afterwards appointed tutor to the Maharajah of Mysore, and the matter remained in abeyance until the end of the year, when after a conference with me, Mr. Gopal Rau, the present Principal, brought the subject forward in the enclosed letter No. 4, of the 12th January 1879.

From this letter it will be seen that the 7th or Preparatory First Arts Class contained 97 students in February 1878 and 102 in March, after which the numbers gradually decreased slightly until December, when the number was 91. The 8th or F.A. Class also contained 97 students in February and 103 in March. In September the number was reduced to 82, after which there was a rapid decrease during the weeks preceding the University Examination in December.

There is no doubt that additional teachers are needed for the College Department. Mr. Gopal Rau applies, however, at present for only one. It is proposed to fix his salary at Rupees 250 and to abolish the two divisions of the 4th class, the masters of which receive Rupees 50 each.

It is probable that each division of the 7th class, after it is split into two sections, will contain about fifty pupils, and as each pupil pays a fee of Rupees 4, about Rupees 200 will be obtained from this source. The gain of Rupees 100 from the abolition of the two divisions of the 4th class is nominal, as these classes are at present self-supporting. There is however no room for these classes, and as the work can be equally well done in the town school, there is no object to be gained by keeping them up.

The details of the present and proposed establishments are compared in the following statement :—

Establishment.	Present Scale.		Proposed Scale.	
	Rs.		Rs.	
College Department...	Prin. ...	According to Grade.	According to Grade.	
	Asst. ...	500	500	
	Do. ...	300	300	
	Do. ...	...	250	
Sixth or Matriculation Class.	Do. ...	200	200	
	Do. ...	100	100	
Fifth or Preparatory Matriculation Class.	Do. ...	100	100	
	Do. ...	75	75	
Upper Fourth Class.	Do. ...	75	75	
	Do. ...	50	50	
	Do. ...	50	...	

Establishment.	Present Scale.	Proposed Scale.
	Rs.	Rs.
First Sanskrit Master.	50	50
Second do.	25	25
First Tamil Master ...	50	50
Second do.	25	25
Clerk	25	25
Moochee	10½	10½
Three Peons, at Rs. 6.	18	18
Two Sweepers, at Rs. 4.	8	8
Night Peon	3½	3½
Contingencies	50	50

The Principal has no fixed salary, his pay depending on his grade. Mr. Porter, drew Rupees 800, *plus* a personal allowance of Rupees 200. Mr. Gopal Rau being in the 4th Grade is entitled to a salary rising from Rupees 500 to Rupees 700, so that just at present the cost of the College is unusually low. On the other hand the fee collections have never been so high as they are now. The total amount collected in 1877-78 was Rupees 14,481-12. Mr. Porter calculated that the collections for 1878-79 would range between Rupees 18,500 and Rupees 20,000, and the actual collections during the eight months from April to November amounted to Rupees 12,392-8; it is probable that the result will be in accordance with this estimate.

Mr. Gopal Rau writes as follows :—

“The F.A. Classes have been of late years steadily increasing in numbers. The eighth class averaged fifty pupils in 1876, fifty-seven in 1877, and seventy-five in 1878; and the seventh class fifty-five in 1876, seventy-six in 1877, and eighty-nine in 1878. The latter class would have been still larger last year had it not become necessary to limit admissions from sheer lack of space. It will be seen from the seventh class numbered over ninety throughout 1878 (with the exception of the month of January during which it was virtually non-existent) and the same was nearly the case with the eighth during two-thirds of the year. Classes of this size might be managed with fair success if all or the bulk of the students were attentive and thoughtful; but this is a condition which cannot be secured in the seventh class, although it might be, I think, to a considerable extent in the eighth if more individual attention could be bestowed on the seventh, and promotions to the eighth were made with care. I think it very necessary, to the efficiency of the College Department, that the seventh class should be formed into two divisions. Another strong reason for dividing the class is the want of proper accommodation. The only room in the College capable of accommodating a class of over a hundred boys is the examination hall, and it is occupied by the eighth class. The seventh class is held in the largest of the class-rooms, but it is greatly overcrowded, inasmuch that the air becomes palpably vitiated, and neither teachers nor pupils can work in it with comfort or even without injury to health.

I request, therefore, that you will be good enough to authorize the formation of two divisions of the seventh class, and recommend to Government the appointment of an additional Assistant in the Senior Department on a salary of Rupees 250 per mensem.

The proposed addition to the staff may be effected without increas-

ed expenditure. Fifty pupils may, I think, be regarded as the normal strength of the seventh class; and the actual strength last year averaged, as above stated, eighty-nine pupils, i.e., thirty-nine pupils in excess of the normal strength. The fees paid by these thirty-nine amount at the present rates to Rupees 156 or over three-fifths of the salary proposed for the additional Assistant; and the remainder may be more than made up by the abolition of the two divisions of the fourth class, each of which is taught by an Assistant on Rupees 50. No inconvenience is likely to arise from this measure. Two or more divisions of the fourth class might be formed at the Town School, and as that institution is under the supervision of the staff of this College, no deterioration need be apprehended in the quality of the material supplied to our fifth classes.

I have thought it safest, in considering the financial bearing of my proposition, not to calculate on any increase in the strength of the seventh class; but improved accommodation and more efficient instruction will, I have little doubt, ensure increased numbers, and lead to a much more considerable saving to Government than I have indicated.”

His Grace the Governor in Council approves and sanctions, for reasons stated by the Director, the appointment of an additional teacher in the Combaconum College on Rupees 250 a month; and the abolition of two teachers on Rupees 50 each by discontinuing the two divisions of the fourth class.

The net increase involved by the arrangement is, as per proposition statement, Rupees 150, viz :—

	Rs.
Present scale.....	1,665
Proposed scale.....	1,815
Difference...	150

The Director will consider and report whether the fees paid by the students in the College may not be increased to cover the additional charge, and make the Institution self-supporting.

THE BOMBAY UNIVERSITY COURSE.

The first point the Senate of the Bombay University will have to consider at their important meeting on Saturday is the alteration proposed in the Matriculation examination. The Syndicate suggests that in the English paper “one or more passages should be given for paraphrase, with, as an alternative, one or more passages in the “candidate’s Vernacular for translation into English.” As to the desirability that natives should know their own Vernacular, there can be no controversy. Before he begins the study of a foreign language a boy should be thoroughly taught the tongue he hears spoken around him. All the great difficulties which meet a boy in the study of language should first be pointed out to him and thoroughly explained in the speech with which he is most familiar. When he has mastered the difficulties common to all, he will then find the acquiring of a foreign language an easier task. Up to the present the University has neglected the Vernaculars. The clause proposed will not improve matters. It spoils the English paper and will not make the Vernacular teaching in the High Schools more

thorough. A native student will avoid the piece for translation if it is at all difficult and do the paraphrase. The mechanical art of paraphrasing is far easier to acquire than the art of writing a good translation. We have often wondered who was the wicked man who introduced the art of paraphrasing into India, and we should like to know the utility of this species of scholastic exercise. Paraphrasing consists of turning good English into bad. But why should the language of a classic be subject to a transformation which takes away both its beauty and force? The best paraphrase destroys the beauty and force of the original. But a paraphrase is supposed to show whether a person understands the original. To us it seems that to translate what is clear into what is obscure, to translate what is easy into what is hard, can serve no purpose of the kind. We are told that the paraphrase is retained in the Matriculation examination as an exercise for the European and Eurasian candidates who ought not to be expected to translate the piece from the Vernacular. We should have thought it better to have had in English one paper, consisting of a short English composition and the rudiments of English grammar, a second paper in the candidate's Vernacular containing prose passages for translation from and into English and questions in grammar. For the European and Eurasian boys a second paper in English containing passages from well known authors to be explained and questions in syntax and prosody. The candidates ought then to be examined in one of the following classical languages :—

Sanskrit.	French.
Greek.	Hindustani.
Latin.	Persian.
Hebrew.	Arabic.

We see no reason for the alteration proposed in the mathematical portion of the examination. Instead of having a separate paper in arithmetic and algebra, it is proposed to have one paper in arithmetic and algebra combined. It is obvious that you can test a man's knowledge better by setting two papers than by asking him to answer one. The only result of the change will be to lower the standard of mathematical teaching in the High Schools. The first change proposed in the F. E. A. examination is that the candidates should be expected to keep only two terms instead of three in a collegiate institution recognized by the University. If the High Schools were efficient, and if passing the Matriculation examination proved that the student could write a dozen lines of English correctly and could understand an easy English classic, there would be no great objection to the change. But, considering that the students enter the colleges without having their minds cultivated or disciplined, it will be difficult for the professors of the colleges to prepare them for a University degree in two terms. It can only be done by the University curtailing the present exorbitant amount of book work required. The F. E. A. degree ought to stamp a man not as a Plato or Bacon, but as one who has received a good sound education. It ought to tell Collectors and Judges that the man can read and write English correctly, that he has good knowledge of his own Vernacular, and that he has received a good general training. For the F. E. A. we do not want those papers of questions by which the examiner shows his want of sense and the examinee his stores of cram. The F. E. A. degree

ought to give a certificate for all minor Government posts and masterships in Anglo-Vernacular Schools. The B. A. degree ought to be accepted as the certificate for higher Government posts and for masterships in the High Schools.

For the B. A. degree it is now proposed to have two examinations instead of one. The first examination is to take place after the candidate has kept four terms or resided a little more than a year at a college. In the first B. A. examination the candidate will be examined in languages and mathematics, and then after the expiration of two more terms he will be examined in the following subjects :—

- I. Languages.
- II. One of the following groups to be selected by the candidate :—
 - (a). Language and Literature.
 - (b). History and Political Economy.
 - (c). Logic and Moral Philosophy.
 - (d). Mathematics.
 - (e). Natural Science.

We fail to see the advantage of having a second examination in languages if the first B. A. examination has been properly conducted and if the F. A. is made a strict test of a sound general education. We fear that the present scheme has been a good deal marred by a feeble morbid dread that one faculty might have a paltry advantage over another. The Syndicate have lost a grand opportunity of assimilating the Bombay University examinations to those of Oxford and Cambridge. The second B. A. degree ought to correspond to the schools at Oxford and the Triposes at Cambridge. A candidate ought to have had the option of taking his degree in one of the following :—

- (a). Language.
- (b). Moral Science.
- (c). History and Political Economy.
- (d). Mathematics.
- (e). Natural Science.

In our scheme the F. A. examination would show that a student had received a sound general education, the first B. A. that he had received a certain amount of liberal culture, and the second B. A. that he had learnt one branch of knowledge fairly well. The Master of Arts degree should encourage him to persevere in the study which he had made a speciality in the second B. A. It ought to be given only for very high proficiency in one of the second B. A. groups of subjects. A special degree—Master of Science—might be established, but we would prefer the title Master of Arts (in Science). But if a University sanction LL.M. (Master of Laws), M.D. (Master of Medicine), we see no objection to M.S. (Master of Science).

But, if we cannot get our own ideal scheme, the next best thing to do is to vote for the scheme proposed in the hope that time will bring changes. On Saturday the Senate of the University of Bombay will be asked to sanction the Degree of Bachelor of Science, and we trust that Fellows will not vote against the proposal simply because they do not approve of every detail. The time has come for the Bombay University to recognize the utility and to encourage the study of natural science. It will not do for the Bombay University to be stationary while everything else is progressive. Universities have been wittily compared to vessels at anchor in the stream

of time, serving little purpose but to show with what rapidity independent research moves down the current. The Fellows of the University must not be led away by the idea that in proposing a science degree an attack is made on culture, and that there is any intention of placing physical science and the science of mind in antagonism. The natural sciences, as we call them, are but logical sequence of thought. John Stuart Mill, in discussing the barren controversy with regard to higher education, whether it should be literary or scientific, wisely remarked:—"I can only reply by the question, why not both? Can anything else deserve the name of a good education which does not include literature and science too? If there were no more to be said than that scientific education teaches us to think and literary education to express our thoughts, do we not require both? and is not any one a poor, maimed, lopsided fragment of humanity who is deficient in either?" The Fellows of the Bombay University have to declare by their votes on Saturday that the education of this great Presidency shall not be maimed nor lopsided. The importance that a child should receive not only a sound mental education but a sound physical science training is acknowledged by every man of culture in England. The need of a scientific education is almost greater for a native lad than for an English boy. The Oriental mind is prone to revel in the abstract and the metaphysical and to trust to memory rather than judgment. Then we must remember that India is in need of scientific men who will develop those arts and industries founded on science. A scientific education will rear men who will not be dependent on Government for their bread and will create an opening for the independent energies of the young men of India. But it would be a grievous wrong to science to rest its importance mainly on a utilitarian basis. The great truths with which it deals have a grandeur far above all purposes of convenience or profit. It is in them that our finite understanding approaches nearest to the conception of the absolute and infinite.—*Bombay Gazette.*

LONDON MISSION COMPARATIVE EXAMINATION.

Matriculation Class.

GENERAL ENGLISH.

Part I.

I. Paraphrase:

"Knowledge and Wisdom, far from *being* one,
Have *oft-times* no connexion; knowledge dwells
In hearts *replete* with thoughts of other men,
Wisdom in minds attentive to their *own*.
Knowledge, a rude unprofitable mass,
The *mere materials* with which Wisdom builds,
Till smoothed, and *squared*, and fitted to its place,
Does *but* encumber *whom* it seems to enrich.
Knowledge is proud that he has learned so *much*,
Wisdom is humble *that* he knows no more."

(a) Fully parse the words in italics.

II. (a) Change into the narrative form:—

He said to me:—"If what you tell me proves to be correct, I shall feel it my duty to assist you as far as I can; but you know I was so frequently deceived before I came here, that you will not think me unnecessarily careful if I make further enquiries into this affair."

(b) Turn into direct speech:—

Ramappa told his relations that the judges had decided in his favour, but that his insatiable enemy was preparing to recover possession by force; and he begged them therefore to assist him in the protection of their ancestral rights.

III. Give the other principal parts of the verb of which the following are the complete participles:

*Fallen, felled, felt, fled, flowered, flown,
lain, laid, lied, seen, sown, sown, sown.*

IV. (1) State in general terms the application of each of the following proverbs:—

- A rolling stone gathers no moss.
- It is like carrying coals to Newcastle.
- It is a long lane that has no turning.
- There are many ways of killing a cat besides hanging her.
- He is only jumping out of the frying-pan into the fire.

(2) Consider carefully what parts of speech the words are which end in -ing.

V. Correct the following, where wrong, making no more alterations than are absolutely necessary.

- I live in Tripatore, a town at Presidency of Madras.
- My father had been to take my visit and gave me good advices.
- He was very angry upon me and said me not to leave off School, and I replied him I will not.
- Examination will take place on Saturday, is'nt it?
- Scarcely we reached to home than a rain falls.
- No sooner the rain ceased but the sun had shone.

VI. Write short complex sentences so as to illustrate the use and bring out the distinctive force of the following words as connectives:—

But (relative pronoun), *however*, *lest*, *so that*, *than*, *though*, *unless*, *where*, *whether*, *whom*, *who-so-ever*.

Part II.

VII. 1. Distinguish between the following:—

- $\begin{cases} \text{I alone can do it.} \\ \text{I can do it alone.} \end{cases}$
- $\begin{cases} \text{Once I could do it.} \\ \text{I could do it at once.} \end{cases}$
- $\begin{cases} \text{I can but try.} \\ \text{I cannot but try.} \end{cases}$

2. Give the meaning of *boy* as a noun, adjective and verb—two meanings of the verb *own*—the meaning of *parts* different from the singular.

VIII. 1. Illustrate in sentences of your own the correct use of the following :—

- (a) Later—Latter.
- (b) Invalid—Invalid.
- (c) Set up—up set.
- (d) Give in—give out.
- (e) To come to hand—To have on hand.

2. Give equivalents for the words in italics :—

- (a) The town of Dover.
- (b) I was *about* to go.
- (c) For all the advantages he has enjoyed he has done badly.

3. In what number are the following :—

Crosses—Riches—Foci—Vixen—Data—News—Oxen—Optics—Mackerel.

IX. 1. Give the :—

- (a) Feminine forms of :—
Tailor—Testator—Earl.
- (b) Adjectives derived from
Voice—Star—Scene.
- (c) Diminutives of :—
Animal—Goose—Sack.

2. Parse the words in italics.

- (a) He became *king* of England.
- (b) A *light* blue colour.
- (c) He *himself* did the work.
- (d) The flower smells *sweet*.

X. 1. Analyse into principal and subordinate clauses giving the construction of the latter.

In the last letter he ever wrote, with fingers which, as he said could not steadily hold a pen, he did not omit to mention that the experiment of the snow had succeeded excellently well.

2. Contract the above into one simple sentence.

3. Expand the parts italicized in the following sentences into clauses.

- (a) What I propose is a *less complicated* plan.
- (b) He stopped the carriage *else* I should have been killed.
- (c) I cannot improve *without your help*.

XI. Write the following as a continuous narrative in the indirect form of speech.

Colonel—Why do you follow the Regiment ?

Boy—That I may become a soldier.

Colonel—That is difficult. Where are your parents ?

Boy—They are dead.

Colonel—How then do you live ?

Boy—By the charity of some kind people who give my aunt just sufficient to feed me.

Colonel—What is your name ?

Boy—Francois Chevert.

Colonel—How old are you ?

Boy—Eleven years old.

Colonel—Well then I will enlist you.

Boy—You shall never have reason to be sorry for having done so.

Colonel—I hope not my boy.

XII. Write as an exercise in composition a description of the town in which you live, its scenery and anything for which it is noted.

N.B.—Not less than one and not more than two pages.

ENGLISH POETRY.

Time 3 hours.

Part. I.

- I. (a) Camels were *trampling* the vines of Spain. There was *arming* heard in Valencia's halls. Where his sword blazed out, there was *harrying* flight. In Hasli's wilds there was *gleaming* steel.
- (b) Shadowy mail, serried power, knightly plumes, cabin homes, battle's van, barbed steel.
Parse the italicised words in (a). Give the meaning of the phrases in (b).
- II. The firwoods *crashed* on the mountain-side
And the Switzers rushed from high
With a sudden charge, on the *flower* and pride
Of the Austrian chivalry.
Like hunters of the deer
They *stormed* the narrow dell
And first in the shock, *with* Uri's spear
Was the arm of William Tell.
(a) Give the meaning of the words in italics.
(b) Give the construction of *high* and *first*.
(c) Who are compared to hunters of the deer ? and why ?
- III. The halls in Valencia were still and lone
The churches were empty, the masses *done*.
There was not a voice through the wide streets *far*,
Nor a foot-fall *heard* in the Alcazar, so the burial-train
moved out.
(a) Give the construction of the words in italics.
(b) Distinguish between :—lone and alone ; foot-fall, foot-step and foot-print ; empty and emptied.
(c) Give the different meanings of the word *masses*.
There were men from wilds where.....
There were spears from hills where.....
There were bows from sands where.....
(a) Supply the ellipses in the above lines.
(b) Write in your own words without any metaphor the meaning conveyed by these lines.
- IV. (a) There was stillness *as of night*,
Where storms at distance brood.
(b) With a measured pace *as the pace of one*
Was the still death march of the host begun.
Enlarge the italicised phrases into clauses so as to bring out clearly the sense of the passages.
Analyse (a) into clauses.

V. In both these poems, the metaphor of reapers in a harvest field, is employed. (a) Quote, as correctly as you can, the passages where the metaphor occurs. (b) Show fully the applicability of the metaphor.

Part II.

THE LITTLE MERCHANTS, CHAP. I.

VI. Point out the difference in meaning between Contemptuous and Contemptible; Deceit and Deception; Punishment and Vengeance.

VII. Substitute in (a) phrases, and in (b) adjectives for the words italicised.

- (a) 1. If they will *only* be so good as to give me leave.
 2. He waited *for* a fair wind.
 3. He bought the melon *for* a sound one.
 4. *With* the idea of making his son sharp, he made him cunning.

- (b) 1. Though he had *simplicity* enough to be easily cheated once he had too much *sense* to be twice made a *dupe*.

VIII. Correct the errors in.

1. His whole stock and property consists in a board and a knife,
2. The Lilliputian tradesman acts with no less caution as the exigencies of the case may require.
3. One who knows he has been in fault and acknowledges it will scarcely be in fault again.

IX. Parse the words italicised.

1. "So they are, but you said *so* yesterday."
2. He had the pleasure of *seeing* the vineyard often *full* of generous visitors.
3. He will be afraid of your *cheating* him.

X. Express by using the Positive degree.

1. He sells them for no more profit than that he may have his share free of expense.
2. He lost more by not selling his fish to these people than he had gained the day before.
3. "Yes, and smarter and more knowing by six years."

XI. Point out the antecedent of it in.

1. "If I prosper at all it shall be by those means and no other,
2. "I am not the favourite I was with my father but I know it is all my own fault."

XII. Explain the application of the following proverbs.

1. "Youth and white paper take all impressions."
2. "Venture a small fish to catch a great one."
3. "The scalded dog fears cold water."

XIII. Expand the words and phrases italicised into clauses.

1. "He is a child and knows *no better*."
2. "If you would cheat your own father *to be sure* you will cheat us."
3. "Ay," said Francisco; "but as my father said to you once," &c.

4. These words were long remembered, and long did Pedro feel *their effects*.
5. "He acquired habits of idleness, which seemed to his father *of little consequence* whilst he was but a child."

XIV. Write in the form of indirect narration.

"I should be ashamed to beg, or borrow either," said Francisco.

"Neither did I get what you see by begging, or borrowing either" said Pedro, "but by using my wits; not as you did yesterday, when, like a novice, you showed the bruised side of your melon, and so spoiled your market by your wisdom."

"Wisdom I think it still," said Francisco.

"And your father?" asked Pedro.

"And my father," said Francisco.

ARITHMETIC.

Time 2½ hours.

I. Find the largest fraction, the numerator of which is made up of the figures 0, 1 and 3, and the denominator of 0, 2, 5 and 9.

II. Compare

(1) $\frac{1}{12}$, $\frac{1}{17}$, $\frac{2}{23}$ and $\frac{3}{34}$.

(2) $\frac{2}{35}$, $\frac{1}{27}$, $\frac{1}{30}$ and $\frac{3}{37}$.

III. (1) Add together 23, 14397, 2631, 325379 and 4715587182.

(2) Multiply 7865 by 100, and divide 38787 by 1000.

(3) Which is greater 237 or 2167, 3 or 34, 365 or 3656
 2 or 26?

IV. If £1 purchase 2 tons, 12 cwt. 1 qr. 18 lbs., find, by practice, how much can be purchased by £237.

V. A General wishes to draw up his men for a march in lines of 8 men, but finds that 4 men would be left; if he have 7 men in a line, 3 men would be left; and if 9 men form a line, there would be 5 men left. How many men has he, it being known that the number is less than a thousand?

VI. A room 50 ft. long and 40 ft. broad is to be supplied with square stools 2 ft. long. They are to be arranged in parallel rows, the extreme rows touching the walls that run down the length of the building so that the seats in each row may be close together, that there may be space of 1½ ft. between two successive rows, and that there may be a clear space in the middle 8 ft. broad. How many seats are to be placed?

VII. A can set 45 letters by the time B can set 32. A works 24 days in the month, and 8 hours a day, while B works 18 days in the month and 4½ hours a day. In what time can A compose a book for which B requires 10 months?

N.B.—Question III must be worked in decimals.

GEOMETRY.

Time 2 hours.

Part I.

I. Define the terms *Corollary* and *Converse*.

Give the enunciations of the propositions from which Euclid draws the following corollaries:—

- (a) All equiangular triangles are also equilateral.
 (b) All the angles made by any number of straight lines meeting at one point are together equal to four right angles.

What is the converse form of the following proposition:—

If two triangles have two sides of the one equal to two sides of the other, each to each, but the angle contained by the two sides of one of them greater than the angle contained by the two sides equal to them of the other, the base of that which has the greater angle shall be greater than the base of the other.

Give an illustration to prove that the converse of a true statement is not always true.

II. Draw a straight line equal to a given straight line from a given point in the latter.

III. Prove (1) That the angles at the base of an isosceles triangle are equal to one another.

- (2) That if the equal sides be produced, the two angles outside the base are equal to the two angles inside the base *plus* twice the vertical angle.

IV. What farther condition must be inserted in the following enunciation in order that its solution may be always possible:—

To draw a straight line perpendicular to a given straight line from a given point without it.

Insert this condition and do the problem.

Part II.

V. Prove that the three angles of a triangle are together equal to two right angles without producing any side of the triangle.

- (a) If one angle of a triangle be equal to the sum of the other two angles, that angle is a right angle.

- (b) ABC is a right-angled triangle right-angled at B . From C a straight line CD is drawn at right angles to AC and is made equal to BC ; BD is joined cutting AC and E .

Shew that the triangle ABE is isosceles.

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

- (a) Find the locus of the vertices of equal triangles upon the same base.

VII. If the square described upon one of the sides of a triangle be equal to the squares described on the other two sides of it, the angle contained by these two sides is a right angle.

- (a) Is the triangle whose sides are 3, 4, 5 right angled or not?

ALGEBRA.

Time $1\frac{1}{2}$ hours.I. Find (a) 62×58 and 98^2 using the most convenient formulæ.

- (b) The coefficient of x^4 in $(ax^3+bx^2-cx-d)^2$, without actual multiplication.

- (c) The value of $\frac{1}{ab} + \frac{1}{ac} + \frac{1}{bc}$ when $a + b + c = a$.

II. Arrange $4x^3-15x^2+29x-10$ in descending powers of $(x-1)$. Find the least quantity which, added to the above expression, will make it exactly divisible by $4(x-1)-1$.

III. Show that if unity be added to the product of any four consecutive integers the result will be a perfect square.

IV. Prove that if P divide A and B , it will divide $m A \pm n B$

Show that x^2+ax+b and x^2+bx+a cannot have a common factor other than $x-1$.

V. Write down the factors of $a^3+b^3+c^3-3abc$.

Thence (1) Write down the factors of $a^3+b^3-c^3+3abc$ and

$$a^3-b^3-c^3-3abc.$$

- (2) Resolve $a^3+84a-279$.

- (3) Find the value of

$$\frac{(a-b)^3 + (b-c)^3 + (c-a)^3}{(a-b)(b-c)(c-a)}.$$

VI. Solve.

$$(a) \quad 1 = \frac{x}{x+m-n} + \frac{m}{x+m-p}$$

$$(b) \quad \frac{1}{x+p+q} = \frac{1}{x} + \frac{1}{p} + \frac{1}{q}$$

PHYSICS.

Time 2 hours.

I. Give a strict definition of Force. Mention all the Physical Forces you know of, and show how your definition applies to each of them in order. What is Inertia? Is it a Force?

II. Which could you throw furthest, a small ball of lead, or a ball of cork of the same weight? Give a satisfactory reason for your answer.

III. The lead of a plumb-line is immersed in a running stream, the string being held by a person on the bank. The string is found to settle in a sloping position. Show by means of a *sketch* the three forces which keep the plummet in equilibrium.

IV. A light tin vessel in the shape of a pyramid is filled with water and placed upon a table. There is less pressure on the table than there is on the bottom of the vessel. Explain this remarkable phenomenon.

(a) If the pyramid is 6 inches high, and has a base 6 inches square, find the pressure upon the base, when a cubic foot of water weighs 1000 oz.

V. A piece of wood weighing 120 lbs floats in water with $\frac{3}{4}$ ths of its volume immersed. What is the cubic measure of the wood, a cubic foot of water weighing 1000 oz?

VI. Describe fully an experimental method of determining the weight of a cubic inch of water, without weighing the water itself in the scales.

VII. What are the several causes of the following phenomena:—

- (1) A bullet fired at an open door, does not shut it, or even move it, notwithstanding that the bullet strikes the door with great force.
- (2) A stream of water falling vertically from a height becomes less in sectional area the lower it falls.
- (3) A bubble set at liberty far below the surface of water is very small at first, and gradually becomes larger as it rises.
- (4) There are substances which, though they will float in sea water, will sink in fresh water.

GENERAL GEOGRAPHY.

Time 3 hours.

Part I.

I. Draw a map of India, and

- (1) Trace the rivers Krishna, and Brahmaputra.
- (2) Insert the following places

Karwar, Howrah, Peshawur, Binlipatam, Palamcottah Belgaum, Alleppey, Cuddalore, Kamptee.

II. If straight lines be drawn from Tuticorin to Bombay, and from Trevandrum to Calcutta; mention in order the districts, mountains, and rivers that will be passed over by each line. In what district, will the lines intersect?

III. Give a brief account of the places situated at the junction of the following rivers:—

Ganges and Kalanadi.
Indus and Panjnad.
Bhawani and Kaveri.
Indus and Cabul.
Ganges and Jumna.

IV. Mention the districts specially celebrated for the following:—
Sugar, tea, coffee, opium, indigo, cardamoms, diamonds, steel, cotton.

V. Give a detailed account of the area, population, divisions, principal cities, rivers, and productions of Oude and British-Burmah.

VI. Where are the following places situated and for what are they noted? What is the vernacular spoken in each?

Meerut, Loodiana, Kurachee, Bhurtpore, Agra, Gya, Puri, Le.

VII. Enumerate the districts of the Madras Presidency, and the chief station in each. Mention the largest, the smallest, and the most thickly populated of these districts. Name the chief productions of each district.

VIII. What is the difference between a "Protected" and an "Independent" state? Mention six of each kind. To what class does Mysore belong?

Part II.

PHYSICAL GEOGRAPHY.

I. Explain the origin of

(a) River fog.

(b) Dew.

II. Give a reason for the following phenomena seen in deserts.

(a) The disappearance of clouds that are carried by currents of air to the regions of the atmosphere above the deserts.

(b) Very hot days and very cold nights.

(c) The absence of fog.

III. In some places in the North of India ice is often seen but snow is never seen on the ground. Explain this.

IV. Give a reason for the fact that there was an unusually heavy rain-fall in Europe in the years of the late famine in S. India.

V. One evening in winter a large party of ladies and gentlemen were entertained by a friend in St. Petersburg. After they had been together for two or three hours a window of the room in which they were assembled was opened and at once snow fell on the people and the floor. Explain this phenomenon.

NOTES ON POPE'S ESSAY ON CRITICISM.

(Continued from page 122).

94. *Parnassus*. The fabled seat of Apollo and the Muses. The famous Castalian spring of whose waters those who drank were supposed to gain poetical inspiration, was placed by the Greek writers at the top of Parnassus, although it is really near the base.

High on Parnassus top, &c. The meaning of this metaphor is that the Greeks could point with pride to the great poets of their country, and others among them could emulate the example of those poets.

99. *What they derived from heaven*. I.e., the fire of genius was divinely inspired, and from the great poets thus taught by God, their country learnt wisdom.

100. *Fanned*. Encouraged. The true office of the critic is not to carp at the faults in a work of genius, but to recognize what is noble in each work of art, and to point out with candour, but with consideration, the blemishes.

101. *With reason to admire*. It is a characteristic of ignorance to admire what it does not understand, and to take *omne ignotum pro magifico*. The critic analyses the features of a work of art, and shows us what there is in it to call forth our admiration.

104. *Following wits, &c.* The writers who succeeded had other aims.

The Mistress = Poetry; *The Maid* = Criticism. Those who had no genius to become poets set up for critics. Cf. the French proverb *La critique est aisée, et l'art est difficile*. Criticism is easy and art is difficult.

106. *Against the poets their own arms they turned, &c.* The knowledge they had gained from the poets they employed in attacking them. Cf. the Arabic proverb:—

"I taught him Archery day by day, and when his arm waxed strong, 'twas me he shot."

109. *Doctor's bills.* Prescriptions.

110. *Mistaken rules.* Note that "mistaken" is here used in a subjective sense. The rules themselves were not wrong, but were "mistaken," i.e., *misunderstood* by the empiric practitioners.

112. *On the leaves.* I.e., suggesting emendations, &c., of the text.

These leave the sense, &c. This and the following verse aptly describe numerous writers of *Vyākhyānam* or Commentaries, both Hindu and European.

119. *Ancient.* Ancient author.

Proper character. Peculiar style.

121. *Genius of his age.* The natural disposition and tendencies of the times in which he lived.

124. *HOMER.* The greatest poet of antiquity, born probably about 900 B. C. The *Iliad* and the *Odyssey* are the poems to which he owes his fame.

127. *Their spring.* The *Iliad* and *Odyssey*, as being the earliest of poems, are thus spoken of as the spring of poetry.

129. *The Mantuan Muse.* Virgil the great Latin poet whose full name was Publius Vergilius Maro, was born near Mantua B. C. 70. He took the writings of Homer for his model. Virgil's great work is the *Æneid*.

133. *But from Nature's fountain.* "But" here means *except*.

138. *The Stagyrite.* Aristotle was born B. C. 384 at Stagira a town in Macedonia and is thence often called the Stagyrite. His works embraced all the subjects of human knowledge at the time he wrote. His treatise on *Poetics* lays down the rules by which poets should be guided.

141. *Yet.* This word is a conjunction introducing the sentence.

142. *A happiness.* A certain propriety that seems as it were lit upon by chance, and which no care or effort could attain.

150. *Pegasus.* See v. 86 and note thereon.

154. *From vulgar bounds with brave disorder part.* May boldly pass beyond the limits which are commonly imposed.

158. *Prospects.* Landscapes. Sir Joshua Reynolds uses the word *prospects* in this sense.

162. *As kings dispense with laws, &c.* The oriental notion that the king was above the laws, was held by a large party in England till nearly the end of the seventeenth century.

164. *The precept.* The letter of the law.

The end. The spirit of the law.

166. *Their.* The antecedent is *ancients* in line 161.

169. *There are.* Understand *those*; "are" is here a principal verb.

170. *In them.* I.e., in the ancients themselves.

180. *Homer nods.* This is taken from Horace's *Ars poetica*:—

Indignor quandoque bonus dormitat Homerus.
I am grieved when good Homer slumbers.

The meaning of Pope's line is—it is not Homer makes a mistake as we imagine, but the error is in our own misapprehension.

181. *Green with bays.* Metaphorical for *held in honour*. In ancient times, heroes were crowned with laurel and bay leaves. Cf. the term *poet laureate*.

184. *All involving age.* Time which involves everything in ruin; *Tempus edax rerum*.

186. *Tongues.* Metonymy for language; (cause for effect).*

Peana. A Paean, among the Greeks, was a triumphal song addressed to Apollo. It is derived from the Greek *ἰαω*, healing, an epithet applied to Apollo.

196. *The last the meanest of your sons.* Pope here modestly refers to himself.

199. *A science little known.* I.e., the science named in line 200, of being docile and humble.

203. *Bias.* The bias is literally the weight on one side of the balls used in the game of bowls, which causes them to run in a slanting direction. The word is here used metaphorically in the sense of prejudice.

205. The natural deficiency of ability is compensated for by an excess of pride. Cf. the Sanskrit proverb—*Alpa vidya maha garva*, Little wit and much pride.

206. *Recruits.* Fresh accessions.

208. *What wants in blood, &c.* What is deficient in blood, &c.

213. Cf. BURNS' lines:—

O would some power the giftie gie us
To see ourselves as others see us,
It would from many a blunder free us,
And foolish notion.

215. *A little learning is a dangerous thing.* Similarly Lord BACON says:—"A little philosophy inclineth man's mind to Atheism but depth in philosophy bringeth men's minds about to religion."

The Pierian Spring. The spring sacred to the Muses who are said to have been especially honoured in Pieria, a district of Macedonia. The adjective, may however be derived from Pierus, the father of the Muses.

LORD LYTTON ON FEMALE EDUCATION.

At the distribution of prizes at the Bethune School, Calcutta, His Excellency Lord Lytton spoke as follows:—

LADIES AND GENTLEMEN,—I have been asked to say a few words to you concerning the occasion which has brought us together, and the Institution on behalf of which we are here. But although the history of the Bethune School is in all respects a very instructive, and in many respects a very encouraging one, I think that I should only be abusing the claim on your attention thus accorded me, by any recapitulation of facts already well known to you all. Moreover, as regards the general advantages of female education, why I might as profitably dwell upon the general advantages of civilisation itself. But although no doubt we may reasonably congratulate ourselves upon the fact that civilised society wherever it exists now recognizes and seeks in the highest attainable education of all the members, male or female, a certain source of increased social felicity, still it is only natural, and indeed it is inevitable, that every practical system of education and every organized educational effort should be regarded from very different points of view, according to the social habits and customs or the religious opinions peculiar to different communities. Now in every country, but specially in this country, diversity of religious belief is a primary obstacle to unity of social action in the cause of education. This obstacle, however, neutralised at the outset by the founder of the Bethune School, and neutralised I may say in a manner not only most conducive to the thoroughly practical object of his noble charity, but also most in harmony with the thoroughly practical spirit of that Government of which he was himself an enlightened and distinguished member. Mr. Bethune wisely excluded all religious doctrine from the teaching of the school he founded, and I am persuaded that the extension of its social beneficence still depends upon the maintenance of that salutary restriction on its educational scope and aim. Not otherwise at least can this school continue to justify the co-operation of a Government whose noblest and perhaps strongest claim to the grateful confidence and esteem of its Indian subjects, is an impartial recognition of the equal rights of all religious denominations, and an absolute freedom from the political favouritism of any. To have early established and uninterruptedly maintained this complete impartiality of policy and administration in relation to religious doctrines and interests, is, I venture to assert, one of the grandest achievements, and it will probably be one of the most enduring glories of the Government of India. Well, it is in this spirit that the Bethune School was founded, and my presence here to-day is a willing public testimony to the fidelity to this spirit with which the Bethune School has been conducted. But, Ladies and Gentlemen in the course of its development, the present school has encountered, and I am hopeful that it has also successfully overcome another and a greater practical difficulty—a difficulty due to the social customs

of a large and important section of the Hindu community for whose general benefit this school was founded, I refer to the practice of early marriage. This practice is clearly incompatible with any sound and sufficient system of female education. So long, therefore, as this practice prevails in the families of high caste orthodox Hindus, it is certain that to those families the Bethune School can offer no substantial educational benefits, and that on the support of those families, the Bethune School cannot reasonably rely. This fact and the conclusion to be drawn from it, were pointed out to the Committee on a previous occasion by my Honourable friend the Lieutenant-Governor with all the trenchant force of that admirably practical common sense which conspicuously distinguishes his personal administration of the high office he now holds and adorns. I joyfully endorse the advice he then gave to the Committee, and creditly congratulate the Committee on its very successful adoption of that advice. It was plainly not the intention of its generous and the Kened founder to make this institution a cheap infant school for the children of wealthy parents who so little appreciate its value (they will neither pay adequately for the education it provides for their daughters, nor have their daughters long enough at school to complete that education, or derive from it any lasting benefit. The object of this institution was, and is, to create and supply a demand for native female education in the highest sense. To promote this object, salutary changes have now, under the auspices of the Lieutenant-Governor, been effected in the organization of the school, and it is in sympathy with the object thus promoted that the school is liberally supported by the State. Now, I need hardly say that in thus supporting the cause of native female education, we do not desire to revolutionize Hindu society, or forcibly supersede its national habits and customs, any more than it is desired by the supporters of female education in England to revolutionize English society or destroy the national characteristics of English women. The fact is, however, that, although educated men everywhere appreciate the advantage of social intercourse with educated women, still the education of woman has nowhere kept pace with the education of men. That is the case in Europe as well as in India, and it is a great misfortune in the interests of both sexes, for women, whether educated or uneducated, wise or foolish, must always exert, for good or ill, a powerful influence over the characters of men. Rightly or wrongly the experience of mankind has attributed to the female character a keen appetite for personal power and influence. Now, the power of beauty is not given to every woman, and yet even this power in those to whom nature has given it, is certain to be painfully neutralised or perilously misdirected by the want of intelligence. On the other hand, in the absence of beauty, every woman to whom education has given intelligence, may command the strongest personal influence by the direction of intelligence to the exercise of *charm*. The old Greeks attributed the power and influence of Aphrodite not to her beauty but to her charm; and this charm they placed, not in her face or figure, which were celestial concessions, but in her *cestus*, which was a self-given adornment. Perhaps, then, I may venture to repeat to those young Hindu ladies who have sought from this institution the intellectual adornment of natural gifts which are celestial concessions to their

sex, a suggestive reflection made by a great French writer who had thoughtfully studied society in all its phases. Montesquieu, in his essay on Taste, points out that the graces are less often sound in the face than in the manners of a woman, for these vary every moment and thus create constant surprises which intelligence may always render agreeable. In short, he says, a woman can be beautiful only in one way, but she may be charming in a hundred thousand ways. I think, therefore, that looking at the matter even from the lowest and least disinterested point of view, the pupils of this establishment may rest assured that the time they are now wisely devoting to the education of their girlhood, is time profitably invested in the personal influence of their womanhood. For I am persuaded that no man, whatever his country, his creed, or his caste, deliberately prefers, if experience has given him the choice, the companionship of a female fool or dunce to that of a cultivated intelligent woman. And so certainly is this the case that more-majesty such higher female companionship in their own honours. I believe that the majority of men, be they Brahmans, or Britons, will seek for why I cling to it elsewhere. Ladies and Gentlemen, the amalgamation of this Institution with Lady Phear's School has, I believe, increased the usefulness of both, and I am glad to learn that the pupils now their parents are now evincing a practical appreciation of the educational advantages which this school can offer to those only who do not prematurely leave it. I understand that within the last two months, two new pupils have applied for admission to the Boarding School, and 12 or 13 for admission to the Day School (applause). This is an encouraging fact. I am also informed that consideration is now being given to the possible establishment of a Collegiate branch, in which girls may be educated up to the standard of the First Arts examination. But I need hardly say that this and all other improvements in the present school must practically depend upon the favour shown it by our native friends, and their disposition to avail themselves of the educational advantages which it places in their reach. They have now at least no excuse for denying to their daughters and sisters the benefit of an excellent education at a very small cost. For my own part, I am one of those who believe that such a benefit is inestimable; I believe that for the performance of their ordinary home avocations, for the discharge of the high duties of wifehood and motherhood, in short for all that is most conducive to the happiness of female life and the good influence of female character, young women are best qualified by an education which develops their minds and expands the range of their rational sympathies and interests.

Meanwhile, allow me, Ladies and Gentlemen, to add to those of the Lieutenant-Governor, my own cordial congratulations on the brilliant success lately achieved by a pupil of this school—Miss Kadumbini Bose, who has successfully passed the Entrance examination of the Calcutta University in the second division (applause). I confidently trust that Miss Bose's recent success is the forerunner of many similar successes, both for herself and the other pupils of the Bethune School. This confidence is, I think, fully justified by another most encouraging circumstance which it is now my privilege to announce to the managers of the school, and which I feel sure they will learn with lively satisfaction. Two other young ladies

also, pupils of the Bethune School, have now won two out of the five scholarships offered by the National Indian Association in memory of the late Miss Carpenter; while, as regards the rest of Bengal one girl has passed the examination in the Burdwan division, and three have passed in the Dacca division. (Applause.) It is also my pleasant duty to announce to-day the offer of a prize and a gold medal made to Miss Kadumbini Bose on her recent success, as appears from a letter from the Inspector of Schools, Eastern Circle, to the Director of Public Instruction, dated the 18th February, which has just been handed to me:—

"I have the honour to inform you that Kumar Rajendra Narain Roy, the son of the late Kali Narain Roy of Joydebpore, is desirous of presenting through you two prizes to Miss Kadumbini Bose, the young lady who passed the Entrance examination with so much credit, namely, one prize of books to the value of Rs. 50, and another prize of a gold medal of the value of Rs. 50. I have already assured the Kumar that his liberality is certain to be very highly appreciated by you, and awaiting your further instruction on the subject." (Applause.) Ladies and Gentlemen, I sincerely regret that Lady Lytton, whose presence here to-day would, I venture to believe, have been no less welcome to you all than it would, I know, have been pleasant to herself, has been unavoidably prevented from distributing the prizes to the young ladies here who have so deservedly received them. I am glad, however, to have been allowed to depute for this purpose two young ladies of my own—two little daughters of mine (cheers), who have, I am sure, endeavoured to perform to the best of their ability that pleasant and honourable duty, and on whose behalf it is the fondest wish of my heart that they may grow up to resemble their mother in the performance of every duty and the possession of every grace which gives beneficence to the influence of woman on the life of man.

METHODS OF TEACHING READING.

THE School Board of London has issued the following valuable Report on Methods of Teaching Reading, to the teachers of each of the schools under the Board. It has been prepared by the School Management Committee, who have been nearly a year engaged in making the necessary enquiries and collecting evidence, and was laid before the Board at its last meeting before the Easter vacation.

As a preliminary step to making suggestions for the improvement of the methods of teaching reading, the sub-committee appointed for the purpose of instituting inquiries on the subject, thought it is expedient to ascertain from teachers who had distinguished themselves by their success in teaching reading, what were the methods which they respectively employed.

We found that, though there are some three or four methods of teaching reading recognised as distinct in formal treatises on the subject, these so-called methods are mainly differentiated, not by the way in which reading is taught, but by the way in which the alphabet is taught, and that none of the teachers whom we examined used any of them exclusively.

It may, nevertheless, tend to clearness if the leading characteristics of these methods are briefly indicated.

The Alphabetic method begins with the letters of the alphabet, and then proceeds to combinations of the letters into syllables and words. Every word is first spelled and then pronounced, the children being left to learn the actual sounds represented by the letters by a process of unconscious induction. As the names of the letters do not, in the majority of cases, correspond with the sounds of the letters, and as many letters represent a variety of sounds, it is clear that the Alphabetic method is false in principle, and must be tedious in operation. It seems to be synthetical, but, in reality, is not, the aggregate of the names of the letters composing a word affording but a slight clue, except in the case of words that are spelled phonetically, to the pronunciation of the word. It is urged in favour of this method that by it children are taught to spell as well as to read; but experience seems to show that spelling, so far as it is not phonetic, is learnt by the repetition of the visual impressions made by words as wholes, rather than by remembering the separate letters of which the words are composed.

The Phonic method begins, not with the names of the letters, but with their actual powers, and then advances from the true sounds of the letters of which a word is composed to the pronunciation of the whole word. It is genuinely synthetic method, but requires for its complete application an extended alphabet, and a reformed spelling. With our present alphabet the same letter may represent many different sounds; and with our present spelling many letters are silent, and many sounds are represented in a variety of ways. There is no reason, however, why the Phonic method should not be advantageously applied to our written language as it stands. By the use of diacritical marks the existing alphabet may be virtually extended, and by other typographical expedients the silent letters may be easily indicated. This method was successfully employed by the late Mr. Robinson, a teacher at Wakefield, and was admirably exemplified before us by Mrs. Harper, who employs it in a large school under the Leeds School Board. It has the great method of cultivating the habit of distinct articulation, and of imparting to the ear accuracy and delicacy in the discrimination of sounds.

The Look-and-say method is analytic, beginning with a word as a whole and then proceeding to decompose it. The children first learn to identify and pronounce words at sight, and then, by analysis and comparison, master the powers of the letters composing them.

It is obvious that these methods may be used in combination, and, on inquiry, we found that they are so used. Teachers who use the Alphabetic method endeavour to directly teach the powers of the letters as well as their names; those who use the Phonic method are compelled to teach large numbers of words by the Look-and-say method; and those who teach words as wholes decomposed the words into their phonic elements in order to teach the powers of single letters, so as to enable children to read words they have not seen.

The method of teaching the alphabet that seems to be most successful is as follows:—

1. The forms of the letters are taught, i.e., children are taught to identify them. This is done by requiring the children to observe how the letters are formed, to "match" the letters, to form them out of suitable pieces of wood or paper prepared for the purpose, and to produce them on the black-board.

2. The names are associated with the forms for purpose of reference not to be used in spelling words on the "alphabet" plan.

With regard to this stage we would suggest:—

1. That for some time the children should be confined to one alphabet, either capital or small letters, print or script, the introduction of two or three only serving to multiply difficulties.

2. That the letters should be classified in the order of the simplicity of their outline.

3. That advantage should be taken of the laws of association to connect the forms of the letters with the common objects which they resemble, even a remote resemblance being often quite enough to satisfy the active imagination of children, and to powerfully assist the memory.

4. That, from the beginning, the children should be required to reproduce the letters in simple outline.

5. That teachers should take special pains to secure distinct articulation, purity of pronunciation, and a good style of reading from the outset. Much labour would be saved in the upper departments of a school if more pains were taken to prevent the formation of bad habits in these respects in the lower.

The usual method of teaching to read followed by our teachers is as follows:—

1. The teacher reads a paragraph by himself.
2. The children read it simultaneously.
3. They are then called upon to read it individually.

It is clear that, if the class be large (and many of our classes contain from sixty to seventy children), the children often get little or no practice in independent reading. We would strongly recommend, therefore, that in the first three standards the reading classes should not contain more than thirty children. In proportion as children get over the mechanical difficulties of reading, and become capable of reading with pleasure to themselves, the size of the class may be increased. But in the earlier stages abundant individual practice is indispensable to rapid progress. The children in these stages have to acquire the power of recognising with the eye words familiar to the ear, and to pronounce words strange both to eye and ear. The former can only be acquired by the frequent repetition of impressions on the visual memory; the latter by constant practice in decomposing words into their syllables and elementary sounds, and then reconstructing the words from their elements.

In the upper stages of reading the most common defect is lack of intelligence. This is a defect which, of course, cannot be corrected by any special method of teaching reading. The intelligence of a school will depend on the character of its teaching as a whole. Whatever exercises the mental powers of the children, whatever enlarges their knowledge, whatever extends their vocabulary, will, at the same time, contribute to the improvement of their reading. While, however, we recommend a fair proportion of reading lessons which are intended to convey information, we are of opinion that it is highly undesirable in the lower standards to attempt to teach, through the reading lesson, subjects that severely tax the attention. The difficulties presented by reading itself are quite enough for the teacher to cope with, without going out of his way to encounter extraneous difficulties. The first object of teachers should be to get children to take an interest in reading, and this can only be done by making reading a source of pleasure to them. The attractions of the subject-matter should be heightened to the greatest possible extent; the mechanical difficulties stand in the way of enjoyment should be reduced to a minimum. When reading has become, by constant practice, a comparatively speaking unconscious process, then the reading lesson may be used for other purposes.

One of the greatest difficulties which elementary teachers have to encounter in the higher stages of teaching reading arises from the limited vocabulary of the children. The language which children of the poorer classes speak and the language they read are two different tongues. The difficulty of learning to read is consequently doubled. The words which the children have to read are new to the ear as well as to the eye, and call up no ideas in their mind. It seems highly desirable, therefore, to extend

the vocabulary of the children by every means in the teacher's power. In every lesson, no matter what the subject is, each new word should be carefully explained, written on the black-board, and used in new combinations. Definitions are of less value than actual examples of the mode in which a word is employed. This is, of course, the natural method by which we learn words. Columns of disconnected words with dictionary equivalents set over against them are of little use to children. The words must be set before them in their living organic relations with the other words of a sentence.

We would strongly recommend the systematic learning and reciting of poetry as a valuable means of cultivating the imagination, rendering the ear sensitive to rhythmic constructions, improving the delivery, and extending the vocabulary. The amount of poetry required to be learnt by the Code is utterly inadequate for the object we have in view. It is, perhaps, needless to remark that the poetry should be learnt from the book, and not by parrot-like vocal repetition. Reading is primarily a visual exercise, and no opportunity should be lost for familiarising children with the look of the printed words.

Purity of pronunciation and distinctness of articulation should be carefully cultivated at all times in school; but they are so essential to good reading that we would recommend short exercises, preliminary to the reading lesson, for their special cultivation. Teachers should strive to eradicate the common London blunders of substituting *oi* for *i*, *ae* for *a*, *i* for *e*, adding *k* to final *ng*, the omission of the aspirate where it should be sounded, and the insertion of it where it has no proper place. Great pains should also be taken to prevent the blurring of the vowels in the unaccented syllables of words. The difficulties of our spelling are greatly increased by the mispronunciation even of those few words which are phonetically represented. If children are allowed to say *sardige* for *savage*, *noise* for *noise*, *winder* for *window*, *singin'* for *singing*, *caand* for *canoe*, *element* for *element*, and *piat* for *point*, it is not surprising that they misspell these words when they come to write them.

The time devoted to the teaching of reading varies very considerably in different schools. Bearing in mind the vast importance of getting over the mechanical difficulties of reading as soon as possible, so as to enable children to read with pleasure to themselves, and to employ this acquired power as an instrument for the acquisition of knowledge, and the cultivation of their higher faculties, we would strongly urge that more time should, as a rule, be devoted to reading in the infants' schools and in the lower standards.

We are also of opinion that the reading in schools would be vastly improved if more time was spent by the pupil teachers in acquiring the art of reading aloud. It is not surprising that the style of reading adopted by the children is vicious, when the example set them by their teachers is not good. Whatever pains the head teachers take to improve the reading of the pupil teachers will bear abundant fruit in the improved reading of the children.

Thus far we have confined ourselves to improvements in the methods which are already at work. We do not think it desirable to introduce any uniform method to supplant them, or to hamper our teachers in any way in teaching subjects for which they are personally responsible. Whatever names may be invented for designating methods of teaching reading, it is clear that ultimately these methods must rest on the same fundamental laws of the human mind. Their only real difference will be the extent to which they utilise these laws or violate them. Of far more importance than the method is the intelligence of the teacher who employs it.

There is one way, however, in which it is conceivable that learning to read might be greatly facilitated, viz., by diminishing the number of difficulties that have to be overcome.

We have already pointed out that in the Phonic method, as taught by the late Mr. Robinson, the difficulties which spring out of our defective alphabet are, to a great extent, avoided in the earlier stages of teaching reading by the employment of typographical expedients. It also tends to remove vulgarisms and provincialisms by exhibiting to the eye the correct pronunciation of each word. This method is so reasonable, and has proved so successful, that we think it ought to be tried as an experiment in some of the schools of the Board. It would not require any alteration in our accepted spelling, and the diacritical marks which it employs could be dispensed with, once the children had got over the chief mechanical difficulties of reading.

We are also of opinion that the method of teaching reading on the phonetic system should be tried in one of our schools. By this method the difficulties to be overcome are still further diminished. The words are spelled as they are pronounced; no letters have more than one sound; every sound has a separate letter; digraphs and trigraphs are dispensed with; and all silent letters are struck out. This method has been tried with considerable success by Dr. John W. Martin in Ireland. It is stated that when children can read books in which the phonetic spelling is employed they readily learn to read books in the ordinary spelling; and that they pick up the ordinary spelling with equal readiness. We can well believe that the ripened intelligence of children who had learnt to read words phonetically spelled would very rapidly enable them to read words in the ordinary spelling; but we are not so entirely satisfied that they would quickly forget the spelling to which they had accustomed, and acquire a capricious spelling that was perfectly new to them. This is a point however, which can only be determined by experience; and we strongly urge, therefore, that the experiment should be fairly tried in one or more of the Board's schools.

It will be observed that we express no opinion on the expediency of rendering our spelling uniformly phonetic, that being a question with which we have not to deal. We simply recommend that the experiment should be tried of teaching children to read words spelled in the ordinary way by first teaching them to read words spelled phonetically.

A third endeavour, in the same direction, has been made in America by Dr. E. Leigh, whose reading books retain the ordinary spelling, but are so printed as to indicate the pronunciation of the words. He has extended the alphabet by slight modifications of the forms of the present alphabetic characters, and prints the silent letters in hair-type. The chief recommendation of these books is that the spelling of the words is not altered, and the new letters so closely resemble the old, that a person who is entirely strange to the type finds no difficulty in reading it. In spite of some inconsistencies in the employment of the modified characters which Mr. Leigh has devised, we would recommend the adoption of his books in one or more of our infants' schools as an experiment.

Mr. A. Sonnenschien, in conjunction with Professor Meiklejohn, has devised a method of teaching reading which we think well worthy of trial in one or more of our schools. It may be called a syllabic method, as distinguished from literal or verbal methods. One obvious merit in it is the gradual way in which the difficulties of reading are introduced.

As the success of these experiments will largely depend on the enthusiasm and energy of the teachers who try them, we would suggest that the conduct of them should be assigned to teachers who, of their own free will, are willing to undertake them.

We cannot conclude this report without expressing our thanks for the very valuable assistance we received in our inquiries from the teachers of the Board whom we consulted, from A. Sonnenschien, Esq., J. Mackenzie, Esq. (Her Majesty's inspector's assistant for the Finsbury division), Dr.

John W. Martin, Mrs. Harper (head mistress of the Woodhouse Board School Leeds), and G. Christian Mast, Esq. We have also to express our obligations to Dr. Edwin Leigh, of America, for various books and papers, conveyed to us through Sir Charles Reed, on his system of "Pronouncing Orthography."

"TAKING PLACES."

By Ascott R. Hope.

(Concluded from page 191).

No one denies that taking places has the effect of keeping the boys much more alive to their work. In the case of masters who sit sleepily at a desk and pass down questions in regular succession in such manner that the boys can make a fair guess as to what part of the lesson they will be called upon to say, and can give themselves up, when their turn is not near, to pleasant vacancy of mind or ingenious annoyances inflicted upon their neighbours,—in the case of such men the plan they adopt does not make such difference. But a man who himself is lively, who understands when, how, where, and what to ask his boys,—whose questions will come now slowly and deliberately, now rattling like a shower of bullets, apparently shot at random, but in reality going straight to a mark, cannot fail to inspire the class with some of his own liveliness, and especially if he makes use of the plan of changing places. Boys hate droning and sitting still; whatever they are, they are not barrel-organs. This phase of human nature is not natural, but manufactured by long and careful processes of education. Boys will not listen to a lecture, but they love the excitement of being on the *qui vive* for a question by which they may gain or lose places. Let them have this excitement to counteract the deadening effects of mental exertion. Are we never to hear the end of the old theory that education is best conducted under the influence of soporifics? How I have pitied a class of healthy boys who were "sitting under" a grave and reverend seignior, looking so quiet, and good, and stupid. My own master—may the Muses bless him for it!—was not an Orbilius of this type. He not only had a great deal of changing places, but was not averse to a subdued dance of triumph upon such occasions, and thus and in similar ways allowed a great deal of steam to escape which might otherwise have generated less harmless explosions. I am sure that he was wise, and yet there were certain critics who shook their heads over his teaching performances, because in them he was a long way from presenting the idea of a spectacled owl gravely grinding classical music out of a barrel-organ.

I only know one respectable objection to taking places, and that is the supposed unfairness of the marks obtained in this manner. Every schoolmaster knows that there is a chance that a boy's place at the end of a lesson may not always represent the value of his work upon it! but too much is made of this chance. If you mark at the end of every lesson—not at the end of the day, as is the practice in some schools—you will get results which on the whole will be as fair as you can expect. Marking for answers has also an element of unfairness. The judgment of the master is here supposed to be called in to redress any possible injustice; but if I were a boy I think I would rather trust to the veriest chance than to the

judgment of some masters, especially when this judgment, or want of judgment, has to be exercised on the spur of the moment. It is not easy to prevent a boy who has answered right from going above a boy who has answered wrong; it is very easy to make a mistake in determining degrees of rightness and wrongness. When an answer which was quite right was given in a slow, hesitating manner we should be apt to be disgusted and to mark it at a low value, while we might be more favourably disposed than we ought towards a smart confidence which was almost wrong. For I must hold by the modern heresy that even schoolmasters are but men.

It is said that in place-taking forms some masters are found to be unduly favourable to boys who have curly hair, or bright eyes, or winning ways, or some other peculiarity exercising a charm on the magisterial mind, but I believe that this partiality would find a wider scope in the marking book than in the form. The same infatuation, if it may be so called, which might lead a master to think his favourite more deserving than a schoolfellow, would certainly make him think the said favourite more deserving than he really was, and the marks of this lucky youth would be likely to be given on the most liberal scale. Then on the former plan any favouritism which might be shown would be shown in public, whereas on the latter partiality would escape detection, which even in the case of a schoolmaster is a step towards redress. And, at all events, there would be much more room for suspicions of favouritism when the master's judgment and a marking book kept the secret of the value which every boy's work had gained.

Then a timid boy may be thought to be at a disadvantage in a place taking form. He may be disconcerted by the rapidity with which he is required to answer, confused by the bustle around him even, it is whispered, threats may have been used by other boys to keep him from going above them. There are, indeed, schools of which the tone is so bad that some boys are prevented from taking a fair place by the bullying both of boys and masters, but in such schools a great deal more has to be done than the mere change of the system of marking.

The plan of taking places is far more congenial to boys than that of giving marks for answers, both because a certain amount of play is given to their natural love of motion by the former, and because it produces more visible and immediate, and therefore, to the juvenile mind, more satisfactory results. I have said also that it is more suitable for the best style of teaching younger boys, as interfering less with a master's energy and giving more scope for the apparently intuitive tact by which he proves himself the presiding genius of the field of battle, swiftly moving his battalions, adroitly changing his front, keenly picking out the weak points in the enemy's line, and retreating for the moment or returning to the attack again and again, till he has smitten stupidity hip and thigh. I would now point out a way by which taking places may be made of great use in teaching such subjects as Latin Grammar. Even those teachers who approve of this way of arousing emulation do not seem to me often to turn it to the best advantage.

Supposing that your boys have learned *Amo* off by heart, a painful labour from which I am not sanguine that any contrivance will ever be lighted upon to relieve them, you will next be desirous to fix it in

their minds with as few bars and stripes as possible; you will ask them questions here and there to test their mastery of the different tenses, and so forth. By all means go on doing so till you have persuaded them that this verb means something and is not merely a linguistic instrument of torture. Then sit down, hold your tongue as far as possible, and invite your boys to the questioning instead of yourself. Let the bottom boy challenge any one to give him any part of the verb he likes; if the challenged is successful, let him in his turn assail some one above him. You will find that a new interest has been suddenly awakened in the subject. *Amo* has proved himself capable of joining in a game; he is not such a hard fellow after all; there is some fun to be got out of him; so you will see the little brains going to work for the pleasure of puzzling their fellows, curly heads will be rubbed in careful thought, somewhat dirty paws will be eagerly stretched out in sign of knowledge burning to be exhibited. And now avast, ye Boeotian shades! The spell is broken. In all her brightness appears the divine Minerva no longer unwilling.

Having sat as umpire at a game of this sort, till your watchful eye sees that it is no longer kept up with profit, you will arise like a giant refreshed and once more assume the direction of affairs. You should now change the game. Tell the boys that you will ask a question, that you will pause a due space, so that every one may have time to get ready the answer, that you will then name a boy, and that if the boy immediately below can give the answer before him he shall go up. These "first outs" are a source of the greatest possible excitement and interest to boys. If you ask a question in one part of a class the chances are that three-fourths of the boys think that it is no business of theirs and are not particularly concerned in casting about for the answer. But if you ask the question and leave it uncertain who is to answer, and have it understood that when he is named the answer may be taken out of his mouth by the boy immediately below him if he is not sharp, then the whole class will be almost forced to think over the question, and thus you have a result which perhaps not forests of birch rods or piles of impositions could bring about—a boy made to use his faculties. I say the whole class, because I have never met a boy who refused to be stimulated by this plan of examination.

By carefully working this plan, by graduating the difficulty of your questions, by noticing the time which it seems desirable to give for the production of the answer, by being smart yourself, and encouraging the boys to be smart, by keeping up the excitement and at the same time preventing it from running into riot, and by calling presence of mind and common sense to your aid to obviate any abuses which may be apt to attend this kind of teaching, you will find that before long you have brought even the sort of boy who is called stupid to be quite familiar with *Amo* and to recognize any part of it with as much promptitude as he strikes the perch which has taken his bait. Stupid boys! It is our masters who are so stupid.

Of course I would teach in this way only those grammatical forms which a boy must learn before he can do anything else, and the learning of which constitutes perhaps the greatest drudgery of education. As for the stereotyped rules which form the staple of so

many grammar lessons, I would leave them alone for a time. Don't bother yourself and your boys by teaching them rules and names. Don't ask them how to form such and such a tense, but, after once making them learn the tenses, in the same spirit as you have a tooth taken out, ask them what is the English of *regebamus*, and what is the Latin for "we have been ruled," and how many times *regere* occurs in this verb, and so forth. Ask them, too, what is the Latin for "having loved," and how you would translate "a she-donkey may have been loved;" pretend that a right answer is wrong, or a wrong answer right, and see if they will find you out; play tricks on their understanding, amuse them, make them scream with laughter if you can, anything so long as you keep them out of that dull, gorged vacancy of mind which is the Nemesis of young grammarians.

Laugh! Is this not heresy? Have we not arranged that education is a process of the utmost solemnity—that Minerva is a sober if not a sour goddess, and that her disciples must at all times stand in her courts with bowed heads and tearful eyes? They are fools who say that education is a development of nature; we will not develop nature, we will not even accept the assistance of nature in ramming down our boluses of instruction; this nature must not come interfering with our toils, for which it might chance to take the credit. Press it down, put our iron jackets and handcuffs and tight shoes upon it, and then we can in some comfort proceed with our educational manipulation. If some stunted and deformed minds be the result, are there not others which have burst our bonds and grown so tall and strong that we can point to them with pride and boast of the success of our training? Oh, much-enduring brotherhood of dominies, when are we to learn that we can do nothing worth doing in the way of education, if nature be unwilling? If we could but learn to follow nature and not to drag her—by the tail haply—how much easier would be our work! Nay, there are secrets undreamt of in our educational philosophies by which the very recoil of a boyish mind from study might be turned to good account.

I grant you this, that in many, if not in most of the middle-class schools of England, you could not venture upon raising a laugh without danger to the discipline. The power of their masters is such a frail thing that it cannot come in contact with a healthy, able-bodied joke and be unharmed. The only hope of such rulers is the keeping up of a monotonous, stupid quiet in their dominions, for they know that a laugh or a bustle would be the signal of rebellion. It is only where the government is strong that the people can be free. By all means let us have strong rulers, then, for it must be a miserable journey on the path of education, if we are not to be allowed to look at a dandelion by the wayside for fear of stumbling.

Touching on discipline I am reminded of another use to which the plan of changing places may be applied, *viz.*, the dealing with those smaller offences against scholastic police regulations which so much vex the souls of the dominie tribe. For instance, a schoolmaster is constantly obliged to be sending forth *fulminicula* against naughty prattlers who will talk in school in spite of all he can do to command silence and gain attention. Do you wish to be relieved from the labour of disposing of such cases, except in the very rare event of an appeal to your imperial judgment seat; Simply ordain that if any

boy says one single word without the due formality of standing up and addressing himself to you, the boy next below, or, in case of neglect on his part, the next again, shall without any legal sentence or ceremony, further than perhaps a grin or chuckle, go above the offender. If you establish this law there will be little danger to the good humour of any member of the community, and at the same time you will find that before long a boy will give forth illegal utterances in school as rarely as he will allow himself to be stumped out at cricket.

These few hints may, I hope, be as useful to others as I have found them. And now there is only one other thing which I will notice in connection with "taking places."

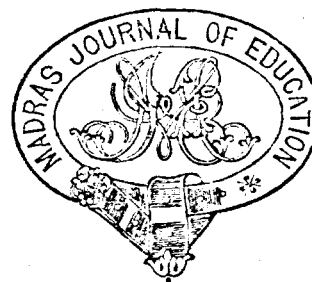
Some have said that this produces jealousy, anger, and quarrels among boys. I have another tale to tell. I could tell of a sturdy little Protestant who, contrary to the opinion of his class and its Pope, gave up his place because he thought that "it wasn't quite fair." I could tell of eager rivals vying to be allowed to renounce their own interests on some nice point of honour. I could tell of friends unwilling to take an advantage of each other which was justly theirs. If we make use of emulation let us take pains that it be honest and noble emulation. In life these boys will afterwards find themselves engaged in a similar contest, where, moreover, the marks are not always to the deserving, nor the high places to the diligent, and it will be well if we can teach them at school to struggle without greed or trickery, or unkindness. Some teachers there are, indeed, who would teach that in the life of boy and man alike the taking of places is to be the chief aim. But let them be anathema maranatha by all good schoolmasters, who will rather be earnest to preach the doctrine that it is possible to gain cartloads of what in this world pass for prizes and honours, and withal to lose what even in this world is of infinitely higher value.—*Quarterly Journal of Education.*

APPOINTMENTS.

Appointments made by the Director of Public Instruction between the 16th April and 15th May 1879.

- Mr. J. P. Lewis, Head Master, Normal School, Calicut, to be Deputy Inspector of Schools, North Coimbatore, *sub pro. tem.*
- C. Mahadeva Sastry, to be Head Master, Normal School, Kurnool.
- R. Ramanuja Charriar, B.A., to be 6th Assistant, Combaconum College, *vice* N. Vaithianatha Iyer.
- S. A. Sundara Iyer, to be 5th Assistant, Combaconum College, *sub pro. tem.*, *vice* N. Baghanatha Charriar.
- R. Siva Rama Iyer, to be 7th Assistant, Combaconum College, *vice* K. Ramanujab Charry.
- V. Shadagopa Charry, B.A., to be 8th Assistant, Combaconum College, *vice* S. A. Sundaram Iyer, until relieved.
- B. Chakaravarthi Iyengar, B.A., to be 8th Assistant, Combaconum College.
- C. P. Gurusawmy Iyer, B.A., to be Head Master, Government Middle School, Trivadi.
- M. Deva Row, B.A., to be 3rd Assistant Master, Bellary College.
- C. R. Dorasawmy Iyer, B.A., to be 5th Master, Cuddalore College, *vice* Gurusawmy Iyer.
- M. Veukiah, to be Deputy Inspector of Schools, Canbium, and G. Lakshminarayana, to be Deputy Inspector of Schools, Kurnool.

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THE MONTH.

IN the Examination papers of the Bombay University, the number of marks assigned to a correct answer of each question is placed opposite the question. This guides the candidate in his selection and keeps him from spending too much time on a question to which the Examiner attaches comparatively little importance. It is also some guarantee that each answer will be examined and carefully weighed by itself, and that the examiner will not make a vague guess as to the worth of the entire paper after cursorily reading it through. We heard the other day of an expeditious mode of examination which we were assured has been practised with success by a Madras Examiner. His plan was to read through the entire paper, and then to dot down 20, 30, or 40, per cent., as the case might be, of the maximum number of marks. This method, while it saved time, was, he contended, sufficiently accurate for all practical purposes. We very much question whether many thinking men possessing a conscience, could be found to endorse his opinion.

WE have the pleasure to call the attention of Teachers to the excellent Tamil and Telugu Atlases just published by the Madras School Book and Vernacular Literature Society. Each Atlas contains 10 Maps *viz* :—

The World, Europe, Asia, Africa, North America, South America, Australia, India, the Madras Presidency, and the British Isles.

The price is only 12 annas for each atlas.

A COMMISSION, consisting of Messrs. Winter, C. M. Smith, Strachan, Wilson, Cook and Evans, has been appointed by the Syndicate to report on the curriculum for science students in the University course from Matriculation to the Degree Examinations.

In a speech delivered at the annual meeting in Calcutta of the Scottish Ladies' Association, Sir Alexander Arbuthnot, who presided, thus contrasted the progress of female education in Bengal and in Madras :

"I find that in this vast province of Bengal, out of a population of 66 millions of people, while the number of pupils under instruction amounted to 641,400, out of that number only 21,587 were girls. The state of things in this respect is a little less unfavourable in my old Presidency of Madras. There I find, that out of a population of 31 millions, while the total number of children under instruction is 281,948, the number of girls taught is 28,151. In Bengal, thus, the proportion of girls to boys is rather less than 4 per cent., while in Madras the proportion is about 10 per cent." Bombay, we may add, lies between Madras and Bengal in this respect, the total number under instruction being 248,000 and the number of girls being 13,000, or rather better than 5 per cent.

On the recommendation of the Government of India, the Secretary of State has sanctioned the grant to Mr. Talboys Wheeler (formerly a Professor in the Madras Presidency College, and the author of the well known History of India), of a superannuation pension of Rs. 3,000 a year, with a bonus of Rs. 18,000 (or one year's salary), in consideration of his being compelled to retire before he is actually liable to superannuation, and of the fact that he has fallen out of employment in consequence of circumstances not altogether within his control.

TAMIL Students for Matriculation will thank us for bringing to their notice a Translation of "The Little Merchants" into good and idiomatic Tamil by Anbil Venkatachariar. This translation should prove the best possible aid to a Tamil youth in mastering the many difficulties of idiom in the English original. The Translation has just been published by the Madras School Book and Vernacular Literature Society.

THE Secretary of State for India, in Council has admitted King's College to the list of institutions in which candidates selected for the Civil Service of India may reside during their probationary period, subject to the authorities undertaking responsibility for the conduct of candidates who may resort to the college, and enforcing rules of discipline upon them during their residence within its precincts.

MR. THOMAS BRASSEY has given £8,750 for the institute about to be opened at Oxford for Indian students studying in England to pass the Indian Civil Service examination. The scheme proposed by Professor Monier Williams is meeting with support, the total subscriptions being £18,500.

AN English contemporary writes as follows of one of the greatest nineteenth century philosophers :—

"Herbert Spencer holds the present greatest name among the philosophers. He is scarcely known in his own country outside the circles of fogies, but abroad he enjoys a wonderful reputation as the leader of all modern thought. He was born nine-and-fifty years ago, the son of a schoolmaster, who strove to culture him with the classics, and to make of him a civil engineer. But young Spencer resisted Greek and Latin, and soon renounced engineering. He was, and knew himself to be, powerful with the pen ; so he became a writer. He learnt to handle a good plain English of the frigid sort. In a casual way he published articles on Government, Education, and other dull subjects, from the time he was one-and-twenty. But when Darwin invented Evolution, Evolution invented Herbert Spencer, who saw how the notion might be applied to psychologic problems. So he now addressed himself to pure philosophy, and began to publish distressing tomes. He fell foul of Comte and of Mill, and plunged about with atoms and monads in such fashion as made all men see that he must have a philosophy of his own. As nobody could well understand him, his reputation waxed mightily. He is now the one recognised authority on ' Sociology ;' he has discovered that ' ultimate scientific ideas are all representatives of realities that cannot be comprehended,' and that the man of science ' knows that in its ultimate essence nothing can be known.' Yet he goes on writing. Mr. Herbert Spencer is believed by many to be a companionable, cheerful man. He has been more than once to a shareholders' meeting to war with

railway directors; he delights also in children; and he holds that suicides should rather be encouraged. Yet he goes on living."

MR. JAMES BRADSHAW, who has been acting as Inspector of Schools in the Northern Districts, and in that capacity has travelled all through the fever-stricken hill districts in Ganjam and Vizagapatam, has now been ordered to return to Madras to join his appointment in connection with the Civil Engineering College. His place in the Northern District has been taken by Mr. Munro, a newly appointed Inspector, just arrived from England, whom Mr. Bradshaw has been initiating in the work of inspection before leaving Vizagapatam. There will be no two opinions, we imagine, that Mr. Bradshaw, who is one of the oldest and most experienced educational officer in the Presidency, has been treated rather shabbily by the Government. He has only to serve another eighteen months to be entitled to his pension, and the Government would only have given his deserts if they had confirmed him in his appointment of Inspector until he was entitled to take his pension.—*Madras Mail*.

MR. ROBERTSON, the head of the Agricultural Department, has prepared an Agricultural Primer. His Grace the Governor in Council has accepted Mr. Robertson's Primer as a suitable text-book for schools in this Presidency, and directed that 1,500 copies be struck off at the Government Press for sale. The primer will be translated into Tamil and Telugu and published simultaneously with the English edition.

THE FEMALE NORMAL SCHOOL:—The following order was passed by the Government on the 18th ultimo on the report of the Female Normal School for 1878-79:—The report on the Female Normal School 1878-79 shows that there were during the year in the "Normal Class" twenty pupils, *viz.*, six East Indians, eight Native Christians, and six caste girls, and in the "Practising School" sixty-six pupils against sixteen and forty-nine, respectively, in 1877-78. For the Teachers' Certificate Examination five students from the Normal Class passed in the First Grade, and one in the Second Grade; from the Practising School five passed the First Grade and three the Second Grade. These are, as remarked by the Director, "credit-able results." The Government approve the suggestion of the Inspector of Schools that ability to read, write, and speak Tamil or Telugu as well as English should be a condition for the grant of a stipendiary scholarship, and that those unable to fulfil the condition should receive free scholarships. The Government also agree with the Inspector of Schools that it is important to keep clearly in view the original object of the school, and not allow it to be obscured by other objects, however desirable they may in themselves be.

The following Resolution with reference to the Higher Education in Christian Schools was adopted at the Conference of Missionaries of South India and Ceylon, held at Bangalore in June 1879:—

THIS Conference desires to express its full appreciation of the value of High Class Christian Education as a Missionary agency, and its hope that the friends of Indian Missions will sympathize with this equally with other branches of Evangelistic work in this country.

The Native Church in India needs at present and will still more need in the future, men of superior education to occupy positions of trust and responsibility as Pastors, Evangelists, and leading members of the Community, such as can only be supplied by our High Class Christian Institutions.

Those Missionaries who are engaged in vernacular work desire especially to bear testimony to the powerful effect in favour of Christianity which these institutions are exercising throughout the country, and to record their high regard for the educational work as a necessary part of the work of the Christian Church in India.

This Conference feels bound to place on record its conviction that these two great branches of Christian work are indispensable complements of one another, and would earnestly hope that they will be so regarded by the Christian Church, and that both will meet with continued and hearty support.

THE thirty-seventh meeting of the Hare Anniversary was held at the rooms of the Indian Association for the Cultivation of Science on Wednesday. Dr. D. B. Smith, Principal of the Medical College, was in the Chair, and Babu Ashutosh Biswas delivered an eloquent address on "David Hare, and his labours in the cause of Indian regeneration." The lecturer said the fact should never be forgotten, that it was not Government which introduced English education into the country, or established the first English colleges and schools, but it was the natives of Bengal themselves, assisted by such high-minded Englishmen as David Hare and Sir Edward Hyde East, who were anxious to place within reach of their countrymen the benefits of Western culture. He suggested the establishment of a pantheon of great men, where should be brought together the relics, in whatever shape they may be, of the great dead of India. France, Italy, Germany, have all their pantheons of great men; India should not be without it. Dr. Smith, the Chairman, expressed his strong approval of the proposal.—*Statesman*.

PROFESSOR Monier Williams, in the *Athenæum* of June 7th, gives an account of a young Indian Pandit, Syamjee Krishnavarma who has just been admitted a member of the Oxford University. Pandit Syamjee Krishnavarma, who is a native of Kutch, is the first real Indian Pandit who has ever visited England, and considering his age (scarcely twenty-three), he is, Mr. Monier Williams says remarkably well versed in grammatical and Vedic literature. The learned Professor of Sanskrit considers the Pandit's advent in England a remarkable sign of the times, as proving that the educated classes of India are beginning to be intolerant of caste prohibitions and are "no longer willing to be cribbed and confined by restrictions which are really of comparatively modern origin, and derive no sanc-

tion from their own sacred works." Upon his return to India Pundit Sramjee intends to go through the usual expiatory ceremonies for re-admission into caste, so that he may "leave by his influence the circle of Society in which he moves."

THE U. C. S. GENERAL TEST EXAMINATION.—The following is a list of the Examiners in the different subjects in the late General Test:—

Examiner.	Language.	Subject.
Rev. C. Cooper, M.A. ...	English ...	Grammar and Composition.
J. T. Margoschis, Esq. ...	Do. ...	
J. B. Bilderbeck, Esq. ...	Do. ...	
Rev. W. Stevenson, M.A. ...	Do. ...	
D. Sinclair, Esq., M.A. ...	Do. ...	Handwriting.
C. Waters, Esq., M.A. ...	Do. ...	
F. S. Evans, Esq., M.A. ...	Do. ...	Spelling.
C. W. Burroughs, Esq., B.A. ...	Do. ...	
C. W. Pearce, Esq. ...	Do. ...	Dictation.
Mr. J. H. Aubert ...	Do. ...	
G. Duncan, Esq. ...	Do. ...	Arithmetic.
Capt. W. H. Coaker, R. E. ...	Do. ...	
J. H. LeFanu, Esq., C.S. ...	Do. ...	History.
Rev. H. Pope ...	Do. ...	
D. Duncan, Esq., M.A. ...	Do. ...	Geography.
W. A. Symonds, Esq. ...	Do. ...	
M.R.Ry. J. M. Velu Pillai ...	Tamil ...	Grammar and Composition.
" C. Rajagopal Pillai ...	Do. ...	Handwriting.
" K. P. Visvanatha Iyer, B.A. and B.L. ...	Do. ...	Spelling & Dictation
" Y. Amirthanayagam Pillai Do. ...	Do. ...	History, Geography, and Arithmetic.
" A. Cachapaishwariah, B.A. Telugu ...	Telugu ...	Grammar & Composition.
" Ramasami Raju, B.A. ...	Do. ...	Do.
" P. Vijarungam Mudali ...	Do. ...	Handwriting
" C. Kaliyanasundra Chettiar Do. ...	Do. ...	Dictation.
" V. Krishnama Chariar ...	Do. ...	Spelling & Arithmetic.
" C. Nagoji Row, B.A. ...	Do. ...	History and Geography.
E. Thompson, Esq., M.A. ...	Malayalam ...	All subjects.
G. D. Maclean, Esq., C.S. ...	Canarese ...	Do.
Major C. D. Baynes ...	Hindustani ...	Do.
W. de N. Ramus, Esq. ...	Uriya ...	Do.

Although the number of candidates examined this year exceeded that of the previous year by 289, only one more passed, the number being 568 against 567. This is attributed to a report having got abroad, that the General Test Examination of 1879, was to be the last of the kind, and therefore a number of persons who would otherwise have probably deferred their appearance presented themselves for examination. The disproportion of the number of candidates who pass to the number of those who present themselves for examination has received attention, and the suggestion of Govern-

ment that, in view to deterring those who had no chance of passing from putting in an appearance, the fees should be raised was considered by the Commissioner in consultation with the Director of Public Instruction; but, as reported to Government, they came to the conclusion that, while such a measure might press hardly upon the candidates qualified to pass but of limited means, it would have but an inappreciable effect in deterring others from presenting themselves. The General Test being as it were the entrance gate to Government employment will always be thronged. Proposals which if adopted may have the effect of superseding this examination are, about to be submitted to Government by the Director of Public Instruction.

Under G.O., 3rd December 1875, Educational Department, No. 402, 649 Matriculated Candidates applied to be examined in Writing and Spelling, and 591 appeared; of these, only 284 passed.

For the General Test, out of 4,793 candidates registered, 4,487 were examined, but only 568, or about an eighth of the number examined, passed, viz., in the Anglo-Vernacular branch 112. English 284, and Vernacular 172. Of the passed candidates 18 were Europeans and East Indians, 16 Mahomedans, and 534 Hindus. The Government Schools receive credit for 178, schools receiving grants-in-aid 207, other schools 65, and private tuition 118.

Sixteen candidates presented themselves for examination for the Modified General Test; four passed and two failed only in one subject.

Six hundred and forty-nine Matriculated Candidates applied to be examined in Writing and Spelling; 591 presented themselves, 284, or less than half, passed. The attention of the Director of Public Instruction has, it is observed, been called to this unsatisfactory result in G. O., dated 17th July 1878, No. 340.

The receipts from fees realized amounted to Rupees 51,339 against Rupees 49,315 in 1877-78; the charges to Rupees 47,364 against Rupees 41,459 in 1877-78. Deducting charges from receipts during 1878-79, there was a balance to credit of Rupees 3,975 against Rupees 7,856 in 1877-78.

The Government cannot consider these results satisfactory; they show a great waste of power in examining wholly unfit candidates, and a waste of money on the part of candidates who offer themselves and pay the fees when they are entirely without chance of passing. The Government observe that the Director of Public Instruction is about to submit recommendations affecting this matter to the consideration of Government which will be awaited.

THE SCHOOL OF ARTS.—The report on the School of Arts for 1878-79 submitted by the Officiating Superintendent shows that there were in the *Artistic Branch* eighty-three students at the beginning of the year. The number rose in January 1879 to ninety-six, but fell again in March of that year to eighty-six. Twelve students passed in free-hand drawing, and were entitled to Rs. 10 a month as apprentices. Of these one died, one is a gentleman going through the course, one does not attend in the afternoon, two have been dismissed, and there remain only seven on the roll of apprentices. In the *Girl's Branch* eight passed in free-hand, but two only

entered as apprentices. The Superintendent considers that "generally speaking" the Artistic Branch has been a success. In the *Manufacturing Department*; it is stated that care has been taken not to compete with local industries. But little progress has been made in *Pottery*, and, although excellent ware has been made, the firings were complete failures. The stain glass painting has been entirely successful. The accounts of the institution show that the receipts, excluding the permanent advance, amounted to Rs 34,755, of which Rs 3,600 were contributed by Government, and the remainder, Rs 31,155, realized by the work done by the institution. The balance on 1st March 1878 was Rs 1,222, but the abstract given in the report does not clearly show whether or not the amount has been taken to account in the sum of Rs 23,492. The charges, including liabilities, amounted to Rs 32,371 against Rs 25,898 in the preceding year 1877-78, and were thus less than the receipts by Rs 2,384. The institution may, therefore, be regarded as nearly self-supporting. The Director of Public Instruction will be furnished with copy of the Proceedings of Government, dated the 27th February 1879, from which he will see that the Honourable W. Huddleston took Sir W. Robinson's place as President, Executive Committee of Management for the School of Arts. The Superintendent, Mr. Chisholm writes as follows:—

"In the Girls' Branch upwards of eight have passed in free-hand; two only of them have entered as apprentices. In the examinations I was obliged to adopt a lower standard for the girls with the view of encouraging them. As there are so many subjects to be taken up, this want of accuracy will be covered in future examinations.

Generally speaking, the Artistic Branch of the institution has been a success. As yet the boys do not see an outlet for their attainments when they possess them; nevertheless they persevere with much faith. The progress which one or two of the more advanced pupils have made shows clearly that they are not in any way behind the general run of youths in England, and completely refutes the idea that natives are incapable of appreciating the "round." Two very creditable paintings from still-life obtained "honourable mention" at the Fine Arts Exhibition.

I have been careful not to compete with local industries, and have merely undertaken work with probably the same labour employed inside the institution as would have been employed outside. I demand a higher finish and more accuracy. The department proper for this institution is *Pottery*, and it is in this branch that I have to report the least progress. We have succeeded in making the most excellent ware with a true porcelaneous glaze, but the firings are complete failures. I purpose shortly reporting specially on this subject and advising some definite course. The stain-glass painting has been perfectly successful, but as yet I have received no orders for work.

No house of moderate dimensions erected in England during the past ten or fifteen years is without its painted glass, but in this country, so long as people are satisfied with their surroundings, dead white walls, and verdigris doors, I see little opening for this kind of art, although peculiarly adapted to the climate."

THE MISSIONARY CONFERENCE ON EDUCATION.

ONE of the most important subjects discussed by the South Indian Missionary Conference at Bangalore was Education.

The following were the questions put down for consideration on the 3rd day of the Conference:—

Middle and lower class education.—What improvements may be made in schools of this class? The Government Grant-in-aid Rules: effects of recent modification; what action, if any desirable?

Rev. T. F. Barley of Negapatam, believed that the Conference was fully impressed with the importance of higher education; if not, it would be a very deplorable circumstance indeed, because, after youths had been tended in the lower classes, and their minds prepared to receive higher education, should they be unable to obtain the latter in Mission Schools, why, they would go elsewhere, where they would be exposed to evil influences. The missionaries should not stay their hands in the matter of higher education. To abandon higher education, was like striking off the head of the missionary educational work. On the subject of middle-class education Mr. Barley thought that middle class schools should be associated with certain schools of the higher class, so that pupils in the middle class schools would know definitely in what institution they are expected to finish their education. It was important that the minds of the pupils should be quite easy on this point, or they were likely to be troubled with apprehensions as to the future prospect of prosecuting their studies to a completion. The higher schools may be situated at a distance, and pupils in the middle schools might shrink from the expense of living away from home. But he proposed to meet this difficulty by the founding of scholarships. It was not, however, of middle class schools Mr. Barley would speak in particular. He wished to confine his remarks more especially to the lower schools, and would be guided by his own local experience. Referring to the result-grant system of Government, he said that too much was demanded for the money granted, and in support of this he quoted figures. There were some, he believed, who said that money might be made by the schools by the present system, but his own experience was very different. There was always on the contrary a loss. The rules required entire remodelling. Mr. Barley went on to speak deprecatingly of the decided favoritism shown by Government Inspectors to Government and other purely secular schools, and he quoted certain striking instances in his own experience. In those schools the knowledge of God was taught, but then, Government was strictly neutral, and the Inspectors should be impartial. In the face of these discouragements, what was to be done—slink off from the field? Give up, and leave the education of the young to heathen and secular influences, when their minds were just prepared to receive the truth! No! He was for facing the difficulties boldly. To make lower-class schools thoroughly effective, Mr. Barley said that care must be taken to secure the services of suitable teachers. They need not be scholastic; it would be sufficient if they were intelligent, and had good teaching parts. A few years ago suitable teachers were very scarce, but now there were a large number to choose from. Mr. Barley did not approve of matriculates; they were too apathetic for lower-class teaching, as a rule, and were always on the look out

for Government employment. He approved of young men who had got up to the 5th class or so. The teacher should have some influence in his neighbourhood. As to the head master, he need not necessarily be a Christian. If one could be got, so much the better, but if not, it was preferable to have a competent heathen teacher, rather than an incompetent Christian. If Missions depended upon Christian teachers alone, they would have to abandon the work. He congratulated the Ceylon Missionaries on the facility they had for procuring Christian teachers, but there was no such facility in India. Native Christian teachers had no influence over caste-people, were wanting in back-bone, and were, in too many cases, ashamed of their Christianity when among Hindus. He had no doubt that the day would one day come when there would be sufficient intelligent Christian teachers. God forbid that the speaker should recommend that heathen teachers be allowed to take the Bible lesson. That he would have done only by Christians.

A paper by the Rev. R. T. Dowbiggin of Ceylon, on the same subject was then read by the Rev. A. H. Lash. Mr. Dowbiggin confined his remarks to lower-class schools, as his experience had been almost exclusively restricted to them. Considering the question of lower-class education as a mission agency, Mr. Dowbiggin remarked that in his own district in Ceylon there was a strong desire among the people for education, nor did they object to religious teaching in the schools. Wherever objections *did* exist they were due to the influence of Europeans that love not the truth and to the teaching of Buddhist priests. All the masters and mistresses employed in Mr. Dowbiggin's schools were Christians; there was not a single heathen teacher, and he was of opinion that this rule should be followed in all mission schools. He went on to say that care should be taken that scripture lessons were not sacrificed to grant-in-aid subjects. It struck him that scripture teaching in mission schools sometimes partook of too theoretical a nature when it ought to be more practical, and he would recommend the use of catechisms. A child may learn a doctrine by heart, and yet be unable to apply it? The grant-in-aid rules worked well in Ceylon. Grants were made by Government to the schools for ascertained results, and this was perfectly fair. There was no interference with the mission schools by Government in the working of that scheme, and no silencing of conscience. It was necessary, of course, that the Government Inspector should visit the schools to ascertain results. Mr. Dowbiggin testified that the scheme was a liberal one, worked favourably and smoothly, and afforded room for extended usefulness. He said that whereas the C. M. S. allowance for education in his district was Rs. 1,500 per annum, that obtained from the grant-in-aid was Rs. 4,000. In Ceylon, Mr. Dowbiggin thought that History might be introduced in place of Vernacular grammar. The Singalese Grammar was written in an antiquated style, more suitable to the pundits than the people at large. It was something like what Chaucer's style would be to English-speaking people of the present day. In higher studies he would introduce land-surveying by the chain, which would be useful and profitable to the pupils, owing to the constant disputes arising on land questions. Map-drawing had been found valuable, as some pupils from Mr. Dowbiggin's schools had found employment in the Surveyor-General's office at Colombo. Singing should be taught

as a civilising influence. Lithographic models for copy-writing in schools were indispensable, or otherwise the pupils would be at the mercy of the specimen scrawl of every new teacher. He also approved of vernacular maps.

Discussion on the two papers followed.

A question was asked as to the difference between the educational circumstances of India and of Ceylon, what disadvantages India laboured under, and what were the advantages of Ceylon.

Mr. Lash said that there were a larger number of Christian teachers in Ceylon than in India. The Tinnevely Mission supplied a greater number of these; so one would be inclined to think that India was better off after all, though it was not.

Mr. Winston from Ceylon remarked that Tinnevely only supplied the Cooly Mission of Ceylon. No difficulty was experienced in procuring Christian teachers in Ceylon.

Bishop Sargent, with reference to the employment of heathen teachers, quoted Luther's principle, that if we can't plough with horses, we must plough with asses. In Mr. Rhenius' time in Tinnevely, heathen masters were employed, as Christian men were not available. The heathen teachers gave their word to Mr. Rhenius that they would not teach heathen doctrines. When the missionaries visited the schools, they would examine them in a spot before the temple in the town; a crowd would gather, and opportunity would be availed of to teach to them. At the present day the employment of heathen teachers in Tinnevely was no more a necessity, and the whole staff, with one exception, were Christians. That exception was employed as a whipper-in, to draw caste-boys into the schools.

Mr. Miller said that in Ceylon and Tinnevely, Christianity had taken root, there was a large percentage of Christians, and no lack of teachers. In Ceylon it was possible now to get caste children into not only day, but boarding schools as well. In India you may as well expect Brahmin youths to come to be baptized as to enter mission boarding schools. The plans and measures of the Missionaries must be regulated by the moral and spiritual public feeling of the people amongst whom they laboured. It was absurd to argue that a plan which may be useful and practicable in one place would be the same in another. As to the employment of incompetent Christian teachers in preference to competent heathens he held that there was the danger on one hand of being satisfied with an imperfect state of things and on the other of despising the day of small things. If only Christian teachers were to be employed in Mission schools, all other mission work must be abandoned, as it would take every Christian worker off the field to supply the schools.

A German Missionary gave an instance in which the teaching of an educated heathen master in a Mission school was the means of the conversion of a Hindu youth. He was afraid that the Missionaries, by being too careful, had fallen into the ditch.

Dr. Chester said it was a pity Mr. Joss's paper on middle and lower class education had not been read, as it dwelt upon the present very unsatisfactory working of the result system, and suggested alterations and modifications of the rules which should be submitted by the Conference to Government for consideration. In Dr. Chester's own experience the result system was a losing game to

the Missions, and the standard was too severe for elementary education.

The Rev. W. Stevenson, explained that Mr. Joss's paper, being very long, had been referred to a committee, who would report on it to the Conference.

Mr. Joss explained, at some length, the very unsatisfactory working of the grant-in-aid rules, and alluded somewhat bitterly to the unfair proceedings of the Government Inspectors, in expecting pupils to be familiar with subjects not prescribed by the grant-in-aid rules.

Bishop Sargent remarked that the Government appeared to be changing their front. When they first introduced education into the country, they said they would educate the masses. Now they confine themselves to the higher classes, and think that education will permeate from those to the lower classes. But the fact was that the higher classes in India were strictly conservative, and were greatly opposed to educating the lower, whom it was the duty of the missions therefore to provide for.

Mr. Rae dwelt upon the evil, which obtained amongst some Christian preachers, of attacking Hinduism violently, instead of laying the simple truth before the hearers.

Mr. Alexander of Ellore, took up the cudgels in defence of Inspectors, who, in his district, were extremely kind, courteous, and considerate.

Mr. Fryar inveighed against Deputy Inspectors and their unfair dealing. He touched also upon the circumstance that whenever a change in grant-in-aid rules took place in Madras, the change was not communicated to the missions interested. He was of opinion that a continuous committee of missionaries should be appointed in Madras to watch the interests of missionaries in this and those respects.

The Secretary said that Mr. Fryar's suggestion was a valuable one, and would be considered with others of an educational nature, at a special meeting on Tuesday evening.

One speaker said it was a mistake to suppose, as was stated in the first paper read, that the belief in a Supreme Being was not taught in Government schools, as the school-books issued by the Director of Public Instruction did inculcate such belief.—*Madras Times*.

METAPHOR AND DERIVATION.

EXAMINING a very intelligent class lately, who were reading the "Merchant of Venice," I found nineteen out of twenty completely at a loss to explain the phrase "slips of prolixity." The nearest rendering that occurred to them was *exaggeration*. By analysing *prolixity*, the meaning of *prolix* was exhibited, and its association with *laxus* pointed out. There was then no difficulty in shewing that *slips*=mistakes; and they saw a similar formation in *leap* from *labour*. Most members of the class were also perplexed by a passage that occurs just before this: "If my gossip Report be an honest woman of her word, &c." It is left unexplained in the "Clarendon Press" edition, and no attempt had been made on the part of any of the class to make it out for themselves. A reference to the etymology of *gossip* soon set the matter right. (1) *gossip*=

god-sib=one *sib* or akin in God; one having a spiritual relationship, as a God-father or God-mother; (2) a familiar friend; (3) a woman's bosom friend; so used by Chaucer, and by writers after Shakespeare's times, &c. The *metaphor* employed was also alluded to.

In this passage several linguistic principles were involved, independently of the phonetic history of *gossip*. In the transition from the meaning of *sponsor* to that of familiar friend, we have an instance of *generalization* or extension of meaning; in limiting it to a woman, we have *specialization* or restriction of meaning; its modern use illustrates *deterioration* of meaning; and lastly, there is the employment of metaphorical or figurative language. Each of these linguistic principles might be illustrated more at large, if necessary, by the change of meaning in other words. We see deterioration in words like *cunning*, *craft*, *fellow*, *knave*, *officious*, *sly*, &c. Occasionally we have the very reverse of this process, as in those terms that have acquired a slightly improved meaning, as in *foul*, and *minister*, *nice*, *shrewd*, *knave*. (The German *knecht*, however, has deteriorated). The restriction of meaning is seen in words like "conceit," a taking-up mentally, hence an idea, conception, and lastly a vain thought or imagination, hence vanity. This principle has been at work in *acre*, *farlong*, *planet*, *month*, *journal*, *bishop*, *priest*, *carpenter*, *smith*, *vision*, *speculation*, and many others. "The idea of *rolling*, is specialized into the muster *roll*, the breakfast *roll*, the *roll* of the drum, and *rolls* of fat; by a longer route it comes to us in the form of the actor's *role*, and a slight addition makes of it *control*"* (= *counter-roll* = O.F. *contre-rôle*, "a duplicate register used to verify the official or first *roll*." *Rôle* carries us back to *rotulus*, from *rota*, a wheel).

The generalization or extension of meaning is the reverse process of that we have just mentioned, and very different in its effects, enlarging instead of contracting the sphere of a word's meaning, often apparently quite independently of its original signification. This process is to be traced in class-names and technical terms, as *book*, *paper*, *copper*, *gazette*, *bank*, *bankrupt*, *legion*, *pomp*, *privilege*, &c. Occasionally, however, we find instances of common words receiving a technical application, as *sight* in the following passage: "Soldiers, while at musketry practice, blacked their *sights* by setting fire to a piece of camphor and holding them in the flame." *Shunt* is now only a technical word—it was not so in the 14th century. It is not likely to remain such, for there is a tendency to use it in the general sense of "to put aside," "to put off."

Connected with this generalization are figurative transfers, so general in all languages, even in the most familiar terms. This principle has a truly creative power, and adds largely to the vocabulary of a language. Thus, a dog has several qualities; it can trace or track out; it is sometimes sullen, hence we can make a mental transfer and talk of "to dog" (and "to hound down,") dogged doggedness. We notice one of its physical peculiarities in *dog-sleared*. How vigorously does Shakespeare employ this very meta-

* Whitney.

phor, along with others, in the following passage (King John IV., 3, ll. 145-150):—

"England now is left
To tur and scramble, and to part by the teeth
The unowed interest of proud-swelling state.
Now for the bare-picked bone of majesty
Doth dogged war bristle his angry crest,
And snarleth in the gentle eyes of peace."

Again, "Since fruit is apt to be green when not fully ripe, green becomes a synonym of *unripe* (and so we can commit the familiar linguistic paradox—that blackberries are red when they are green); and then, in less elegant diction, it is again shifted to signify immature, not versed in the ways of the world. . . . Our minds delight in the discovery of resemblances, near and remote, obvious and obscure, and are always ready to make them the foundation of an association that involves the addition of a new use to an old name. Thus, not only an animal has a *head*, but also a pin and a cabbage. A bed has one, where the *head* of its occupant usually lies, and it has a *foot* for the same reason, besides the four *feet* it stands on by another figure, and the six *feet* it measures by yet another. More remarkable still, a river has a *head*, its highest point, namely where it *heads* among the highlands—and so it has *arms*, or by another figure *branches*; or by another *feeders*; or by another *tributaries*: and it has a right and left *side*; and it has a *bed*, in which, by an unfortunate mixture of metaphor, it *runs* instead of lying still; and then at the farthest extremity from its head we find, not its feet, but its *mouth*. Further, an army, a school, a sect has its *head*; a class has its *head* and *tail*, and so has a coin, though quite in a different way. A sermon has its *heads*, as divided by their different *headings*, and we can beg to be spared anything on that *head*. A sore comes to a *head*; so, by one step further away from literalness, a conspiracy, or other disorder of the state (the body politic) does the same. We give a horse his *head*, which he had before our donation; and then we treat in the same way our passions, that is to say, if by their overmastering violence we loose our *heads*."*

All metaphor comes under the head of figurative transfer. It is such a common habit of speech, that every language is, as Ritcher has well said, a dictionary of faded metaphors. To this principle we owe nearly all words that designate our mental and moral conceptions: as *wrong*, *right*, *upright*, *simplicity*, *apprehension*, *fathom*, *intelligence*. This transfer of physical and sensible relations often gives a very striking explanation of the more intellectual or abstract terms. In a play of Shakespeare there is full scope for the treatment of this principle, and the pupils' ingenuity should be exercised in tracing out and explaining the metaphor involved. Take as an example the following from the "Merchant of Venice":—

"And other (fellows) of such singular aspect."

Here the "sour-look" shows an *acid* state or bitterness of temper; and the metaphor is well expressed in the word *acidity*. The same root occurs in the name for that sharp or *acid* attack of fever called *ague*, which we are not *eager* to experience. In the same scene

* Whitney.

of this play, a few lines off, we light upon another passage full of metaphor, of which we may take a part for examination:—

"There are a sort of men, whose visages
Do cream and mantle like a standing pond,
And do a wilful stillness entertain."

Each metaphor should be first expanded into its corresponding *simile*, and the points of resemblance particularized. Each word entering into the metaphorical expression will often be found to be itself figurative or metaphorical; as the standing or stagnant pond with its creaming or mantling (*cf.* "the green mantle of the standing pool," in King Lear). The difference of metaphor between to *cream* and to *mantle* should be noticed. How bold metaphor is may be seen in such expressions as "the *cream* or best part of a thing," and in the phrase "to *dismantle* a fortress."—

REV. RICHARD MORRIS, LL.D.

NOTES ON SHAKSPEARE'S JULIUS CÆSAR.

PLUTARCH whose Lives of Ancient Greeks and Romans, Shakspeare chiefly consulted in his plays, lived about A.D. 100. He wrote in Greek a collection of the lives of eminent men, and several philosophical treatises. His "Lives" though by no means critically accurate, are very interesting and have always been a very popular book. The translation of them which Shakspeare used was by North. The modern translation now best known is by Langhorne.

'The Tragedy of Julius Cæsar' was first printed in the folio collection of 1623. The text is divided into acts; and the stage directions are full and precise. Taken altogether, we know no play of Shakspeare's that presents so few difficulties arising out of inaccuracies in the original edition.

Years, perhaps centuries, had rolled on since the æra of 'Coriolanus.' Rome had seen a constitution which had reconciled the differences of the patricians and the plebeians. The two orders had built a temple to Concord. Her power had increased; her territory had extended. In compounding their differences the patricians and the plebeians had appropriated to themselves all the wealth and honours of the state. There was a neglected class that the social system appeared to reject, as well as to despise. The aristocratic party was again brought into a more terrible conflict with the impoverished and the destitute. Civil war was the natural result. Sulla established a short-lived constitution. The dissolution of the Republic was at hand: the struggle was henceforth to be not between classes, but individuals. The death of Julius Cæsar was soon followed by the final termination of the contest between the republican and the monarchical principle. Shakspeare saw the grandeur of the crisis; and he seized upon it for one of his lofty expositions of political philosophy. He has treated it as no other poet would have treated it, because he saw the exact relations of the contending principle to the future great history of mankind. The death of Cæsar was not his catastrophe: it was the death of the Roman Republic at Philippi.

Of all Shakspeare's characters none require to be studied with more patient attention than those of Brutus and Cassius, that we may understand the resemblances and the differences of each. The

leading distinctions between these two remarkable men, as drawn by Shakspeare, appear to us to be these: Brutus acts wholly upon principle; Cassius partly upon impulse. Brutus acts only when he has reconciled the contemplation of action with his speculative opinions; Cassius allows the necessity of *some* action to run before and govern his opinions. Brutus is a philosopher; Cassius is a partisan. Brutus therefore deliberates and spares; Cassius precipitates and denounces. Brutus is the nobler instructor; Cassius the better politician. Shakspeare, in the first great scene between them, brings out these distinctions of character upon which future events so mainly depend.

Nothing can be more interesting than to follow Shakspeare with Plutarch in hand. The poet adheres to the facts of history with a remarkable fidelity. A few hard figures are painted upon a canvas; the outlines are distinct, the colours are strong; but there is no art in the composition, no grouping, no light and shadow. This is the historian's picture. We turn to the poet. We recognise the same figures, but they appear to live; they are in harmony with the entire scene in which they move: we have at once the reality of nature, and the ideal of art, which is a higher nature. Yet the art of the poet is so subtle that many have fancied that they could detect a want of art; and the character of Cæsar, as drawn by Shakspeare, has been held not only to be tame, and below the historical conception of the great dictator, but as representing him in a false light. We believe that Shakspeare, was wholly right. At the *exact period of the action of this drama*, Cæsar, possessing the reality of power, was haunted by the weakness of passionately desiring the title of king. Plutarch says—"The chiefest cause that made him mortally hated was the covetous desire he had to be called king." This is the pivot upon which the whole action of Shakspeare's tragedy turns. There might have been another mode of treating the subject. The death of Julius Cæsar might have been the catastrophe. The republican and the monarchical principles might have been exhibited in conflict. The republican principle would have triumphed in the fall of Cæsar; and the poet would have previously held the balance between the two principles, or have claimed, indeed, our largest sympathies for the principles of Cæsar and his friends, by a true exhibition of Cæsar's greatness and Cæsar's virtues. The poet chose another course. And are we then to talk, with ready flippancy, of ignorance and carelessness—that he wanted classical knowledge—that he gave himself no trouble? "The fault of the character is the fault of the plot," says Hazlitt. It would have been nearer the truth had he said—the character is determined by the plot. While Cæsar is upon the scene, it was for the poet, largely interpreting the historian, to show the inward workings of "the covetous desire he had to be called king;" and, most admirably, according to our notions of characterisation, has he shown them. Altogether we profess to receive Shakspeare's characterisation of Cæsar with a perfect confidence that he produced that character upon fixed principles of art. It is not the prominent character of the play; and it was not meant to be so. It is true to the narrative upon which Shakspeare founded it; but, what is of more importance, it is true to every natural conception of what Cæsar must have been at the exact moment of his fall.—KNIGHT.

ANALYSIS OF ACT. I.

Scene I. Rome—a Street.

Enter Flavius, Marullus, and a rabble. Flavius and Marullus rate the people for their demonstrations in honour of Cæsar.

Scene II. a Public place.

Enter Cæsar, Antony, Calphurnia, Portia, Decius, Cicero, Brutus, Cassius and Casca.

Antony for the Curse. Calphurnia's barrenness. The caution. "Beware the Ides of March." Exit all but Brutus and Cassius.

Cassius sounds Brutus and comments on the servileness of the age. People at a distance shout. Brutus fears that Cæsar is being hailed as king. Cassius incites Brutus against Cæsar.

Re-enter Cæsar, and others.

Cæsar notices Cassius.

Exit Cæsar, and others.

Casca's Account.

Scene III. a Street.

Thunder and Lightning. Enter Casca and Cicero. They converse on the signs of the times. Exit Cicero, enter Cassius.

Cassius broaches the conspiracy to Casca. Enter Cinna.

Ruse of Cassius to secure Brutus by forging seditious circulars.

EXPLANATION OF TERMS, &c.

Triumvir. One of three. The triumvirate was only a provisional arrangement. In what was called the first triumvirate, the power was divided between Julius Cæsar, Pompey and Crassus. In the second, between Octavius, Antony and Lepidus.

Cicero. The great Roman Orator and philosopher, the most eloquent of the Latin prose writers.

JUNIUS BRUTUS, was the ancestor of Marcus Brutus. He was the great conspirator against the Tarquins B.C. 509.

Tribune. The tribunes of the people were magistrates originally appointed to represent and uphold the authority of the plebeians. At this time we find them jealous of the rising power of Cæsar and ready to keep in check the common people who had been flattered by Cæsar and conciliated by his gifts. They therefore appear as the opponents of the impending tyranny of one man, no longer as the upholders of the plebeians against the patricians.

The military tribunes were Officers of high rank of whom Claudius Lysias was one.

Sophist. A teacher of rhetoric whose art was to teach how to make the worse appear the better reason.

ACT I. SCENE

Hence. Adverb used as a verb. Cf. "Up guards and at them."

Mechanical. Now applied only to things and actions.

Ought. Here used as an auxiliary verb, in modern use it is an irregular verb, but not auxiliary; past form used for present as in some of our auxiliaries in certain phrases, e.g., "I would if I could." These past forms used in the present are idiomatic and difficult of explanation.

Ought not walk. Archaism. The sign of the Infinitive is omitted. Cf. I saw him do it.

Labouring. Is here a Gerund attributive of "day" not in the sense of a day which labours, but of a day for labouring; to express the former it would be a participle. Cf. walking-stick, church-going bell, &c.

Trade. Is here accusative; the phrase is elliptical, equal "of what trade" but in the colloquial idiom *he is the right sort of man*, the construction is not so easily explained.

Leather apron and thy rule. An anachronism such as Shakspeare often indulged in. These were signs of a carpenter's profession in England not at Rome.

In this construction, some think "trade" is used by metonymy for "tradesman."

In respect of. = As compared with.

A cobbler. Cobbler means not only an inferior shoemaker, but also a bungler or awkward fellow. The 2nd citizen here puns upon the two meanings of the word. Compare the two meanings of *कुशल* viz., (1) a potter and (2) a stupid fellow.

Directly. In a straight-forward manner.

To use a trade. An archaism. Use = Follow or practise.

Bad soles. There is here another paronomasia or pun on *soles* and *souls*:

Naughty. From not a whit.

Cf. *Naughty figs*, Jer. xxiv. 2 = good for nothing, worthless.

Be not out with me. Paronomasia. But in recent English, in one sense, we should say *to be out at heels*, in the other, *to fall out*.

I meddle not, &c., but with all. Paronomasia upon *all* and *awl*.

Recover. The old word for to vamp. Paronomasia.

Proper = good, excellent. Cf. "Moses was a proper child." Heb. xi. 23.

Rejoice in his triumph. A.C. 44. Caesar had conquered the sons of Pompey and had been appointed perpetual dictator. When men obtained this sort of unconstitutional authority among the Greeks they were called Tyrants. In modern Europe they are called Emperors, e.g., the two Napoleons. The grand object of such is to get themselves crowned; to this Caesar never attained.

Rejoice. Elliptical for "do you rejoice?"

The triumph was a religious ceremony of thanksgiving. The procession was perhaps the most prominent part. It traversed the Via Sacra over which an arch of marble was generally placed.

Chimney tops. An anachronism. Chimneys were as unknown in Roman as they are in Indian houses.

Pass. Poetical for pass along.

Her banks. Observe Tiber personified as feminine.

Concave shores. I.e., banks scooped out under the surface by the current of a river.

Cull. Pick out. Cull originally connected with cultivate.

Pompey. Pompey's death. A.C. 48.

Be gone. Verbs of motion, and several verbs expressing state, use as their tense auxiliaries both "to have" and "to be," e.g., he is gone, he has gone; but in this Imperative phrase the Auxiliary *be* has a special force; we could not say "have gone."

Metal. I.e., spirit, quality, by metonymy for temper; mettle as applied to a horse is most likely the same word.

See whether their natures base as they are, are not moved by this appeal.

This way will I. Will is frequently used in the pregnant sense of will go.

Deck. Originally to cover, hence the deck of a ship.

Ceremonies, metonymy, abstract put for the concrete. Dedicated trophies.

Lupercal. Feast in honour of Pan.

Pan = All. He was the impersonification of all nature.

Lupercal or Lupercalia was observed on the 13th of February. Cæsar was assassinated on the 15th of March, aged 56.

The illumination which was a part of the observance of this day continued after the empire became Christianised, and in the fifth century the Church, finding it fell in reference to Christmas on the day of the Purification of the Virgin, turned it into a Christian festival; it is sometimes called Candlemas.

Who else would soar. In the English of Shakspeare's time, the antecedent was often widely severed from the relative, hence, the necessity of watching lest one may emphasize the wrong antecedent.

Enter Antony for the course. I.e. To run for the Lupercalia.

Sterile. The *ile* in such words is generally long. There is no principle by which the distinction is made but mere habit.

Ides. A singular noun. The division or middle of the Roman month in March it fell on the 15th.

Ide. Same root as in divide.

Sonnet. A different set of notes from the flourish, but it is now uncertain what it was.

I do lack some part, &c. I fall in some degree short of that lively temper.

Gentleness. I.e. Gentle look.

Wont. Either an adjective used only predicatively, or the perfect participle of a defective verb which in German is not defective, and = to abide. Wonted is used attributively of things.

You bear too sudden, &c.

Your manner is harsh and like a stranger's.

If I have veiled my look, &c. If I appear reserved, it has been that my solicitude has related solely to myself (both as to cause and object); or if my countenance appears gloomy it has not arisen from my feelings towards my friends but those towards myself.

Passions of some difference. Somewhat conflicting emotions.

Proper. Belonging.

Soil. Stain or colour.

Behaviour. Particular actions (not now used in the plural).

Forget. To manifest his affection.

Mistook. Archaism for mistaken.

Passion. Patience and passion originally of the same connotation.

Have wished that noble Brutus had his eyes. That Brutus had his eyes about him. This sentence is an anacoluthon. The meaning is—I have listened when many of the most distinguished men in Rome except Cæsar himself, have been speaking of Brutus and of the burden under which they groan in this age, and they have expressed a wish that noble Brutus had his eyes about him so that he could see himself. There is evidently an anacoluthon in the word *heard* with which the construction would be complete if followed by many, &c., wish that &c., or the construction might be completed by an intransitive verb, e.g., I have been listening, &c.

Query.—Is there an anacoluthon in *his*, the antecedent being the speaker?

Therefore good Brutus, &c. Connect this speech with Cassius' own. Cassius in his earnestness to bring over Brutus ignores Brutus' question.

Discover. An archaism equalling "disclose."

Stale. Perhaps a corruption of stall, to expose for sale, to render vulgar.

Rout. Rabble, a riotous mixture of people.

If it be a matter involving the good of the state, place honour and death before me, and I will look at them impartially, *i.e.*, I would readily incur one or the other as duty might require, for I swear that the value I set upon honour is greater than the fear I have of death.

Favour. Countenance. Cf. ill-favoured.

Cæsar. Represents an elliptical proposition.

Gusty. Gust and ghost originally the same; spirit (spiro) in Latin means breath.

Chafing with. A peculiar construction; chafing is generally used transitively.

Sinews. The tendons (end of the muscles attached to the bones).

Stem. To oppose a stream.

Æneas. A Trojan prince, son of Anchises, who, according to Virgil, when Troy was in flames, carried off his father and went to Italy. According to the legend, he became the ancestor of the Roman sovereigns.

His coward lips, &c.

A strained figure such as Shakspeare's contemporaries delighted in.

Colossus. A vast human figure of brass placed astride over the harbour of Rhodes, and dedicated to the sun (Apollo). One of the Seven Wonders of the World.

Should be. Observe this idiomatic use of the auxiliary; objectively considered it nearly equals, What is there? But there is a subjective difference. The past tenses are less blunt and more deliberate. Observe the distinction between "will you give" and "would you give" the latter involves a courteous form of request. See Bain on *Would*.

Conjure. Conjure and conjure now desynonymised; to conjure = to implore with an imprecation, *e.g.*, in the name of heaven I entreat.

Rome. Pronounced in Shakspeare's time "Room," and still so pronounced by some old people in England, and by the Mussulmans in India. Observe the pun seven lines down.

Noble bloods. Metonymy for those who have noble blood; *blood* a metaphor for nature.

The great flood. Perhaps an allusion to the deluge of Deucalion.

Her wide walks. Conjectured that the true reading for *walks* is *walls*.

There was a Brutus once. Lucius Junius Brutus who expelled the Tarquins, the last kings of Rome A. C. 509, was assumed to be the ancestor of this present Brutus.

So with love I might entreat you. If I may entreat you on the score of our mutual love.

Under these hard conditions.

Both meet to hear. Meet Saxon equivalent to convenient.

These. The proximate demonstrative used for *such*

This a sort of anacoluthon, "these" would naturally be followed by *which* instead of *as*.

As. May be called the relative pronoun.

Like. For likely. Cf. *Macbeth* II. iv.—29.

Let me have men about me that are fat, &c.

Cf. Panchatantra, பசித்தவன் விசுவாசத்தை நம்பலாகாது.

My name were liable to fear "My name" = I; with an addition of nobleness. Cf. "the name of the Lord" in Scripture.

Plays. Public amusements.

This ear is deaf. A contrivance of Shakspeare's; an admirable little bit of stage management giving an appearance of reality also.

I should not now ask Casca.

Fell a shouting. A is here a preposition; in such phrases, *on* is sometimes used for *a*.

Marry. By St. Mary.

[of it.

Can, &c. I am as well able to be hanged as to recount the manner

Fain. "He would fain have had it." Equal to *rather*. As an adjective it is only used predicatively.

Then he offered it to him again, &c.

Observe the use of the demonstratives in a loose construction in regard to antecedents, only allowable in such a speech as Casca's.

To lay his fingers off it. Lay = take.

Uttered. *I.e.*, emitted in speaking.

Falling sickness. Cæsar had two epileptic attacks in public.

Plucked me ope. In this old English idiom, *me* has the force of a mild asseveration = I assure you. Cf. "pilled *me* certain wands." I. iii. *Merchant of Venice*.

Use. Old form; in recent English passive forms are more used.

Man of any occupation. *I.e.*, a tradesman, one of those to whom he offered his throat to cut.

Ay. Always printed "I" in the old edition.

It was Greek to me. Casca's ignorance of Greek was an invention of Shakspeare's. Plutarch expressly makes Casca speak in Greek, see page 419.

Promised forth. In modern English we should say *engaged out*.

Mettle. Equals temper or spirit; generally applied to horses. Supposed to be the same word as metal—by metonymy used for temper (substance for attribute.) Temper = to mix. Wright's *Macbeth* p. 102.

Temperament. The old theory was that man was a mixture of the four elements, air, earth, fire and water.

Quick metal. The notion here connects itself with quicksilver.

Think of the World. *I.e.*, think of the state in which the world is.

If I were Brutus, &c.

(a) If I were the loved one, Cæsar should not manage me by consulting my humours of mind; the other explanation makes Cassius the antecedent of *he*—if I were Brutus, I would not be turned about as easily as I have turned him.

(b) That Brutus and Cassius should both keep together, both being noble. Cassius lays down the general principle "that every man has his price." This is a maxim belonging to such as Cassius; the corollary is that noble minds keep ever with their likes.

Let not men say, &c. Do not let men assign reasons for supposing these events mere natural occurrences.

(To be continued).

ALGEBRA.

(Solutions of the Questions set by the Madras University for Matriculation 1878.)*

I. Simplify:—

$$\frac{x^3 + 3x^2 + 5x + 15}{x^3 + 2x^2 + 5x + 10} + \frac{x^4 + x^3 + 3x^2 + x - 2}{x^4 + 2x^3 + 3x^2 + 4x - 4}$$

Given Expression

$$\begin{aligned} &= \frac{x^2(x+3) + 5(x+3)}{x^2(x+2) + 5(x+2)} + \frac{x^3(x+1) + 3x(x+1) - 2(x+1)}{x^3(x+2) + 3x(x+2) - 2(x+2)} \\ &= \frac{(x+3)(x^2+5)}{(x+2)(x^2+5)} + \frac{(x+1)(x^3+3x-2)}{(x+2)(x^2+3x-2)} \\ &= \frac{x+3}{x+2} + \frac{x+1}{x+2} = \frac{x+3+x+1}{x+2} = \frac{2x+4}{x+2} = \frac{2(x+2)}{x+2} = 2. \end{aligned}$$

II. Show that $(x^3 - 3x)^4 - 8(x^6 - 6x^4 + 9x^2 - 2)$ is an exact square, and resolve the whole expression into factors.

$$\begin{aligned} &(x^3 - 3x)^4 - 8(x^6 - 6x^4 + 9x^2 - 2) \\ &= (x^3 - 3x)^4 - 8(x^6 - 6x^4 + 9x^2) + 16 \\ &= (x^3 - 3x)^4 - 2 \cdot 4(x^3 - 3x)^2 + 16 \\ &= \{(x^3 - 3x)^2 - 4\} \{(x^3 - 3x)^2 - 4\} \\ &= \{(x^3 - 3x)^2 - 4\}^2 \end{aligned}$$

Hence the given Expression is an exact square.

$$\{(x^3 - 3x)^2 - 4\}^2$$

$$= (x^3 - 3x + 2)(x^3 - 3x - 2)^2$$

$$= \{x(x^2 - 1) - 2(x - 1)\}^2 \{x(x^2 - 4) + 1(x - 2)\}^2$$

$$= \{(x - 1)(x^2 + x - 2)\}^2 \{(x - 2)(x^2 + 2x + 1)\}^2$$

$$= \{(x - 1)(x - 1)(x + 2)\}^2 \{(x - 2)(x + 1)^2\}^2$$

$$= \{(x - 1)^2(x + 2)\}^2 \{(x - 2)(x + 1)^2\}^2$$

$$= (x - 1)^4(x + 1)^4(x - 2)^2(x + 2)^2$$

III. Show that

(i) If $a + b + c = 0$, then $a(b - c)^3 + b(c - a)^3 + c(a - b)^3 = 0$.

Given Expression

$$= ab^3 - 3abc(b - c) - ac^3$$

$$\begin{aligned} &+ bc^3 - 3abc(c - a) - ba^3 \\ &+ ca^3 - 3abc(a - b) - cb^3 \\ &= ab^3 + bc^3 + ca^3 - 3abc(b - c + c - a + a - b) - ac^3 - ba^3 - \\ &= ab^3 - ba^3 + bc^3 - ac^3 + ca^3 - cb^3 \\ &= c(a^3 - b^3) - c^3(a - b) - ab(a^2 - b^2) \\ &= (a - b) \{c(a^2 + ab + b^2) - c^3 - ab(a + b)\} \\ &= (a - b) \{c(a^2 - c^2) - ab(a - c) - b^2(a - c)\} \\ &= (a - b)(a - c)(ac + c^2 - ab - b^2) \\ &= (a - b)(a - c) \{a(c - b) + (c^2 - b^2)\} \\ &= (a - b)(a - c)(c - b)(a + b + c). \end{aligned}$$

But $a + b + c = 0$

∴ Given Expression becomes zero.

(ii) If $a + b + c = 1$, $ab + bc + ca = \frac{1}{3}$, $abc = \frac{1}{27}$

$$\text{then } \frac{1}{a + bc} + \frac{1}{b + ac} + \frac{1}{c + ab} = \frac{27}{4}$$

$$a + b + c = 1$$

∴ $a = 1 - b - c$; add bc to both sides

$$\therefore a + bc = 1 - b - c(1 - b) = (1 - b)(1 - c).$$

Similarly

$$b + ac = (1 - c)(1 - a), \text{ and}$$

$$c + ab = (1 - a)(1 - b).$$

$$\therefore \frac{1}{a + bc} + \frac{1}{b + ac} + \frac{1}{c + ab} =$$

$$\frac{1}{(1 - b)(1 - c)} + \frac{1}{(1 - c)(1 - a)} + \frac{1}{(1 - a)(1 - b)} =$$

$$\frac{1 - a + 1 - b + 1 - c}{(1 - a)(1 - b)(1 - c)} =$$

$$\frac{3 - (a + b + c)}{1 - (a + b + c) + (ab + ac + bc) - abc} = \frac{3 - 1}{1 - 1 + \frac{1}{3} - \frac{1}{27}} =$$

$$\frac{2}{\frac{9 - 1}{27}} = \frac{2 \times 27}{8} = \frac{27}{4} \text{ Answer.}$$

IV. Solve the following equations.

$$(1) \frac{4(x + 5)}{x + 6} + \frac{3(x + 6)}{x + 5} = 7.$$

$$4 - \frac{4}{x + 6} + 3 + \frac{3}{x + 5} = 7$$

$$\frac{3}{x + 5} = \frac{4}{x + 6}$$

$$3x + 18 = 4x + 20$$

$$\therefore x = -2 \text{ Answer.}$$

*Re a Graduate and an Undergraduate of the Madras University.

$$(2) \quad x + y + z = ax + by + cz = 0$$

$$\frac{x}{b-c} + \frac{y}{a-c} + \frac{z}{a-b} = 1$$

$$x + y + z = 0$$

$$\therefore ax + ay + az = 0.$$

But $ax + by + cz = 0$ and subtracting

$$y(a-b) + z(a-c) = 0$$

Dividing by $(a-b)(a-c)$ we get $\frac{y}{a-c} + \frac{z}{a-b} = 0$

$$\text{Substituting this in } \frac{x}{b-c} + \frac{y}{a-c} + \frac{z}{a-b} = 1$$

$$\text{we have } \frac{x}{b-c} = 1$$

$$\therefore x = b - c.$$

Similarly we can find that $y = c - a$ and that $z = a - b$.

V. A mail coach runs between two places A and B and back again. A traveller who starts walking from A 5 hours before the mail coach is overtaken by it half way between A and B. He then doubles his rate of walking and meets the mail coach on its return journey 3 miles from B. The traveller then goes to B at the same rate and returns, and by the time he comes again midway between A and B, the mail coach reaches A. Find the distance between A and B, and the rate at which the mail coach runs.

Let x be the distance between A and B, and y be the rate of the mail coach every hour.

The coach goes y miles in 1 hour.

$$\therefore 1 \text{ mile in } \frac{1}{y} \text{ hour.}$$

$$\therefore \frac{x}{2} \text{ miles in } \frac{x}{2y} \text{ hours.}$$

but in $\left(\frac{x}{2y} + 5\right)$ hours the man goes $\frac{x}{2}$ miles.

$$\therefore \text{in 1 hour he goes } \frac{xy}{x+10y} \text{ miles.}$$

Now he doubles his rate.

$$\therefore \text{in 1 hour he goes now } \frac{2xy}{x+10y} \text{ miles.}$$

$$\text{He goes } \frac{2xy}{x+10y} \text{ miles in 1 hour.}$$

$$\therefore 1 \text{ mile in } \frac{x+10y}{2xy} \text{ hours.}$$

$$\therefore \frac{x}{2} - 3 \text{ or } \frac{x-6}{2} \text{ miles in } \frac{(x-6)(x+10y)}{4xy} \text{ hours}$$

But the coach goes 1 mile in $\frac{1}{y}$ hour.

$$\therefore \text{it goes } \frac{x+6}{2} \text{ miles in } \frac{x+6}{2y} \text{ hours.}$$

$$\therefore \frac{x+6}{2y} \text{ hours} = \frac{(x-6)(x+10y)}{4xy} \text{ hours.}$$

$$2x(x+6) = (x-6)(x+10y) \dots \dots \dots (1)$$

Again the coach goes 1 mile in $\frac{1}{y}$ hour

$$\therefore x-3 \text{ miles in } \frac{x-3}{y} \text{ hours.}$$

And the man goes $\frac{2xy}{x+10y}$ miles in 1 hour

$$\therefore 1 \text{ mile in } \frac{x+10y}{2xy} \text{ hours.}$$

$$\therefore \frac{x}{2} + 3 \text{ or } \frac{x+6}{2} \text{ miles in } \frac{(x+6)(x+10y)}{4xy} \text{ hours}$$

$$\therefore \frac{x-3}{y} \text{ hours} = \frac{(x+6)(x+10y)}{4xy} \text{ hours.}$$

$$4x(x-3) = (x+6)(x+10y) \dots \dots \dots (2)$$

$$\text{But by (1) we get } x+10y = \frac{2x(x+6)}{x-6}$$

$$\text{and by (2) we get } x+10y = \frac{4x(x-3)}{x+6}$$

$$\therefore \frac{2x(x+6)}{x-6} = \frac{4x(x-3)}{x+6}$$

$$(x+6)^2 = 2(x-6)(x-3)$$

$$x^2 + 12x + 36 = 2x^2 - 18x + 36$$

$$x^2 - 2x^2 = -18x - 12x$$

$$-x^2 = -30x$$

$$\therefore x = 30 \text{ miles.}$$

$\therefore$ the distance between A and B is 30 miles.

$$\text{Substituting the value of } x \text{ in } x+10y = \frac{2x(x+6)}{x-6}$$

$$\text{We get } 30 + 10y = \frac{60 \times 36}{24} = 90$$

$$\therefore 10y = 60$$

$$\therefore y = 6 \text{ miles}$$

The mail coach runs at the rate of 6 miles every hour.

PROBLEM.

(By H. FORTEY, M.A.)—A large number of equal spheres being placed in the closest possible contact, find the ratio of their aggregate volume to the space they take up.

(Solution by G. HEFFEL; Prof. VOSE, M.A.; and others.)

It will be found that a sphere can be touched by 12 others of the same size and not more; and therefore, when a number of spheres are in the closest possible contact, each will be touched by 12 others; and, the tangent planes being drawn at the contacts, each sphere will be circumscribed by a polyhedron, which is the space peculiar to it, or which it may be said to take up. The question will therefore be solved when the ratio of a sphere to its circumscribing polyhedron has been determined. Now a simple application of geometry of three dimensions (the work is not given here on account of the difficulty of drawing the illustrative diagram on a plane surface) shows that the polyhedron is the rhombic dodecahedron, and that, if a be the radius of the sphere, a side of rhombus is $\sqrt{\frac{2}{3}}a$, and the acute angle between two sides $\cos^{-1}\frac{1}{3}$. Therefore the area of a rhombus is $\sqrt{2}a^2$, and the volume of the dodecahedron is equal to that of the 12 pyramids having the rhombuses for their bases, and the radius of the sphere for their common height $= 12\sqrt{2}a^2 \times \frac{1}{3}a = 4\sqrt{2}a^3$.

Therefore Vol. of sphere: Vol. of dodecahedron
 $= \frac{4}{3}\pi a^3 : 4\sqrt{2}a^3 = \frac{1}{3}\pi\sqrt{2} : 740480 : 1$.

Thus the spheres actually fill very nearly three-fourths of the space they take up.—*Educational Times*.

ARITHMETIC.

(Set at the Matriculation Examination of the Madras University 1878.)*

I. (a) Find by Practice the value of 9 tons 17 cwt. 2 qr. 24 lbs. at Rs. 125-6-8 per ton.

10 cwt. = $\frac{1}{2}$ of 1 ton.	Rs. 125	a. 6	p. 8	= value of 1 ton.
			9	
5 cwt. = $\frac{1}{4}$ of 10 cwt.	1128	12	0	= do. 9 "
2 cwt. = $\frac{1}{5}$ of 10 cwt.	62	11	4	= do. 10 cwt.
2 qr. = $\frac{1}{2}$ of 2 cwt.	31	5	8	= do. 5 "
14 lb. = $\frac{1}{4}$ of 2 qr.	12	8	8	= do. 2 "
7 lb. = $\frac{1}{8}$ of 14 lb.	3	2	2	= do. 2 "
2 lb. = $\frac{1}{7}$ of 14 lb.	3	12	6 $\frac{1}{2}$	= do. 14 lb.
1 lb. = $\frac{1}{2}$ of 2 lb.	0	6	3 $\frac{1}{2}$	= do. 7 "
	3	1	9 $\frac{1}{2}$	= do. 2 "
	1	1	10 $\frac{1}{2}$	= do. 1 "
	Rs 1239	13	4	

* These Solutions were forwarded by Mr. N. De'Clementianus of the Lutheran Central School, Tranquebar, and by another Correspondent.

(b) Find by Practice the value of 29,764 articles at R. 1-11-9 $\frac{1}{4}$ each.

8 as. = $\frac{1}{2}$ of R. 1.	Rs. 29764	a. 0	p. 0	= value at R. 1 each.
2 as. = $\frac{1}{4}$ of 8 as.	14882	0	0	= 8 as. each.
1 — = $\frac{1}{8}$ of 2 as.	3720	8	0	= " 2 "
6 pie = $\frac{1}{2}$ of 1 anna.	1860	4	0	= " 1 "
3 — = $\frac{1}{4}$ of 6 pie.	930	2	0	= " 6 pie each
$\frac{1}{2}$ pie = $\frac{1}{8}$ of 3 pie.	465	1	0	= " 3 "
$\frac{1}{4}$ pie = $\frac{1}{2}$ of $\frac{1}{2}$ pie.	77	8	2	= " $\frac{1}{2}$ "
	38	12	1	= " $\frac{1}{4}$ "
	51738	3	3	Answer.

II. The materials of an old building were sold for Rupees 1500 upon condition that they should be removed within 30 days under a penalty of Rupees 10 per day for every day beyond 30 days. The purchaser employed 40 men at 3 $\frac{1}{2}$ annas per day to do the work, and after selling the materials for Rupees 2365, he cleared Rupees 190 by his bargain. Find the number of days the men were at work.

Selling price of building materials = Rupees 2,365

Outlay on " " = " 1,500

$\therefore$ Sum cleared on outlay = " 865

Again, 40 men @ 3 $\frac{1}{2}$ annas each per day get $40 \times \frac{1}{2}$ as or $\frac{1}{2}$ Rs. per day

$\therefore$ Wages for 40 men for 30 days = $\frac{1}{2} \times 30$ Rs. = $\frac{3}{2}$ Rs. = Rs. 262 $\frac{1}{2}$

The Profit of purchaser = Rupees 190,

$\therefore$ for 30 days + Net Income = Rupees 452 $\frac{1}{2}$

$\therefore$ Fine & Wages after 30 days = Rupees (865 - 452 $\frac{1}{2}$) = Rupees

412 $\frac{1}{2}$ Fine and Wages per day = Rupees (10 + $\frac{1}{2}$)

$\therefore$ Number of Remaining days = $412\frac{1}{2} \times \frac{2}{7} = 22$

$\therefore$ Total number of days = 30 + 22 = 52 Answer.

III. (a)¹ Divide .0576 by 180

$$180 = \begin{cases} 2) \cdot 0576 \\ 9) \cdot 0288 \\ 10) \cdot 0032 \end{cases}$$

Answer) .00032

Divide .0576 by .018

As $\frac{576}{18} = 32$ and as the number of Decimal places in the dividend .0576 exceeds the number of decimal places in the divisor .018 by one place therefore we mark off in the quotient one decimal place and the answer is 3.2.

(b) Find the value of

$$\frac{2.8 \text{ of } 2.27}{1.36} + \left\{ \frac{4.4 - 2.83}{1.3 + 2.629} \text{ of } 8.2 \right\}$$

$$\frac{14}{5} + \frac{25}{11} + \left\{ \frac{4\frac{1}{2} - 2\frac{2}{3}}{1\frac{1}{3} + 2\frac{2}{3}} \times \frac{4}{3} \right\}$$

$$\frac{14}{3} + \left\{ \frac{4\frac{1}{2} - 1\frac{7}{6}}{\frac{4}{3} + \frac{2\frac{2}{3}}{100}} + \frac{4}{3} \right\}$$

$$\frac{14}{3} + \left\{ \frac{29}{18} \div \frac{41}{3} + \frac{4}{3} \right\}$$

$$\frac{14}{3} + \left\{ \frac{1189}{800} \div \frac{50}{5} \right\}$$

$$\frac{14}{3} + \left\{ \frac{50}{3+41} \times \frac{41}{5} \right\} =$$

$$\frac{14}{3} + \frac{10}{3} = \frac{24}{3} = 8.$$

Answer 8.

IV. A and B enter into partnership: A supplies the whole of the capital, amounting to Rupees 45000 upon condition that the profits are to be equally divided and that B pays A interest on half the capital at 10 p. c. per annum, but receives Rs. 120 per mensem for carrying on the concern. Find their total yearly profits when B's share is equal to one half of A's share.

Interest on Rs. 22500 at 10 p. c. per annum is Rupees 2250.

B's salary per annum is Rs. 1440.

∴ The difference between Rs. 2250 and Rs. 1440 viz., Rs. 810 is paid by B. to A.

And A's income is therefore half the profit + Rs. 810.

And B's income is half the profits—Rs. 810.

Now by the question A's income is twice as great as B's.

∴ Half the profits + Rs. 810 = 2 (half the profits—Rs. 810)

∴ Half the profits + Rs. 810 = the profits—1620.

∴ Half the profits = Rs. 2430.

And the profits = Rs. 4860.

V. Find the difference between the *true discount* on Rupees 2592, due; two years hence, and the *interest on the same sum* for two years, allowing in both cases simple interest at 4 p. c. per annum.

Present worth of Rs. 108 = Rs. 100

∴ " " Rs. 2592 = Rs. 240.

True Discount = *Interest on Present Worth*

∴ Interest on Rs. 240 @ 4 p. c. for 2 years = Rs. $\frac{240}{100} \times 4 \times 2$ = Rs. $\frac{192}{5}$.

Again, Interest on Rs. 2592 at 4 per cent. Simple Interest for 2 years = Rs. $\frac{2592}{100} \times 4 \times 2$.

= Rs. $\frac{2592}{125}$.

∴ Difference between *true Discount* and Interest on Rs. 2592 for 2 years at 4 p. c.

Simple Interest = Rs. $(\frac{2592}{125} - \frac{192}{5})$

= Rs. $\frac{2592 - 2400}{125}$

= Rs. $\frac{192}{125}$ = Rs. $1\frac{67}{125}$

= Rs. 1-8-6 $\frac{1}{2}$ Answer.

VI. A room, 21 feet long by 13 $\frac{1}{2}$ feet wide is surrounded by walls 1 $\frac{1}{2}$ feet thick, and 14 feet high. There are two doors each 4 $\frac{1}{2}$ feet by 6 feet, and one window 3 feet by 4 $\frac{1}{2}$ feet. Find (1) the cost of building the walls at the rate of Rupees 5-1-0 per cubic yard, and (2) the number of bricks each measuring 9 inches × 4 inches × 2 $\frac{1}{2}$ inches, required for the work.

Length of the long walls = (21 + 1 $\frac{1}{2}$ + 1 $\frac{1}{2}$) feet = 24 feet.

24 × $\frac{3}{2}$ × 14 × 2 = solid contents

of the long walls.

and 13 $\frac{1}{2}$ × $\frac{3}{2}$ × 14 × 2 = solid contents of the short walls. Therefore solid contents of the four walls = (24 + 13 $\frac{1}{2}$) × $\frac{3}{2}$ × 14 × 2 = 37 $\frac{1}{2}$ × $\frac{3}{2}$ × 14 × 2 = 1575 cubic feet.

And there are two doors each measuring 6 feet by 4 $\frac{1}{2}$.

∴ the space occupied by the two doors is $\frac{3}{6} \times \frac{9}{2} \times \frac{3}{2} \times \frac{2}{1} =$

81 cubic feet.

and the space occupied by the window is $\frac{3}{2} \times \frac{3}{2} \times \frac{3}{2} = \frac{27}{8} = 20\frac{1}{4}$ cubic feet.

∴ (81 + 20 $\frac{1}{4}$) cubic feet = 101 $\frac{1}{4}$ cubic feet. Subtracting this from the total solid contents of the walls we get 1473 $\frac{1}{4}$ cubic feet =

$\frac{5895}{4} \times \frac{1}{27}$ cubic yards.

The cost per cubic yard is Rs. 5-1-0 or $\frac{11}{2}$ Rupees.

∴ the cost of building the walls is $\frac{5895}{4} \times \frac{1}{27} \times \frac{81}{16}$ Rupees.

$\frac{17685}{64}$ Rupees = Rs. 276-5-3. Answer.

Each brick measures $\left(\frac{9}{1} \times \frac{4}{1} \times \frac{9}{4}\right)$ inches = 81 cubic inches or $\frac{81}{1728}$ cubic feet.

Dividing $\frac{5895}{4}$ by $\frac{81}{1728}$ we get

$$\begin{array}{r} 48 \\ 655 \overline{) 5895} \times \frac{1728}{81} = 655 \times 48 = 31,440 \text{ bricks. Answer.} \end{array}$$

7. If 38 men working 6 hours a day can do a piece of work in 12 days, find in what time 57 men working 8 hours a day can do a piece of work twice as great, supposing 2 men of the first to do as much work in 1 hour, as 3 men of the second set can do in $1\frac{1}{2}$ hour.

As 2 men of the first set do in 1 hour as much as 3 men of the second set do in $1\frac{1}{2}$ hour, therefore 2 hours' work performed by the first set is equivalent to $4\frac{1}{2}$ hours' work by the second set, and therefore the work done by each man of the second set is $\frac{2}{3}$ of that done by each man of the first set. Hence solving by proportion:—

$$\begin{array}{l} 57 : 38 \\ 8 : 6 \\ 1 : 2 :: 12 : x \\ 4 : 9 \end{array}$$

$$x = \frac{38 \times 6 \times 2 \times 9 \times 12}{57 \times 8 \times 4} = 27 \text{ Answer.}^*$$

8. Extract the square root of .002, and of 7649, each to four places of decimals.

$$\begin{array}{r} .00200000 \text{ (.0447)} \\ 16 \\ 84 \overline{) 400} \\ 336 \\ 887 \overline{) 6400} \\ 6209 \\ \hline 191 \end{array}$$

Answer .0447.

* Hindu students should accustom themselves to solve such problems by Proportion. Whatever may be the value of the "Unitary system," it is often cumbrous and lengthy, but it is the system almost exclusively employed in our Indian schools. Proportion and Decimals seem lamentably neglected. Scarcely a pupil in our ordinary schools knows anything of Proportion—and not one in a hundred can manipulate decimals without first reducing them to vulgar fractions. [Ed. M. J. of E.]

$$\begin{array}{r} 7649000000 \text{ (276568)} \\ 4 \\ 47 \overline{) 364} \\ 329 \\ 546 \overline{) 3590} \\ 3276 \\ 5525 \overline{) 31400} \\ 27625 \\ 55306 \overline{) 377500} \\ 331836 \\ 553128 \overline{) 4566400} \\ 4425024 \\ \hline 141376 \end{array}$$

Answer 276568.

9. A person's net income from 5 per cent. Government paper is rupees 1225 after paying income tax at the rate of 2 per cent. Find the number of shares of rupees 1,000 each owned by him.

$$\text{Gross income} = 1225 \times \frac{50}{49} = \text{Rupees 1250}$$

$$\text{As on each share of Rs 1,000 the income is } \frac{1000 \times 5}{100} = \text{Rs 50}$$

$$\therefore \text{the number of shares of Rs 1,000 to produce a gross income of Rs 1250} = \frac{1250}{50} = 25 \text{ Answer.}$$

MENTAL ARITHMETIC. (FEMALES.)*

Twenty minutes allowed for this Paper.

You are to enter the answer in the space () left for it after each question. Nothing is to be written on this paper, except the particulars required in the above Table, and the answers to the question on the other side. No ERASURES OR ALTERATIONS ARE PERMITTED. They will be marked as errors.

1. $7 \times 6 \times 25 \times 8 =$
2. 2s. $7\frac{1}{2}$ d., 3s. $2\frac{1}{2}$ d., 1s. $8\frac{1}{2}$ d., 14s. $6\frac{1}{2}$ d., change for £5 note =
3. $1\frac{1}{2}$ cwt. at 9d. per lb. =
4. 150 dozen at $6\frac{1}{2}$ d. each article =
5. Reduce £334 to pence =
6. Yearly income (365 days) at 4s. 3d. per day =
7. $\frac{1}{3}$ of $2\frac{1}{3} \div 22\frac{1}{3} =$

$$8. \text{The value of } \frac{\frac{1}{2} - \frac{1}{3}}{\frac{1}{2} - \frac{1}{4}} \text{ of } £10 \text{ 4s.} =$$

$$9. \text{Simple interest on } £452 \text{ 14s. 2d. at 4 per cent.} =$$

* These papers were set in England at the Examination for Schoolmasters' and Schoolmistresses' Certificates last Christmas. Mental Arithmetic is now recognized as a subject of the greatest importance in the Elementary Schools of England.

10. $5.25 \times .005 \div .0025 =$
11. If .007 of an estate be worth £77, the value of .09 =
12. G.C.M. of 1232, 1568 =
13. Fourth proportional to 79, 164, 237 =
14. 18 tons, 13 cwt, 1 qr., at 8d. per cwt. =

Alternative Paper.

1. $6 \times 8 \times 15 \times 5 =$
2. 1s 9½d., 7s. 6½d., 4s. 3½d., 12s. 7d., change from two sovereigns =
3. 1½ cwt. at 1s. 3d. per lb. =
4. 250 dozen at 4½d. each article =
5. Reduce £417 to pence =
6. Yearly income (365 days) at 3s. 9d. per day =
7. $\frac{11}{11}$ of $2\frac{1}{3} \div 38\frac{1}{2} =$
8. $\frac{\frac{1}{2} - \frac{1}{3}}{\frac{1}{4} - \frac{1}{5}}$ of £11 5s. =
9. Simple interest on £376 7s. 1d. at 4 per cent. =
10. $7.56 \times .006 \div .0036 =$
11. If .008 of an estate be worth £88, the value of .07 =
12. G.C.M. of 1472, 1728. =
13. Fourth proportional to 67, 137, 268 =
14. 16 tons, 17 cwt, 1 qr. at 9d. per cwt. =

MENTAL ARITHMETIC. (MALES.)

N.B.—Do not turn this paper till you are told to do so.

Twenty minutes allowed for this paper.

You are to enter the answer in the space () left for it after each question. Nothing is to be written on this paper, except the particulars required in the above table, and the answers to the question on the other side. NO ERASURES OR ALTERATIONS ARE PERMITTED. They will be marked as errors.

1. $6 \times 72 - 9 \times 144 + 12 \times 216 - 20 \times 36 =$
2. The error in calculating that 8½ guineas per week for 42 weeks is £355 =
3. Cost of 392 articles at 7½d. each =
4. Cost of 36 scores of articles at 4½d. each =
5. The number of francs at 10d. equivalent to 995 shillings =
6. The difference in pounds between 6040 half-crowns and 7050 florins =
7. The number of cows at £27 each, equivalent to 3027 horses at £36 each =
8. $71^s - 69^s =$
9. The number of measures of 144 =
10. Gain per cent. on goods bought for £75 and sold for £96 =
11. $5.05 \div .05 - 505 \times .0005 =$
12. $\frac{21 + 36 + 45 + 84 + 105}{28 + 48 + 60 + 112 + 140} =$
13. The principal, on which the amount at 20 per cent. is £727 4s =
14. The cube root of 438976 =

Alternative Paper.

1. Cost of 282 articles at 10½d. each =
2. Cost of 24 score of articles at 3½d. each =
3. $8 \times 64 - 10 \times 128 + 14 \times 192 - 40 \times 32 =$

4. The error in calculating that 7½ guineas per week for 50 weeks is £395 =
5. The number of cows at £28 each equivalent to 3,028 horses at £35 each =
6. The number of francs at 10d. equivalent to 1,005 shillings =
7. The difference in pounds between 5,040 half-crowns and 6,050 florins =
8. The number of measures of 1,000.
9. The gain per cent. on goods bought for £75 and sold for £99 =
10. $61^s - 59^s =$
11. The principal, on which the amount at 25 per cent. is £726 5s. =
12. $6.06 \div .06 - 606 \times .0006 =$
13. The cube root of 59,2704.
14. $\frac{14 + 24 + 48 + 72 + 120}{21 + 36 + 72 + 108 + 180} =$

MADRAS CHRISTIAN COLLEGE.

FIRST ARTS GENERAL ENGLISH.

1. Distinguish the use (a) of shall and will and (b) of who or which and that. Give examples to show what you mean.
2. Paraphrase the following verses :—

TO THE FIRE FLY.

This morning, when the earth and sky
Were burning with the blush of spring,
I saw thee not, thou humble fly,
Nor thought upon thy gleaming wing.

But now the skies have lost their hue
And sunny lights no longer play,
I see thee and I bless thee too!
For sparkling o'er the dreary way.

Oh! let us hope that thus for me,
When life and love shall lose their bloom,
Some milder joys may come, like thee,
To light, if not to warm the gloom!

3. Correct if need be, stating your reasons :—
 - (1) Who did he accuse for it, but James?
 - (2) I said that there is no reason why I will not copy.
 - (3) Not Mary nor Robert nor John was to blame.
 - (4) He answered that he have no displeasure, for he understand why you doing it.
 - (5) I found him laying on bed, sick of a strong fever.
 - (6) I will be killed and no body shall save me.
4. Explain the meaning of the following idiomatic expressions :—
 - (1) He let the cat out of the bag.
 - (2) He gave me the cold shoulder when we met.
 - (3) You should not jump at a conclusion.
 - (4) We buried our differences, and smoked the pipe of peace together.
 - (5) I do not like to give him the lie direct.
 - (6) You run full tilt against all my opinions.

5. Change as far as possible the words of classical origin into equivalents of Anglo-Saxon origin, in the following sentence:—

To designate an illustrious opponent as a sophistical rhetorician inebriated with the exuberance of his own verbosity, is rather to be expected of a mendacious politician, exhilarated beyond prudence by copious potations than of the foremost statesman of the day.

6. Distinguish the meaning of the following sentences:—

(1) I only ate six.

(2) I ate only six.

(3) I ate six only.

7. Analyse fully the following sentence:—

It is not surprising that some should shrink from reading, and some from recommending a writer, who, according to the observation of the keen and unprejudiced critic parson, often makes, where he cannot readily find, an occasion to insult our religion; which he hates so cordially that he might seem to revenge some personal injury.

8. The following words have each several meanings. Illustrate each of them by an example.

Fine, list, form, fry, hold, journal, lead, mass, page, point.

9. Distinguish the following words:—

Unnatural—supernatural: apparent—evident: scepticism—infidelity: disciple—apostle: medium—mediocrity: literal—literary: populace—population: character—characteristics: civil—civilized—civilian: peasant—pheasant.

FIRST ARTS.

The Talisman. Chaps. I—XIV.

1. Mention one or two points in which Scott gives a traditional and fictitious, rather than an accurate account of the Dead Sea:—also the anachronisms he commits in speaking of (1) 'Philip of France and Navarre,' and (2) 'The Scots and their frequent allies, the French.'

2. Give the meaning of the following expressions:—also the derivation of those italicized:—*rosary*, *host* (in the phrase 'to elevate the host'), *equerry*, *breviary*. Give you God'en, to trail arms, chamois leather, a Grecian nose.

3. Explain the allusions in:—

(a) I should like to lock upon a scene in which a leather belt and a pair of spurs put the poorest on a level with the most powerful.

(b) Water, like that of the well of Bethlehem, was obtained only by the expenditure of blood.

(c) Philip might be termed the Ulysses, as Richard the Achilles of the Crusade.

(d) The instinctive freemasonry of love.

4. By whom and in what circumstances was the song to Ahriman sung? What led the singer to sing it? State in a single sentence what seems to you the central idea of the poem.

5. Explain:—

(a) the meaning and origin of *Amen*, and how the same word came to be used by Frank and Saracen.

(b) how Sir Kenneth's *squire* is called a *sergeant*.

(c) why the archbishop declined to feel the squire's pulse.

(d) in what sense Philip was King Richard's liege lord.

(e) how Norman French came to be called the language of Quie.

(f) how the characters of Scot and of Crusader are said to have been *opposite* in the case of Sir Kenneth.

6. (a) Express the following metaphors as similes—'Its presence was acknowledged by a carpet of velvet verdure.'—'The slightest incident sometimes gives fire to the train which imagination has laid.'—'Thy bow is overslack to carry an arrow to the mark.'

(b) Reproduce the figures employed to illustrate (1) how the Christian host was helpless without King Richard:—(2) how national disunion began to appear when the Crusaders came into disadvantageous circumstances:—(3) the startled appearance of Conrad when the Grand Master proposed to assassinate Richard.

7. Write notes on the following extracts, pointing out defects or peculiarities in their grammar or style, and suggesting the changes that you think desirable:—

(a) Its waters, hardly touched by a straggling beam, lay in a steady repose alike delightful to the eye and the imagination.

(b) The Moslem saw enough to convince him with the assurance that Christians had private feelings of personal pique which were not entirely reconcilable.

(c) The camp contained that army with which he of the Lion Heart had promised himself a triumphant march to Jerusalem, and in which he would probably have succeeded if not hindered by the jealousies of the Christian princes.

(d) Lay me the couch more fairly.

8. Write out the following very brief abstract of the first seven chapters, supplying blanks and underlining the words supplied:—then continue the narrative up to the end of chapter XIV in a similarly condensed form:—

On his way to — Sir Kenneth, who had been despatched by — met the Saracen cavalier named — or —, by whom he was introduced to the hermit whose name was —. In the chapel beside the hermit's cell, Sir Kenneth saw at night a procession consisting of — one of whom acknowledged his presence by —. On his return he was accompanied by a physician sent by — to cure —. The physician first undertook to cure —, on whom Sir Kenneth left him in attendance, proceeding himself to King Richard's —. On his way he was met by — who insisted on accompanying him back to — that he might there see —. To this Sir Kenneth was at first unwilling to agree, because —. The baron however was allowed to accompany him and saw not only the physician and his patient, but also the hound —, which he admired greatly.

9. Write the following in indirect speech, paraphrasing so far as to remove the difficulties of meaning that you find in it:—

"The truce, my lord," said DeVaux, "prevents us bearing ourselves as men of action; and for the ladies, I am no great reveller, as is well known to your majesty, and seldom exchange steel and buff for velvet and gold—but thus far I know, that our choicest beauties are waiting upon the Queen's Majesty and the Princess on

a pilgrimage to accomplish their vows for your Highness' deliverance from this trouble."

"And is it thus," said Richard, "that royal matrons and maidens should risk themselves, where the dogs who defile the land have as little truth to man, as they have faith towards God?"

"Nay, my lord," said DeVaux, "they have Saladin's word for their safety."

"True; true!" replied Richard, and I did the beathen Saladin injustice—I owe him reparation for it.—Would God I were but fit to offer it him upon my body between the two hosts—Christendom and Heathenesse both looking on!"

FIRST ARTS.

Arithmetic and Algebra.

1. Find the sum of 0.275 of £1 + 1.03125 of 1 guinea + 0.00390625 of £1.12s. and reduce the first of these quantities to the decimal of the second.

2. Find the difference between the discount and the interest on £125-8-6 for half a year at $3\frac{1}{4}$ per cent.

3. When are two numbers said to be prime to each other? Show that 8765 and 13131 are so and find their L. C. M.

4. The shares in a mine are £20 each. £2.13s.4d. is paid up and the shares are quoted at £46. The dividend is 15s. per share quarterly. A holds 100 original shares. Find what interest he makes per cent. and what he would make if he sold out and invested in 4 per cent. stock at par.

5. If 9 women can do a certain piece of work in $11\frac{1}{2}$ days of $8\frac{1}{4}$ hours each, how many days of $9\frac{1}{4}$ hours each will it take 5 men who can do as much again as the women to do $2\frac{1}{2}$ of the same work?

6. A bankrupt has book-debts equal in amount to his liabilities but on £3000 of them he can recover only 6s. 8d. in the pound and the expenses of the bankruptcy are 5 per cent on the book debts. If he pays 11s. in the pound what is the amount of his liabilities?

7. A trader in London owes a debt of 1,000 pistoles to one in Cadiz find what he gains by sending it to him through France, the exchanges being £1=25.4 Francs; 19 Francs=1 Spanish pistole, 4 Spanish pistoles=£3.

8. Multiply together $\frac{x^6 - y^6}{x^3 + 2x^2y_2 + y^4}$, $\frac{x^2 + y^2}{x^2 - xy + y^2}$ and $\frac{x+y}{x^3 - y^3}$ and reduce to its lowest terms the fraction $\frac{6x^3 - 11x + 5}{3x^3 - 2x^2 - 1}$

9. Solve the equations

$$(1) \sqrt{x+\sqrt{x}} - \sqrt{x-\sqrt{x}} = \frac{1}{2} \left\{ \frac{x}{x+\sqrt{x}} \right\}^{\frac{1}{2}}$$

$$(2) \frac{a+b}{x} - \frac{a-b}{y} = 2ab \text{ and } \frac{a}{x} - \frac{b}{y} = ab \frac{a^2+b^2}{a^2-b^2};$$

$$(3) \frac{\sqrt{x}}{\sqrt{y}} + \frac{\sqrt{y}}{\sqrt{x}} = \frac{19}{\sqrt{x}y} - 1, (xy)^{\frac{1}{4}} = \frac{5\sqrt{6}}{\sqrt{x+\sqrt{y}}}$$

10. Extract the square root of $16-6\sqrt{7}$.

11. At the review of an army the troops were drawn up in a solid mass 40 deep; when there were just one-fourth as many men in front as there were spectators. Had the depth however been increased by five, and the spectators drawn up in the mass with the army, the number of men in the front would have been 100 fewer than before. Determine the number of men of which the army consisted.

12. Prove that the sum of an Arithmetical progression is equal to the product of the number of terms into the mean value of all the terms. What is the Geometrical proposition which this represents?

13. If $S_1, S_2, S_3, \dots, S_p$ be the sums of p Arithmetical progressions continued to n terms, the first terms of which are respectively 1, 2, 3... p , and the common differences 1, 3, 5... $(2p-1)$ show that $S_1 +$

$$S_2 + S_3 + \dots S_p = (np + 1) \frac{np}{2}$$

14. Explain clearly what is meant by the sum of an infinite Geometrical Progression.

Find the sum of the series $\frac{a}{x} \left\{ \frac{a^3}{ax^2 + x^3} \right\}^{\frac{1}{2}} \frac{a^2}{ax + x^2} + \&c.$ to infinity.

ty. What relation must exist between a and x if it is possible to do this?

15. An out-post contains twenty men. On how many successive nights may a different patrol of five men (*i.e.* a patrol not altogether the same) be sent out? and in how many of them will any one man serve?

16. Find the first 5 figures of $\sqrt[3]{25}$ by the use of the Binomial Theorem.

FREEMAN'S HISTORY OF EUROPE.—CHAPTERS I—XI.

I. In what battles did the Greeks defeat the Persians in the two great invasions of Darius and Xerxes respectively. Name the Greek generals engaged in the two fights and the dates of these events. Who is our authority for this period of Greek History?

II. Write down a brief account of the life of Sulla as you gather it from your text.

III. "Rome by the power of superstition, once more ruled over the prostrate nations of Europe." Illustrate with special reference to Heildelsand.

State the objects of the following Councils.

1. Council at Lyons.

2. " Nice.

3. " Placentia.

IV. What circumstances led to the commencement of the Crusades and what beneficial results flowed from them? Point out how the Crusades were afterwards twisted into a means of selfish aggrandizement, by the Popes.

V. What condition of things brought about the re-establishment of the western empire under Charles the Great? Give the extent

of Charles' dominions, as nearly as you can by using the modern names of places.

VI. Sketch briefly the general History of Sicily.

VII. (1) Describe the general condition of the Spaniards during the 12th and 13th centuries. What great good came out of the conquest of Spain by the Moors?

(2) What was the state of Germany during the reigns of the two Fredericks of the Swabian line.

VIII. (a) Explain:—

Exarch: Margrave: Ghibellin: Elector: Consul: Gothic Arch.

(b) State in a sentence or two, what you know of

Alaim, St. Bernard, Belisarius, Baton Khon and Count Julian.

IX. Name the great wars (with their general results) in which the following men were concerned: also mention *one* great battle which serves as a land mark in each war.

1 Lysander. 2 Antony. 3 Valens. 4 Epaminondas. 5 Alaric.
6 Charles Martel. 7 P. C. Scipio. 8 Otto. 9 T. E. Flaminius.
10 Alfonso. 11 Antiochus. 12 Alp Arslan. 13 Marius and
14 Pompey.

PHYSIOLOGY.

1. On opening the thorax and abdomen of a dead rabbit what structures present themselves to view?

2. Explain how it is that a man under ordinary circumstances is able to walk without falling.

3. What are the uses respectively of an artery, a vein and a nerve? How is the blood supplied with food?

4. Describe the course of the circulation of the blood.

5. How is respiration in man accomplished? What are the purposes served by the act?

6. What are the various secretions which aid in the process of digestion? How does the body get rid of its waste material?

F. A., EUCLID.

1. The angles on the same segment of a circle are equal to one another.

2. Prove the converse of Proposition XXII of Book III.

3. AB the diameter of a circle is produced to a point C. Let P be any point in the straight line CR drawn through C at right angles to AC. Join PA cutting the circle in Q. Show that the rectangle PA. AQ is independent of the position of P in the straight line CR.

4. Inscribe an equilateral triangle in a given circle.

5. Inscribe an equilateral and equiangular quindecagon in a given circle.

6. Distinguish between commensurable and incommensurable quantities. Enunciate Euclid's definition of proportion and show that it is applicable to both these kinds of quantities.

7. Similar triangles are to one another in the duplicate ratio of their homologous sides.

8. The rectangle contained by the diagonals of a quadrilateral figure inscribed in a circle is equal to both the rectangles contained by its opposite sides.

9. If ABC be an equilateral triangle inscribed in a circle and equal to PB' and PC' together.

10. A point P moves in such a way that its distance from a fixed point A is always double of its distance from another fixed point B. Show that the locus of P is a circle.

11. If two parallel planes be cut by another plane, their common sections with it are parallel.

12. Upon the three sides AB, BC and CA of any triangle ABC, describe externally the three equilateral triangles ABC', BCA' and CAB'. Show that AA', BB', and CC' meet in the same point.

DOVETON PROTESTANT COLLEGE.

MILTON'S PARADISE LOST.

(Book v, 1--450).

1. Explain—choral symphonies—dispatchful looks—the empiric alchemist—feathered mail—inoffensive must—intelligent substances—numerous verse—odours unfumed—sky-tinctured grain—spring and autumn here danced hand in hand—thus Eve her night related—words vouched with a deed so bold.

2. Derive and clearly trace out the meanings of *author, busom, concoct, nice, offence, orient, pamper, pomp, secure, uncount, wout*.

3. Give the construction of the italicized words below—

Him through the spicy forest onward *come* Adam discerned.—Ye with songs, *day* without night, *circle* is throne rejoicing.—Ye that walk the *earth*.—*Forbid* who will, none, shall from me withhold thy offered good.—Acknowledge him thy *greater*.—*Half* this day converse with Adam.—We lose the prime, to *mark* how spring our tender plants.—Ye that warble, as ye flow, melodious *murmurs*.—Evil may come and go, *so* unapproved, and leave no spot behind.—What reserve forbids to *taste*.—Good, the more communicated, more abundant grows.—No veil she needed, *virtue* proof.

4. (a) Remark on the forms *landskip, soaped, sovran, submiss, unconform*, and on the accentuation (in our book) of *retinue*.

(b) Give instances to show Milton's fondness for turning nouns into adjectives, and adjectives into nouns.

(c) Quote a parallel from our book to the Hebraism—"Thou hast deceived me, and I was deceived."

(d) Give the forms found in the text for (i) Temperate and bland vapours; (ii) I am glad to see thy face; (iii) She espouses him and twines about him her arms in marriage; (iv) And the winged saint did not delay after the receipt of his charge.

5. Simply name "the all-bearing mother"—"the fairest of stars, last in the train of night"—"the five wandering stars"—"the glass of Galileo"—"the injured lover's hell"—"Maia's son"—"the night-warbling bird"—the "second Eve"—"the seven-

times wedded maid"—"that sole bird"—"the three that in Mount Ida naked strove"—the place "where Alcinous reigned."

6. (a) Give in your own words Eve's dream.
 (b) What does Milton make Adam say of man's soul and faculties?
 (c) What do you mean by "the music of the spheres"?
 (d) Describe briefly the dinner mentioned in this book, the hosts, guest, and place.

SHAKESPEARE'S JULIUS CAESAR.

(Acts i — iii)

I. Point out the "mistakes" in—

- (a) Why, man, he doth bestride the narrow world like a colossus.
 (b) No, sir, their hats are plucked about their ears. And half their faces buried in their cloaks.
 (c) What is't o'clock? Caesar, 'tis stricken eight.
 (d) What is't o'clock? About the ninth hour, lady.
 (e) Men, wives, and children stare, cry out, and run. As it were doomsday.
 (f) Moreover, he hath left you all his walks. His private arbours, and new planted orchards. On this side Tiber.
 (g) I did enact Julius Caesar; I was killed in the Capitol; Brutus killed me. (*Hamlet*).

II. (a) When and why was Caesar's last triumph celebrated?

- (b) What was the Lupercal? When did the one referred to in the text come off?
 (c) Had our author any warrant—and if any, what—for making the following statements.

- (i) Come on my right hand, for this ear is deaf.
 (ii) 'Tis very like; he hath the falling sickness.

(d) Give and remark on the three references to Cicero in these acts. Cicero appears once among the dramatis personæ; how?

(e) Analyse carefully the character of Portia.

(f) Make a list of the principal conspirators against Caesar.

(g) Antony says—"I am no orator as Brutus is," do you think him right?

III. Derive and explain *unwary*, *arrive*, *cautious*, *cheer*, *fond*, *hurtle*, *lethe*, *liege*, *shrewd*, *whiles*.

IV. Paraphrase

(a) Vexed I am

Of late with passions of some difference,
 Conceptions only proper to myself,
 Which give some soil perhaps to my behaviour.

(b) The torrent roared; and we did buffet it
 With lusty sinews, throwing it aside
 And stemming it with hearts of controversy.

(c) Oh, he sits high in all the people's hearts;
 And that which would appear offence in us
 His countenance, like richest alchemy,
 Will change to virtue and to worthiness.

- (d) Between the acting of a dreadful thing
 And the first motion, all the interim is
 Like a phantasma or a hideous dream:
 The genius and the mortal instruments
 Are then in council; and the state of man,
 Like to little kingdom suffers then
 The nature of an insurrection.
 (e) That we shall die, we know; 'tis but the time
 And drawing days out, that men stand upon.
 (f) A curse shall light upon the limbs of men;
 Domestic fury and fierce civil strife
 Shall cumber all the parts of Italy;
 Blood and destruction shall be so in use,
 And dreadful objects so familiar,
 That mothers shall but smile when they behold
 Their infants quartered with the hands of war;
 All pity choked with custom of fell deeds;
 And Caesar's spirit, ranging for revenge,
 With Ate by his side come hot from hell,
 Shall in these confines with a monarch's voice,
 Cry *havoc*, and let slip the dogs of war.

V. Give the construction of the italicized words in—Then the people fell a shouting—But men may construe things after their fashion *clean* from the purpose of the things themselves—Nor heaven nor earth *have* been at peace to night—Three parts of him is ours already—*Live* a thousand years, I shall not find myself so apt to die—No, Sir, there are *more* with him—He plucked *me* ope his doublet—Tell him, *so* please him come unto this place, he shall be satisfied—You ought not *walk*—Let no man abide this deed but *we*—*What* need we any spur but our own cause—Woe the *while*—I will set this foot of mine as far as *who* goes farthest—Answer, ay, and truly, *you* were best—Make me acquainted with *your* cause of grief.

MACAULAY'S ESSAY ON BARERE.

MACAULAY'S Essay on Milton has long been associated in my mind with his Essay on Bertrand Barere. The essays have in common an element of emotional fervour, scarcely discernible in his other works. His whole heart is in the one; his conscience in its sternest mood is in the other. No piece of Macaulay's composition is so vehement as that in which he pronounces judgment on Barere. It is impossible to read it without a glow of wrath against that supreme miscreant. There is a deep sense in which such writing is valuable. Moral indignation, if we are but sure that it is just, is a bracing and healthful feeling. The soul dissolves in mere floods of mawkish sentimentality if we have no power of scorning the liar and hating the murderer. The vices of Barere were of all vices the worst, the most inexpiable; he was mean, cowardly, servile, hypocritical, and, worst of all, cruel. Macaulay considers his case fully; gives him fair play; launches into no declamation until he has satisfied himself as to the facts. The book which suggested his article was an autobiographic apology for this colleague of Robespierre during the darkest period of the Reign of Terror in Paris. It stated all that could be stated with any plausibility in defence of Barere. Having given the four volumes in which the plea was stated his serious attention, "we

have made up our minds," wrote Macaulay, "and we now purpose to do him, by the blessing of God, full and signal justice."

The estimate formed of Barere's character is briefly and with terrible clearness stated in the outset:—"That Barere approached nearer than any person mentioned in history or fiction, whether man or devil, to the idea of consummate and universal depravity. In him the qualities which are proper objects of hatred, and the qualities which are the proper objects of contempt, preserve an exquisite and absolute harmony. In almost every particular sort of wickedness he has had rivals. His sensuality was immoderate; but this was a failing common to him with many great and amiable men. There have been many men as cowardly as he, a few as mean, a few as impudent. There may also have been as great liars, though we never met with them or read of them. But when we put everything together, sensuality, poltroonery, baseness, effrontery, mendacity, barbarity, the result is something which, in a novel, we should condemn as caricature, and to which, we venture to say, no parallel can be found in history."

Originally this prodigy of badness was not unfavourably placed; he did not inherit one of those evil tempers which make bitter words and harsh actions to some persons "as natural as snarling and biting to a ferocious dog." To triumph over such a temper is a signal triumph of religion or philosophy. But Barere had by birth a bland disposition; he was weak and cowardly, but not worse; by degrees he learned "to inflict misery on his fellow-creatures with indifference, with satisfaction, and at length with a hideous rapture." "He tasted blood, and felt no loathing. He tasted it again, and liked it well. Cruelty became with him first a habit, then a passion, at last a madness." The vices of prosperity were produced in him by his elevation; he fell, and "another class of vices, less hateful, perhaps, but more despicable, was now developed in him by poverty and disgrace. Having appalled the whole world by great crimes perpetrated under the pretence of zeal for liberty, he became the meanest of all the tools of despotism." After tracing his career through its various crimes and degradations, after showing him as the cruellest of murderers and the basest of spies and traitors, after convicting him of infamy on infamy and lie on lie, Macaulay pauses to derive some slight relief from Barere's hatred of England. "We like his invectives against us much better than anything else that he has written; and dwell on them, not merely with complacency, but with a feeling akin to gratitude. It was but little that he could do to promote the honour of our country; but that little he did strenuously and constantly. Renegade, traitor, slave, coward, liar, slanderer, murderer, hack-writer, police-spy—the one small service which he could render to England was to hate her: and such as he was may all who hate her be!"

But it is when his nauseous profession of Christian belief comes into view that Macaulay's scorn and anger against Barere reach their climax. "As we think that whatever brings dishonour on religion is a serious evil, we had, we own, indulged a hope that Barere was an atheist. We now learn, however, that he was at no time even a sceptic, that he adhered to his faith through the whole Revolution, and that he has left several manuscript works on divinity. One of these is a pious treatise, entitled 'Of Christianity, and of its

Influence.' Another consists of meditations on the Psalms, which will doubtless greatly console and edify the Church. This makes the character complete. Whatsoever things are false, whatsoever things are dishonest, whatsoever things are unjust, whatsoever things are impure, whatsoever things are hateful, whatsoever things are of evil report, if there be any vice, and if there be any infamy, all these things, we knew, were blended in Barere. But one thing was still wanting; and that M. Hippolyte Carnot has supplied. When to such an assemblage of qualities a high profession of piety is added, the effect becomes overpowering. We sink under the contemplation of such exquisite and manifold perfection; and feel, with deep humility, how presumptuous it was in us to think of composing the legend of this beatified athlete of the faith, St. Bertrand of the Carnagnoles."

Mr. Carlyle who, in writing his History of the French Revolution, came, of course, across Barere, pronounces him a greater liar than Mendez Pinto, Münchhausen, Cagliostro, Psalmanazar—in fact, the greatest of all liars; but does not seem to consider him substantial enough to be the monster of wickedness portrayed by Macaulay. As a finch might sing its song in the hedge, or a magpie carry on its chatter among the branches, while a battle was being fought in an adjoining field, so Barere, as conceived by Carlyle, was the "Anacreon of the Guillotine," too trivial, slight, frivolous, in his whole mental constitution, to be acted on strong feeling under any circumstances. I have no doubt that frivolity and heartlessness were the innate qualities of Barere, but I am not sure that Mr. Carlyle estimates at its full amount the degree of wickedness that can be built upon a disposition originally weak. The character of Barere was probably much what George Eliot intended to draw in Tito Melema—weak and impressive to begin with, bitterly bad in the end.—*Professor Peter Bayne.*

HERBERT SPENCER ON EDUCATION.*

We are rejoiced to see that Mr. Herbert Spencer has brought out a cheap edition of his very valuable treatise on Education, which, as originally issued, was published in too expensive a form for the pockets of elementary teachers. He tells us that the work has had considerable currency in the United States, and that there have been made translations of it into the French, German, Italian, Russian, Hungarian, Dutch, and Danish languages. We are not at all surprised at this announcement. Whatever the defects of Mr. Spencer's book may be, it is full of original thought and valuable suggestions.

Mr. Spencer is not himself a teacher, and so far as we know, has never been connected in any way with the work of education. This might seem an overwhelming disadvantage to a writer in dealing with a subject which demands, before all things, practical knowledge. But Mr. Spencer possesses no ordinary mind; and though he does not avoid the blunders which might be expected from a theorist, he deals with the scientific side with his subject with wonderful insight and clearness. It is sometimes an advantage not to be

* *Education, Intellectual, Moral, Physical.* By Herbert Spencer. Cheap Edition. Williams & Norgate.

too near the object which we wish to observe. Close proximity is indispensable to the microscopic examination of details; but distance is favourable to a comprehensive survey. The teacher himself is apt to be so absorbed in the practical details of school-work as to lose sight of the more general aspects of Education; such as the relative value of different kinds of knowledge, the fundamental principles on which methods of teaching depend for their success, and so forth. The outsider, on the other hand, coming fresh to the subject, and uninfluenced by personal prejudices or the authority of great names, will often see at a glance some glaring defect, which only too close a proximity to it had allowed to remain undetected so long.

Mr. Spencer's first essay is devoted to the consideration of the question, "What knowledge is of most worth?" the conclusion he comes to being that knowledge is valuable in proportion as it contributes to complete living.

How to live?—that is the essential question for us. Not how to live in the mere material sense only, but in the widest sense. The general problem which comprehends every special problem is—the right ruling of conduct in all directions under all circumstances. In what way to treat the body; in what way to treat the mind; in what way to manage our affairs; in what way to bring up a family; in what way to behave as a citizen; in what way to utilise those sources of happiness which nature supplies—how to use all our faculties to the greatest advantage of ourselves and others—how to live completely? And this, being the great thing needful for us to learn, is, by consequence, the great thing which education has to teach. To prepare us for complete living is the function which education has to discharge; and the only rational mode of judging of an educational course is, to judge in what degree it discharges such function.

Mr. Spencer does not lose sight of the fact that the object of education is not merely to communicate knowledge; and that the discipline afforded to the mind in the acquisition of knowledge may be more valuable than the knowledge itself; but he contends that the same knowledge which contributes to complete living is also most valuable as an instrument of mental discipline.

He attaches, as might be expected, great importance to what he calls the Abstract-Concrete sciences:—

On the application of the simplest of these, Mechanics, depends the success of modern manufactures. The properties of the lever, the wheel-and-axle, &c., are recognised in every machine; and to machinery in these times we owe all production. Trace the history of the breakfast-roll. The soil out of which it came was drained with machine-made tiles; the surface was turned over by a machine; the wheat was reaped, thrashed, and winnowed by machines; by machinery it was ground and bolted; and had the flour been sent to Gosport, it might have been made into biscuits by a machine. Look round the room in which you sit. If modern, probably the bricks in its walls were machine-made; and by machinery the flooring was sawn and planed, the mental-shelf sawn and polished, the paper hangings made and printed. The veneer on the table, the turned legs of the chairs, the carpet, the curtains, are all products of machinery. Your clothing—plain, figured, or printed—is it not wholly

woven, may, perhaps even sewed, by machinery? And the volume you are reading—are not its leaves fabricated by one machine and covered with these words by another? Add to which that for the means of distribution over both land and sea, we are similarly indebted. And then observe that according as knowledge of mechanics is well or ill applied to these ends, comes success or failure. The engineer who miscalculates the strength of materials, builds a bridge that breaks down. The manufacturer who uses a bad machine cannot compete with another whose machine wastes less in friction and inertia. The ship-builder, adhering to the old model, is out-sailed by one who builds on the mechanically-justified wave-line principle. And as the ability of a nation to hold its own against other nations depends on the skilled activity of its units, we see that on mechanical knowledge may turn the national fate.

On ascending from the divisions of Abstract-Concrete science dealing with molar forces, to those divisions which deal with molecular forces, we come to another vast series of applications. To this group of sciences, joined with the preceding groups, we owe the steam-engine, which does the work of millions of labourers. That section of physics which formulates the laws of heat, has taught us how to economise fuel in various industries; how to increase the produce of smelting furnaces by substituting the hot for the cold blast; how to ventilate mines; how to prevent explosions by using the safety-lamp; and, through the thermometer, how to regulate innumerable processes. That section which has the phenomena of light for its subject, gives eyes to the old and the myopic aids; through the microscope, in detecting diseases and adulterations; and, by improved lighthouses, prevents shipwrecks. Researches in electricity and magnetism have saved innumerable lives and incalculable property by the compass; have subserved many arts by the electrotype; and now, in the telegraph, have supplied us with an agency by which, for the future, mercantile transactions will be regulated and political intercourse carried on. While in the details of in-door life, from the improved kitchen-range up to the stereoscope on the drawing-room table, the applications of advanced physics underlie our comforts and gratifications.

With these views of the supreme importance of Physical Science, our readers will not be surprised to find that Mr. Spencer does not approve of the ordinary curriculum of English education. He says:

That which our school courses leave almost entirely out, we thus find to be that which most nearly concerns the business of life. Our industries would cease, were it not for the information which men begin to acquire as they best may, after their education is said to be finished. And were it not for the information, from age to age accumulated and spread by unofficial means, these industries would never have existed. Had there been no teaching but such as goes on in our public schools, England would now be what it was in feudal times. That increasing acquaintance with the laws of phenomena, which has through successive ages enabled us to subjugate Nature to our needs, and in these days gives the common labourer comforts which a few centuries ago kings could not purchase, is scarcely in any degree owed to the appointed means of instructing our youth. The vital knowledge—that by which we have grown as a nation to what we are, and which now underlies our

whole existence—is a knowledge that has got itself taught in alleys and corners; while the ordained agencies for teaching have been mumbling little *claus* but dead formulas.

That part of Mr. Spencer's essay which treats on the preparation for parenthood may seem unpractical; but the only error we perceive in it is the assigning of a duty to school education which obviously belongs to a later period in life—later, but still antecedent to marriage. The common blunders is to leave parents to pick up from experience, often at the cost of all they hold dearest to them, lessons which they ought to have been formally taught.

A knowledge of the mind is as necessary to parents and teachers as a knowledge of the body.

Grant that the phenomena of intelligence conform to laws; grant that the evolution of intelligence in a child also conforms to laws; and it follows inevitably that education cannot be rightly guided without a knowledge of these laws. To suppose that you can properly regulate this process of forming and accumulating ideas, without understanding the nature of the process, is absurd. How widely, then, must teaching as it is, differ from teaching as it should be; when hardly any parents, and but few tutors, know anything about psychology! As might be expected, the established system is grievously at fault, alike in matter and manner. While the right class of facts is withheld, the wrong class is forcibly administered in the wrong way and in the wrong order. Under that common limited idea of education which confines it to knowledge gained from books, parents thrust primers into the hands of their little ones years too soon, to their great injury. Not recognising the truth that the function of books is supplementary—that they form indirect means to knowledge when direct means of seeing through other men what you cannot see for yourself—teachers are eager to give second-hand facts in place of first-hand facts. Not perceiving the enormous value of that spontaneous education which goes on in early years—not perceiving that a child's restless observation, instead of being ignored or checked, should be diligently ministered to and made as accurate and complete as possible—they insist on occupying its eyes and thoughts with things that are, for the time being, incomprehensible and repugnant. Possessed by a superstition which worships the symbols of knowledge instead of knowledge itself, they do not see that only when his acquaintance with the objects and processes of the household, the streets, and the fields, is becoming tolerably exhaustive—only then should a child be introduced to the new sources of information which books supply; and this, not only because immediate cognition is of far greater value than mediate cognition; but also, because the words contained in books can be rightly interpreted into ideas only in proportion to the antecedent experience of things.

Our space will not allow us to analyse the whole volume; but we trust that we have said enough to induce teachers to fit it for themselves. They will find it of a different character from the ordinary text-books on Method—less practical, perhaps on the surface, but far more suggestive. The author aims at placing education on a rational basis; and his appeals to the intelligence of the reader cannot but be productive of good, even when the reader ventures to disagree with him.—*School Guardian.*

HOW TO WRITE ENGLISH.*

BLAIR justly observes that "it is not easy to give a precise idea of what is meant by 'style.' The best definition I can give of it is, the peculiar manner in which a man expresses his conceptions, by means of language." Now this is exactly the subject of this paper; and it may be that I shall follow it up by one or two other papers. My design is to point out by example and comment—but chiefly by means of the former, as being the more striking and instructive,—what are the great requisites of a good style, and how to avoid the common defects which prevail just now in England. In order to make these papers practically useful, the specimens of good writing will be culled from a large field, with little regard to epoch, so long as such specimens be fitly chosen for models; but for specimens of bad style, I shall, I fear, be compelled to take examples a good deal from authors of our own day. The reason is that cardinal merits are always merits, and belong to no time, and are not matter of fashion; while faults in style are in their very nature shifting: each age and epoch producing its own peculiar crop, accompanied by its attendant abuses of phrase and term. To be thoroughly useful these papers must deal with errors and defects which now prevail, rather than with those which we are less liable to contract. Our book-shelves contain, no doubt, a plentiful supply of faults of style, all of which we are liable to adopt from them: but inasmuch as we all read ten new books and a hundred new articles, for every one old book or article, the danger of contagion is far greater from the former than the latter.

I differ a little from Blair in laying it down as a starting point, that "All the qualities of a good style may be ranged under two heads, Perspicuity and Ornament." I should say **CLARITY** and **FORCE**. I do not regard ornament as necessarily a quality of "good style." It is ornament and nothing but ornament,—a thing essentially adventitious to what is substantial. Now, the essential qualities of a thing must certainly be substantial and primary, and nowise supplemental or secondary. I should say of a good style such as Addison's or Goldsmith's, that it was ornamental *as well as* good, but certainly not that either was good *because* it was ornamental. I am anxious thus to discard ornament as a primary quality of good writing or speaking, because it avoids a great discouragement. Few people can ever hope to write *ornamentally* and well, but all who have tolerably cultivated minds of average power, may by due care and practice learn to write *well*, and enjoy the reputation of a good style,—a reputation the more desirable since a bad one is by far more common. Besides, ornaments in writing are very like edged-tools: and it requires a pure taste as well as great discretion to use them effectively. A man of genius acquires, or rather he possesses, a capacity for doing this, not given to lesser intellectual faculties. No man, therefore, who has not some genius and good taste should adventure on ornaments, beyond such as consist in harmony and in the due choice of expressions, neither of which amount to what is commonly understood by an ornate or ornamental style. This consists usually of flowery or figurative language, and

* From the *English Journal of Education*.

too often of sonorous words, used not because they best express the writer's meaning, but because he thinks them fine and effective.

Though I venture to differ from Blair on Ornament, I wholly agree with him in all that he says so forcibly on the other quality of good writing, which he truly terms fundamental, namely, Clearness: "a quality," he says, "so essential in every kind of writing, that for the want of it nothing can atone." Oh, most truly said! And yet in what puzzle-headed modes of expression do even clever men among us often indulge; in what conglomerations of useless words; in what provokingly prolonged and involved sentences! How many correct thinkers and even learned men write obscurely, —taking no pains to explain fully what they mean to minds which, unlike their own, come freshly to thoughts well conned by the writers, but new and strange to the reader. How many—masters, too, of English,—purposely select long unwieldy words, when shorter and commoner ones lie hard by which are more apt and expressive. It may as well be remarked here, parenthetically, that some of these faults depend on and spring from faults and failings in the writer. Thus, feeble people write feebly; perverse people write testily; and dry, angular people always unpleasantly. Peevishness and irritability, sarcastic and morose dispositions, peep out in the style, just as they do in the countenance, the voice, and the conversation. These are defects which the heart and moral control and training can alone cure in style. All I can attempt to do is to grapple with such points as fall more within the domain of the artistic powers of the mind to mould and exercise.

To return to clearness of style, "without which," says Blair, "the richest ornaments only glimmer through the dark, and puzzle instead of please the reader."

Akin to clearness is force of style, but they are by no means inseparable: a weak, feeble style may be very clear, and I do not think that it would be useful to discuss them separately at first, but rather to give boldly the best models of strong thoughts clothed in good words, and written in a clear style.

(To be continued).

APPOINTMENTS.

Mr. E. P. Metcalfe, M.A., to be Principal, 4th Class, Rajahmundry College, and Principal, 3rd Class, substantive *pro tem.*, from the 15th August 1879.

Mr. Alexander Monro, M.A., B.C.L., to be Inspector of Schools, 4th Class, substantive *pro tem.*, from the 2nd June 1879, and to have charge of the 1st Division.

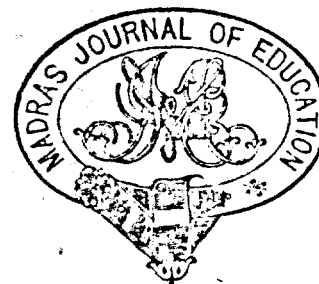
Mr. Sadha Sheshayya, B.A., Assistant Professor, Presidency College, and Acting First Assistant, Combarum College, to act as Inspector of Schools, 4th Class, and to have charge of the 2nd Division, during the absence on privilege leave of Mr. Portey, M.A.

Appointment made by the Director of Public Instruction.

G. V. Subbaroyada, Headmaster, Government Middle School, Amalapuram, to be Headmaster, Government Middle School, Bimlipatanam.

* Blair says "perspicuity," but I prefer the shorter and simple word.

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THE MONTH.

By a Bill recently passed in the Senate of New York, it is provided that uniform text-books are to be furnished, for a period of fifteen years, by the lowest bidder. The Superintendent of Public Instruction is to determine the subject-matter of the books, and can revise them once in five years. All school officers will be compelled to introduce them under penalty of dismissal, and school districts are permitted to levy a tax to purchase the books. We venture to say that a brief experience of this new rule will suffice to show its folly. Uniform school books may be desirable from an economic point of view; but were all the school literature of a country stereotyped after the fashion which the Senate of New York has ordered, the educational results would be lower than under the present system. New methods can be explained in new text-books while the market is open, but improved plans would be reserved for individual gain were the books in the hands of the Government department.—*English Journal*.

Under cover of Despatch, No. 83, dated 2nd May 1878, Her Majesty's Secretary of State forwarded a Memorandum by the Army Sanitary Commission on the Bengal Sanitary Report for 1876, which contained a suggestion as to the desirability of introducing simple sanitary teaching into schools and colleges in India. In order to give effect to this suggestion, the Government of India issued an advertisement offering a reward of Rupees 500 for the best Sanitary Primer for use in Indian Schools, both English and Vernacular. The conditions assigned were that the Primer should be in English, written in a simple style, without theories, and thoroughly practical; that it should show the chief defects of Indian towns and villages, and the best means for rectifying them; that it should not cover more than from 24 to 30 pages of small pica print of octavo size; and that it should reach this office not later than the 1st April 1879.

In response to the advertisement, 60 Primers have been received. Although some of them give evidence of considerable care devoted to their preparation, not one can be said to meet fully the prescribed conditions, or to be worthy of adoption by Government for general use in schools. The defects generally found to exist are that the Primers are either too complicated and far above the comprehension of those for whose use they are specially intended, or that they are not sufficiently practical, dealing with sanitary matters in the abstract, and not attempting to apply the recommendations made in such a way as to correct the evils which exist in the towns and villages of India.

These defects are such as to render it impossible for the Government of India to adopt and publish authoritatively any of the competing works as the Sanitary Primer to be used in Indian Schools. At the same time, though none of the Primers can be adopted for general use, the Governor-General in Council considers that the reward should be paid for the best of the competing works. One-half of the reward, or Rupees 250 apiece, will accordingly be paid to the authors of Primers No. 35 (motto, "*Mens sana in corpore sano*") and No. 41 (motto, "Prevention is better than cure"), which are decidedly the best and of equal merit. The name inside the sealed covers bearing those mottoes are, respectively, R. F. Hutchinson, M.D., and Charles Planck, M.R.C.S. & L.S.A.

In addressing the teachers of the Comilla Zilla School, Mr. Stack (the Inspector of Schools, Eastern Bengal) gave the following instances illustrative of what a parrot-taught pupil becomes when he is confronted with the horror of an unanticipated question. "Take this from one of my own papers: 'I cannot understand the question and the damning word 'Plucked' is written on my soul in letters of fire,' or this from another paper: 'This question (which I cannot understand) makes my brain to reel; my skin to act freely, and each particular hair of my head to stand on end like quills upon the fretful porcupine.' Or this from another: 'Respected Examiner, I cannot answer this question. The quality of mercy is not strained. As you are strong, be merciful. Pity is akin to love'—Or this: 'This question is too horrible for thought. It sears my eyeballs. Hence horrible shadow, mockery; hence, hence away.'"

UNIVERSITY OF MADRAS.—The following Candidates have passed the recent Second L. M. and S. Degree Examination held in July 1879:—

Second Class.—Hennessy, Francis Joseph, Madras Medical College, and Shroff Edalji Beramji, Grant Medical College, Bombay.

THE native Headmaster of a Hindu School at Trichinopoly in a notice he has printed and circulated concerning the opening of a Branch School adopts the following magnificent phraseology:—

"The Branch School will be under the direct Superintendence of the Headmaster of the Hindu High School; the Headmaster of the Hindu High School will, from time to time, work up the

Masters of the Branch School and the pupils therein, in accordance with the principles of the would be—Comparative Anglo-Vernacular—method, because it is a fundamental universal principle of rational psychology that every human mind thinks, consciously in its superficial layers, and unconsciously in its deeper layers, in its mother tongue—a principle only theoretically recognized by the European, Occidental, outer psychologists."

FEMALE NORMAL SCHOOL.—From the Report made to Government on this Institution we extract the following remarks:—

The strength of the Normal Department has risen from fifteen to twenty. Of ten students who left during the year seven have secured appointments ranging in value from Rupees 15 to Rupees 70, and one has set up a school of her own at Bangalore. A student of the Practising School has also obtained an appointment of Rupees 50.

Mr. Fowler points out that the Hindu element in the school is still very weak, and that owing to Miss Spence's ignorance of the vernacular languages, she is unable to take part in the teaching of Native students. Miss Spence commenced learning Tamil as soon as she arrived in India; but at her age new languages are acquired with difficulty, and she appears to have abandoned the attempt.

Five students of the Normal School appeared in December for the First Grade, and all passed. Of two who appeared for the Second Grade one passed. Of those who passed for the First Grade one obtained a perfect certificate, but the rest passed in English only. Under the new system, English-speaking candidates are admitted only to be trained, and must have already passed one or more of the examinations prescribed for certificates. Mr. Fowler suggests that a further condition of such scholarships should be ability to read, write, and speak Tamil or Telugu, and that English-speaking candidates unable to fulfil this condition should receive free scholarships instead of stipendiary scholarships. I see no objection to this proposal.

The Practising School contained only sixty-six pupils at the time of Mr. Fowler's inspection, and it is obvious that this number cannot supply sufficient material for English, Tamil and Telugu classes. It was hoped that the removal of the school from Armenian Street to its present locality would effect a great change in this respect, but the end in view has not been attained as yet. The preponderance of the European element in the school is perhaps one of the causes of the small attendance. Five pupils who went up from the Practising School for the First Grade all passed; three out of five passed for the Second Grade; and three out of six for the Third Grade. These are very creditable results, but all the candidates took up English only.

Besides the regular work of the school, eleven girls of the Military Asylum attend the method and criticism lessons once a week, and a similar arrangement is about to be carried out in connexion with the Civil Asylum.

Rules for admission of Students into the Government Normal School, Madras.

The following Rules for the admission of Students into the Gover

ment Normal School, Madras, having been sanctioned by Government are published for general information :—

Whenever a vacancy, which should be filled by a Graduate, First Arts man, or Matriculate, occurs or is about to occur in a Government College or School, the officer whose duty it is to fill it up shall, after ascertaining that funds are available, select the best man he can find for the post, appoint him provisionally, and send him to be trained in the Madras Normal School, making some temporary arrangement in the meanwhile.

II. The period of training for Graduates shall be about six months, for First Arts men and Matriculates from nine to twelve months.

III. The rate of scholarships shall be as shown below :—

Grades.	Third, Fourth, and Fifth Divisions and Coimbatore	First and Second Divisions and Malabar and South Canara.
	RS. A. P.	RS. A. P.
Graduates	15 0 0	20 0 0
First Arts men	12 8 0	15 0 0
Matriculates... ..	10 0 0	12 8 0

IV. The men thus appointed shall be entitled to travelling allowances to and from Madras at the rates laid down for masters.

V. Every person so selected shall be considered on probation for one month, and if it shall appear to the principal that he is not likely to prove an efficient Schoolmaster, his scholarship shall cease.

VI. Every Normal Student admitted with a provisional appointment in the manner above-mentioned shall be required to sign an agreement binding himself to remain under training during the prescribed period, to take up his appointment at the end of his training, and to remain in his appointment or any other to which he may be transferred for five years.

VII. He may, however, on refunding the amount received by him on account of his scholarship and travelling allowances, be allowed, after giving two months' notice, to resign his appointment at the end of two years from the date of entering on the duties thereof.

VIII. In the event of his resigning without completing his training, or without taking up his appointment, or without serving two years in his appointment, he shall be declared ineligible for any appointment under Government for two years from the date of his resignation, and shall further be required to refund the amount received by him on account of his scholarship and travelling allowances.

IX. In the event of funds being available men selected by the managers of aided schools and provisionally appointed to posts in such schools may be admitted into the Madras Normal School with the same scholarships, and on the same conditions as masters pro-

visionally appointed to posts in Government schools. In the event of funds not being available, they may be admitted as free scholars.

X. Normal Students sent for training by Native States may be admitted into the Madras Normal School on payment of an annual fee of Rupees 100, but will receive no scholarships from the Madras Government.

THE following characteristic production has been received from a Hindu pupil by the Head Master of a large school in this Presidency :—

SIR,—I request you to send me the 2nd prize of the II A class, which I justly deserve. It is true that I was a student of the III A class last year in your school, and that I am now a student of another school in the IV C division. So long as I was your pupil, I attended to my duty honestly and faithfully; and now I have learned that moral principle from you. As a sheep looks green grass at a distant place goes to that place in search after it and finds the place containing the same kind of grass on which it was feeding before, so I saw some greenness prevailing upon the——High School, joined that school, and at last found it, in teaching staff, on the same level as my former school. According to your teaching, I will affix to one school and do my duty hereafter heartily and pass off University Examination. If you give me the prize which I deserve and if you justify the statement "Love thy neighbour as thyself," I shall feel extremely thankful and pray the Almighty for your long life, prosperity and heavenly bliss."

THE PRONUNCIATION OF ENGLISH.

THE pronunciation of English words is a subject full of interest, but here in India, it is very much to be feared that it does not receive sufficient attention in our schools and colleges. It cannot well, perhaps, be otherwise, seeing that English is frequently taught by imperfectly educated natives, who have few opportunities of acquiring a just appreciation of the niceties of English pronunciation. Hence it is by no means uncommon to hear even Hindu graduates, men of, undoubtedly, excellent parts and very high attainments, let fall in course of conversation, words of strange sound which jar upon the ear accustomed to a very different mode of pronunciation. Unfortunately a disposition is too often manifested to treat with ridicule errors of this kind, little or no allowance being made for the fact that the speakers are foreigners struggling to master a language that is confessedly full of perplexities, vagaries and inconsistencies. Admitting that something may be done to effect improvement, it may yet be safely asserted that differences of nationality must always lead to differences of pronunciation, nay more, that even when the nationality is the same, but there has been separation and isolation and differences of locality and climate exist, the differences that obtain in respect to pronunciation are very numerous and very remarkable. Englishmen, Scotchmen and Irishmen,

though speaking the same language, do not always give the same pronunciation to some of the commonest words in the language. The Englishman pronounces *calm* as if spelt *cahm*, while the Irishman says *cam*. Then again, even among educated Englishmen, how differently is the letter *a* sounded in such words as *ask*, *grant*, *command*. Walker to whom a great many Englishmen pin their faith, is far from being a safe guide, it is believed in regard to the pronunciation of these and similar words. Those who have heard Americans speak are aware that even educated men amongst them say *noo* for *new* and *dooty* for *duty*. Such being the case, small blame to Hindus, and to natives of this country generally, if at times they fail to give the correct pronunciation. Considering how imperfect and defective the English Alphabet is, and how each vowel has to do duty for half a dozen different sounds, considering, too, that the spelling of a word is not always a guide to its pronunciation, and that the best lexicographers very often differ as to the correct pronunciation of a word, it is no wonder that the difficulties of English pronunciation are so hard to be surmounted. The best, if not perhaps the only way of acquiring a correct pronunciation is by paying careful attention to the conversation of well educated men and by moving in the best society, but, unfortunately, this latter is a privilege which it is given to few natives of this country to enjoy.

Now for the pronunciation of a few words about which there seems to be some diversity of opinion. How should such words as *simultaneous* and *vicissitude* be pronounced, *simultaneous* and *vicissitude*, or *simultaneous* and *vicissitude*? I myself have heard one Minister of the Gospel expatiate on the *vicissitudes* of life in the morning, while from the very same pulpit in the evening, his colleague dwelt on its *vicissitudes*. The word *demonstrate* is, I believe, usually pronounced with the accent on the first syllable, but yet the word *remonstrance*, which is of the same derivation, and differs from it in only one letter is just as invariably pronounced with the accent on the second syllable. Then as to the words *confiscate*, and *contemplate*, the more usual way of pronouncing them, though I hesitate to say so, is with the accent on the first syllable, yet Call, in Ogilvie's Dictionary, who sets up for being something very like infallible in matters of this kind, would have us pronounce the words with the accent on the second syllable. When the pronunciation is so unsettled and the greatest and most learned doctors disagree, who indeed will venture to decide. Take again the word *conservator*. Dictionaries give the word with the accent on the third syllable, *conservator*, but here in India, officers of the Forest Department are almost always spoken of as *conservators*, with the accent, that is, on the

second syllable. In the word *decorous*, ought the accent to be placed on the first or second syllable, *decorous* or *decórous*, and in the word *dolorous* is the first *o* long or short that is, is it *dōlorous* or *dolorous*?

Let me now notice a statement recently made by a writer in an Indian periodical while discussing the pronunciation of the word *chemistry*. While agreeing with him as to what ought to be and what usually is the pronunciation of the word, I cannot but think that he is in error when he asserts that *e* can never, under any circumstances be pronounced *i*. Does not the word *pretty* contain a refutation of his statement? We all know what a *pritty* girl is, but I make bold to say that no one has ever seen or heard of a *pretty* girl. It seems rash indeed to pronounce any authoritative opinion as to what ought to be the correct pronunciation of a word, from any consideration of the letters that compose it and the sounds they *ought* to represent, for the simple reason that in the English language, letters when combined together in syllables and words, may have any sound or no sound at all. Far more prudent would it be to content ourselves with a 'woman's reason,' and say we think it so, because we think it so. Where there are no definite rules to guide us, and so little consistency, no arguments that can be derived from spelling or analogy can be considered as conclusive.

E. H. E.

KURNOOL,
21st July 1879.

NOTES ON SHAKSPERE'S JULIUS CÆSAR.

(Continued from page 261).

What night is this? What a strange night is this! Some editions have a note of admiration thus—"What night is this!"

Unbraced. With girdle slack, the tunic exposing the breast in consequence.

The thunderstone. I. e., the thunderbolt. The term is suggested by the fall of aerolites, and meteorolites, i. e., stones which come from the upper regions of the atmosphere.

It is the part of men, &c. Observe Casca's vulgar superstition.

Quality and kind. Hendiadys = natural qualities.

Calculate. Attempt to predict what is about to happen.

Change from their ordinance. Leave their usual order.

Monstrous quality. Unnatural functions. "Monstrous," i. e., that which is pointed at.

Fires, gliding ghosts. Subjects with no predicate expressed, but the sense of them as well as of birds, old men, &c., is summed up in these. (An anacoluthon).

Infused. Used with a direct accusative of the person, instead of a direct accusative of the thing infused.

Instruments of fear and warning. I.e., to produce fear and give warning; metonymy of effect for cause.

As doth the lion. This should be printed in parentheses.

Thurs. Used only in the plural; sometimes it means *manners or habits*. But in Shakspeare it means sinews, or rather muscles.

Our mothers' spirits. Shakspeare here overlooks the characteristic of Roman women.

Our yoke and sufferance. Hendiadys = our bearing the yoke.

Save here in Italy. He may be king anywhere else he pleases, but not here in Italy.

Know all the world besides. Let all the world know.

The base matter. Here "matter" = material.

Poor man. Irony.

I know he would not be a wolf, &c. Cf. "How oft the sight of means to do ill deeds makes ill deeds done."

Undergo with me, &c. Undertake with me, &c.

The complexion of the elements, &c. And the character of the weather in appearance is like, &c.

Gait. Sanskrit *gati* गति, going; *gate* is applied to streets and thoroughfares; cf. Deansgate, Bishopsgate.

Stand close. Close = in concealment. (See Wright's Macbeth, p. 165.)

Is Decius Brutus, and Trebonius there? Note the verb in the singular. We should now use *are*.

Pompey's Porch. A Portico erected by Pompey and attached to his theatre (also built by himself).

Like richest alchymy. Richest = most successful.

Right well concerted. Properly conceived of.

Be sure of him. Gain him over to our side.

ANALYSIS OF ACT II JULIUS CÆSAR.

Brutus in a soliloquy gives his reasons for joining the conspiracy. His interview with the conspirators.

Portia's first speech. (She appears Act I Scene 2, but does not speak.)

Calphurnia tries to keep Cæsar at home. Decius induces him to go.

Introduction of Artemidorus, Portia, Lucius and the Soothsayer.

• *Sooth*, probably from Sanskrit *Satya*, truth.

NOTES TO SCENE I ACT II.

That craves wary walking. This is ambiguous. *That* may be taken either as a relative or as a demonstrative.

He may do danger. Damage and danger were originally synonymous (Latin *damno*, I hurt).

I have never witnessed an occasion in which his mere feelings have had more sway over him than his reason. What follows is plainly connected rather with the intention working in Brutus' mind than with the words which precede. A pause should probably precede the conj. and.

Lowliness here means the affectation of humility by which designing men gain credit when they want to rise.

Prevent. Hinder his ascending.

Will bear no colour, i.e. Will not be plausible on the ground of what he shows himself at.

Augmented = participial clause "being augmented" qualifying what.

Think him as a serpent's egg. A sort of anacoluthon. We should

commonly say—think him a serpent's egg, or think of him as a serpent's egg.

Tarquinius Superbus. The last of the Tarquin dynasty banished A. C. 509.

The genius and the mortal instruments.

Genius = contriving intellect.

Mortal instruments, i.e., means for doing a fatal deed. The meaning is that the mind is balancing whether the means are sufficient for the end in view.

There are more with him. More. The folios all read 'moe' which might mean several or many. "More" is here put for "others."

By any mark of favour. By the features.

There is no pure English word for face, since "cheer" has become obsolete. *Visage, countenance, favour, features* are all Latin derivatives.

If thou path. Path = walk. Cf. Sanskrit *pad*.

Semblance. Nom. abs.

Erebus. The Greek hell.

Weighing the youthful season of the year. Weighing = on account of. Here as I point my sword, the sun, considering the early season, must rise.

The high East = The exact east.

Some conjecture that Casca is made to refer to freedom dawning from the Capitol.

Face of men. Either the aspects of men looking truthfully in each other's faces, or the discontent depicted on each others' countenances.

Sufferance of our souls. Either the sufferings which we are undergoing, or Sufferance = Suffrage, i.e., consent.

His idle bed. Idle is here a transferred epithet.

Cautelous. The word *cautel* occurs in Hamlet equalling craft; *cautelous* = crafty.

Such creatures as men doubt. Men whose faith is doubtful.

Insuppressive. Cf. "the unexpressive nuptial song" for inexpressible. Milton's Lycidas.

Is guilty of a several bastardy. Every drop of blood will disgrace us.

Several = separate, distinct, individual.

No, by no means. The old double negative.

Wrath in death and envy afterwards. Here "envy" = enmity.

As subtle masters do. As crafty employers sometimes do to excite those under them that they may get something done with decision and expedition, and afterwards chide them for acting so impulsively. This is how our hearts should behave towards our practical powers, we should perform the act with decision as a dire necessity, but we should not shut our eyes to the fact of its enormity.

That were much he should. It would be a great thing if he did it; *Is given to* = devoted to.

Quite from the main opinion. He has quite left the general opinion he had once.

Fantasy. Ghost abstract for concrete. *Ceremonies*, rites of divination.

Augurer. For *augur*; it is a frequent form in the Eng. of Shakspeare's time.

Let me work, &c. Observe the confident and crafty disposition of Decius Brutus.

Unicorn. The Oryx, one of the great antelopes of the Cape region, has two long straight strong horns which look like one when the creature is seen in profile. Old travellers say that hunters used to get near a tree and provoke the creature, which would then put down its head so as to hold its horns horizontally, and as the hunter slipped behind the tree, it would drive its horns so hard into the tree as not to be able to escape. The Oryx is known to come off successfully in fights with lions.

Heavy honey dew. A sweet deposit of blight on the leaves of plants. In England it is very common on the hedges.

Too much enkindled. Much is generally used before the participle. Cf. too great, too much exalted.

Physical. Remedial.

Humours. Exhalations.

Dank = Damp, unhealthy.

Sick offence. Cause of sickness.

Right and virtue. Hendiadys = rightful privilege.

Charm. Pope proposes "charge." *Charm* here = conjure. Shakspeare has transferred the ambiguity of "conjure" to this word.

Is it excepted, i.e. In my case.

Sort. (Sors) lot or allotment, our modern use is secondary.

Keep. Secondary meaning = to continue, primary meaning = to retain.

Comfort. When several Infinitives come together the preposition need not be prefixed to any but the first.

Cato of Utica. The younger Cato, subject of a wretched tragedy by Addison which is lauded by Dr. Johnson.

Character. Character a stamp, that which is struck. "The express image" of Heb. I. in the original is *character*.

Constancy. Cf. Macbeth, Act II. Sc. 3, 67.

Vouchsafe good morrow. Allow me to wish you good morning.

Thou like an exorcist, &c. Wright's Macbeth, p. 168.

What it is my Caius, I shall unfold, &c. What the piece of work is, my Caius, I will make known to thee as we go along. I will make known to thee to whom it must be done.

The construction may be explained either by understanding a repetition of "I will unfold to thee," or as an asyndeton, i.e., omission of the copulative. The position of the clauses favours the former, but according to the latter, the sense easily comes out thus:—

"What it is my Caius and to whom it must be done, I shall unfold to thee as we are going."

Nor heaven nor earth have been at peace. Note the plural *have*. We should now say *has*.

I never stood on ceremonies. I never regarded superstitions.

Hurtle. Frequentative of hurl, cf. battle, beat; settle, seat; rustle, rush; prattle, prattle; wristle, wrest.

Fierce fiery warriors fight upon the clouds, &c. Compare 2 Macca-bees, V. 1.

Ghosts did shriek, &c. Cf. Horatio's speech. Hamlet Act I.

Whose end is purposed, &c. The end or purpose of which is determined by the mighty gods. This is the doctrine known as *Fate*.

The heavens themselves blaze forth, &c. Here *blaze* = blazon.

And you are come in very happy time. Happy = fortunate. So we still speak of "a happy thought."

To be afear'd. Afear'd is the participle of the old verb *to afear* = to frighten.

Tincture, stains, &c. I.e., all sorts of memorials.

Cognizance. Either = remembrance or mementos, or it is a heraldic term.

Pardon me Caesar, &c. Forgive me Caesar, for it is my fervent desire for your advancement which prompts me to speak thus, and my reason, i.e., my sense of propriety, is liable, i.e., gives way to my affection.

Caesar was ne'er so much your enemy, &c. Observe the ungente-manly side of Caesar's character; the occasion does not call for this taunt to Caius Ligarius, nor is it the result of temper.

So to most noble Caesar. "So" adverb used for demons—the same.

I have an hour's talk in store for you. "Hour" is here a dissyllable.

Every like is not the same. All is not gold that glitters.

Artemidorus a Greek Rhetorician who dwelt in Rome, and according to Plutarch, had some of the conspirators for his pupils.

If thou best not immortal look about you. Enallage of number, in the interchange of *thou* and *you* now obsolete, but common up to the time of Pope.

Out of the teeth of emulation. Out of the teeth of enmity. *Emulation*, archaic for enmity.

(To be continued).

EXAMINATION PAPERS.

S. P. G. High School, Trichinopoly.

F.A. SENIOR CLASS.

January 1878.

ARITHMETIC—Time 3 Hours.

I. Four persons, A, B, C, D have each a pack of playing cards out of which each cuts a portion, the number left by each being in the ratio of 4 : 3 : 2 : 1. It is found that if each had cut one card less, they would have cut exactly two packs. Find the number cut off by each.

II. A party of labourers go to an arrack shop and call for drink. On settling the reckoning they find that each has to pay 2 annas, and that if there were four more of them the individual payment would have been 8 pies less. How many composed the party?

III. The senior students in a school pay a monthly fee of Rs 4 and the junior students half the sum. The monthly fees amount to Rs 2,200. If there were as many senior students as there are now junior, and as many junior students as there are now senior, the fees would amount to Rs 2,600. Find the number of scholars paying the higher rate and the number paying the lower rate.

IV. The roof of an engine shed rests symmetrically in the form of an isosceles triangle, upon two walls 60 feet high, enclosing space 40 feet wide. The cost of paving the floor of the shed at 4 annas a square foot is Rs 1,500 and of roofing the shed with zinc sheeting at Rs 9 a square yard is Rs 7,500. Find the height of the shed.

V. A pirate observes a merchantman at sea 7 miles due east of him, and gives her the chase for two hours in that direction. The merchantman then sails due south for 4 miles when the pirate overtakes her, sailing in a south-easterly direction. Given that the rates of sailing of the pirate and the merchantman are as 5 to 4, find the distance travelled by the merchantman, and the rates of sailing of the two vessels.

VI. I engage a clerk A to copy a book for me. He sits to work for 20 days and then leaves. I engage another, B to copy the remainder, but after working 15 days he too leaves. I find a third person C to copy the remainder. After he works as much time as A and B together, it is found that C could have finished the remainder in $22\frac{1}{2}$ days, that A and C together would have taken 40 days to copy the work, and B and C together half as much time again as A and B. In what time can A B C separately, copy the whole book?

VII. The distance between Negapatam and Madura is 180 miles. The mail train leaves Madura for Negapatam at the same time that a goods train leaves the latter for the former station. They travel at the rate of 18 and 12 miles an hour respectively including ordinary short stoppages. The mail stays some time at Negapatam and starts back for Madura at its usual rate, while the goods train stays half an hour at Madura for coaling and taking water and starts again for Negapatam at its former rate. The distance between the two meeting stations is found to be 18 miles. Find how long the mail train stayed at Negapatam.

VIII. The simple interest on a sum of money invested in the Government Savings' Bank for 4 years is Rs 480. It would take the sum 20 years to double itself if left in the Bank. Find the sum invested, and the rate of interest paid by Government.

IX. I lend a sum of money at 6 per cent. compound interest and find that the interest payable at the end of the second year is Rs 636. Find the sum lent.

X. The Discount on Rs 550 due 5 years hence in the interest on Rs 500 for $4\frac{1}{2}$ years at the same rate per cent. Find the rate of interest.

XI. I have £4,000 stock in the 5 per cents. I sell a portion when stock was selling at 20 premium and buy 4 per cent. Government paper, selling at 20 discount. The result is an annual increase of £10 in my income. How much stock did I sell out of the 5 per cents?

Dorset Protestant College.

SHAKESPEARE'S JULIUS CÆSAR.

Time—3 Hours.

April 1879.

(Acts iv and v).

1. The death of Julius occurs in the third act; do you think that on account of this the "Tragedie of Julius Cæsar" is an inappropriate title for this play?

2. (a) Write a short essay on suicide, laying special stress on the prejudices and practice of the ancient Romans.

(b) What were Octavius, Antony, Brutus, and Cassius severally doing in the interval between the murder of Julius and the battle of Phillippi? Date these two events.

3. (a) Describe carefully (in your own words) the scene "in the interior of Brutus's tent" at the Sardinian camp.

4. (a) Explain clearly the force of *noted* in—"You have condemned and noted Lucius Pella."

(b) Quote from *Julius Cæsar* a parallel to—
I find my zenith doth depend upon
A most auspicious star, whose influence
If now I court not, but omit, my fortunes
Will ever after droop.

(c) Notice anything remarkable in—
Look, Lucius, here's the book I sought for so;
I put it in the pocket of my gown.

Let me see, let me see:—is not the leaf turned down
Where I left reading? Here it is I think.

5. Of whom and by whom are the following said? Do you think them fair representations?

(a) A slight unmeritable man.—(b) The foremost man of all this world.—(c) A peevish schoolboy.—(d) A masker and a reveller.—(e) The last of all the Romans.—(f) The noblest Roman of them all.

6. Derive and explain *canopy*, *companion*, *errand*, *fellow*, *knave*, *vice*, *rascal*, *soldier*.

7. Otherwise express, appending notes where necessary—

In some taste.—Such familiar instances.—My letters were slighted off.—Bay the moon.—Bait not me.—Young bloods look for a time of rest.—Their battles are at hand.—I am in their bosoms.—Your words rob the Hybla bees.—Hateful error, melancholy's child.—Some snatch of honour.—The elements mixed well in him.

9. Notice the syntactical peculiarities in (a) *Listen great things*.—(b) *For justice sake*.—(c) *I may do that I shall be sorry for*.—(d) *Thou art o'erwatched*.—(e) *Thou could'st not die more honourable*.—(f) *Bring us word how everything is chanced*.—(g) *But hold thee, take this garland*.—(h) *All the conspirators save only he*.

London University.

Matriculation.

ENGLISH LANGUAGE.

Examiners—Rev. Prof. Brewer, M.A., and C. Knight-Watson, Esq.

[Not more than ten questions are to be attempted, inclusive of the exercise in dictation].

1. Write out and punctuate the passage read by the Examiner. Underline the words which are *not* of Latin origin.

(N.B.—Candidates are reminded that they are not allowed to make a fair copy of the exercise in dictation).

2. Show the position of English among allied languages. What consonantal changes have been observed to prevail between cognate words in English and any other of these languages?

3. What is a vowel? What vowel sounds exist in English?

Show particularly how they are all expressed by means of the six Roman vowels.

4. From what language, and at what dates, have we received the following words?—*Orange, receive, street, bosh, boom, chintz, kiln, fetish, die, armadillo, concatenation, chess, chagrin, pool, carouse.*

5. Discuss and illustrate all methods of distinguishing number in English nouns. How has the use of the suffix *s* as a sign of plurality been accounted for?

6. Account for the letters in *Italic*, in name, these, those, passenger, sovereign, wettest, cities, potatoes, sceptre, sceptic, handiwork, righteous, tomb, could, our.

7. What cases had nouns formerly in English? Which of them still formally exist? Of how many of them can the force still be expressed by the simple form of the word without a preposition? Give full examples.

8. What was the ancient form of the feminine gender? What traces remain of it? How has it been supplanted? Discuss the meaning and origin of the termination *ster*.

9. Classify adjectives irregularly compared. Give the positive and superlative of *more, farther, former, utter, hinder, less, rather, further, latter, nearer*, and also what you know of the history of each.

10. Explain the construction of *self*. What part of speech is it? Trace its history.

11. What are weak verbs? Classify *bring, sing, take, seek, teach, set, bleed, eat*, as weak or strong verbs. Give reasons in each case, and call attention to peculiarities.

12. What part is taken by the verb *have* in conjugating English verbs? Explain the process by which *have* came to be so used, and discuss the following:—*I have a letter; I have written a letter; I have come to post it: the post is gone.*

13. What are the different uses of the verb *to be*? From how many verbs are the parts of this verb formed?

14. Classify adverbs (*a*) as to the ideas they express, (*b*) as to their origin.

15. What are verbal prepositions? Give six examples, and show how they come to be used prepositionally.

16. Correct or justify the following expressions:—

- (a) I am verily a man who am a Jew.
- (b) Too great a variety of studies distract the mind.
- (c) Who do you speak to?
- (d) The river has overflown its banks.
- (e) Man never is but always to be blest.
- (f) Neither our virtues or our vices are all our own.
- (g) That's him.
- (h) Many a day.
- (i) I expected to have found him better.
- (j) I am to blame.

PRINCIPLES OF AGRICULTURE.

Examiner—Professor Henry Tanner M.R.A.C., F.C.S.

FIRST STAGE OR ELEMENTARY EXAMINATION.

You are permitted to attempt only eight questions. You must attempt the first four questions on the paper; the remaining four you may select from any part of the paper.

Each question admit of an answer carrying an equal number of marks.

1. What is the difference between a sandy soil, a loam, and a clay soil?

2. What are the principal substances found in the soil, and which of these do plants require?

3. Why do we grow crops in rotation, instead of continuing to grow the same crop upon the same ground, year after year?

4. What is the composition of milk? state why it is such very good food?

5. Give a good course of cropping for a rich loam soil, and a bad course of crops for a sandy soil. State your reasons in each case.

6. Of what does the inorganic matter of plants consist? How does the plant get it, and why is it called the ashes of a plant?

7. What are marls, and upon what does their value depend?

8. How does a soil lose its phosphates? What becomes of the phosphates removed from the land, and how may they be restored to the land?

9. As the soil very largely consists of hard solid matter, how is it that plants are able to feed upon it?

10. Why are soils improved by exposure to rough and cold weather in the winter?

11. How is it that cattle, sheep, and horses, are warm, and by what means is this warmth kept up.

12. Why do some animals fatten better than others when using equal supplies of food?

SECOND STAGE OF ADVANCED EXAMINATION.

You are permitted to attempt only six questions.

You must attempt the first three questions on the paper. The remaining three you may select from any part of the paper.

21. In what respect does the food of an animal differ from the food required by a vegetable.

22. What is meant by saying that "land is sick of a crop?" Give an example, and say how it may be remedied.

23. What are the special advantages arising from Autumn cultivation, and how do you explain its value?

24. Can a soil contain all the food necessary for producing good crops, and still be unable to give it to plants as food? If so, why is this, and how may it be overcome?

25. Describe how lime and farm yard manure may be used for a crop with the best results, and also how their fertilising powers may be injured by an improper mode of application.

26. A cubic foot of sand weighs about 110 pounds, and a cubic foot of clay weighs about 80 pounds. Why do we call sands, light soils; and why do we call clays, heavy soils? State what are the causes of the difference.

27. How do you account for the variations observed in the ashes of plants?
28. How does drainage of the land increase the quantity of plant-food ready for use in a soil?
29. What are "Reduced Superphosphates," and what is their action in the soil?
30. How are lands fertilised by irrigation, and how should the supply of water be regulated?
31. What changes does the blood undergo in its passage through the body?
32. Describe the changes which food undergoes in its digestion by a bullock and a horse, pointing out any differences.

HONOURS EXAMINATION.

You are not to attempt more than six questions in this paper.

41. In what way does climate influence the system of farming and also the quality of the meat and corn produced? Give instances.
42. Trace the various changes which take place in a plant's growth during the time its supplies are drawn from the soil and the air, and show the disadvantages arising from the use of food which has not been fully ripened.
43. How does the condition and use of fertilisers, and the character of the seed, render some root crops less able to withstand the frost, and how may roots of the highest feeding character be secured?
44. How do soils retain manure, and how should light sands be treated to increase this power?
45. Describe the formation of nitre in earth, and show how soils may thus be economically enriched.
46. Describe fully the process of germination. Show how this is controlled for the production of malt, and state the conditions which regulate the quality of malt.
47. How does the blood of an animal receive fresh supplies of nutriment, how is it removed from the blood, and what determines its new form in the body?
48. How does the breathing of foul air (arising from want of proper ventilation) affect the milk produced, and the cheese and butter made from it? Are there any other means whereby similar impurities influence the milk?
49. How may the milking character of a cow be improved, how may the flow of milk be made more permanent, and its character rendered more suitable for butter and cheese making, respectively?
50. What lessons may we learn from the system of farming known as "the continuous growth of corn," and what are the essentials for its success?

Free Church Institution and Madras Christian College.

Matriculation Class.

PHYSICS.

- I. Define force; and explain how it is that when a heavy body is placed on a table it remains at rest.
- II. If gravity were to cease to act, how high would a barometer stand? (Take the usual height as 30 in).

- III. Describe an experiment which shows that when a body is weighed in water it is lighter than when weighed in air by an amount equal to the weight of its own bulk of water.
- IV. The weight of a piece of glass when weighed in air is 3.3 lbs., and when weighed in water is 16,100 grains; find its specific gravity.
- V. How can you get a Torricellian vacuum? and what is its cause?
- VI. Explain why it is that water rises in a common pump.
- VII. A weight of $2\frac{1}{2}$ tons has to be lifted up a height of 3 yards 2 feet 3 inches, how much work must be done on it?
- VIII. When will a body float in water? and when will it sink?
- IX. Distinguish between a noise and a musical sound.
- X. How is an echo caused?
- XI. A large air-tight vessel with a flexible top is carried up in a balloon; describe what will happen.
- XII. Distinguish between a solid and a liquid.

CORRESPONDENCE.

PHYSICS.

SIR,—Will any of your correspondents solve for me the following questions in Physics:—

- (1) "A block of ice, the volume of which is a cubic yard, is observed to float with $\frac{2}{5}$ of its volume above the surface and a small piece of granite is seen embedded in the ice; find the size of the stone, the specific gravities of ice and granite being respectively .918 and 2.65.
- (2) A piece of lead is found to weigh 13 lbs. in water and when a block of wood weighing 6 lbs. is attached to it, the two together weigh 8 lbs. in water. Find the specific gravity of the wood.
- (3) The velocity of sound in water is much greater than in air; why is this the case?

IGNORAMUS.

EDUCATION OF POOR EUROPEANS AND EURASIANS.

MINUTE BY H. E. THE VICEROY.

It was not possible to discuss in Council, before the Government left Calcutta, the question of further measures for promoting the education of poor European and Eurasian children; but at Lahore my attention has again been given to this very difficult and important subject.

2. Nearly twenty years ago Lord Canning wrote as follows:—

"If measures for educating these children are not promptly and vigorously encouraged and aided by the Government, we shall soon find ourselves embarrassed in large towns and stations with a floating population of Indianised English, loosely brought up, and exhibiting most of the worst qualities of both races; whilst the Eurasian population, already so numerous that the means of education offered to it are quite inadequate, will increase more rapidly than ever.

"I can hardly imagine a more profitless, unmanageable community than one so composed. It might be long before it would grow to

what would be called a class dangerous to the State; but very few will make it, if neglected, a glaring reproach to the Government, and to the faith which it will, however ignorant and vicious, nominally profess. On the other hand, if cared for betimes, it will become a source of strength to British Rule and usefulness to India.

"The Eurasian class have an especial claim upon us. The presence of a British Government has called them into being; they serve the Government in many respects more efficiently than the natives can yet serve it, and more cheaply and conveniently than Europeans can do so; and they are a class which, while it draws little or no support from its connection with England, is without that deep root in, and hold of, the soil of India from which our native public servants, through their families and relatives, derive advantage."

3. Lord Canning's warning has unhappily been justified by the event. We were told officially two years ago that there were between eleven and twelve thousand European and Eurasian children in India, growing up without any education at all,—“a scandal to the English name and English Government.” I think there is reason to hope that there may be some exaggeration in these numbers; but exaggeration of the importance which the whole subject has assumed is hardly possible.

4. A few months after my arrival in India I took up this question which had been for a long time before the Government of India; but, under the increasing pressure of other questions more urgent, though scarcely more important, I have hitherto been unable to advance the practical settlement of it; towards which I regret to find that little or no progress has yet been made. Various proposals have been from time to time brought forward, and some of them have been very valuable. The reports, in particular, of the Venerable Archdeacon Baly contain a mass of information and practical suggestions for which the Government is deeply indebted to him. Nothing, however, has hitherto been actually done by the Government of India towards applying effectual remedies to this great social and political danger. Nor, as I once before observed, has the Government, up to the present time, even settled the object it should aim at. What are these children to be educated for? And, when this point is settled, how are they to be educated? We cannot hope that measures for the education of destitute European and Eurasian children will be successful if they are undertaken without reference to the means of existence available for such children in after-life.

5. I need not now state in detail my personal views on the numerous difficult and important questions connected with this subject, but I desire to draw attention to some points which seem to me essential for the guidance of a serious and practical endeavour to remove from the Government of India that “glaring reproach” to which its attention was directed by Lord Canning nearly twenty years ago.

6. Whether sufficient means of employment will hereafter be found in India for the large and increasing number of European children of the poorer classes, is a question which cannot now be answered. Their difficulties in successfully contending against native competition will undoubtedly be considerable. On the other hand, there is a great and growing demand for skilled labour of a kind for which Europeans are specially valued. The extension of

Railways, and the development of English enterprise in manufactures, in trade, in plantations, and in other branches of industry, lead, at the present time, to a constant importation of labour from England, but if young Englishmen could be well brought up and educated in India itself, their knowledge of the country and the people would give them great advantages, and their qualifications for employment in India would often be better than those of their competitors from home.

7. I believe also that a considerable proportion of the boys—those at least of European parentage, for there are difficulties in regard to the others—might with great propriety and advantage become soldiers, and that their education should be conducted on this assumption. I think that my Military Colleague, Sir Edwin Johnson, will concur with me in the opinion that these noble institutions, the Lawrence Military Asylums, have not yet been utilised, as they might have been, in this direction. I have only lately learned that an excellent report on these Asylums was submitted by a Special Commission in 1872, on which no action of any kind appears to have been taken by the Government. The necessity of reforming the system followed in these institutions was shown by the Commission to be very urgent. They were established for the purpose of providing for the sons of soldiers an education (to quote the words of Sir Henry Lawrence, their illustrious founder) “adapted to fit them for employment suited to their position in life.” “The tendency,” the Commission reported, “of the existing system is to lead these soldiers’ sons to look down on soldiering as something derogatory to them, instead of regarding it as the most legitimate and honourable calling of the great bulk of their number.” I fear that the system of education hitherto followed has, to a great extent, prevented the results which these schools, established with noble objects, and assisted by the Government with unsparing liberality, ought undoubtedly to have produced. The short service system in the army will, it may be anticipated, reduce the number of children for whose benefit the Lawrence Asylums were established; but it may become possible not only without interference with the expressed wishes of the founder, but in a way which he would certainly have approved, to extend still further the benefits of these institutions. They may, I should hope, be made far more useful to the class for whose welfare they were originally instituted, and to other classes also. Improvement in the system of education followed in the Lawrence Asylums is closely connected with the general question of the education of poor Europeans; and it is for this reason that I have now referred to it.

8. There are also many of the Public Departments and Offices in which an opening may be found for the employment of boys of these classes; and it may become proper to reserve for them, under suitable conditions, a proportion of posts of this kind.

9. On the whole, it can hardly be doubted that, if good industrial, military, and other schools were available, a very large proportion of these children would find the means of honest livelihood in after-life. It is the obvious duty of the Government of India to spare no efforts to secure for them provision of the necessary means of education.

10. There has been much discussion about the manner in which the requisite funds should be provided for carrying out any scheme adopted by the Government for this purpose. The charge will un-

doubtedly be large; and it seems to me certain that it will not be met by private liberality. I agree with the following remarks on this subject, made by Sir John Strachey when he was Lieutenant-Governor of the North-Western Provinces:—

“Private charity would often, perhaps generally, be forthcoming to some extent in aid of such institutions; but the Government must be prepared, if necessary, to make its grant-in-aid sufficiently liberal to cover the whole charge incurred. We already offer the means of free elementary education to all classes of poor natives, and we may with equal propriety give free elementary education to poor Europeans and Eurasians. The Government fully recognises the truth of the warning given in Lord Canning’s Minute that, if proper measures are not taken for the education of these children, we shall find a class growing up which may become a source of weakness, if not of actual political danger; while, on the other hand, if cared for betimes, it will become a source of strength to British Rule, and of usefulness to India. If this be true, it is as right to spend public money on the education of poor Europeans and Eurasians as on any object which could be named.”

Education is one of the services for which financial responsibility has been transferred to the Local Governments. So far as the provision of the means of elementary education for the classes in question is concerned, I have no doubt that those Governments will cheerfully meet all necessary expenses. If, however, industrial schools or other institutions of a new character have to be established, I think that the charge may properly be borne wholly or in part, by the Government of India. I have no doubt that we may also confidently reckon on receiving liberal help in this respect from the Railway Companies, the children of whose employes form a very large proportion of the whole number for whom provision has to be made.

11. Another point demands careful consideration. It is well known that, although the existing means of education for these children are insufficient, this is very far from being the main explanation of the fact that great numbers of them are growing up in absolute ignorance. The principal cause here, as it has been in England, is the neglect of the parents, and their unwillingness to take any trouble, or incur any expense, for the education of their children. I observe that when Sir John Strachey was Lieutenant-Governor of the North-Western Provinces, he proposed that, when a sufficient number of elementary schools had been provided, a system of compulsory education should be established. I believe that this view is held by Mr. Egerton, the present Lieutenant-Governor of the Punjab, and by Sir George Couper, Lieutenant-Governor of the North-Western Provinces; and it is, I know, shared by many very high authorities. Although the conditions under which a system of compulsory education should be enforced on Europeans in India will require careful consideration, it seems to me impossible to doubt that, without such a system, there can be no complete or effectual solution of the problem with which we have to deal.

12. Subject to the foregoing remarks, I will now briefly indicate what seem to me the principal requirements, in a comprehensive scheme, for the education of these children. It will be understood that I now refer only to the education of the poorer classes of Euro-

peans and Eurasians. The provision of schools for those who require for their children a superior education, and who can afford to pay for it, is a question in which, highly important as it is, Government action is far less urgently required, and I do not now enter into it.

(1) Elementary schools for boys and girls up to the age of 12 or 14 should be provided at all places where the want for them exists. I understand that at nearly all the larger stations in the North-Western Provinces and Punjab the means of giving elementary education to European and Eurasian children are already sufficient, or can without much difficulty be made so. In the smaller stations means of education should be provided, as far as possible, by grants-in-aid to existing institutions or otherwise.

(2) The elementary schools will usually be day-schools for children living with their parents in the plains; but it may sometimes be necessary to provide board as well as education for orphans and children altogether destitute in orphanages or otherwise.

(3) The payment of fees should always be insisted on, except in the case of destitute children, or when the parents are altogether unable to pay. The manner in which the amount of the fees should be regulated will require careful consideration.

(4) Industrial schools for boys, between the ages of about 12 and 18, should be established at convenient places, in connection with Government or Railway workshops, or other institutions where mechanical and industrial arts are practised. It may often be necessary to provide accommodation for boarders at these schools. All possible efforts should be made to apprentice these boys to traders and industrial employments. In connection with this part of the subject, I desire to draw particular attention to the existing law, contained in Act XIX of 1850. I believe it has been, so far at least as the Government is concerned, almost a dead letter; but the powers it gives to Officers of Government to bind as apprentices poor children abandoned or neglected by their parents, or brought up by public charity, are very extensive. I observe that the question of establishing technical and industrial schools in the hills, for the children of Railway employes, was lately brought before the Railway Conference at Calcutta by Sir Andrew Clarke. I am sure that my Hon’ble Colleague will be most willing and anxious to give every assistance in his power in regard to this very important part of the subject.

(5) Boarding schools should be established in the hills, where the children of poor Europeans, not intended for military service, can obtain an education suited to their position in life at the smallest possible cost. The relation between such schools and schools in the plains, already referred to, and the conditions and circumstances under which children should be sent to them, are questions requiring careful consideration.

(6) The system of education given in the Lawrence Military Asylums should be reformed on the principles laid down by the Commission of 1872. The possibility of utilising these schools for other classes, in addition to those for whom they were originally founded, should, as observed in the 7th paragraph of this Minute, be considered.

(7) The schools for girls of the class in question need be elemen-

tary only; and the principles on which they should be established whether in the plains or hills, would be generally similar to those applicable to the schools for boys. Special care is necessary, so that the education given to the girls may be suitable to their station in life. In this respect the education given at Indian girls' schools is often, I fear, very defective. The daughters of poor Europeans and Eurasians of the humblest classes are frequently taught so called accomplishments which are worse than useless to them. They learn little or nothing that will be of practical value in after-life, and are allowed to grow up in the belief that it is degrading to undertake occupation, such as domestic or other service, by which they can earn their own livelihood.

(8) There is often at present extreme difficulty in obtaining competent English teachers for both boys' and girls' schools. How this want can best be supplied, by the establishment of Normal schools, or otherwise, is a question that has to be decided.

(9) Another question is that of the agency by which such a system of education as I am here speaking of should be carried out and controlled.

13. I come now to the practical part of my present suggestions. I have endeavoured, in the foregoing observations, to indicate clearly the objects at which I think we should aim, and the principles, on which we should work. To point out precisely how these objects can be attained, or these principles applied, is a task which can only be performed by those who possess local knowledge and local authority; nor is it possible to frame a single scheme suitable to the circumstances of the whole of India. The foregoing observations have had chiefly in view the Provinces of Northern India.

My present sojourn at Lahore has afforded me the opportunity of ascertaining that in any endeavour to frame and apply to the Punjab a comprehensive practical scheme of education for the children of poor Europeans and Eurasians throughout this great province of the Empire, based on the principles, and directed to the objects, above indicated, the Government of India may reckon on the cordial co-operation of Mr. Egerton. In the further consideration of the course most conducive to the early attainment of this desirable result, I have also had the advantage of personal conference with the two colleagues who accompanied me hither. Sir John Strachey, as Lieutenant-Governor of the North-Western Provinces and Chief Commissioner of Oudh, has had special opportunities of becoming acquainted with the facts of the case in those parts of India; and Sir Edwin Johnson has, I know, taken much interest in the question of reforming the system of education in the Lawrence Military Asylums. I have, therefore, availed myself of their presence at Lahore to request these two hon'ble Members to place themselves in personal communication with the Lieutenant-Governors of the North-Western Provinces and the Punjab (Sir George Couper and Mr. Egerton), with a view to preparing, for the consideration of the Government of India, a joint scheme for dealing in as complete and practical a way as possible with the whole subject, so far as the Northern Provinces of the Bengal Presidency are concerned. If we can succeed in devising for the North-Western Provinces, Oudh, and the Punjab, a really satisfactory scheme, and can bring it into operation, not only shall we have accomplished a work most useful

and important in itself, but the example will soon, I hope, be followed in the other Provinces of India, where similar measures are as urgently, and in some cases, perhaps, more urgently, required.

LYTTON.

LAHORE, 25th March 1879.

CONVOCATION OF THE PUNJAB UNIVERSITY.

His Excellency Lord Lytton presided at the late Convocation of the Punjab University College at Lahore. On the Viceroy taking his seat, the proceedings opened with Mr. Egerton's address. He said:—"My Lord, I rise to present to your Excellency the students of the Punjab University College, who have obtained diplomas and certificates of proficiency in the examinations which have recently been held, and as this is the first occasion on which a Viceroy of India has condescended to preside over a meeting of the Punjab University College, and will therefore be remembered in the annals of the Senate, I take the opportunity of stating briefly the objects with which the Punjab University College was founded, and the nature of the work which it is attempting to perform. The people of this Province soon after the system of government education was founded, felt the study of science through the medium of the vernacular of the country, was becoming more and more difficult, and that the English language was rapidly becoming the only language through which knowledge was acquired. They desired that these studies should be prosecuted through the vernacular, and that the ancient literature and science of India and the East should be recognized and receive their proper place in our educational system. Many meetings and discussions took place at Lahore on this subject, about the same time the Lieutenant-Governor of the Province, Sir Donald Macleod, urged upon the Educational Department the necessity of taking decided steps towards creating a vernacular literature. The movement was highly popular. The Chiefs of Native States and gentlemen interested in education both European and native supported it warmly, and testified their earnestness by contributing large sums of money to establish an Institution of the nature of an University, in which the importance of oriental literature and of instruction, through the medium of the vernacular of the country, should be fully recognized. The Punjab Government, after some correspondence, obtained the sanction of the Government of India to the formation of the Punjab University College, governed by a Senate, and possessing the power of granting certificates of proficiency to those who passed its examination. The special objects of the Institution are declared by its statutes to be to promote the diffusion of European science as far as possible through the medium of the vernacular language of the Punjab, and the improvements and extension of vernacular literature generally to afford encouragement to the enlightened study of the Eastern classical languages and literature, to associate the learned and influential classes of the Province with the officers of Government in the promotion and supervision of popular education. At the same time every encouragement is offered to the study of the English language and literature. English is regarded as the medium of instruction and

examination in all subjects which cannot be completely taught in the vernacular. Amongst the instructions to the Senate for framing regulations to carry out the purposes of the constitution it is stated that a thorough acquaintance with the vernacular shall be a necessary condition for obtaining any certificate, fellowships, or other honours in addition to any other attainments which may be required. Proficiency in an oriental language combined with a thorough knowledge of English is a necessary condition for obtaining the highest honours; but provisions to be made for duly recognizing and honouring proficiency in literature and science in the case of those unacquainted with English, provided such attainments are combined with a fair acquaintance with the more important subject of European education, and for duly recognizing and honouring proficiency in English unaccompanied by a knowledge of Arabic and Sanscrit. Under these statutes the Punjab University College hold examinations and grant certificates in Arts, in Arabic, Sanscrit, and Persian, in Law, in Medicine, and in Engineering—an Oriental College and school is also maintained by the Senate for teaching Arabic, Sanscrit, and Persian and subjects of general knowledge, through the medium of Hindi and Urdu. The Punjab University College has been established for nearly nine years. It has fulfilled in some degree the objects for which it was founded and your Excellency was pleased on the occasion of the assumption of Her Most gracious Majesty the Queen, of the title of Empress of India, to acknowledge its success and to lead us to hope that the promise of the Secretary of State made in 1869 that the Punjab University College should be expanded into an University, would be carried out. This consummation we still hope to obtain. The report of the operations of the Punjab University College for the past year which is before you shows that the work done is increasing in amount and importance, and I can testify that the chiefs and people of this Province take as warm an interest as ever in the promotion of education. My Lord, the report of the Registrar is in most respects complete, but in one important point it is defective, and I must endeavour to supply what the modesty of the compiler has omitted, by bringing to your Excellency's notice the services which the Registrar has performed for the cause of education. Dr. Leitner has, from the beginning, actively supported and directed the movement of which the Punjab University College is the result. He has during the last 14 years laboured incessantly in this cause and to his energy, talent, and popularity with the natives of this Province the success which has attended the establishment of the Punjab University College is greatly due. I do not attempt to enumerate the chiefs and gentlemen who have been forward in helping the movement by which the Punjab University College was founded. Their names will be found in the calendar and it would be impossible for me to do justice to the subject in the brief time at my disposal. The liberty of the donations to the endowment fund is a proof of the deep interest which is felt in the Institution. The Punjab University College is the creation of the people of this Province; it is the result of the desire of the people of the Punjab for a living and growing system of education, in the control and direction of which they have a share, which will blend with the ancient learning of the country, and make use of its classical and vernacular language

as the media of instruction. The Senate are grateful to your Excellency for the support and encouragement which your advocacy of the proposal to raise the Institution to the status of an University and your presence here to-day denote, and they feel that the identification of your Excellency with the system of education which the Senate are carrying out, makes it more than ever necessary for them to complete and perfect what has been so auspiciously begun."

On the conclusion of Mr. Egerton's address, the successful prizeholders and fellows were presented to Lord Lytton, who distributed the prizes and diplomas, and this concluded, His excellency rose and addressed the Assembly, as follows:—

"Your Honour and Gentlemen; This College is to me no new object of interest. Three years ago, in reply to an address from *Ajuman*, I stated my intention to introduce, as soon as possible, the necessary legislation for raising this College to the complete status of a recognized University.—Gentlemen; that intention was opposed by many influential men. I need not remind you that the fulfilment of this intention necessarily was subject to the sanction of Her Majesty's Secretary of State for India. But, so far as that fulfilment depended on myself I think I may say, with sincerity, that the promise which I then gave, has not been unredeemed. That promise, Gentlemen, was given on the 1st January 1877, and before the end of that month, the Government of India had officially recommended to the Secretary of State, the immediate establishment of this College on the footing of a regularly constituted University with power to confer degrees. Well Gentlemen, our representation was eventually accepted, and sanctioned, though not without reserve, or without some restrictions which personally I confess, I regret, and which I still hope may not be permanently maintained.

In the meanwhile, however, the Government of India lost no time in framing a bill for the purpose of giving that object which you have at heart, which we all have at heart, the fullest effect. Ten years have now elapsed since the Punjab University College was first launched, and it is therefore, I may say, the decennial celebration of its progressively useful career at which we are present to-day.

If anything were still wanting to justify the College being empowered to exercise all the privileges of an University, surely it might be found in the statements we have heard to-day and what we have ourselves witnessed. For my own part, I may say that I have heard the account of the College with feelings very much akin to those of a man, who hears from the schoolmaster an account of the promising position and the rapid intellectual progress of some adopted child, whose future career in the world he has helped to frame.

Gentlemen; allow me for one moment to refer to the origin and the object of this institution, which has been characterized and I am bound to say, I think, without exaggeration in all respects, except the name, the only complete University which exists in India, if you regard it as an examining, teaching and literary body. I am persuaded, that no College in any other part of India can possibly pursue the object, or efficiently perform the work, which are specially characteristic of this College, and therefore, I must say, it does seem to me almost absurd to imagine that mischief may be expected from future competition between the University at Calcutta and that at

Lahore—Gentlemen, between these two Institutions, I hope emulation there will always be but competition I think, there cannot be. The object of these two institutions is not only different, but they are essentially dissimilar. (It never has been the ambition, and I am sure it never will be, of this institution, to set up an educational standard exclusive in character, and quite regardless of the differences of race, religion, history and social custom.) It never has been the object, and I think it never will be the object, of this institution to strengthen the loyalty by weakening the nationality of the students, or seek by an Anglicized course of instruction to place in a position of isolation from the great body of their own people, generations of young men whose social position cannot be entirely homogeneous to the small ruling race of this country.

Gentlemen, I am not going here to express any opinion as to whether the system here employed is better or worse than the system associated with any other educational institution in India.

I confess that I am myself one of those who believe that the common law of supply and demand are quite as applicable to education as to any other marketable commodity. Now the great educational question which attracted the attention of the Government of India in 1854, was not the question of compulsory education with reference to elementary instruction. The questions then discussed had mainly reference to the higher education of the wealthier classes of this country. Well, there were then, as, I have no doubt, there are still, a great many learned and philanthropic persons who held that it is the duty of the British Government, in India, to cover this country with educational hot-beds and forcing houses, and to provide a permanent artificial supply of high class, and high pressure education, quite regardless of the existence or non-existence of any demand for it. For my own part, I am quite unable to share that opinion, and I am thankful that the rule was at last laid down that Government Colleges and Schools, in India, should be regarded not as permanent institutions, but simply as initiative stimulants to the natural growth of that popular demand for education, which, when sufficiently developed, is sure to find its own supply in flourishing, thriving institutions.

Well, His Honour has reminded us to what the Punjab University College owes its origin, and now what has been the result? Well, I may fairly consider these results are fairly remarkable, the Punjab University College came into the world with a good stout foundation of its own, thanks to its popular constitution. It has been, from its very first day of existence, more largely self-supporting than any other educational institution in India of which I am aware, in the same status, Gentlemen; when I enquire to whom is this college indebted for the endowment of those scholarships, and those fellowships, competition for which is increasing, not only in parts of the Punjab, not only throughout the whole of Northern India, but even beyond the borders of India. I find that the sources of endowment are spontaneous subscriptions and donations from all the middle class, and from all the great chiefs and princes of the Province.

Well what then is the cause of the popular support which this Institution has, from the very outset, received? What is the reason that it has, as we all know, the support of the Rulers of Kashmir, Jhind, Nabha, Bahawulpore, Maler Kotla, and many, almost all the

ruling princes and great nobles of the Province? Gentlemen, I think that the reason why this College has so large a popular support is, that this College has a popular object and popular constitution. The education provided for this country should be directed not to changes, but to improve what is already best in the actual life and character of the people of the country.

Gentlemen, education, if it be not compulsory, must be popular in the common sense of the word, but education cannot be popular unless it is given in a manner plainly intelligible to the common sense of the people.

The two great educational principles with which this College is identified, in my eyes at least, are these. Firstly that the medium of instruction shall be the mother tongue of the students, and secondly that the object of instruction shall be to develop the sentiments of enlightened loyalty, by associating with it those natural sentiments of duty, which every race inherits. Well, Gentlemen, I am fain to believe that within the last ten years, these two principles have made, and are still making progress in India. Another object, to which personally I confess I am disposed to attach considerable importance, and which is one, the attainment of which has always appeared to me to constitute the highest and greatest function of a completely developed University. That object is the gradual formation of a great national reservoir for original research, and original ideas. Now amongst many ancient rules for the training of *moulvis* I am glad to find that this College has already made some provision, at least for those who desire to devote their whole time to study, and I may specially congratulate this College on the fact that those interesting periodicals which were first instituted by the *Anjuman* are being maintained for the encouragement of original composition in Arabic, Sanscrit, Persian and other oriental languages.

Well, Gentlemen, these being the main objects, and the general character of this College, objects which certainly have always seemed to me singularly sound, I must say that it is with the liveliest satisfaction that I learn the excellent results already achieved.

Well, Gentlemen, it is not a highly satisfactory circumstance that this great College at Lahore is being attended in increasing numbers, by the natives, not only of all parts of this great province, but of many provinces, and many states beyond its borders? It is not a pleasing reflection that this College, one of the youngest born of our educational institutions, this local, provincial College, has attracted to its scholars and students from Gilgit, Buner, Ghabrial, Badakshan and other parts of Central Asia? Why, Gentlemen, no other University in any other part of India has done this. The Calcutta University could not have done it, notwithstanding its larger privileges, the Madras and Bombay Universities could not have done it.

This College at Lahore, seems to have extended into Asia its educational influence, partly no doubt owing to its more oriental character and its more national method of instruction.

I find that in Arts, the high honours have recently been taken at Calcutta by a proportion of students from this College, which, if all things be fairly considered, is really large. Nor is that all. The students, who at Calcutta came second and third in order of merit

appear to have here only landed third and fourth, at Lahore, and that so far as it goes, proves that your standard of examination is not less stringent than that of the Calcutta institution.

It seems to me a very remarkable fact that the number of Candidates who present themselves for examination in Arts at this College, is already double the number of candidates at Calcutta. I think that this is a very remarkable fact, when you remember that the University of Calcutta has long possessed that privilege not yet given to the Punjab, of conferring a recognized degree in Arts. Then there is another circumstance which, I think, may be mentioned in connection with this. In 1876, the number of schools and colleges affiliated to this institution had increased to fifteen, and since then, offers have been received of affiliation in the North-West Provinces and Bengal. I may add that at present no better guarantee than the high interest taken by the Hon'ble Mr. Egerton in educational matters can be given of the success of the College, and I believe that the name of my friend, Mr. Egerton, will hereafter be associated with the development of this excellent local institution, not less than that of Sir Donald McLeod.

But I am sure that none of us can, on the occasion of this Convocation, help thinking with feelings of the deepest regret, of the sad loss which this College has sustained, a loss which we have all sustained, in the death of the lamented Mr. Gore Onseley.

Gentlemen, it was my wish and my intention, to have referred somewhat more fully before bidding you farewell to one other point connected with this college, but I am very much afraid that I should be probably only wearying you, if in this sultry weather, and at this late hour in this afternoon, I were much longer to detain you from your drive or your dinner. I think that all may leave this institution to-day, with very much more cause for hope than regret. * * * The Punjab University College is still young, is still growing. For my own part, I have great confidence in the future, when I think of this province. It may not be my privilege to be personally associated with the production of this object, but I am persuaded that if this College continues, as it has hitherto done, to fulfil with steadily increasing efficiency all those functions of a university which fall within its existing sphere, the complete and unrestricted rights of a University will not be much longer withheld from it."

His Lordship, whose speech occupied nearly an hour in delivery, was loudly applauded, he then left accompanied by the Hon'ble the Lieutenant-Governor and the deputation which received him.

THE DEVELOPMENT OF THE SCHOOLMASTER.

It is scarcely nearer possibility that every man can become a skilled teacher than that everyone can become a painter, a singer, or an orator. There is a science and art of education for the complete mastery of which exceptional qualities are necessary. Even in the most perfect state of society, the business of education will be in the hands of persons specially chosen and specially trained. The absence of division of labour in education is characteristic of the very rudest state of society. History proves that the business of the teacher is as ancient as history itself, and our theory shows

that it may be fairly expected to exist to the end of the world. To apply our doctrine, therefore, we must trace out of the law of progress from history. But first, as an interlude, let us ask—How is it that some people, in looking around them, or looking into the future, turn the wrong end of the telescope to the eye, and place a green glass in front of it? Charles Lamb, speaking of a melancholy individual, said his presence would cast a gloom over a funeral. There are some whose style of conversation is so depressing that if it had been added to that of the three friends of poor old Job it would have made the ancient patriarch think that to be alone with his potsherd was to be in heaven. They are not all schoolmasters. They are to be found in every society and in every sphere of thought. Everywhere there are men who are impressed with nothing so much as the general wrongness of all things and the particular wretchedness of human nature. Some seem to think their fellow-creatures are both utterly wretched, and utterly despicable. Such men have been called pessimists. In education there are non-professional and professional pessimists. There are smiling, fluent, and affluent gentlemen who discourse on education, and there are schoolmasters—not, it seems, forbid to tell the secrets of their prison-house—who, if they could be believed, would induce a sensitive brother to imbibe courage from a good supper, and drown himself in the nearest ditch. Carlyle is a pessimist as regards education, when he writes—"My schoolmaster, a downbent, broken-hearted, under-foot martyr, as others of that guild are, did nothing for me except discover that he could do nothing."

Pessimism is very much a matter of temperament; but it has been remarked that it is a prosperous age that develops it, and it is generally prosperous people who are pessimists. It is not those who really suffer, or see others suffer, who talk most of the wickedness of this wicked world, and the wretchedness of this miserable existence. To hear such things we must pass to the homes and palaces where calamity has never entered, and where health, food, books, the luxuries as well as the necessities of life, are matters of course. Now, I suspect it is because the schoolmaster is so much more prosperous than formerly, and has so many more facilities for successful action, that we hear so much more wailing.

This unmitigated complaining has a most unwholesome tendency. It cannot exist where there is a full acceptance of the doctrine of development. When the true nature of progress is clearly understood, the knowledge will influence strongly both the qualities of those who choose teaching as a profession, and their mental activity after the choice is made. The opinion that the condition of a class or of a nation is naturally sinking or is unsuceptible of improvement tends to realise the evil as the contrary opinion encourages judicious perseverance.

Now I believe that nothing tends to produce a healthy and hopeful view of our professional prospects so much as the systematic study of the history of education—of the history of the schoolmaster. Where shall we begin? Sir W. Thomson has calculated that the earth must have solidified about 150 millions of years ago. Shall we begin with the year one? The fact is, we neither need concern ourselves with the remote past nor the remote future. We ought to be interested in so much of the past as may serve to guide our actions

in the present, and we are interested in so much of the future as we may affect by our actions now. We may begin with Homer and his Greek boys, or Virgil and his young Romans. We shall then encounter, in the course of time, Æsop, Plato, Aristotle, Socrates, Asser, Bede, Hales, Scotus, Ascham, Locke, Wootton, Comenius, Rabelais, Milton, Behrisch, Campe, Johnson, Colet, Pestalozzi, Arnold, Pillans, Stow, Lancaster, Bell, &c.

We cannot, of course, even sketch this history now. It is easy, however, to establish the following facts:—

1. Teaching is as ancient as poetry and history, and seems to be coeval with the possession of knowledge. 2. From the earliest periods parents have sought the aid of wise men in the education of their children, and such men have devoted themselves to the work of education as the main business of their lives. 3. In all ages there have been some amongst teachers who have excelled all others in their influence over the young and their ability to develop their powers of thought. 4. Education has become more and more systematised as nations have advanced in knowledge and civilization. 5. Following the tendency of the age in other things to diffusion and universality, the latest aims have been to secure the education of the masses. 6. While this diffusion has taken place, the skill of the educator, and, therefore, the quality of the education, has regularly improved. The army of schoolmasters is immensely increased, but its efficiency has increased in a far greater proportion. 7. We can now no more restrain the spread of education than we can restrict the flow of literature or limit the circulation of the daily press.

Any intelligent man would easily trace out these conclusions, but we may remark, also, that there is a good deal in history to make us proud of our profession. Looking into our professional Valhalla, we see that

Great men have been amongst us; hands that penned
And tongues that uttered wisdom, better none.

When the history comes to the period within our own memory, we can call to mind many a one who will not be individualized in history, perhaps, but of whom we can say—

Thou didst travel on life's common way.
In cheerful godliness; and yet thy heart
The lowliest duties on herself did lay.

We may make another general remark. All the great schoolmasters whose names we meet in history have been reformers. They have not been pessimists, but believers in the doctrine of development. A man does not try to reform what he considers hopelessly bad. The man who believes we are not educators, we are machines, cannot possibly consider how we can improve our methods of teaching. The man who sees that his work calls for the exercise of his highest mental powers, stimulated by enthusiasm and earnestness, naturally sees where he falls short of what he might achieve, and labours to increase his efficiency. The reformers of all ages seem to be remarkably unanimous in their aims to counteract a tendency to become mechanical, and to give to teachers a greater breadth of view. We may find a chronological succession of definitions of the teacher's work made for this purpose. Montaigne, a contemporary of Ascham, tells us not to make it our business to secure an external babble of

the tongue, but to secure a continual exercise of the soul. John Milton calls "a complete and general education that which fits a man to perform justly, skilfully, and magnanimously, all the offices both private and public of peace and war." Rousseau tells us our work is to fit men to live. "Now," he says, "to live is not merely to breathe, it is to act; it is to make use of our organs, our senses, our faculties, and of all those parts of our souls which give us the feeling of our existence." A more recent philosopher asks—"How can an inanimate mechanical gerund-grinder, the like of whom will, in a subsequent century, be manufactured out of wood and leather, foster the growth of anything; much more of mind, which grows not like a vegetable (by having its roots littered with etymological compost), but like a spirit, by mysterious contact of spirit; thought kindling itself at the fire of living thought? How shall he give kindling in whose own inward man there is no live coal, but all is burnt-out to a dead cinder? He knows this much of the human soul, that it has a faculty called Memory, and can be acted on through the muscular integument by appliance of birch rods.

Alas! so will it ever be; till the hodman is discharged, or reduced to hod-bearing, and an architect is found and on all hands fitly encouraged; till communities and individuals discover, not without surprise, that fashioning the souls of a generation by knowledge can rank on a level with blowing their bodies to pieces by gunpowder; that with generals and field-marshal for killing there should be world-honoured dignitaries, and, were it possible, true God-ordained priests for teaching." This language is somewhat tainted by the tone I am now deprecating—namely, that which condemns, not for the sake of remedying what is defective, but for the pleasure of condemning; yet it points out what is the distinctive mark of the true teacher. His highest work is to exert that influence which only mind can exert upon mind.—*Dr. Wornell.*

EARLY MARRIAGES AMONG STUDENTS.

At a most enthusiastic meeting of the Calcutta Students' Association, attended by upwards of 400 students, held at the Albert Hall, it was unanimously resolved to organize a united movement among students to put down the custom of early marriage, which now so largely prevails amongst us and which lies at the root of many of those evils which afflict our unhappy country. After an exhaustive discussion lasting for over three hours, the following resolution was unanimously adopted.

"That in the interests of students and with a view to promote their welfare both as students and as men, this meeting resolves to organize a united movement amongst students to put down the pernicious custom of child marriage; and that the committee of the Students' Association be empowered to take the necessary steps to carry on this great movement."

The Secretary of the Association, a student of the Calcutta Presidency College writes as follows:—

In forwarding this Resolution to you, dear fellow-students, I need scarcely dilate upon the evils of early marriage. How often has it happened, that young students married at an early age and overbur-

dened with the cares of a growing family have been-compelled to give up their studies and seek for employment without having finished their education. How often, in the case of those more fortunately situated early marriage has seriously interfered with their studies. It is scarcely necessary for me to refer to the physical deterioration, the social degradation, the absence of moral power and of all steadiness of purpose in the prosecution of great aims, which have followed in the train of this pernicious custom and from which countless generations of India have suffered and will suffer, until a determined effort is made to check this great evil. It is students who are most concerned in this question, it is they who are the victims of early marriage, led in too many cases like so many sheep to the slaughter, and it is therefore but meet that they should move in the matter. Our power may not be great. It would have been more fortunate, if the honoured leaders of our community had led the movement, and to us had been reserved the honour of following their lead. But as students, united in the brotherhood of a holy cause, we can at least create among ourselves a powerful opinion which shall condemn the custom of early marriage, reprobate amongst us all who should marry early, and thus by raising around us the strong barrier of united sentiment, we may ensure protection against a custom, so fatal to the best interests of students and so prejudicial to the welfare of our countrymen at large. We may at least bind ourselves by a formal and solemn pledge not to marry before a certain minimum age which may be fixed, for the present, at 21. This is precisely the line of procedure which the Students' Association proposes to adopt in connection with this movement. It is proposed to call a public meeting before the Durga Puja vacation, in which a pledge will be submitted, to be signed by such students as are willing and who feel themselves able to enter into this solemn contract. I shall do myself the pleasure of forwarding to you a copy of the pledge as soon as its form has been definitely settled. In the meantime, I shall content myself by saying that the pledge will be somewhat as follows:—I hereby solemnly bind myself not to marry or allow myself to be given in marriage before I have attained the age of 21, my present age being—. In answer to the argument that might be urged that it is fathers who give their sons in marriage and that young students therefore cannot bind themselves by a pledge of this kind, the obvious reply is that if a young man is really resolved not to marry before he has attained a certain age, no father can force him to act contrary to his settled resolution.

The Students' Association calculates with confidence, dear fellow-students, upon your sympathy and co-operation in this movement. It is not enough that you should express your sympathy with us; we desire that a united and concerted movement, proceeding from students in all parts of the country, should be organised to put down this pernicious custom. The proceedings of the public meeting that will be held shortly, will be duly forwarded to you; and we beg you will co-operate with us, by calling a similar meeting in your part of the country. But in the meantime, we shall be greatly obliged by an expression of your views on the movement that has been set on foot. I beg that the reply may reach us in the course of a fortnight to be in time for the public meeting where it will be read.

PLUTARCH ON EDUCATION.

(From the Schoolmaster.)

PEOPLE in a museum stand and gaze at a cracked crock, clumsy in shape, and looking as if a wash would do it good, who would pass all the china shops in London without glancing at the wares exposed in their windows. And in doing this they are not inconsistent, for they feel interest in the crock, not as a piece of earthenware, but as an antiquity—as a memento of a people, mayhap, effete when as yet the Briton chased wild beasts in the "forest primeval," and his destined conquerors tilled their farms on the melancholy shores of the German Ocean. Of course, many remains of antiquity are of great value on account of the light they throw on the details of the life of peoples passed away; but, quite apart from this, one feels an interest in them because of their mere age, and the associations they recall; indeed, it may be enunciated as a truism, that things which are only common-place when new, and rubbish when old, are curious when ancient. This is especially the case with books. A cook, for instance, filled with facts with which everyone was acquainted would find few readers. A man might say of it, almost in the words of Hamlet, "All of which, sir, though I most powerfully and potently believe, yet I hold it not" needful "to be thus set down." But let such a book be brought to light a thousand years hence, and the press would not be able to meet the demand for it, so eager would people be to see what were held to be facts in the far-off past. For a book has this merit about it above all other antiquities, that from it you obtain definite statements, while from them you can only draw inferences. What a prospect of posthumous fame this opens up to writers of unsaleable books! A book which actually does owe its chief interest to the fact that it was written ages ago is Plutarch's *Περὶ παιδων ἀγωγῆς* ("Concerning the Education of Children"). If it were published now, the only notice which would be taken of it in *THE SCHOOLMASTER* would be a review in some such words as these:—"This pamphlet can lay no claim to originality, although it is marked by strong common-sense. Its author has contented himself with collecting some truisms concerning education, expressing them in clear language, and enforcing them by apt illustrations drawn from observation and a varied reading;" but I believe the distance of eighteen hundred years which separates it from us will lend at least so much of enchantment to the view as to make a somewhat fuller account of it welcome to the readers of *THE SCHOOLMASTER*.

The purpose of Plutarch in writing the book is set out at the beginning:—"Let us see what can be said about the education of free-born children, and that which must be done that they may become distinguished by their morals." The end of education, then, is the making of a virtuous man; and to achieve this three things must concur—nature, instruction, and exercise. The beginnings come from nature, the advances from instruction, and the advantages from exercise—perfection from the three. If any one of these be at all wanting, virtue must be imperfect, for nature without instruction is blind, instruction without nature is defective, and exercise without both is incomplete. For any illustration of his meaning

Plutarch draws upon agriculture, in which, to produce a bountiful harvest, the soil must be fertile, the tiller able, and the seed good. Nature resembles the soil, the teacher the tiller, and his precepts the seed. "I dare affirm with assurance that these three things have conspired and concurred to form the souls of those noble men whom the world honours—of Pythagoras, of Socrates, of Plato—of all who have won immortal fame. Happy and loved of the gods, then, is he on whom all these advantages have been bestowed." But let no one think that where nature has been sparing of her gifts, there instruction would be thrown away. Study can correct the defects just as sloth can corrupt the excellencies of nature. Plutarch then gives several examples to show the efficacy of constant labour, and the possibility of modifying, or overcoming a natural tendency. Drops of water hollow stones; the friction of the hand wears away implements of iron and brass; a straight piece of wood, when bent to form the felloe of a wheel, can never return to its original and natural shape. When he has exhausted his illustrations (of which I have only culled a few) he goes on:—"But why need I say more? for character is only a prolonged habit." This weighty sentence should be worn by every one who has the moulding of mind and morals, "as a sign upon his hand, and as frontlets between his eyes." It is driven home by an apt story. On a day when all the Spartans were come together, Lycurgus addressed them upon the influence and consequent importance of early training. When he had ceased speaking he ordered two dogs to be brought forth. He placed before them a hare and a dish. One of the dogs sprang after the hare, and the other threw himself upon the dish. "Here," said Lycurgus, "you see the truth of what I have been saying made manifest. These two dogs are from the same litter, but, being brought up in different ways, one has become a glutton and thief, and the other a hardy hunter."

As Plutarch distinctly understands education to be the making of a virtuous man, and not what it seems to be considered by many now—the forcing down the throats of children certain prescribed doses of instruction—we are prepared to see him place its beginning much further back than those would who think that the commencement of education is "A." We do not feel surprised therefore to find him treat of the feeding of infants, and even of matters anterior. He insists that mothers should "give suck and love the babe that milks" them. If they are physically incapable of suckling their children they should not entrust the work of doing so to the first comer, but should use great care in the choice of a nurse, and should, above all, choose no one who was not Greek. It should be remembered that Plutarch wrote for his fellow-countrymen, who looked down upon all other nations with as lofty a scorn as the Chinese do now.* The manners of children ought to be regulated from the commencement, and therefore they ought from their very births to be guarded from "barbarian" taint. "For youth is a thing easy to form and flexible, and instruction imprints itself in tender souls like

* It is interesting to note that *βάρβαρος* (*barbaros*), from which we derive our word *barbarian*, meant in Greek a foreigner, but that the qualities attributed by the Greeks to a *βάρβαρος* were just those which we associate with a barbarian.

the seal upon the soft wax." Hence, too, the young slaves who wait upon and are brought up with the nurslings should be well behaved, and their Greek should be such as Polonius described the players' speech—"Well spoken, with good accent and good discretion." Plutarch strengthens his opinion with a proverb—"If you live near a lame man you will learn to halt"—so, if you associate with people who speak badly, you will unconsciously learn to imitate them.

When children are old enough to be placed under pedagogues* great care should be taken in the choice of these directors, lest the children be handed over to slaves who are either foreigners or have often changed masters. "What frequently happens now," says Plutarch, "is excessively ridiculous; for masters of the hard-working, trustworthy, and zealous among their slaves make some farmers, some shipmasters, some merchants, some stewards, some bankers; but if any among their slaves be one a drunkard and glutton, and unfit for any other occupation, to him they entrust their sons!" Plutarch then makes "the greatest and most important" of all recommendations: parents should seek for their children masters "irreproachable in their lives, irreprehensible in their manners, and widely experienced," for a well-directed education is the source and root of probity, and, as farmers fix stakes around plants that they may spring up perpendicularly, so wise teachers place precepts and counsels around youth that it too may grow upright. How can we sufficiently condemn or despise those parents who, through negligence or ignorance, hand over the care of their children to persons incapable or infamous? When they do this through ignorance perhaps they are rather to be pitied than despised, except when the worse than worthlessness of the preceptors they have chosen has been pointed out to them. If, then, out of complaisance to a friend who importunes them on behalf of the tutor, or overcome by the adroit flattery of the tutor himself, they still retain him, what words are strong enough to censure their conduct as it deserves to be? For a man to employ a bad tutor at the instance of a friend, is as if, when ill, instead of availing himself of the services of the skilful physician, who would heal him, he, from a desire to please, betook him to the quack, who will kill him. "Jupiter and all the gods! Can a man who calls himself a father pay more heed to the wishes of his friend than to the interests of his child?" Socrates used to say that he would like to mount the highest point in the city, and cry with a loud voice. "Oh ye men, can any folly top yours, in that ye spend all your strength in amassing wealth, and bestow no thought upon the children to whom you will leave it?" Such

* *Pedagogue* is from the Greek *παιδαγωγός* (*paidagogos*), which is itself from *παις* (*pais*), Gen. *παιδός* (*paidos*), a child, and *άγω* (*ago*) I lead. A pedagogue therefore was a slave whose primary employment it was to lead children to those who taught them. "In the discharge of his office a pedagogue slave acted as the guardian of his master's son, attended him at all hours, especially went with him to school and the places for gymnastic exercises, and had particular charge of his moral training."—J. Donaldson, LL.D. When it is borne in mind that the word translated "schoolmaster" in Gal. iii. 24 ("Wherefore the law was our schoolmaster to bring us unto Christ") is in the original *παιδαγωγός*, the metaphor will be clear. Paul means that the law is the pedagogue who leads the pupils to Christ the teacher. If schoolmasters would but remember the meaning of the word I think they would not be so fond of calling themselves "pedagogues." For teacher Plutarch always uses some other word than *παιδαγωγός*.

conduct, says Plutarch, is like that of a person who pays great attention to his shoes and none to his feet. Some men are so avaricious that they will not pay money enough to secure a good teacher, choosing, rather, cheap ignorance than a more costly knowledge. Such an one once came to Aristippus to ask him for how much he would undertake the education of his son. "For a thousand drachmas," said the philosopher. "A thousand drachmas!" exclaimed the father, aghast. "Zeus! I can buy a slave for that." "Do," was the answer, "and then you will have two—him you buy and your son." "I resume," proceeds Plutarch; "and my words should be taken as oracles rather than opinions: a well-regulated education is of supreme importance; it prepares the way for virtue and happiness, and ensures their attainment and duration. All other human things are, in comparison, petty and worthless. Good birth is, doubtless, a fine thing, but it is one we owe to our ancestors; wealth is valuable, but uncertain; fame is honourable, but unstable; beauty is enviable, but fleeting; health is precious, but precarious; strength is desirable, but it is open to the attacks of disease and old age; education is the only thing in us deathless and divine: it is above the accidents of fortune, beyond the touch of calumny; disease cannot destroy it, old age cannot impair it; war, which, like a mighty torrent, sweeps all else away, cannot wrest it from its possessor." Stilpo, the philosopher, made a noble answer to Demetrius,* who, when he had razed Megara to the ground, asked him whether he had lost anything. "No, truly," said he, "for virtue is no part of war's booty." In the same spirit was the answer of Socrates, who, when asked whether he thought the "Great King" happy, said, "I cannot tell, for I do not know how far he is virtuous and educated."

In the present age of printing a man can influence his fellow-citizens far more through the press than through any other channel, hence the art of writing is cultivated carefully; but in times past, when the spoken word was practically the only medium for communicating thought, oratory was the art most in vogue. This was particularly the case in Greece, which may at times be almost said to have been governed by public meeting, and where, therefore, in an especial degree, a man's weight with the masses depended upon his ability as a speaker. Plutarch, naturally, in a work on the education of Greeks, has a good deal to say upon the cultivation of oratory, which was so important a part of it. I pass over what he does say, and I shall only lightly touch on another subject which he dwells on—gymnastic exercises. These also necessarily occupied a large share of attention among a people with whom the culture of physical strength and beauty was almost a religion. "It behaves not to neglect violent exercises of the body," says Plutarch. "Send children to the gymnasium; there let them take just the amount of exercise which shall conduce to bodily grace and vigour, and shall stop short of fatiguing them so that they cannot attend to their studies; for, as Plato says, 'Sleep and fatigue are the enemies of learning.'"

From the time when Cain said "My punishment is greater than I can bear," till now, the matter of correction has received what

* Demetrius, when he plundered Megara, ordered the house of the philosopher to be left safe and unmolested.

may at least be called a fair share of notice. Of course, Plutarch speaks of it. I translate what he says into words of one syllable, that Lord Townshend or some other wiser-than-Solomonite may have it reprinted for distribution in infant schools:—"I say that we must lead the young to do what is right by kind words, and not, oh, ye gods! by blows, which seem to me to be more fit for slaves than for those who are born free. Blows make them to hate toil, both for the pain which they cause and for the shock which they give their pride. Praise and blame will do more with a child born free than all your blows, for praise will urge him to do right, and blame will stop him to do wrong." Plutarch, in a very marked way, excepted slaves from the benefit of a rodless rule. Perhaps some dear old lady will explain what modern teachers are to do with those children who, though ingenuous in the original sense of the word, exhibit the vices of slaves. As Plutarch places the beginning of education earlier, he places the end of it later than schoolmasters can hope to do. He makes education commence in the infant and conclude in the man. He insists, and rightly, that the youth needs a far more watchful care than the child, for the faults of the latter are easily corrected, "being chiefly irreverence towards their masters and want of attention to their lessons," while those of the former are often grave and fatal. Plutarch concludes his book with a number of miscellaneous moral maxims to be impressed upon the minds of youth. I believe those who read this article through will agree with me in my estimate of Plutarch's book. He shows therein, that though he is no philosopher, yet he is a very sensible man, a clear writer, and a good story-teller.

DAVID SALMON.

HOW TO WRITE ENGLISH.

(Continued from page 283.)

Though previously to Hooker no writer had perhaps won for himself the full guerdon of gratitude due to the first writer who moulded the vernacular style, and created literature in the vulgar tongue, fraught with all the conditions of composition,—yet Sir Thomas More, in 1509, and Sir Thomas Elyot, in 1531, had avowedly attempted to do that for the language, which Wiclif did for the religion of England. But the light and steps of both were dim, devious and feeble, and their followers few. More's "Life of Edward V." Hallam calls "the first example of good English language." Elyot's book, called "The Governor," went through seven editions. It was designed to set forth the graces of courtiers, and the duties of statesmen, but treats more fully of education. It is now worthless unless as a curiosity to the book-collector. Its style will furnish us with nothing to imitate, and much to avoid; but it had then the merit of giving to English prose a new status in European literature. It was among the earliest secular books in the vulgar tongue; and, measured by the light and learning of its times, it is one of the "monuments of mind" among historical land-marks; and the first bold impression struck by More and Elyot imparted their type to a large progeny.

There is much of fashion in style. The history of literature is, in

great part a record of these fashions. "Prose and verse," says D'Israeli,* "have been regulated by the same caprice that cuts our coats and cocks our hats." First after the restoration of letters came a swarm of commentators and compilers. Verbosities attended the early dearth of intellect: for barren thoughts cannot bear the exposure of terse expression, and seek to veil lack of fruit by foliage of words. Hence frivolities are usually verbose, whilst the style in which deep thought finds utterance is oftener simple and unadorned. Cicero was a more popular model than Tacitus. This troop, who long infested literature—afterwards unhappily revived by Johnson,—were first, according to D'Israeli, routed by the facetious Erasmus. Then followed the epigrammatic era, succeeded by a short reign of epics. Spenser's "Faery Queen" did much, however, to elevate the national conception of literature: but the polemical writers of the time of Elizabeth did more. Of these I would place Thomas Cartwright and Hooker among the foremost. They were the fathers of the stalwart English of Sir Thomas Browne, and the manly sermons thundered forth to king and crowd by brave old Bishop Latimer: and which, modulated by time and epoch, characterized the quiet vigour of "The Golden Grove."†

But let us first take a specimen from that prince of old English divines, Hooker. Hear what he says of Rome, and contrast his quiet power in speaking of her, with the feeble frenzy of some modern writers. How well he manages his thoughts, and how clearly they run, in well chosen words, through his lengthy sentences:—

"The Schools of Rome teach Scripture to be so insufficient, as if, except traditions were added, it did not contain all revealed and supernatural truth, which absolutely is necessary for the children of men in this life to know, that they may in the next be saved. Others, justly condemning this opinion, grow likewise into a dangerous extremity, as if Scripture did not only contain all things in that kind necessary, but all things simply, and in such sort that to do anything according to any other law were not only unnecessary but even opposite unto salvation, unlawful, and sinful. Whatsoever is spoken of God or things appertaining to God otherwise than as the truth is, though it seem an honour, it is an injury. And as incredible praises given unto men do often abate and impair the credit of their deserved commendation, so we must likewise take great heed lest, in attributing unto Scripture more than it can have, the incredibility of that do cause even those things which indeed it bath most abundantly, to be less reverently esteemed. I therefore leave it to themselves to consider whether they have in this first point, or not, overshot themselves; which God doth know is quickly done, even when our meaning is most sincere, as I am verily persuaded theirs in this case was."

Mark the manly power of this simple language: how fitly the words are chosen; how craftily managed is the relation and proximity of the different members of each sentence to the rest, and likewise of the sentences themselves, each to each, forming a natural sequence in the well-put argument,—the predicate following close to the subject. Oh! right well was English begun by great and good old Hooker!

Most writers are fond of putting several ideas in the same sentence,

* Curiosities of Literature.

† Jeremy Taylor. This work was written at the Golden Grove, his residence in Carmarthenshire.

but few can manage to do it without some injury to the force of what they mean to express; and fewer still can do so without some slight sacrifice of clearness. Let the reader test this; and shutting up the JOURNAL, and taking up his pen, let him write down Hooker's thoughts, as nearly as he can as Hooker has expressed them, and then let him compare his version with the original. It will teach him much. Then let him read the following passage from a modern divine, who publishes much, and who is so good and right-intentioned a man that I will not attach his name to his style of writing, of which this is by no means an extreme specimen:—

"And we, for these great practical contrasts, which will be brought out in the clear light of God's judgment-day, and which nothing in earth, or hell, or heaven, can alter or modify, must have our own sets of spiritual and carnal men; of those who can make it clear to us that they believe, and of those who cannot: divisions which are so many premiums to hypocrisy, so many hindrances to honest men, so many temptations to him whose experiences have acquired for him the title "religious," to think that he has not a world and flesh and devil to struggle with, while he may be convincing a looker-on, by his ordinary behaviour, that he is an obedient slave of all three; tempt those who are treated as carnal and worldly to believe what they are told of themselves, to act as if they had not that longing for good, which they yet know that they have, and which God does not disown, for His Son has awakened it, though His servants may be stifling it."

How terribly confused is this complication of words; this jumble of ideas! What a muddle of language! What does it mean? Can anyone translate it into intelligible sentences of moderate length?

I know of few better models among old writers, of clear and powerful style, than Sir Thomas Browne's works afford us. How admirably he enlarges in the following passages on the Divine truth, that from those to whom much is given much is required. I take it from his "Enquiries into Vulgar and Common Errors." He says of such men as do not use their gifts, that

"Having received excellent endowments, they have sat down by them, and have frustrated the intention of their abilities. For certainly, as some men have sinned in the principles of humanity, and must answer for not being men; so others offend if they be not more. *Magis extra vitia, quàm cum virtutibus** would commend those: these are not excusable without an excellency. For great constitutions, and such as are constellated unto knowledge, do nothing till they outdo all; they come short of themselves if they go not beyond others; and must not sit down under the rank of worthies. God expects no lustre from the minor stars; but if the sun should not illumine all, it were a sin in nature."

It is the great beauty of this passage that it clothes great truths and deep thoughts in terms so plain and intelligible that though written two hundred years since, no child of common intellect can fail to understand them. Nevertheless it contains some of the more difficult modes of expression. It is epigrammatic antithetical and figurative, and yet so terse that not a word can be spared. Here is another sentence, less difficult to write well, but quite as good in style, and as forcible in effect. He is condemning the herd who "cry aloud in worship of an echo,"—as Byron has it—and who are always ready to indorse any dogma, so long as they can thereby sail with the stream in good company, and nestle under the wing of

* "Rather to be without vices than with virtues."

authority,—a sin which strikes at the root of that mental progress, to which investigation is vital. This is a fault—

“whereby,” he says, “either from a temperamental inactivity, we are unready to put in execution the suggestions or dictates of reason; or by a content and acquiescence in every species of truth, we embrace the shadow thereof, or so much as may palliate its just and substantial acquirements. Had our forefathers sat down in these resolutions, or had their curiosities been sedentary, who pursued the knowledge of things through all the corners of nature, the face of truth had been obscure unto us, whose lustre in some part their industries have revealed.

“Certainly the sweat of their labours was salt unto them, and they took delight in the dust of their endeavours. For, questionless, knowledge then was no slender difficulty; and truth, which wise men say doth lye in a well, is not recoverable by exantlation.”*

Right well does this vigorous and stout-hearted writer follow out the same bold counsel in a subsequent chapter, thus:—

“But the mortallest enemy unto knowledge, and that which had done the greatest execution upon truth, had been a peremptory adhesion unto authority: and more especially the establishing of our belief upon the dictates of antiquity. For (as every capacity may observe) most men of all ages present, so superstitiously do look upon the ages past, that the authorities of the one exceed the reasons of the other. Whose persons, indeed, being far removed from our times, are now become out of the distance [range] of envious; and are conceived to approach the hearer unto truth itself. Now hereby methinks we manifestly delude ourselves, and widely walk out of the track of truth. For just men impose hereby a thralldom on their times which the ingenuity of no age should endure, or indeed the presumption of any did yet enjoin. Thus Hippocrates, about two thousand years ago, conceived it no injustice either to examine or refute the doctrines of his predecessors; Galen the like, and Aristotle the most of any. Yet did not any of these conceive themselves infallible; but when they either deliver their own inventions or reject other men's opinions, they proceed with judgment and ingenuity; establishing their assertions, not only with great solidity, but submitting them also unto the correction of future discovery.

“Secoudly, men that adore times past consider not that those times were once present, that is, as our own are at this instant; and we ourselves to those to come, as they unto us at present: as we rely on them, so will those on us, and magnify us hereafter who at present condemn ourselves.”

Let us descend now to much more modern examples of clear and vigorous English. Very different was the style of Burke; but amidst its grandeur we find equal clearness, and, with all its defective logic, force of language no less perfect. Here are passages, as specimens, in which, with the terrors and horrors of the French Revolution before him, he thus, in some measure, paints perils in the course which Browne extols:—

“When ancient opinions and rules of life are taken away, the loss cannot possibly be estimated. From that moment we have no compass to govern us, nor can we know distinctly to what port to steer. * * Nothing is more certain than that our manners, our civilisation, and all the good things which are connected with manners and with civilisation, have, in this European world of ours, depended for ages upon two principles; and were indeed the result of both combined.—I mean the spirit of a gentle-

* This is, indeed, a very hard word. It means being drawn out:—from *ἐξαντλιν*, from *αντλος*, sending.

man and the spirit of religion. The nobility and the clergy—the one by profession, the other by patronage—kept learning in existence, even in the midst of arms and confusions, and whilst governments were rather in their courses than formed. Learning paid back what it received to nobility and to priesthood, and paid it with usury, by enlarging their ideas and by furnishing their minds.”

Burke excelled both in making his long sentences perfectly intelligible and effective; and also in using very short ones quite as effectively, and as steps in reasoning: a plan it were well for argumentative writers to avail themselves of more largely than is fashionable now. Here is an example:—

“These public affections, combined with manners, are sometimes required as supplement, sometimes as correctives, always as aids to law. The precept given by a wise man as well as a great critic, for the construction of poems, is equally true as to States. *Non satis est pulchra esse poemata, dulcia suntu*. There ought to be a system of manners in every nation which a well-formed mind would be disposed to relish. To make us love our country, our country ought to be lovely.”

Here is another example:—

“Humanity cannot be degraded by humiliation. It is its very character to submit to such things. There is a consanguinity between benevolence and humility. They are virtues of the same stock. Dignity is of as good a race; but it belongs to the family of fortitude.”

These consecutive apothegms in short sentences are telling, and constitute a good model. His invective was always forceful, chiefly from his skilful use of sarcastic antithesis, scathing without passion. Here are examples:—

“The moral scheme of France furnishes the only pattern ever known which those who admire will instantly resemble. It is indeed an inexhaustible repertory of one kind of examples. In my wretched condition, though hardly to be classed with the living, I am not safe from them. They have tigers to fall upon animated strength. They have hyenas to prey upon carcasses. The national menagerie is collected by the first physiologists of the time; and it is defective in no kind of savage nature. They pursue even such as me into the obscurest retreats, and haul them before revolutionary tribunals. Neither sex nor age, nor the sanctuary of the tomb, is sacred to them. They have so determined a hatred of the privileged orders that they deny even to the departed the sad immunity of the grave. They are not wholly without an object. This turpitude purveys to their malice, and they unplumb the dead for bullets to assassinate the living.”

Here is a passage which I transcribe from a double motive. One is, that it excellently exemplifies the merits in Burke's style I have already named:—

“In one thing I can excuse the Duke of Bedford for his attack upon me and my mortuary pension. He cannot readily comprehend the transaction he condemns. What I have obtained was the fruit of no bargain; the production of no intrigue; the result of no compromise; the effect of no solicitation. * * * I was entirely out of the way of serving or of hurting any statesman or any party when the Ministers so generously and so nobly carried into effect the spontaneous bounty of the Crown. Both descriptions have acted as became them. When I could serve them, the ministers considered my situation. When I could no longer hurt them, the revolutionists trampled on my infirmity. My gratitude, I trust, is equal to the manner in which the benefit was conferred. It came to me indeed

at a time of life, and in a state of mind and body, in which no circumstance of fortune could afford me any real pleasure. But this was no fault in the royal donor, or in his ministers, who were pleased, acknowledging the merits of an invalid servant of the public, to assuage the sorrows of a desolate old man."

Here is another striking passage from the same letter (to a noble lord, in 1796):—

"To be ill spoken of, in whatever language they speak, by the zealots of the new sect in philosophy and politics, of which these noble persons think so charitably, and of which others think so justly, to me is no matter of uneasiness or surprise. To have incurred the displeasure of the Duke of Orleans or the Duke of Bedford, to fall under the censure of Citizen Brissot, or of his friend the Earl of Lauderdale, I ought to consider as proofs—not the least satisfactory—that I have produced some part of the effect I proposed by my endeavours. I have laboured hard to earn what the noble lords are generous enough to pay. Personal offence I have given them none. The part they take against me is from zeal to the cause. It is well! It is perfectly well! I have to do homage to their justice. I have to thank the Bedfords and the Lauderdale for having so faithfully and so fully acquitted towards me whatever arrear of debt was left undischarged by the Priestleys and the Paines."

Perhaps the attentive reader will observe some similarity of style, and no slight affinity in the powers of sarcastic invective in the following passages from a writer of the same time:—

JUNIUS TO THE DUKE OF BEDFORD.

"Let us consider you, then, as arrived at the summit of worldly greatness; let us suppose that all your plans of avarice and ambition are accomplished, and your most sanguine wishes gratified in the fear, as well as the hatred of the people: can age itself forget that you are now in the last act of life? And is there no period to be reserved for meditation and retirement? For shame, my lord, let it not be recorded of you that the latest hours of your life were dedicated to the same unworthy pursuits, the same busy agitations, in which your youth and manhood were exhausted. Consider that, although you cannot disgrace your former life, you are violating the character of age, and exposing the impotent imbecility, after you have lost the vigour, of the passions."

Both Burke and Junius thus excelled in the use of antithesis; and it is difficult to say which surpassed the other in the elegance of style or vigour of invective. Here is—

JUNIUS TO THE DUKE OF GRAFTON.

"If Nature had given you an understanding qualified to keep pace with the wishes and principles of your heart, she would have made you, perhaps, the most formidable minister that ever was employed under a limited monarchy to accomplish the ruin of a free people. When neither the feelings of shame, the reproaches of conscience, nor the dread of punishment, form any bar to the designs of a minister, the people would have too much reason to lament their condition if they did not find some resource in the weakness of his understanding. We owe it to the bounty of Providence that the completest depravity of heart is sometimes strangely united with a confusion of the mind, which counteracts the most favourite principles, and makes the same man treacherous without art, and a hypocrite without deceiving."

The power of antithesis was never more skillfully wielded. It far surpasses Seneca and Young, both of whom delighted in, but overdid it. Junius and Burke rise from comparison to antithesis,

as in the foregoing passage, by natural transition, and use the latter chiefly as a climax. Its power depends, like that of most other figures and modes of expression, on its natural aptness to the subject. In the last-cited passage from Junius mark how the effect is increased by the unexpected contrasts of the ideas he brings together: treachery without art, and hypocrisy without deceiving. How strikingly akin, and yet how admirably distinguished are the contrasted species of each genus of vice. How inimitably is the fraudulent intent and the impotent effect expressed in these few words of quiet and crushing satire! How very erringly Blair says that this kind of antithesis "belongs only to pieces of professed wit and humour, and can find no place in grave compositions."

The great merits of the various specimens of good style we have now cited consist of the clearness of the ideas, the precision with which they are expressed, the judicious selection of the words used and the correct structure of the sentences.

(To be continued.)

THE OFFICE OF THE TEACHER.

I magnify our profession, and have faith in its power. The indestructibility of a thought, its vivifying, boundless, irresistible, and eternal influence upon other minds, will ever give to those whose duty it is to excite and direct the first mental efforts of the rising generation an influence on the national life, whether acknowledged or not, equal, if not greater, than that of any other profession. Pulpit and press depend greatly for their power upon our preliminary labours. The teaching profession should be the holiest, best cultured, and most apt for its duty of any in the land. I would have as one in aim and spirit and fitness for his work the humblest village teacher and the great Arnold. Who can measure the influence of this character-magician in our primary schools at present? Many of our teachers are enthusiastic admirers of the noble master of Rugby, and in their more limited sphere follow in his footsteps. I am about to suggest an impossibility which may not, however, be without its use. I have often thought that, as the power of Nature is more apparent to the thoughtless in her destructive than in her beneficent operations, so it might be possible to bring home to ordinary understandings the influence of the teacher, by supposing a country to be cursed with an army of intemperate, thriftless, disloyal, or seditious teachers, breathing poisonous principles into the minds of their pupils, instead of training them in the right paths. Their labour would be easy and tell with tenfold force, because they would work in accordance with the lowest natural disposition instead of against it. Such a body which it fills one with horror to imagine even, would, despite the many counteracting agencies surrounding each individual, poison the springs of national life at their source. Each teacher is mighty, for good or evil. I am proud to be able to quote one of Dr. Arnold's illustrious pupils and most successful assistants as supporting with his great authority in more forcible and elegant language than I can use the opinion which I would now enforce. In the March number of the *Contemporary Review*, Professor Bonomy Price, whom I have before quoted,

writes:—"I hold that the first cardinal principle of education is to bring the nature to be opened out and trained into contact with the highest possible standard of greatness. The rule of educating by means of safe mediocrity is to me purely detestable. No writer is too lofty, provided only that he is capable of being understood, to be placed in the hands of the young; *no man too high to be fit for a schoolmaster*. This was a truth recognised in the great universities of the middle ages, and it has received in our own days worthy homage from a Niebuhr and an Arnold. The greater the excellence the loftier, more varied, and richer the influences brought to bear on the young, the riper and the more valuable the fruits. A great writer wields in education a force a thousand times more powerful than an inferior one; the difference is in kind, not in degree. A mind of the first order awakens in those who come under its sway far many more ideas than one of lower degree, expresses them with greater truth, flashes them into lower depths of the spirit of the recipient, kindles a more fervid enthusiasm, calls forth a more ardent imitation, and reveals things known only to its own genius." What he says of classical education I would affirm of teaching generally:—"There is no man so great, if only he is endowed with the true faculty of teaching, who may not find it a field worthy of his noblest powers. Successful generals and prominent statesmen easily command the admiration of mankind. They dazzle by the apparent size and magnitude of the effects they produce. To have defeated a large army, to have guided the destinies of an imperial State, affect directly the lives and positions of millions. The men that wield such powers must be the loftiest of mankind. Yet is it so in truth? If we think only on what man is—if we reflect that the form and colour of both individual and social life must absolutely depend on the minds and characters of the men who compose it—is it true that statesmen and generals determine the course and happiness of humanity in a higher degree than those who form and construct, as it were, humanity itself? No one doubts that the public schools and the universities—and I would add elementary schools—of England produce wide and lasting effects on her national character. That great writers move the thoughts and opinions of many generations is a simple truism. No one contests that noble and powerful natures amongst the living mightily affect all who come within the reach of their influence. Is it too much to say that a great teacher, or rather a mass of great teachers, may still more profoundly direct and shape minds at ages when docility and impressionableness are the seed-bed supplied by nature? Have an Abelard and an Arnold told little upon mankind? Englishmen are not sufficiently alive to the immense and the decisive importance of the special qualities of a true teacher. *It would be enormously better for a boy to be trained by a real teacher with small learning than by a man of great attainments and no power to influence others.* No doubt, in the case of the young as well as of the old, a human being can do the most for himself; but the presence of a spirit capable of stimulating and guiding makes an incredible difference in the work which a boy or man will do for himself. . . . A hundred faults might be forgiven to Eton or any other public school—to Oxford or to Cambridge—if only the fundamental truth were recognized that the primary element of education is the teacher, and if, as a consequence of that

recognition, a great teacher were demanded and appreciated by the public with the same earnestness and discernment as a great barrister or a great physician."—Mr. GROVE.

THE KINDERGARTEN SYSTEM.*

SPEAKING, as I have the honour to do, before experienced teachers, I shall not be able to help saying much that is known to them already. Froebel's system had its beginning some forty years ago, and the outlines of his plans are known everywhere. I can only hope therefore that, like Molière's "Citizen Nobleman" with his tutor in philosophy, you will permit, even desire, me to proceed as though you did not know all about it!

Friedrich Froebel, having suffered from a variously bad education, set himself to reason out why it had been so bad. He studied children's nature; human nature as exhibited in children; assuming only that if we teachers and parents educate children according to their nature children will be well educated! So he found that children are not naturally idle; rather, they are never happy but when at work. Why then, was his surprised inquiry, are they "idle" at school? Again: they are fond of order, and discipline; most exact, and exacting with one another; perfect Martinets in any matter which they have to regulate for themselves. Why then are they disorderly at school? He judged that "school" must set them to work unfitted for them; that school must demand order and discipline on Egyptian principles, when it does not provide suitable employment. How mend this? It being clear that, like the Cornish demon, children must be always employed, or they will play the—according to their nature!—in place of trying to force Industry and Discipline by fear, try another plan. Given occupation that suits their nature, Industry and Order will come of themselves. In other words, fit work will take care of Idleness and Disorder—will painlessly extinguish both.

Next, Froebel takes the old philosophical Latin, "*Nihil in intellectu quod non prius in sensu*," and puts it to a practical use. The senses act first; they are *meant* to act first: this the slightest observation of children tells us. It is now known, I believe, that the portions of brain first developed are those parts which serve the senses. The senses may be helped, may be guided. This help and guidance is Education. Therefore, our first education should be to set the senses to work; to exercise, employ, improve them.

Froebel insists that the first years of life, after consciousness begins, are, for education, the most important, and teaches mothers how they should make their earliest play, their cradle songs, form an atmosphere of good around their children. As to his Kindergarten, he thinks the young plants may be transplanted, so as to enjoy social training, at about three years old, and from the first year to the seventh is the Kindergarten period, which is not "school,"—into which even the all-important three R's are not forced,—which is to be the preparation for School, and for Life. Having his little pupils from three upwards together, he provided them with rational toys; "gifts" as he quaintly, but aptly, calls them.

* A paper read at a Teacher's Conference by W. W. Herford, B.A.

The first gift is one which can be used by a mother with her one babe, as well as by the child-gardener with her little class. It consists of six woollen balls; three of the primary, three of the secondary colours; and to each of them a short string is attached. By handling and comparing these the colours are learned. Next the balls are moved, rolled, swung, every act being named, and every phrase being spoken after by the little pupils, so that from the first, Enunciation and Pronunciation are cared for, in a way that being natural is not tiresome. Next, in the second gift, comprising a Sphere, Cylinder and Cube of wood, solid *Form* becomes the subject of observation. The sphere and cube for contrasts, with the cylinder to show resemblances, are handled, felt, and seen, and the little pupils gain first the impressions and ideas, and next the names, of curved and flat Surface, Edges, Corners; by-and-bye, Square and Circle as flat forms. Next comes a box of eight cubes, that is, a cube divided once in every dimension. With these the children build all manner of "forms of life," as Friedrich Froebel styles them—i.e., forms, more or less like things (objects) known to the child's experience—chair, sofa, bath, etc. Then, cubes divided with increasing complexity are used for building up forms more and more various; in all which the child is led to invent—to do something out of itself. Thus made acquainted with solid figure, children are next brought to the conception of separate *surface* by tablets, capable of being arranged into a hundred pretty patterns; thence to the *line*, by sticks laid in numberless figures; while by pointed sticks joined by softened peas, the idea of the *point* is given, along with shape as almost detached from substance. Then, for the cultivation of eye and hand skill directly, the taste for beauty, and the inventive faculty being more directly called out, Froebel invented paper-folding, in which from a single square is evolved a bewildering variety of forms at once beautiful and regular—fanciful and yet logical, one might say—because symmetry, the exact equality of opposites, is always observed. It is not needful to mention every separate gift, all of which prove Froebel to have possessed that instinct of genius which turns commonest things to use and beauty. Patterns are pricked into paper with needle; narrow strips of paper are woven into mats, and simple figures are coloured with the brush,—so on to drawing with pencil, and, last and highest, modelling in clay. In all these "occupations"—the "work" of the Kindergarten—the rule is not to copy, but to work by suggestion,—the children are to be led, not to be driven. The fundamental principle is, "Do, that you may learn"; and the aim is "spontaneous but regulated activity." To us this "happy Nurture" may seem play-work indeed. Look, however, only at the children in a Kindergarten and see their happy earnestness and full purpose of soul, and doubt, if you can, that they are being well trained to do their work one day, in the world, as men and women. No compulsion is allowed; no punishment is needed; but nothing is permitted to be done otherwise than aright, according to the law of the work. And, as a rule, the small artificers perceive at once, or are taught willingly, that the right way is best, and (*etc. etc.*) show themselves amenable to right reason.

At the same time, it will hardly need much speaking to convince teachers that they who shall thus direct and train children; lead, and not drive; suggest, and not command: will need to have been

themselves carefully trained. There is a portion of what theologians call, I believe, "original sin," that is, of individual self-will, even in children from three years of age to seven, and it need not be doubted that pupils, even in Kindergarten, need for their management much wisdom as well as gentleness. I have put the Kindergarten *work* first, not because most important, or most original, but as being most obvious, and most practicable. The "games" have yet higher meaning, yet clearer value, and this threefold: First, as lowest, they contain carefully regulated varieties of movement, so as to be an unconscious system of true gymnastic or reasonable education of the body. Secondly, they cultivate Music. All games are accompanied by singing; so that children's lungs are exercised, and their ear for tune and time developed. But the value of singing for all children is now so generally understood, that I may pass on to—Third, use of these "games," wherein the originality of Froebel appears most conspicuously of all. The Kindergarten Games become means for the unfolding of the mental powers, and for true exercise of the moral sentiments—according to the spiritual stature of the child. Let us take an obvious example. A game is imagined—as old as the hills, indeed!—in which various handicraft trades are imitated. In turn the children saw, hammer, draw ropes, mow, sow seeds, reap, thrash. Everything is done in rhythm, and with simple song accompaniment. This is all delight to the children; but it does not end in pleasure, though to make them happy is much. See what has been done, more! Various muscles have been exercised without fatigue; the sense of tune and time have been practised with delight; and that peculiarly human quality, love of imitation, has been gratified; and all has been done in *order*, according to a certain *law*. Very favourite games are those in which habits of animals are represented. A few children group themselves closely together—this is the pigeon-house; the rest join hands around them—they are the pigeons. Singing together the circle widens, and the little birds fly out, joyously moving their arms in the likeness of wings. At a certain word in the song, the birds return, and the house closes again. In these games we have the unconscious education of both moral and social feelings. The law of the game must be kept; anyone declining to obey it, is with gentle patience put to look on. Every one wants to be of the chief; but a just rotation is observed, and each learn to give way to others—each sees that the pleasure of all depends on order and fairness; the ever importunate Self is checked, without being thwarted, and they learn to take pleasure in each other's pleasure. Think how the little characters are laid open to the loving eye that only seeks to make the best of each one.

(To be continued).

MISCELLANEOUS.

THE SCHOOLMASTER.—Every profession is undoubtedly subject to hardships peculiar to itself; and in each they are probably much more nearly equal than is generally supposed. We see the fairer side of our neighbour's condition, and we feel the miseries of our own. Horace, and indeed, common observation will inform us, that the merchant and the soldier often reciprocally envy the supposed advantages of each other's pursuits.

that he, who is immersed in the business and tumult of the metropolis sighs continually for the ease and tranquillity of the country; and that he, who is condemned to the retirement and solitude of the country, imagines that happiness is to be found only in the crowds and amusements of the metropolis. The hardships of the schoolmaster however may reasonably be presumed to exceed those of most other occupations; both because the members of every other profession admit them to be at least equal to their own, and because it is an employment, in which hardly any man engages from choice and predilection; which almost every man engaged in it, is eager to relinquish; and to which, when once relinquished, no man, perhaps, ever voluntarily returned. Many of the grievances attendant on it, however, might be so easily alleviated or removed, that one would hope a mere statement of the facts might produce some portion of the remedy. The first source of the vexations, incident to the profession of a schoolmaster, is the variety of objects, to which he is called on to attend, and the different talents and tempers of the students entrusted to his care. He has the various endowments of his pupils to direct each to their proper object; to stimulate the sluggishness of one, and to correct the perverseness of another; to restrain vicious propensities wherever they appear, and to encourage every instance and every symptom of virtue; to watch the health of the delicate; to force information upon the dull; and to establish in all the habits of diligence, order, and obedience. He knows that he is under a distinct and separate responsibility for the improvement of every youth placed under his protection; and that his reputation and his interest are in every instance at stake. Here then surely is ample employment for the most sagacious and the most active mind; here are required such constant vigilance and exertion, as may be entitled to the admiration, but cannot excite the envy, of the members of any other profession. Every hour brings its proper business. A composition is to be examined, or an author to be read; idleness is to be punished, or diligence rewarded; transgression is to be chastised, or merit applauded; and he who suffers his temper to be ruffled, or his peace to be destroyed by the follies of those who are placed under his care to have those follies corrected, is either very culpable or very unfortunate; he wants one of the indispensable requisites for the office he has undertaken.

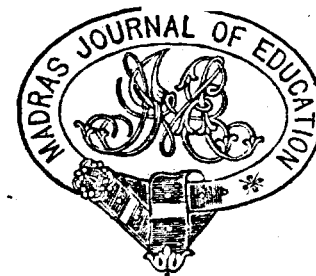
APPOINTMENTS.

Mr. E. P. Metcalfe, M.A., to be Principal, 4th Class, Rajahmundry College, and Principal, 3rd Class, substantive *pro tem.*, from the 15th August 1878.

Mr. Alexander Munro, M.A., B.C.L., to be Inspector of Schools, 4th Class, substantive *pro tem.*, from the 2nd June 1879, and to have charge of the 1st Division.

Mr. Sadhu Seshayya, B.A., Assistant Professor, Presidency College, and Acting First Assistant, Combaconum College, to act as Inspector of Schools, 4th Class, and to have charge of the 2nd Division, during the absence on privilege leave of Mr. Fortey, M.A.

Colonel H. T. Rogers, R.E., resumed charge of the Office of Principal Civil Engineering College, Madras, on the afternoon of the 10th instant.



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THE MONTH.

SOME most important Educational measures proposed by the Director of Public Instruction, have just received the sanction of Government, and will doubtless come almost immediately into operation. We will give the fullest particulars in our next issue, but we now present a brief summary of the new scheme.

A Middle Class School Examination, to be superintended by the Commissioner for the Uncovenanted Civil Service Examinations, is to supersede the present general Test Examination. It is to be open to all candidates whether pupils in schools or not.

Male candidates are to be examined in six subjects, of which three are compulsory and three are optional. The curriculum now followed in Government schools will enable a boy from the upper fourth class to come up in the following subjects:—

A. Compulsory.

- A. English,
- C. Arithmetic.

- D. Geography & Indian History.

B. Optional.

- B. Second language.

- E. Mathematics.

- F. English History.

East Indian boys will probably try and shirk the second language. In that case they will have to choose one of the following subjects:—

- F. Physical Geography.
- G. Physiology or Hygiene.
- H. Political Economy.
- I. Agriculture.

In aided schools, the same subjects will be brought up generally, but English History is not always studied in these schools, and in such

cases one of the other alternative subjects may be brought up. Boys and grown-up persons who have no turn for Mathematics may also take advantage of the option which the scheme gives them of substituting some other subject.

Female candidates are to be examined in five instead of six subjects. Most of them will probably bring up only one language, East Indian girls English, Native girls their own vernacular. All will have to pass in one language, and also in Arithmetic, Geography and Indian History. They will have to choose two other subjects. East Indian girls will probably take up English History and some little book on the laws of health. Native girls will probably take up Physical Geography and Hygiene. Possibly some may take up Archbishop Whately's Easy Lessons on Money Matters, formerly prescribed for Taluk Schools and translated into Tamil. The scheme provides for native girls being examined in all the non-language subjects through the medium of the vernacular.

The successful candidates are to be divided into two classes. A somewhat high degree of proficiency will be required to place the candidate in the first class, which will render him, when old enough, eligible for employment in the public service in certain small appointments. A first-class certificate will also be accepted as a substitute for the general education test for fourth grade schoolmasters and second-grade schoolmistresses, but persons holding these certificates will still be required to pass in Method and teaching power, if they wish to be employed as schoolmasters, and in Method, needle-work and teaching power, if they wish to be employed as schoolmistresses. In the event of the present examinations for the schoolmasters' fourth grade and the schoolmistresses' second grade being abolished and examinations in Method being restricted to persons trained in Normal Schools, a corresponding alteration would be made in these provisions. The present distinction between a perfect and imperfect certificate in the case of persons bringing up only one language will be maintained.

A place in the second class will only entitle the candidate to enter the upper department of a High School.

In addition to this Middle Class School examination, there are also annual Examinations to be held by the Head Masters of all government and aided schools, and to be called the *Upper Primary* and the *Lower Primary School Examinations*.

In the Upper Primary School Examination every candidate will be examined in five branches:—

<i>Compulsory.</i>		<i>Optional.</i>	
A. First language, Reading and writing.		D. First language (Poetry and Grammar).	
B. Arithmetic.		E. Second language.	
C. Geography.		F. History.	
		G. Hygiene.	
		H. Agricultural.	

In Government Schools, most boys will bring up E as a matter of course, and will choose D or F. In aided schools, history is not generally read in the second class, and in these schools D and E will be generally brought up. East Indian boys and girls will rarely bring

up a second language and will choose two subjects out of D, F, and G. Under the head of History is placed English History as an alternative to Indian History, as the former is read by East Indians in some elementary schools. Agriculture being one of the alternative subjects in results schools is also included under the head of optional subjects.

The examination will be left as far as possible to the Masters and Mistresses of schools, and the general responsibility for the examination will rest with the head of the institution.

The subjects laid down for the Lower Primary Examination are those named by the Government of India. In the case of Primary Schools connected with schools of a higher grade it is proposed that the examination shall be conducted in the same way as the Upper Primary Examination, but in purely elementary schools some other agency is necessary, and in such cases the examination will form part of the work done at the regular inspection of the school.

In the order of Government approving the Director's scheme, it is declared that in future, Government are not prepared to accept the Madras University Matriculation Examination, at its present standard, as a test of qualification for appointments exceeding Rupees 20 monthly, but if the standard in handwriting and arithmetic is raised sufficiently, the Government would then accept it. The Director is accordingly requested to bring the matter under the notice of the Senate. Should the authorities of the University deem it undesirable to raise the tests as suggested, the Director will submit proposals for instituting a higher examination for appointments above Rupees 30.

We sincerely hope that the University authorities may be able to see their way to comply with the wishes of Government. The abominable handwriting that is now the rule rather than the exception in papers sent in by candidates at the various Examinations calls for severe legislation.

THE Examiners for the coming University Matriculation, First Arts and B. A. Examinations have been appointed for a period of three years. A single Examiner is to prepare, and to be solely responsible for each Examination paper, his coadjutors helping him to examine and value the answers. This should have the effect of making the Question papers more symmetrical, and the Examinations more uniform. Marks not exceeding 10 per cent. are to be deducted for bad spelling in the language subjects, and 5 per cent. may be deducted for the mis-spelling of proper names in the History and Geography papers. This wholesome regulation should make Candidates pay much more regard to spelling than many of them have done of late.

UNIVERSITY OF MADRAS.—The following Gentlemen have been appointed Examiners for the next three years :—

MATRICULATION EXAMINATION.

- English*.—George Bickle, Esq., E. P. Metcalfe, M.A.;
Rev. George Patterson; T. Gopala Row, B.A.; Rev. D.G. Clarke, B.A.;
J. T. Margoschis, F.R.G.S.
Tamil.—S. Seshayya, B.A.; P. Vijayaranga Mudaliyar;
J. M. Velu Pillay; P. V. Ramaswami Raju, B.A.
Telugu.—S. Rangayya Chettiar, B.A.; P. Srinivasa Rau Pantulu, B.A.
Kanarese.—M. Clapham, Esq.; R. Venkata Ramaiya, B.A.
Malayalam.—R. S. Sheppard, B.A.; V. Achyutha Panikkar.
Sanskrit.—M. Seshagiri Sastriyar, M.A.
Latin and Greek.—A. Monro, M.A.
Persian and Urdu.—Rev. E. Sell.
Arithmetic.—Captain W. H. Coaker, R.E.
Algebra.—Rev. W. Leeming, M.A.
Geometry.—C. Waters, M.A.; V. Srinivasa Aiyar, B.A.
Physics.—J. Cook, M.A.; C. Nagoji Rau, B.A.
Physical Geography.—W. H. Wilson, Ph. D.
General Geography.—C. W. Pearce, Esq.; C. C. Flanagan, M.A.
Indian History.—Rev. G. U. Pope, D.D.; E. B. Powell, Esq.;
D. Sinclair, M.A.

For all three
Examinations.

FIRST EXAMINATION IN ARTS.

- English*.—John Bradshaw, M.A. LL.D.; Rev. G. Warlow, M.A.;
Rev. A. Alexander, M.A.
Tamil.—Rev. H. Bower, D.D.; P. Ranganatha Mudaliyar, M.A.*
Telugu.—V. Sundararama Aiyar, M.A., B.L.*
History.—Rev. G. M. Rae, M.A.; G. Oppert, Ph. D.
Physiology.—E. F. Brockman, F.R.C.S.
Arithmetic.—P. Krishnaswami Chettiar, M.A.
Algebra and Euclid.—P. Ratnavelu Chettiar, B.A., C.S.
Trigonometry and Euclid.—J. Marsh, Esq.

B.A. DEGREE EXAMINATION.

- English*.—H. B. Grigg, B.A.; W. A. Porter, M.A.
History.—G. Oppert, Ph. D.; Rev. G. M. Rae, M.A.
Mathematics.—H. Fortey, M.A.; P. Ratnavelu Chettiar, B.A., C.S.
Logic.—J. Thomson, M.A., C.S.
Psychology.—A. Thompson, Esq., C.S.
Moral Philosophy.—W. A. Symonds, Esq.
Chemistry and Botany.—T. K. Rogers, M.B., F.R.C.S.
Physics.—G. K. Winter, Esq.

* These gentlemen also examine in the same subjects for the B. A. Examination.

WE beg leave to acknowledge with thanks the receipt from the Secretary of the Madras Debating Society of a copy of an Address by the Rev. W. Miller, Principal of the Madras Christian College.

The Address was originally delivered to the Dialectic Society of the Edinburgh University in the session of 1877-78. We commend this eloquent and thoughtful lecture to the consideration of the Principals of Colleges where such Societies are not as yet in existence. We should like to make several extracts from the address, but at present we can find room for the following passage only :—

Therefore if there be danger, as there plainly is, lest the growing demand for full and exact knowledge crush out intellectual life and original thought,—lest “cram” with all its attendant evils be substituted for education,—the remedy is to strengthen the tendency to bring knowledge into living contact with mind and feeling—the tendency that leads men, if we may recur to Lessing’s words, to change their “learning” into “wisdom.” All learning cannot indeed be so changed by any man. It is well, it is indispensable, that much knowledge should be laid up in every mind beyond what can be vivified into personal thought at once. It is enough that the process of assimilation be continually going on. If it be so, the feeling becomes habitual that the true purpose of information is to be transmuted into thought and wisdom, and that all the possessions of the mind ought to be so transmuted some day.

Now for carrying on this process side by side with that of obtaining experience of books, or learning, no influence can compare with that which a Debating Society is certain to exert upon its members, if it be wisely and earnestly conducted. And especially is this true of a Society like ours, which limits itself to no single department of thought or inquiry, and which can therefore aid in vivifying and energizing the information gained now by one member and now by another, whatever be the quarter from which this information has been drawn. Instead therefore of allowing such Societies to have life and vigour crushed out of them by the new pressure towards the acquisition of learning, there should be a stronger determination to maintain them and to develop their capabilities to the full. They are more needed now than they ever were before. They are needed if the operation of a tendency that is excellent in itself, is not to debase universities into manufactories of ready-made information, and to degrade their students into bookworms.

THE portion of the History of Sanskrit Literature selected for the B.A. Degree Examination is that contained in Professor A. Weber’s History of Indian Literature, pages 175–232. For the M.A. Degree a knowledge of the History of the whole range of Sanskrit Literature will be required. The above will come into operation in January 1881.

Two small books of Geometrical Exercises are before us.* They are both intended for Candidates for Matriculation in our local University.

The first of these brochures is thus described in the preface :—

“The book is divided into three parts. The first part comprises a Digest of the Oxford and Cambridge University Examination Papers. The second part contains a collection of Problems deducible from the first three Books of Euclid, all arranged and solved. The third part is wholly devoted to notes on Geometry required for the Matriculation standard. The compilers are deeply indebted to the treatises on Geometry by Lardner, Galbraith, Todhunter and Potts.”

The second treatise is by Mr. Rungiah Chetti the able Assistant Professor at the Christian College. It contains hints on the solutions of problems, &c., in Todhunter's Euclid. Doubtless these judiciously used, will be found useful to many students, but they should in no case refer to them until they have exhausted all independent efforts to discover the solutions. We have little doubt that the student who has honestly worked through all the problems in Todhunter will be easily able to deal with any modification or combination of them which the ingenuity of an Examiner may be able to devise.

† We have received from the publishers, Messrs. Higginbotham and Co., a copy of a very useful and practical manual on the Slide Rule. It is the most lucid and practical treatise on the subject that we have seen. We take the following remarks from the preface; they will sufficiently explain the object of the work :—

“The Slide Rule was invented some two and a half centuries since, by the Rev. Mr. Oughtred. It is exceedingly simple in principle and working, yet it furnishes a very valuable and handy means of saving much time and labour in detail calculations to every person, scientific, speculative, or practical, who has to deal with figures beyond mere addition and subtraction; and that in calculations which would puzzle any but adepts, as well as in the most simple operations in multiplication and division; and with unflinching accuracy in the material figures of the results obtained from it.

The Slide Rule again is as complete and as readily worked out-of-doors as it is in the study or the office.

It was constantly used by men of known ability such as Professor De Morgan, Professor Pole; Mr. J. M. Hepple and Mr. D. K. Clark, and it is evident that if these found the Slide Rule useful and reliable in their varied calculations, it must be an instrument worth the mastering.

* A Digest of Examination papers on Geometry, &c., Published by Graves, Cookson & Co.

Solutions of Geometrical Problems in Todhunter—Books I, II. Part I by a Graduate of the Madras University—*Empress of India Press*.

† The elements of “The Slide Rule” by W. HENDERSON, M. Inst C.E., Engineer in Chief, Mysore State Railway. Madras, Higginbotham & Co.

The examples introduced to illustrate the subject, and appended separately, will sufficiently prove the universal application of the Slide Rule for direct solutions, or for making the detail calculations of mixed formulæ which cannot be reduced to a single setting form.

The great value of the Slide Rule in checking, and in working out Trigonometrical questions has induced us to add a few remarks upon the application to Trigonometry—plane and spherical.”

The following Examiners have been appointed to conduct the Examination for Schoolmasters' and Schoolmistresses' Certificates. The Examination is fixed for the 1st, 2nd, and 3rd of December next :—

Rev. W. Stevenson, M.A., *English*; H. B. Bernard, Esq., *English Dictation*; Rev. J. Cooling, B.A., *Arithmetic*; E. H. Elliot, Esq., B.A., *Euclid*; W. Morgan, Esq., *History and Geography*; J. T. Fowler, Esq., *Method* (Schoolmasters); G. Bickle, Esq., *Method* (Schoolmistresses); Mr. C. W. Winfred, B.A., *Tamil*; Mr. A. V. Panchanadha Aiyer, B.A., *Tamil Dictation*; Mr. L. C. Williams, B.A., *Tamil Translation*; Mr. Rangayya Chetti, B.A., *Telugu*, and *Telugu Dictation*; Mr. T. Srinivasa Charri, *Telugu Translation*; J. R. Thomas, Esq., B.A., *Malayalam*, *Malayalam Dictation*, and *Malayalam Translation*; Mr. G. Narsinga Rao, *Canarese*, *Canarese Dictation*, and *Canarese Translation*; Mr. Abdur Ruzzak Sahib, *Hindustani*, *Hindustani Dictation*, and *Hindustani Translation*; Babu Bhagabute Charan, *Uriya*, *Uriya Dictation*, and *Uriya Translation*; Miss Spence, *All the needle-work*.

MEDICAL :—Mr. John Gomez, one of the Medical students at Trevandrum, will shortly proceed to Madras at the expense of the Sircar and join the Medical College there to study for the L. M. S. degree. It is expected that when Mr. Gomez completes his studies, he will be appointed Chemical Examiner to the Travancore Government. During his collegiate course Mr. Gomez will receive a scholarship of Rs. 30 per mensem.—*Western Star*.

Education: its Principles and Practice, as developed by George Combe. Collated and Edited by William Jolly, H. M. Inspector of Schools. London; Macmillan & Co. 1879. A London weekly writes :—

On the theory of education Combe's opinions were such as would even now be called, as a whole, advanced. Not only did he refuse, at a time when the principle of State aid to elementary education was yet a novelty, to be content with anything less than a national and universal scheme, but on some points he went much further than is generally thought practicable at this day. He aimed at making education not only compulsory and unsectarian, but free; in fact, the principles he lays down are precisely those which the Education League started with in 1870. On the education of women Combe has some forcible remarks; he pleads for giving them a real and solid education, including such knowledge of the laws of human life and health as will make them fit to bring up their children. As to the elements of anatomy and physiology, he found it needful to protest that “it is a great error to suppose that these studies are necessarily shocking and indelicate.” Combe also discusses the relative merits of linguistic and scientific instruction, which is in effect the question still being hotly discussed between the advocates of a

modern education, as it is now called, and the classical system which has been in possession since the Renaissance. He gives his voice decidedly (like Mr. Herbert Spencer and several other recent authors on the subject) for assigning the first place to scientific training. In protesting against a narrow and exclusive devotion to Greek and Latin he not unnaturally overshot the mark. That literature as such can have any value in education seems never to have occurred to Combe; nor did he perceive, as we have already hinted, that the study of language was itself becoming a science of no mean importance. We are now able to see that the question is not what it appeared to be in Combe's time. We are not bound to choose between teaching Latin and Greek in the old fashion and teaching modern languages and science; our hope is that the contact of the new subjects will put fresh life into the old ones, and that our children will not cease to learn Latin and Greek, but will learn them in a more rational way than we did, and use the time thus economized to learn science also. And the teaching of science will require just as much vigilance as the teaching of classics, after its novelty has worn off, to prevent it from lapsing into an unintelligent routine in which a lip-memory for words is made to pass muster for genuine knowledge of things. Herein is the great merit of Combe's exhortations, that he always had clearly before him the necessity of making instruction real and thorough, whatever the subject. It may be supposed, perhaps, that the danger to be combated arises only when the more difficult subjects are reached. Surely reading and writing and Latin accident and the elementary school subjects generally, are simple things which there is only one way of learning.

We learn from the Travancore Administration Report that during the past year the progress made by the Elementary Schools in that province has been very satisfactory. The English Girls' School at Trevandrum has done its work efficiently, and Miss Donnelly, the Lady Superintendent's report on the Infant School is satisfactory. The English District Schools are now under the care of the Principal of the Trevandrum College. The Vernacular Schools shew signs of a decrease in their strength and Mr. Ross's suggestions as regards the education of the Princes have been adopted. The Aided Schools under Mission Agencies have made considerable progress during the year.

POOR SCHOLARS.—In a recent communication to the Government of Madras on the condition of the town of Combaconum, the Collector stated :—"Crowds of poor lads come to Combaconum from all parts of the district, and indeed from other districts too, in view to obtaining sufficient education to qualify them for Government service. Some of these boys are fed in chattrams and others trust to the liberality of the well-to-do inhabitants; but there is no place where they can look for food and shelter, and where they will be under proper supervision after school hours. It occurred to me some months ago that a part of the income of our exceedingly richly endowed chattrams might be set apart for the construction of a suitable building where a certain number of pauper boys should be fed and lodged and placed under the control of a Superintendent, whose duty it would be to prevent their falling into mischief when their day's work is over. I see no reason why this should not be done, and it certainly will be a

step towards curing the evils pointed out by the Sanitary Commissioner." The matter has been referred to the Board of Revenue and the Director of Public Instruction for their remarks.

We learn from the recent Report of the Madras Vernacular Literature and School Book Society that the Committee have made arrangements for the publication in the Vernacular of an illustrated Natural History suitable for School libraries and for prizes. The descriptions are being written specially for Indian children in a pleasing and popular style by Dr. Nicholson. Of the series of Translations of Lamb's Tales from Shakespeare, two new Tales in Tamil are now ready, viz., *Othello* and *Timon of Athens*, Translated by P. Ramaswami Raju, B.A. Miss Edgeworth's Tale of *The Little Merchants* has been translated into Tamil by Anbil Venkatachariar, and is just published. The copyright of the Hindustani *Intikhab Hakaik-ul-Manjudat*, or Selections in Natural Philosophy, having been kindly placed at the Society's disposal by the Rev. E. Sell, a new edition has been brought out for the use of Mussulman youths, and a Telugu Translation of Mr. Robertson's *Lectures on Modern Agriculture* is in progress.

The successful competitors for the First Prince of Travancore's Malayalam Translation prizes, Mr. Tobias Zecharias, and Mr. David Kurian are still engaged in translating into Malayalam the books assigned them. The Malayalam Translation of *Ala-ud-din* is passing through the press, and will be published immediately; *Sinbad the Sailor* will shortly follow. The translation of *The World's History* will, it is hoped, be also soon ready. This latter work is likewise being translated into Tamil and Telugu.

During the year a portion of the Adiparvam of the Telugu Mahabharatam has issued from the press, and the Ayodhya Kandam of the Tamil Ramayanam, carefully revised by T. E. Srinavasaraaghachariar, is in course of publication.

At the suggestion of the Director of Public Instruction, the Society have brought out cheap Tamil and Telugu Atlases for village and girls' schools. These Atlases are now ready for sale. Price 12 Annas. Each Atlas contains ten Maps, viz., The Hemispheres, Europe, Asia, Africa, North America, South America, Australia, India, the Madras Presidency and the British Isles; a few of these Atlases have been bound up so as to be suitable for school prizes.

The Committee desire to call the attention of Presidents and Vice-Presidents of School Boards, Inspectors of Schools, and of other friends of Education to the number and variety of Tamil and Telugu books published by the Society that are available for School Libraries and for Prizes.

The volumes of the Tamil and Telugu Janavinodini when neatly bound, form inexpensive but acceptable and interesting prize books, and several of the smaller pamphlets and tales can also be bound up so as to make neat and presentable volumes.

In Vernacular Schools, such prize books would be far more useful and suitable than English books which the boys and girls are unable to understand.

At a recent distribution of prizes to the Government Girls' Schools and to the Municipal Schools at Nellore, the Inspector of Schools for the Presidency Division had the Society's Telugu Janavinodini

and other publications neatly bound up and supplied for the prizes. In an interesting account of the distribution, he writes as follows:—

"Though a member of the School Book and Vernacular Literature Society, I really did not know fully how deep an obligation the friends of Education owe to that Society for the number and variety of publications, even in Telugu, that by a little selection and taste in the way of cheap binding have been by it made available for school prizes. One gentleman at the Meeting could hardly credit that the numerous array displayed could have been got for Rs. 50, and thought that charitable friends had added their gifts."

Of Tamil books there is a still greater variety for selection, and there are a few Hindustani books more carefully edited and printed, and on better paper than the books ordinarily sold in the bazaars.

NATIONAL INDIAN ASSOCIATION.—We have much pleasure in giving the Prospectus of this Association, and would earnestly commend its objects to the readers of our Journal:—

Objects of the Association.

To extend a knowledge of India, and interest in her throughout the country.

To co-operate with the local efforts made by Indian, for education; and for the improvement of their countrymen.

To promote goodwill and friendliness between England and India.

These objects are carried out by,—

- 1st.—The publication of a monthly Journal, containing information as to education and social reforms in India, &c.
- 2nd.—Organizing lectures on subjects connected with India.
- 3rd.—Correspondence with Indians practically interested in the work of the Association.
- 4th.—Occasional grants in encouragement of female education, and of useful institutions.
- 5th.—Selecting English teachers for families and schools.
- 6th.—Friendly intercourse with Indians who come to England, supplying them with introductions, arranging visits to public institutions, &c.

This Association, which was established by Miss Carpenter, has now existed seven years. It has several Branches in India, and Corresponding Members in many countries of Europe and in the United States. The Committee desire to promote, by the various practical methods indicated above, increased sympathy and union between the people of England and the people of India. They therefore request co-operation from all who are interested in India's moral and intellectual progress. Subscriptions are required for carrying on the work of the Association, but the Committee also ask for help in regard to the circulation of their Journal, and cordial support in every kind.

In all the proceedings of the Association, the Government principle of non-interference in religion is to be strictly maintained.

A subscription of 10/- and upwards constitutes membership. Donors of £20 and upwards are Life Members.

Subscriptions are due January 1st for the current year. Subscriptions and Donations to the Association to be paid to the Treasurer, by Cheque or P. O. Order on Bristol Post Office, or if more convenient, to the Hon. Secy.

The Journal is the organ of the Association, and is supplied to members. Subscription to the Journal separately 5/- per annum, in advance, post free by notice to the Publishers. It may also be procured through Booksellers.

In India the Journal may be obtained by the payment of 3 rupees per annum, from the Secretaries of the Branches; or direct from England by application to Mr. Arrowsmith, 11 Quay Street, Bristol.

Any Indian gentleman who proposes to visit England should obtain an introduction from the Secretary of the Branch to which he belongs in India, or from some other source, and transmit it to the Hon. Secretary, Miss E. A. Manning, or to Mr. J. Robinson, 1 Adam Street, Adelphi, London, who will arrange for his being met, if requested, in London or at Southampton.

MADRAS BRANCH.—Vice-Presidents: The Lady Mary Grenville. The Jaghèrdar of Arnee.

Chairman of Committee: Colonel R. M. Macdonald, Director of Public Instruction.

Vice-Chairman: The Hon. G. N. Gajapathi Row.

Hon. Secretaries: Hon. Mir Humayan Jah Bahadur and Chentsal Row, Esq.

UNIVERSITY OF MADRAS.—The following Candidates have passed the recent First M. B. and C. M. Degree Examination held in July 1879, —Henry Foster Staunton, and Jesudasa Pillai Nallatambi, B.A., Madras Medical College.

MEDICAL COLLEGE.—The Principal, Medical College, notifies that the undermentioned Candidates, who applied for admission into the Senior Department of the College on the 1st October next, have been permitted to join:—

Mr. F. S. D'Souza, Mr. S. Eades, Mr. A. H. Bayley, Mr. J. E. deRozario, Mr. A. Noronha, Mr. P. E. Maitland, Mr. F. C. Pereira, Mr. Alex. Rajahgopaul, Mr. S. Balasoodram, Mr. A. Gurusing, Mr. S. N. Cardozo, Mr. E. J. D. Smaller, Mr. P. J. Nunnerley, Mr. A. W. Ottmann, Mr. H. W. James, Mr. C. F. James, Mr. J. R. Barefoot, Mr. T. E. Poonen, Mr. S. B. M. Patcao, Mr. C. P. Gunapati, Mr. K. U. Appaiya, Mr. A. Govinden, Mr. S. A. Talpade, Mr. V. P. Mahtre, Mr. P. C. E. Wheeler, Mr. S. Wells, Mr. J. G. Margenout, Mr. V. V. Patanker, Mr. G. Tuke, Mr. J. W. Pedroza, Mr. H. A. Had-den, Mr. V. O. Taylor, Mr. W. H. Fox, Mr. J. H. Rodgers, Mr. A. R. Vythianathan, Mr. V. K. Saminada Iyer, and Mr. Henry Anderson.

CANDIDATES for the Examinations in Arts of the Madras University are informed that the papers in the Vernacular Languages (with the exception of the Translation paper) will henceforth be set in the Vernacular, and that the answer papers must be written in the language of the question papers: Europeans and East Indians only being allowed to answer in English.

The Government have approved of the proposed alteration of the official designation of the head of the agricultural school to "Superintendent of the School of Agriculture," as recommended by the Board of Revenue.

THE *German University Annual* states that there are twenty-one Universities in the Empire, with 20,229 students, of whom 2,500 do not attend any lectures. Of the 17,729 others, more than a third follow the lectures on philosophy, which comprise the sciences as well as those on philosophy strictly so called. The faculty which has the smallest number of students is that of theology, the lectures on which are attended by only 2,223. The Berlin University is the most frequented, having 4,597 students, of whom nearly half, however, do not attend any lectures. Leipsic, upon the other hand, has more than 3,000 students in regular attendance. The Strasburg University is eleventh on the list, with 700 students, and Rostock is last, with only 114. The number of professors paid by the German Empire is 1,300, and that of the *Privat-docenten* 1,050. The German Universities receive about £500,000 a year from the Imperial Budget, but this sum was largely exceeded in 1875, when Strasburg alone was allotted nearly £200,000. The other German Universities situated beyond the confines of the Empire are Basle (Switzerland), Dorpat (Russia), Vienna, Innsbruck, Prague, and Czernowitz (Austria), so that altogether there are twenty-eight of them in Europe.

EXAMINATION FOR TEACHERS' CERTIFICATES.

THE Director of Public Instruction gives notice that an Examination of candidates for Teachers' Certificates, under the Grant-in-aid Rules in force, will be held on Monday the 1st December next and following days at the stations mentioned below:—

Russellcondah.	Oosoor.
Berhampore.	Combaconum.
Chicacole.	Negapatam.
Vizagapatam.	Tanjore.
Rajahmundry.	Trichinopoly.
Narsapur.	Coimbatore.
Masulipatam.	Madura.
Kurnool.	Dindigul.
Bellary.	Ramnad.
Cuddapah.	Palamcottah.
Nellore.	Sawyerpuram.
Madras—Senate House, Evangelistic Hall, Wesleyan Mission Day School, Popham's Broadway Presentation Convent (Pay School) Armenian Street.	Sachiapuram.
Cuddalore.	Edyenkudi.
Vellore.	Nazareth.
Chittúr.	Palghát.
Salem.	Calicut.
	Tellicherry.
	Cannanore.
	Mangalore.
	Ootacamund.

Applications for admission, in the annexed form, must reach the Director's office at Madras on or before the 30th September.

All-candidates, whether male or female, must pay a fee as noted below:—

Male Candidates.

Fourth Grade	...	Rs.	5.
Fifth do.	...	"	3.
Method—University Candidates	...	"	1.

Female Candidates.

First Grade	...	Rs.	5.
Second do.	...	"	4.
Third do.	...	"	3.

The fee must be paid into a Government Treasury, and not sent to the Director's office, and the Treasury Officer's receipt must accompany the application for admission.

No Candidates will be admitted to the examination for a certificate of the 5th Grade, except those who are being trained in properly organized Normal Schools, and Mahomedans.

A certificate of having passed the Uncovenanted Civil Service Examination, Vernacular Branch, will, in the case of persons who are not Normal Students, be accepted as equivalent to the test in writing for the 5th Grade, and a 5th Grade certificate will be issued to such persons on a satisfactory report being received on their teaching power.

Applications defective in any particular will be left unnoticed.

Form of Application for the Admission of a Candidate to Examination.

Name of Candidate (To be written in full.)	Name of School to which attached, and whether a Master or a Pupil in the same; and of Town or Village in which such School is situated.	Station at which the Candidate desires to be examined.	Language in which the Candidate desires to be examined.	Test for which the Candidate offers himself.	Grade of Certificate which the Candidate may already hold, or University Examination which he may have passed.	Year of such Certificate or University Examination.	Remarks.

NOTE.—Madras Candidates are requested to state whether they wish to be examined at the Senate House, Evangelistic Hall, Wesleyan Mission Day School, Popham's Broadway, or the Presentation Convent (Pay School) Armenian Street.

The candidates shall be ranked in the order of precedency as determined by the total marks obtained by each and shall be arranged in two classes.

The 1st consisting of those who have obtained not less than one-half of the aggregate number of marks.

The 2nd consisting of those who have obtained not less than one-third of the aggregate number of marks. Candidates failing to obtain one-fourth in each branch or one-third upon the whole shall not pass. The Tabulator shall be at liberty to bracket candidates when the difference between them amounts only to a very small number of marks.

The following number of marks will be assigned to each branch and subject.

Branch.	Subjects.	SCHOOLMASTERS.			SCHOOLMISTRESSES.		
		1st, 2nd and 3rd Grades.	4th Grade.	5th Grade.	1st Grade.	2nd Grade.	3rd Grade.
I.	English text-books and Grammar	...	50	...	50	50	60
	Translation or English Composition	...	30	...	30	30	20
	English dictation	...	20	...	20	20	20
II.	Vernacular language	...	60	80	60	80	60
	Do.—Dictation	...	20	20	20	20	20
III.	Arithmetic	...	80	80	80	80	80
	Geometry	...	60	...	...	...	...
IV.	History and Geography	...	100	100	100	100	60
V.	Method	...	100	100	80	80	...
VI.	Needle-work	...	...	...	80	80	20

Candidates coming up in English and a Vernacular language will be required to translate a short passage from English into the Vernacular, and a short passage from the Vernacular into English. The passage for translation from English will be the same for all candidates, and to secure uniformity in the length and difficulty of the passage for translation from the Vernacular, a piece from an English book will be selected and translated into all the Vernacular languages and then set for re-translation into English.

Candidates, who come up only in English, will be tested in English Composition instead of translation.

Under the rules, the answers in the non-language subjects ought to be in the Vernacular. Should however any answers be sent up in English by candidates whose Vernacular is not English, they will be valued, but a note is to be attached in each case mentioning the circumstance.

Female Candidates may bring up only one language in the first and second grades, but in that case they will receive an imperfect certificate.

Time Table of the Examination for Teachers' Certificates 1879.

Date.	Hours.	SCHOOLMASTERS.			SCHOOLMISTRESSES.		
		1st, 2nd and 3rd Grades.	4th Grade.	5th Grade.	1st Grade.	2nd Grade.	3rd Grade.
1st December.	10—12½ 12½—1	...	Arithmetic. English dictation. History and Geography.	Arithmetic. English dictation. History and Geography.	Arithmetic. English dictation. History and Geography.	Arithmetic. English dictation. History and Geography.	Arithmetic. English dictation. Geography (2½ Hours).
2nd December.	2—4½ 10—12	...	English Text-books and Grammar. Translation or English Composition	...	English text-books and Grammar. Translation or English Composition	English text-books and Grammar. Translation or English Composition	English text-books and Grammar.
	12—1 2—4½	...	Vernacular language Do. dictation Method.	Vernacular language Do. dictation Method.	Vernacular language Do. dictation Method.	Vernacular language Do. dictation Method.	Vernacular language Do. dictation
3rd December.	10—1 2—4	Method.	Euclid.		Needle-work.	Needle-work.	Needle-work.

THE PRONUNCIATION OF ENGLISH.

IN my last paper on this subject, I confined myself to a few general observations on the unsettled state of English Pronunciation at present, and I quoted a few out of the many scores of instances that might be adduced, as evidence of the differences of opinion that obtain among the very best authorities on the subject. I propose now to notice more particularly some errors of pronunciation which appear to me to be common to natives of this country, premising that most, if not all, of these that I shall cite, are errors which I have actually met with in my own experience as a teacher, and which, I doubt not, others similarly employed as myself, have heard over and over again committed in their schools and colleges, and generally, in their intercourse with natives. There are hundreds of students in this country, and I may add, not a few teachers also, who, have scarcely any means whatever of approximating their pronunciation to that of Englishmen in general. Some there are who cannot afford to provide themselves with a good Dictionary, such as Ogilvie's, Latham's or Webster's; others again seldom or never have opportunities of conversing with Europeans, and, in consequence, contract at an early age, perhaps, a very vicious mode of pronouncing which clings to them through life. It is to such as these who are in need of assistance, that I would address my remarks in the hope that they may possibly derive some benefit from having their errors pointed out to them.

Let a Hindu student compare his own alphabet with that of the English language, and he must at once be struck with the many points of difference. First he must see that the number of letters in each is not the same, for while there are but twenty-six letters in the English alphabet, there are as many as fifty perhaps in his own language. Now what does this mean,—why is there this difference? It signifies that there are a great many sounds which are represented in his language by distinct letters, that is to say, characters or marks, which are not so represented in English, and, on the other hand, there are some sounds, though only a few perhaps in the English language, which are not to be found in his vernacular language, and accordingly, when he has to make use in conversation of words in which these latter occur, the chances are that he mispronounces them. It would seem as if the organs of speech being trained and accustomed from infancy to certain sounds only, some effort, some practice is needed to adapt them to the utterance of foreign and unfamiliar sounds. Again, the student notices that whereas in his language a particular letter, has only one sound and no more, the corresponding letter in the English alphabet may and often does stand for several sounds. Thus if his language is Telugu, he knows that the vowels *u*, *ū*, *u*, *ū*,

all represent clearly defined, distinct sounds, but in English the letter *a* represents these and several others besides. Here then is a very fruitful source of error and perplexity, for when the letter *a* occurs in a syllable or word that he is unfamiliar with, he is at a loss what sound to give it. Take for example these four words, all beginning with the letter *a*; *at*, *alms*, *all*, *aisle*; in each of the first three, the letter has a different sound, in the fourth, it has no sound at all. How is a foreigner to know that the word *alms* is not pronounced *āms*, nor yet *awms*, but *alms* that *all* is not pronounced *āll*, as it generally is in our lower classes, but *awl*? The words *alteration* and *altercation* begin with the same syllable *al*, yet why should a in the first word have the sound of *aw* and in the second its regular short sound? No satisfactory reason can be given; we have only to take these inconsistencies as they occur, and make the best of them. The vowel *a*, it must be admitted, is a most troublesome letter to deal with; and it would be well, if at the very outset, it were clearly impressed on our pupils that this single letter symbolizes several distinct sounds. Let us see what they are. We have

(1) the regular short sound of *a* as in *fat*, (2) the regular long sound as in *fate*, (3) what is called the Italian or continental sound of *a*, heard so often in foreign names and words, and in the English words *bath* and *father*, (4) the broad sound of *a* heard before *ll* as for instance in the words *fall*, *call*, *bull*, pronounced as if spelt *faul*, *cawel*, *bawel*, (5) the short sound of *o* as in *was*, *want*, *what*. There are one or two other sounds which require to be carefully discriminated; these, I shall notice by and by. Now of these sounds, (1) (4) and (5) are foreign to Telugu and Tamil and I presume to some other Vernacular languages also, and it will be found that most errors of pronunciation can be traced to the fact that the mispronounced words cannot be written in the Vernaculars as they are pronounced in English. In pronouncing a syllable or word in which the letter *a* occurs, a native of the country frequently gives it its regular short sound, when the sound perhaps is irregular and *vice versa*. Hence the following errors of pronunciation:—

Tall pronounced	Tahl	instead of	Tawl
Swamp	Swāmp	Swomp	
Wan	Wān	Wōn	
Command	Commānd	Commūnd	
Laughter	Lāfter	Lūhfter	
Daughter	Dotter	Dawter	
Half	Hāf	Hūlf	
Almond	Āmond	Āmond	
Rather	Rāther	Rāther	

Let the student note that *a* in the combination *alm* has invariably the Italian sound of *ah* (e) marked thus *ä*. *Calm* ought always to be pronounced *calm* and *palm*, *palm*, not *cum* and *pam*, as is the manner of Irishmen. Note also that the combination *an* or *ough* has usually the sound of *aw*, and not the Italian sound of *a* or the short sound of *o*, except in a few words like *laugh* and *draught*, where it has the sound of *äf*. Some would give to the letter *a* in such words as *haunt*, *gaunt* *taunt*, the Italian sound, but there is a decided tendency towards sounding the letter as *aw* and not as *ah*, though the word *aunt* is always pronounced with the Italian sound of *a*. I have alluded to some other sounds of *a*; there are at least two which I have seldom known natives of this country to succeed in catching. The first is the sound of *a* in such words as *ask*, *grass*, *dance*, *master*. Natives in pronouncing these words usually give to the letter its regular short sound. As Webster recommends, the letter should have an intermediate sound between the regular short sound and the extreme Italian sound. It must be admitted however, that even among educated Englishmen, the proper pronunciation of these and similar words is by no means a settled thing. Many Englishmen undoubtedly do say *gränt*, while others again say *gränt*, but it seems to me that in this, as in so many other matters, it would be well to avoid both extremes; and, indeed, the more general practice is in favor, I think, of the course recommended by Webster. The words *command* and *enhance* may, however, be treated as exceptions, for I have invariably heard them pronounced with the Italian sound of *a*. The other sound of *a* I referred to is heard in such words as *cäre* and *beär*, which ought to be pronounced *cair* and *bair*, and not *cur* and *bur* as natives are accustomed to. The words, however, are words of one syllable; *cäir* not *ca-ir*, *päir* not *pa-er*. Lastly before I proceed to notice some other letters, let me call attention to the frequent mispronunciation of the word *that*. When a demonstrative, the word ought to be distinctly pronounced *thät* not *thut*. There is a well known sentence which Webster quotes, I think, from Addison, in which this word occurs eight times. Whenever a demonstrative, it is emphasized and pronounced *thät*, while in all other cases the sound of *a* is very much like that of *u*. Here is the sentence with the demonstratives in italics:—*thät* that I say is that *thät* that *thüt* man states is not *thät* that he ought to state.

The combination *or* and *oi*, I have found, give rise to frequent errors of pronunciation. What teacher is there in this country who has not repeatedly heard *north* pronounced *narth*, *York* as *Yurk*? The reason is obvious. These words cannot be written in Telugu or Tamil so as to express accurately their English pronunciation. There are no letters in the Telugu alphabet which could

be made to represent the sounds *or* and *oi*, and so in the mouth of a Hindu these are transformed into *ar* and long *i* respectively. A Hindu graduate once asked me if I noticed any thing defective in his pronunciation. 'Yes' I said 'you cannot give the letters *or* their proper sound, when they occur together in a word.' He thought he could and desired me to try him. I gave him the word *north*, and just as I had expected, he pronounced it *narth*. But what surprised me not a little was that after repeated trials, he admitted that he could not appreciate the difference between *north* and *narth*. So in our Schools, we hear *arder* for *order*, *farm* for *form*. The diphthongal sound of *oi*, I have said, is converted into long *i*. Thus *oil* is mispronounced *ile*, *join*, as *jine* and *loin*, by native cooks, *line*.

Before concluding, I may notice briefly, a few promiscuous errors. The letter *r* is very often dropped entirely in syllables and words. Thus *short* is mispronounced *shot*, *four*, *fö* or *foir*, *door* as *dow*, and *horticultural* as *hotticultural*. In all these words the letter *r* should have a slight, and smooth yet very perceptible sound. The fault lies in not opening the mouth, and in not prolonging the sound sufficiently when the words are pronounced. *Is* is frequently pronounced *ees*, *es* at the end of words as *ess*, as *richess* for *richiz*. Lastly the letter *h* is very rarely sounded in words beginning with *wh*. I know of no error more common than this. There are few native students who make any difference in pronunciation between *were* and *where*, or who give to the words *who*, *what* and *when* their proper pronunciation of *huo*, *hwat* and *hwen*.

PHYSICS.

(Answers by Pytho to Questions on page 305.)

1. A block of ice, the volume of which is a cubic yard is observed to float with $\frac{2}{5}$ of its volume above the surface and a small piece of granite is seen embedded in the ice; find the size of the stone, the specific gravities of ice and granite being respectively .918 and 2.65.

Let x = the contents of the stone in fraction of a cubic yard.

Then $1 - x$ = mass of pure ice in fraction of a cubic yard.

As $\frac{2}{5}$ of the block floats above the surface, the specific gravity of the block = $\frac{2}{5}$ = .920.

$$\therefore 2.65x + .918(1 - x) = .920$$

$$2.65x - .918x = .002$$

$$1.732x = .002$$

$$1732x = 2$$

$$x = \frac{1}{866} \text{ cubic yard. Ans.}$$

2. A piece of lead is found to weigh 13 lbs. in water and when a block of wood weighing 6 lbs. is attached to it, the two together weigh 8 lbs. in water. Find the specific gravity of the wood.

If the wood lost none of its weight in water, then the piece of lead and the wood attached to it would weigh in water 13 + 6 lbs. but they weigh only 8 lbs. therefore the wood loses 11 lbs in water, that is

to say a bulk of water equal to the bulk of the wood weighs 11 lbs.; but the wood weighs in air 6 lbs.

∴ the specific gravity of the wood = $\frac{6}{11} = .54$ Answer.

3. The velocity of sound in water is much greater than in air, why is this the case?

Answer by "Screw."* Because in proportion to its density, water is much more elastic than air. The velocity of sound depends on the elasticity of the medium in relation to its density. It varies as the square root of the elasticity and inversely as the square root of the density.

Thus $v = \sqrt{\frac{E}{D}}$. Though the density of water is so much (770 times)

greater than that of air its elasticity as measured by its resistance to compression is greater still. Hence it is a speedier medium for sound. Since water is virtually incompressible, any disturbance at one part is more rapidly communicated to another than in a highly compressible medium where the molecules have fair play, and more time is needed for the motion to pass from molecule to molecule.

The following solutions from a Pupil of St. Mary's Seminary, Madras have also been received:—

- (1.) When sp. gr. of ice is .918 it means that .918 cubic inches of water weighs as much as 1000 of ice; and therefore $\frac{918}{1000}$ of the ice sinks. But the ice with the embedded stone sinks $(1 - \frac{2}{3})$ or $\frac{1}{3}$ or $\frac{200}{1000}$ ∴ the stone must have sunk $\frac{1000}{1000}$ of the block of ice. But as the sp. gr. of the stone is 2.65, its effective force in bringing down the ice is $2.65 - .918 = 1.732$. ∴ a quantity of water = in bulk to 1.732 times the stone = $\frac{200}{1000}$ part of a cubic

$$\text{yard.} \therefore \frac{2}{1000 \times 1.732} \text{ c. y.} = \frac{27 \times 1728 \times 2}{1000 \times 1.732} =$$

$53\frac{1}{3}$ c. inches = solidity of the stone.

- (2.) The lead weighs 13 lbs. over and above its own bulk of water and so its effective force in sinking a body attached to it is 13 lbs. ∴ $13 + 6 = 19$ = weight to be sustained; but 8 lbs. is left unsustained. ∴ 11 is supported by water which is the weight of a quantity of water = in bulk to the wood ∴ 6 lbs. of wood = in size 11 lbs. of water ∴ sp. gr. = $\frac{6}{11} = .54$.

- (3.) It may be laid down as a general rule that with regard to sound the conductive power of bodies varies as their density and elasticity. Therefore solids have greater power of conducting sound than liquids, and liquids than gases. Whence water is a better conductor of sound than air, "M. Biot a Frenchman at Paris found that a watch which was made to tick at one end of a cast-iron pipe was heard perfectly well at the other; although the pipe was three or four miles in length."

*We shall be happy to hear again from this valued correspondent.—ED. M.J.E.

PROBLEMS FOR SOLUTION.

I. Find the fulcrum of an iron bar of uniform thickness, 5 feet long, weighing 10 lbs. having at one end a weight of 10 lbs. and one of 5 lbs. at the other end.

II. Find the pressure on each end of a bar $1\frac{1}{2}$ cwt. in weight, of uniform thickness, and supporting a weight of 4 cwt. 3 feet from one end. The bar is 10 feet long.

A PUPIL OF ST. MARY'S SEMINARY, MADRAS.

NOTES ON SHAKSPEARE'S JULIUS CÆSAR.

(Continued from page 299.)

ANALYSIS OF ACT III.

1. The Assassination of Cæsar.—Antony's Lamentation.
2. Brutus' Apology, Antony's appeal and the arrival of Octavius.
3. Cinna and the rabble of citizens.

ACT III. SCENE I.

Schedule. A diminutive of the word *sheet*.

What touches us ourselves, &c. Some of the best editors read "What, touches us! ourselves shall be last served." We do not speak of serving a thing in the sense of attending to it.

Enterprise to-day. Cf. to-day our enterprise; to-day is in each case an adverb, but it does not qualify the predicate so much as the whole proposition and the sense may easily be taken as qualifying the subject = our present enterprise or enterprise of to-day; cf. the ambiguities in the use of only. He only can do it. He can only do it. He can do only it.

How he makes to Cæsar. Cf. "make up to," "make way to."

Cassius or Cæsar never shall turn back. The best editions read Cassius on Cæsar i.e., Cassius having begun the enterprise shall not give it up. Knight's reading is either Cassius or Cæsar shall fall.

Popilius Lena speaks not of our purposes. A perfectly good line with two unaccented syllables at the end.

Are we all ready. Collier's Corrector puts this speech in Cassius' mouth.

The repealing of my banished brother. The two words *repeal* and *recall* are now desynonymised. We say to repeal a law but to recall an exile.

If I could pray to move, &c. If I could submit to pray others to give way as you do, I should give way to the prayers of others.

The Northern star, the Pole star or Cynosure. The extreme star in the tail of the Little Bear.

Cynosure=Dogs tail. The constellation originally called the dog.

Et tu Brute. This Latin exclamation does not occur in any Latin Author. Suetonius gives the Greek words "Thou also—my child" The Latin "Et tu Brute" is really a modern invention.

The assassination took place not in the Capitol as here stated, but in the Curia or Court house built by Pompey where there was a statue of Pompey, at the foot of which Cæsar is said to have fallen. The Curia was close by Pompey's theatre. Shakspeare makes the same mistake in Hamlet Act III, where Polonius says that he was slain in the Capitol acting the part of Julius Cæsar.

Ambition's debt, &c. The debt due to ambition, i.e., the punishment due to ambitions Caesar is inflicted.

Stand upon. I.e., care about.

Let no man abide this deed. Abide or aby is an old word = stand the consequences of. Cf. Scene 2 "if it be found so some will dare abide it."

But we the doers. We is here a solecism for us.

Then walk we forth. Walk is here in the Imperative. This poetical imperative is really the indicative with the terms transposed—Cf.

"Break we our watch up."—HAMLET.

Pompey's basis. I.e., the base of Pompey's statue.

The most boldest. The pleonastic superlative. (See Abbott's Shaksperian Grammar.)

We shall have him well to friend. He will be our firm friend. To friend = as a friend. Cf. *Take to wife* = take as a wife.

My misgivings still fall shrewdly to the purpose. My forebodings are always well founded.

Who else must be let blood. What other man's blood must be shed? "Let blood" is an old term for the now extinct operation of phlebotomy.

Rank. I.e., full of blood.

Fare thee well. The expression, although even now common in poetry, is false syntax. *Thee* should be *thou*, i.e., may'st thou fare well.

I do beseech ye. The distinction between you and ye has long been lost, but you was probably nom. and ye accus. Cf. Thank ye, good bye.

Dear me hard = Dislike me.

As here by Caesar, &c. Cut is here the passive infin. = be cut off.

As fire drives out fire. Pity to Rome drove out pity to Caesar. An old remedy for a burn is to hold it to the fire—*similia similibus curantur* = Like things are cured by like.

Strength of malice. The best editors read *welcome* instead of *malice* if "malice" is retained the meaning must be "their strength of affection is now equal to what their malice was." Malice used by metonymy for deed of malice.

Will I shake with you. Shake = shake hands.

You must conceit me. "Conceit" here means *consider*.

Dearer than thy death. "Dearer" = more severely.

Here wast thou bayed. Bayed = brought to bay.

Signed in thy spoil. Stained with thy blood.

Lethe was the River of Hell. Its waters produced forgetfulness in all those who drank of them. Lethe is never elsewhere used as it is here for death; modern editors read death.

There is a pun upon hart and heart. Formerly both words were written as well as pronounced the same; viz. as *hart*.

Compact. The accent not fixed on the first syllable at this time.

Pricked in number of our friends. Put in the catalogue of our friends.

Therefore. I.e., to decide that I was your friend.

Friends am I. This idiom is not very easy of explanation; *friends* is in fact a plural substantive used as an adverb.

Good regard. Consideration.

In the order of his funeral. In the course of his funeral obsequies.

The dogs of war. These in poetry were fire, famine and the sword.

Havock was an exclamation by which it was signified that no quarter should be given.

ALGEBRA AND TRIGONOMETRY.*

I. Solve the equations:—

$$(i) \frac{3abc - a^3 - b^3 - c^3}{(a+b)(b+c)(c+a) + abx} = \frac{1}{1 + a^2 + b^2 + c^2}.$$

$$(ii) \begin{aligned} x + y + cxy &= c \\ x + z + bxz &= b \\ y + z + ayz &= a \end{aligned}$$

II. If the a^k term of an A. P. is $a^2 - bc$, and the b^k term $b^2 - ac$, find the c^k term.III. Sum to n terms:—

$$(i) 1, 2, 21, 70, 161, 306, \&c.$$

$$(ii) 1, 5, 13, 29, 61, \&c.$$

IV. Show that

$$(i) 1 - n \cdot \frac{1+x}{1+nx} + \frac{n(n-1)}{2} \cdot \frac{1+2x}{(1+nx)^2} - \frac{n(n-1)(n-2)}{3} \cdot \frac{1+3x}{(1+nx)^3} + \dots = 0. \quad n \text{ being a whole number.}$$

$$(ii) \frac{1}{2 \cdot 2} + \frac{1 \cdot 3}{2^2 \cdot 3} + \frac{1 \cdot 3 \cdot 5}{2^3 \cdot 4} + \frac{1 \cdot 3 \cdot 5 \cdot 7}{2^4 \cdot 5} + \dots = 1.$$

VI. Simplify:—

$$(i) 2(1 - \cos^2 \theta - \sin^2 \theta)(2 + \tan^2 \theta + \cot^2 \theta) - \cos^2 2\theta.$$

$$(ii) \frac{\cos^2 \alpha \cos^2 \beta + \sin^2 \alpha \sin^2 \beta}{1 + \cos 2\alpha \cos 2\beta} + \frac{\cos^2 \alpha \sin^2 \beta + \sin^2 \alpha \cos^2 \beta}{1 - \cos 2\alpha \cos 2\beta}.$$

$$(iii) \frac{a \tan (45^\circ + \theta) - b}{a - b \tan (45^\circ - \theta)} - \frac{b \tan (45^\circ - \theta) - a}{b - a \tan (45^\circ + \theta)}.$$

$$(iv) \log_a^a \log_b^b \log_c^c \log_a^b.$$

VII. Given $\frac{\sin 2n\theta}{\sin 2\phi} = \frac{\tan(\alpha + \beta)}{\tan(\alpha - \beta)}$ Show that

$$\frac{\sin 2\alpha}{\sin 2\beta} = \frac{\tan(\theta + \phi)}{\tan(\theta - \phi)}.$$

VIII. Given $\tan A = \frac{1 + \tan \theta}{1 - \tan \theta}$, $\tan B = \frac{2 + \tan \theta}{1 - 2 \tan \theta}$

$$\tan C = \frac{3 + \tan \theta}{1 - 3 \tan \theta} \text{ Show that } \tan(A+B+C) = \tan 3\theta.$$

IX. In any triangle show that

$$(i) a^3 \sin(B-C) + b^3 \sin(C-A) + c^3 \sin(A-B) = 0.$$

$$(ii) \frac{a \sin A - b \sin B}{c \sin(A-B)} = \frac{b \sin B - c \sin C}{a \sin(B-C)} = \frac{c \sin C - a \sin A}{b \sin(C-A)}.$$

* The answers will appear in our next issue.

ARITHMETIC.

*Solution of the Senior Arithmetic Paper set at the Cambridge
Local Examination.*

(By T. Kimber, M.A. Lond.)

1. Find the number of seconds from the beginning of the year to the time fixed for giving out this paper express the result in words. Reduce the same number of farthings to pounds.

First, $365 - 15 = 350$, number of days.

days	hrs.	
850	9	= 4)30272400 farthings.
24		12)7568100
1409		20)630675
700		£31533. 15s.
8409		
60		
504540		
60		

30,272,400 = Thirty million two hundred and seventy-two thousand four hundred seconds.

2. If a number of articles, at £3 4s. 5½d. apiece, cost £5647 18s. 11½d., how many are there?

£3 4s. 5½d. = 3093 farthings, and £5647 18s. 11½d. = 5422029 farthings.

$$\therefore \frac{5422029}{3093} = 1753 \text{ articles.}$$

3. Find the G. C. M. and L. C. M. of 14938, 23474, 32010. Find the smallest sum of money which can be divided exactly into shares of £23 16s. 8d., or £31 3s. 4d. each.

(i.)	14938	23474	1	2134)14938, 23474, 32010
	8536	14938	1	7 11 15
	6402	8536	1	
	6402	6402	3	∴ 2134 × 7 × 11 × 15 = 2464770, L. C. M.
		2134	32010 (15	
		2134		
		10670		
		10670		
				

2134 = G. C. M.

(ii.) £405 3s. 4d., which is 17 times the first, and 13 times the second.

4. Find, by Practice, the cost of 14311½ things, at 12s. 9½d. each.

	£.		
10s. = ½ of £1.	14311½	=	value at £1. each.
2s. 6d. = ¼ of 10s.	7155 15 0	=	10s. each.
3d. = ⅓ of 2s. 6d.	1788 18 9	=	2s. 6d. each.
½d. = ⅙ of 3d.	178 17 10½	=	3d. each.
	29 16 3¼	=	½d. each.
	9153 7 11¼	=	12s. 9½d. each

5. Simplify:—

$$(i.) 1\frac{1}{2} + 3\frac{1}{2} - 5\frac{1}{2} + 2\frac{1}{2} - 1\frac{1}{2}.$$

$$(ii.) \frac{3\frac{1}{2} - 1\frac{1}{2} \text{ of } 1\frac{1}{2} - 1\frac{1}{2}}{(3\frac{1}{2} - 1\frac{1}{2}) \text{ of } (1\frac{1}{2} - 1\frac{1}{2})} \times \frac{3\frac{1}{2} - 1\frac{1}{2} \text{ of } (1\frac{1}{2} - 1\frac{1}{2})}{(3\frac{1}{2} - 1\frac{1}{2}) \text{ of } 1\frac{1}{2} - 1\frac{1}{2}}$$

$$(i.) \frac{33}{24} + \frac{80}{24} - \frac{140}{24} + \frac{54}{24} - \frac{26}{24} = \frac{167 - 166}{24} = \frac{1}{24}.$$

$$(ii.) \frac{\frac{10}{5} - \frac{3}{3}}{\frac{1}{5} \times \frac{3}{3}} \times \frac{\frac{10}{5} - \frac{3}{3}}{\frac{1}{5} - \frac{3}{3}} = \frac{\frac{7}{5}}{\frac{1}{5}} \times \frac{\frac{7}{5}}{\frac{1}{5}} = \frac{49}{1}.$$

6. Find the value of £596875, and reduce 11 po. 4 yds. 4½ inches to the decimal of one mile.

£596875	12)45 inches
20	3)75
11937500	5½)4125
12	2 2
11250000	11)825
4	320)1175 (03675, decimal of a mile.
1000000	2150
£0 11s. 11¼d.	2300
	600

7. If a railway journey of 177 miles 3 furlongs takes 3 hours 56½ minutes, what is the rate per hour?

h.	min.	h.	m.	f.
3	56½	1	177	3
60		60	8	
236		60	1419	
2		2	120	
473		120	473)170280 (260 f. = 45 m. an hour.	
			2838	
			0	

8. What sum will amount to £5431 15s. 11¼d. in 6 years, at 4½ per cent. simple interest?

$$\frac{£100 \times 4\frac{1}{2} \times 6}{100} = £27,$$

and £127 : £100 :: £5431.796875 : £4277.0054 or £4277 0s. 1¼d.

9. Prove that the difference between the interest and the discount on any sum of money for a given time is equal to the interest on the discount for that time; simple interest being reckoned at the same rate throughout.

The present value of £100 due 1 year hence, at 5 p. c., is

$$105 : 100 :: 100 : £95 \frac{4}{5}$$

$$\text{True discount} = 4 \frac{15}{100} = 4 \frac{3}{20}$$

$$\text{Int. on discount} = \frac{£4 \frac{15}{100} \times 5}{100} = 4s. 9\frac{1}{2}d.$$

	£.	s.	d.
Discount	= 4	15	2 ^a
Int. on do.	= 0	4	9 ¹
Interest	= 5	0	0

10. A grocer buys $3\frac{1}{2}$ cwt. of tea at £13 16s. per cwt., and 4 cwt. at £12 12s. per cwt. : he sells 7 cwt. at 2s. 9d. per lb. ; at what price per lb. must he sell the rest so as to gain $12\frac{1}{2}$ per cent. on the whole cost ?

cwt.	£.	s.	d.
$3\frac{1}{2}$ at £13 16s.	= 48	6	0
4 at £12 12s.	= 50	8	0
$7\frac{1}{2}$ total cost	= 98	14	0
$12\frac{1}{2}$ p. c.	= 12	6	9
	111	0	9

$$7 \text{ sold at } 2s. 9d. \text{ per lb.} = 107 \text{ } 16 \text{ } 0$$

$$\frac{1}{7\frac{1}{2}} \text{ to be sold for } = \frac{3 \text{ } 4 \text{ } 9}{56} = 1s. 1\frac{1}{2}d. \text{ per lb.}$$

11. A certain income can be obtained by an investment in the $3\frac{1}{4}$ per cents. at 93 $\frac{3}{4}$: the same income can also be obtained by investing £1595 less in the $4\frac{1}{4}$ per cents. at 105 $\frac{3}{4}$, no brokerage being charged in either transaction. What is the income ?

Let S be the number of pounds in the "certain sum."

$$\text{Then } \frac{3\frac{1}{4}}{93\frac{3}{4}} S = \frac{4\frac{1}{4}}{105\frac{3}{4}} (S - 1595).$$

$$\text{or } \frac{11}{717} S = \frac{17}{815} (S - 1595), \quad 3653 S = 4233 (S - 1595),$$

$$580 S = 4233 \times 1595,$$

$$4 \times 145 S = 4233 \times 11 \times 145,$$

$$S = \frac{4233 \times 11}{4} = 11640.75 = £11640 \text{ } 15s., \text{ the "certain sum."}$$

$$\text{The income is } \frac{3\frac{1}{4}}{93\frac{3}{4}} \times 11640\frac{3}{4} = \frac{13 \times 46563}{2 \times 747} = \frac{13 \times 15521}{498}$$

$$= \frac{13 \times 187 \times 83}{6 \times 83} = \frac{13 \times 187}{6} = \frac{2431}{6} = 405\frac{1}{6} = £405 \text{ } 3s. \text{ } 4d.$$

12. The sides of two squares contain 77 yds. 1 ft. 9 in. and 7 yds. 2 ft. 4 in. respectively ; find the side of a square whose area is equal to the sum of the areas of the two squares.

$$77 \text{ yds. } 1 \text{ ft. } 9 \text{ in.} = 2793 \text{ in. ; } 7 \text{ yds. } 2 \text{ ft. } 4 \text{ in.} = 280 \text{ in.}$$

$$\sqrt{2792^2 + 280^2} = 2807 \text{ in.} = 77 \text{ yds. } 2 \text{ ft. } 11 \text{ in.}$$

13. If two boats, A and B, row in a race at their usual speed, A will win by 80 yards ; but the day proving unfavourable, A can only row $\frac{5}{6}$ ths of its usual speed, while B rows at $\frac{6}{5}$ ths of its usual speed. A wins by 26 yards. Find the length of the course.

If C be the number of yards in the course,

$$\text{Speed of winner : speed of loser} :: C : C - 80,$$

$$\frac{5}{6} \text{ speed of winner} : \frac{6}{5} \text{ speed of loser} :: C : C - 26;$$

$$\therefore \frac{5}{6} C : \frac{6}{5} (C - 80) :: C : C - 26;$$

$$\therefore 80(C - 26) = 81(C - 80),$$

$$C = (81 - 26)80 = 55 \times 80$$

$$= 4400.$$

MUNICIPALITIES AND EDUCATION.

In their Order, dated 18th May 1878, No. 885, the Government remarked that, although they had refused building grants to Municipalities, they had at a later date allowed salary grants to be paid to them, and that consequently it might be held that the rule declining building grants was no longer applicable. At the same time they observed that, as it was desired that educational expenditure by Municipalities and Local Fund Boards should be restricted to elementary education, it might be more consistent to decline to allow any grants from Provincial Funds to Local Fund Boards and Municipalities whether in the form of Building, Salary or Results grants. Before coming to a decision, however, they resolved to obtain the matured views of the Director of Public Instruction in communication with the Board of Revenue, who were to consult all Presidents of Local Fund Boards.

2. The replies of the Presidents are recorded above. In some cases it seems to have been feared that the Government contemplated altering the provision in the new Results Grant Rules to the effect that grants for the fourth standard would be defrayed from Provincial Funds. The Board understand the order however to have reference solely to the question of grants-in-aid to regular Local Fund Board or Municipal Schools and will limit their observations accordingly.

3. While there is a general opinion that the withholding of building grants is a matter of less importance than the withdrawal of the other grants would be, the great majority of the Local Boards incline to the opinion that there should be no change in the existing practice. The Chingleput, Trichinopoly, Negapatam, and Coimbatore Boards offer no opinion, while the Chicacole, Gooty, Penukonda, Cuddalore, Madura, and Shernadevi Boards do not consider it advisable that the grants should be continued. The President of the Vizagapatam Board sees no reason to justify the expectation of grants on the part of Local Boards. The President of the Godavari Local Boards is of opinion that higher education should be wholly maintained and superintended from Provincial sources, and a similar view is taken by the Calicut Board. The Salem Board hold that higher or middle class schools established by Local Boards should be treated as private schools for the purposes of the application of the grant-in-aid rules.

4. As remarked by the Government, the arguments cut both ways and as a consequence pretty much the same reasons are assigned by all the Boards in support of the conclusions they arrive at. If it is desired to restrict Local Fund expenditure to elementary education, it is inconsistent to encourage the establishment of higher or middle class schools by the offer of grants-in-aid, while on the other hand any withdrawal of grants now made to Local Boards would tend to diminish the resources available for expenditure on lower-class schools.

5. The Board concur most decidedly with those who hold that higher and middle class schools should be supported from other than local sources, local funds available for educational purposes being restricted to elementary education. At the same time they hold that, as the Government possesses the power of vetoing the establishment of higher or middle class schools by Local Boards, any exceptional circumstances which may justify them in refraining from exercising this power will also justify their allowing the grants-in-aid. This is practically the view taken by the Tanjore Board.

6. The only grants-in-aid now paid to Local Boards on account of higher Masulipatam ... Rs. 340 or middle class education are those
Nellore, 3,250 given on account of the old rate schools
Cuddapah, 1,350 as marginally noted, and the Board can
Bellary, 1,280 conceive of no way of looking at the case

Gooty	...	...	Rs. 300	which would justify the withdrawal of
Kurnool	...	...	" 440	these grants. If the Local Boards be
Virudachalam	...	...	" 810	deprived of the aid now given, they
Coinbatore	...	...	" 1,650	must either reduce the <i>status</i> of the
Salem	...	...	" 270	schools, established under the promise
Canara	...	...	" 2,350	of Government assistance before the
Calicut	...	...	" 4,170	idea of restricting locally-raised tax-
Tellicherry	...	...	" 1,890	ation to lower-class schools was thought
				of, or they must by so much reduce the
			Total 18,100	funds available for their more distinctively
				appropriate work of spreading

elementary education.

7. The Board agree however with the Calicut Local Fund Board in considering that the simplest and most consistent way of dealing with the difficulty will be to altogether relieve the Local Boards of their present anomalous duty of attending to higher and middle class education in connection with these old rate schools. The schools have now been established for some years, and, if they merit support and are satisfactorily managed, they ought not to cost Provincial Funds more when administered by the Director of Public Instruction than they now cost in the shape of grants-in-aid. If they fail to be self-supporting to at least this extent, they may fairly be reduced to the status of lower-class schools and relegated to the Local Fund Boards within whose province they will then naturally fall.

8. These Proceedings will be submitted to Government through the Director of Public Instruction.

No. 206. From Colonel R. M. MACDONALD, Director of Public Instruction, to the Acting Chief Secretary to Government, dated Madras, 28th May 1879. No. 2210-P.

In G. O. No. 885, of the 18th May 1878, reports were called for on the subject of withholding Building, Salary, and Results grants from Municipal and Local Fund Schools. I have now the honor to submit the reports which have been received.

21. In Ganjam the only Municipalities are Berhampore and Chicacole. The Berhampore Commissioners are of opinion that no hard-and-fast rule can be laid down. At Chicacole there are no Municipal Schools, but the Commissioners consider that grants should not be given from Provincial Funds to Municipal Schools.

3. In Vizagapatam the President states his own views, which are opposed to aid from Provincial Funds except in the Hill Zemindaries, in which there are no Municipalities.

4. In the Godavari District the Cocanada Commissioners think that building grants should be given from Municipal and Provincial Funds according to the character of the education imparted. The Rajahmundry Commissioners consider a loan sufficient. The Ellore Commissioners think that building grants should not be wholly discontinued. Nothing is said about results grants and salary grants.

5. In the Kistna District the Masulipatam and Guntoor Commissioners are opposed to the proposal to withhold building, salary, and results grants.

6. In the Bellary District the Bellary Commissioners offer no opinion. The Gooty Commissioners acquiesce in the proposal made by Government. The Adoni Commissioners consider that when Municipalities take up higher education, grants from Provincial Funds should be given both in the shape of salary and building grants. Results grants they propose should be paid by themselves. The Anantapur Commissioners think that small Municipal towns might be allowed Government grants towards the salaries of teachers specially appointed for English and female education and for buildings to be erected for these purposes. They do not consider that Government aid is necessary for buildings for results schools.

7. The Kurnool Commissioners are of opinion that no additional charges should be thrown on them.

8. No report has been received from the Cuddapah District. Cuddapah is the only Municipality in this district.

9. No report has been received from the Nellore district, in which there are two Municipalities, Nellore and Ongole.

10. In the Chingleput District the Conjeveram Commissioners consider that the withdrawal of Government aid will impede the progress of education.

11. In North Arcot the Vellore Commissioners deprecate the withdrawal of Government aid. The views of the Wallajapet Commissioners are not given.

12. In South Arcot the Cuddalore and Chedumbrum Commissioners consider that any diversion of Municipal Funds for the maintenance of higher-class schools is incompatible with the spirit of the Act.

13. The Trichinopoly Commissioners consider that the rule proposed by Government would be hard in some cases. The views of the Srirangam Commissioners are not stated.

14. The Salem Commissioners observe that the result to the Town Schools in Salem of the withdrawal of Government aid would be the abolition of the English classes in them, a step which would effect English education injuriously.

15 The Tanjore Commissioners consider that they require the aid of Government for the support of higher class education and buildings. The Combaconum Commissioners consider that grants for middle-class schools and girls' schools should not be withheld. The Mayavaram Commissioners have no objection to the discontinuance of building grants, but they consider that the Provincial grant of Rupees 60 per museum which they receive for their schools should not be discontinued. The Negapatam and Mannargudi Commissioners are opposed to the withdrawal of grants for building and other purposes.

16. The Madura Commissioners are in favour of Government withholding building, salary, and results grants from Municipal Schools. The Dindigul Commissioners protest against the disallowance of salary and results grants, but think that the question of building will not arise in their Municipality for many years. Mr. Stokes, the Acting President, considers that every rupee that can be spared should be spent on sanitation, and is therefore opposed to the measure proposed.

17. The Palamcottah Commissioners have mistaken the meaning of the Government Order, and imagine that it is proposed to throw on them the grants now paid from Provincial Funds to all the schools in the town, against which they protest. The Tinnevely Commissioners consider that Government should continue to give salary grants to Municipal Schools and should also give building grants. The Tuticorin Commissioners are of opinion that it is impossible to allot any portion of their funds in aid of higher education.

18. The Coimbatore Commissioners observe that the order does not affect them, as all the schools maintained by the Municipality are elementary. The Erode and Karur Commissioners are in favour of the proposals made by Government.

19. The Calicut Commissioners do not approve the entire withdrawal of Government assistance. The Tellicherry Commissioners do not wish any hard-and-fast rule to be laid down. The Palghat Commissioners think that the withdrawal of Provincial grants will be disastrous. The Cannanore Commissioners state that, in the event of that Municipality purposing to build schools of its own, a grant from Government will be necessary. The Cochin Commissioners deprecate the passing of any rules disallowing salary and result grants.

20. The Mangalore Commissioners state that they are about to open a Municipal School, for which aid will be required.

21. In the Nilgiris there are two Municipalities, Ootacamund and Coonoor. No communication has been received from either.

22. The replies received from the Local Fund Boards are summarized by the Board of Revenue in their Proceedings, 793 of the 26th March 1879, herewith submitted: "While there is a general opinion that the withholding of building grants is a matter of less importance than the withdrawal of the other grants would be, the great majority of the Local Boards incline to the opinion that there should be no change in the existing practice." The Board consider that local funds should be spent on elementary education, but if Government in exceptional circumstances permit such funds to be applied to other purposes, they should allow grants-in-aid. They deprecate the withdrawal of the grants given to the old rate schools if the Boards are to have the charge of these schools, but they suggest that the time has come for making over these schools to this department. If the schools are then found to cost Government more than they do now, they might be retransferred to the Local Fund Boards as elementary schools.

23. Mr. James Bradshaw thinks that the progress of education in the 1st Division will not be affected if the proposals of Government are carried out, as the only Municipality which has a school of the middle class is Rajahmundry and a loan instead of a grant for a building is all that is needed there.

24. Mr. Fortey thinks that salary grants, results grants, and building grants should be all paid out of the same Funds, either Provincial, Local or Municipal. He is satisfied that Local and Municipal Funds should not be spent on higher education, but is doubtful about middle-class education.

25. Mr. Duncan thinks that as regards building grants it matters very little whether Government gives or withholds aid from the Local Fund Boards and Municipalities, but deprecates the transfer of the payment of salary and results grants from Provincial Funds to Local Fund Boards.

26. Dr. Bradshaw thinks that the standard of schools under Municipalities should be limited to the lower class, but that in respect of grants the Boards should be treated in the same way as the Managers of private schools and be allowed salary grants, or result grants, and building grants from Provincial Funds.

27. Mr. Bickle would not give salary grants or building grants to Local Fund Schools, because these schools are of the lower class. In Municipalities schools of a more advanced character are needed, and if neither a Government school nor a private school can be started, the Municipality should be allowed to establish a school and should receive the same grants as would be given to a private school.

28. Mr. Garthwaite is decidedly adverse to the change proposed. He cannot bring himself to believe that when schools supported by aid from Provincial Funds are admittedly, as in Malabar and Canara, doing useful work, Government seriously contemplate their being closed as must be the case, unless the money required for their upkeep is provided by withdrawing aid from elementary schools, equally useful and necessary.

29. Although the question raised by Government is a general one, it practically relates mainly to a particular class of schools, the old rate schools which were made over some years ago to Local Fund Boards and Municipalities with their grants. I do not see how the Boards and Commissioners are to maintain these schools, if they are deprived of their grants, without indenting still further on funds which ought to be devoted to elementary education. A mistake was made, I think, when the grants of these schools were commuted into lump grants. The effect has been that in certain cases grants have been continued, when under the ordinary rules they would have been stopped. Thus in the Kurnool District three schools

have been improperly receiving grants as middle schools, when they were in fact only lower-class schools and were therefore not entitled to any aid from Provincial Funds. Again, there is no guarantee under the present system that the expenditure from Provincial Funds is supplemented by an at least equal expenditure from other sources. Such a system is obviously open to abuse, of which a striking instance was seen in the case of the Kongayam School, which was receiving a grant of Rupees 1,650 when the whole expenditure amounted to Rupees 428-12-9. Under G. O., No. 1878, of the 15th May 1878, this grant has been at last withdrawn, but the case seems to me to show the necessity for doing away with the lump grants. If salary grants are given to Local Fund or Municipal Schools, they should be given under the ordinary rules. Such cases will necessarily be exceptional, but if a Local Fund or Municipal School receives salary grants, I see no reason why it should not also receive a building grant.

30. The only cases in which Local Fund Schools or Municipal Schools receive results grants are certain schools on the combined system, in which results grants are paid on account of girls and also on account of boys under the fourth standard. If the schools were not on the combined system, the whole cost of them would fall on Local Fund Boards and Municipalities, and as they are elementary schools, I do not see why such schools should not be entirely maintained from Local and Municipal Funds.

31. The Board of Revenue propose to solve the difficulty with regard to the old rate schools by constituting them purely Government Schools. For this there is the precedent of the High Schools at Palghat and Saidapet. I am not however in favor of taking over the other schools, which are entirely or almost entirely, middle-class schools. The fees in these schools are very low, and they are not nearly as self-supporting as Government Schools usually are. It is however very desirable that they should be made more self-supporting than they are, and I can see no reason why the pupils in these schools should not be called on to pay the same fees as the pupils in Government Schools. If it were found impracticable to fill the classes on these terms, the schools might then be reduced by the Local Fund Boards and Municipalities to the lower class. I doubt whether the difficulties which are said to exist in the way of raising the school fees are always well-founded. At Palghat for instance the Collector and the Inspector both considered that the rates of the High School could not be raised, but the school is now a Government Institution and no difficulty is found in collecting the Government rates.

32. My proposals may therefore be summed up as follows:—

- (1.) That the old rate schools shall continue as at present under the Local Fund Boards and Municipalities, but that the grants given to them shall be salary grants and not lump grants, and that as regards building grants they shall be treated like other salary grant schools.
- (2.) That the fees in these schools shall be raised to the Government rates.
- (3.) That the same course shall be pursued in the case of other middle-class schools under Local Fund Boards and Municipalities, if these bodies are permitted to have such schools.
- (4.) That all results grants in combined schools shall be borne by Local Fund Boards and Municipalities.

No. 207. ORDER THEREON 23rd July 1879, No. 1401.

The Government consider that the system of grants-in-aid, from the proceeds of general taxation, to Local and Municipal Funds for educational purposes is destitute of principle, if the Local and the Municipal Schools aided are of the class to which alone such funds should be applied, viz., primary (as the rule), and secondary for middle class (as the exception), and exclusive altogether of the higher-class schools, certainly for a long

time to come. When, if ever, the funds have accumulated wealth, the provision of superior education at their cost may be considered.

2. The Government regard the proposals of the Director of Public Instruction as sound; but he will now be aware that the Government have already, in their orders reviewing the Budgets for 1879-80 of certain Local Fund Circles, dealt with the majority of the old rate schools, by withdrawing the grants hitherto made for their support. The Government however determine to draw the attention of the Local Fund Boards concerned to the Director's proposal that the fees should be raised in these schools, and to state that if the Local Boards act accordingly, the Government will be prepared to reconsider their recent decision on the lines of the Director's proposal on cause being shown after the lapse of sufficient time to test the result.

3. The Government fully approve the proposals (3) and (4) made by the Director in paragraph 32 of his letter.

LOCAL FUNDS AND EDUCATION.

THE most important step taken by the Government during the whole course of its existence towards developing self-government in India has been the establishment of Local Funds Boards and the requisite machinery in connection with them to carry on the multifarious duties which formerly fell to the lot of the Collectors to perform, when they were performed at all. The results obtained by this modern innovation are not few and not unimportant, and chief among them must be reckoned the interest which has been excited in the better educated and well-to-do classes to look closely after the affairs that most nearly concern themselves as subjects of the Government. The immense improvement that has taken place in sanitary matters through the agency of these Boards is, of itself, sufficient justification for their existence; but when to these benefits we can point to what has been done in the way of improving the education of the poorer classes, there is every reason for the Government and the original proposer of the scheme to feel some satisfaction at the success that has attended their efforts to improve the condition of the people. Whatever opinions such men as Mr. Bright may put forward and however justly they may utter denunciations against the waste and extravagance of our rule, they cannot but give unqualified commendation to the success of the Local Funds scheme as worked in this Presidency. It is through their establishment that the people of the country are being educated to rely on themselves, to provide for the wants of the neighbourhood in which they may reside; and to learn that all their wants cannot be supplied by a paternal Government. It is, however, the education furnished by these Boards that we have more particularly to deal with this morning, and it gives us pleasure to find that the Government are decided in their opinion that the educational expenditure by Municipalities and Local Funds Boards should be restricted to elementary education. They, at the same time, have endeavoured to find out whether the grants given by Government, either in the form of building, salary, or results grants, cannot now be also curtailed. Apart, altogether, from the results of these enquiries, it strikes us that Government have begun at the wrong end, if their objects be the saving of money, for it is the expenditure on higher education that needs curtailment, and not that incurred on account of primary education. If people desire a

university education for their children, they should be made to pay for it, and not be able to obtain it at the expense of the Indian taxpayer. The well-to-do portion of the community have had every inducement given them to avail themselves of this higher education, which has been offered to them at one tenth of its price, and they have not been slow to take advantage of the boon; but the time has come when a change should be introduced, and the State's finances should cease to be burdened with this charge. Those who want the higher education should pay for it, and not expect it to be provided for them out of the earnings of the ryot.

We find that there is a general opinion among the Local Funds Boards that the withholding by Government of building grants is a matter of less importance than the withdrawal of the other grants would be, while, of course, the majority "incline to the opinion there should be no change in the existing practice." The Board of Revenue justly remark that if it be desired to restrict Local Fund expenditure to elementary education, it is inconsistent to encourage the establishment of higher or middle-class schools by the offer of grants-in-aid, while, on the other hand, any withdrawal of grants now made to Local Boards would tend to diminish the resources available for expenditure on lower class schools. With these remarks, we most cordially agree, for we are decidedly of opinion that higher and middle-class schools should be supported from other than local sources, and that any available local funds should be restricted exclusively to elementary education. We look upon it as the imperative duty of Government to support elementary education, but no such duty exists in our opinion to furnish the better classes with a university education *at the cost of the State*. No one rejoices more than we do at the success achieved by our university, but we cannot hide from ourselves the fact that it is costly to the Government, inasmuch as they lay out large sums to ensure a comparatively few individuals being educated up to the standard required to obtain its degrees. The Board of Revenue recognises the principle that grants-in-aid should not be paid to Local Boards on account of higher or middle-class education, and the full amount now paid for this purpose amounts only to Rupees 18,000, and these grants are given because they were originally granted to the old rate schools. The question, however, as stated by the Board, resolves itself thus:—"If the Local Boards be deprived of the aid now given, they must either reduce the *status* of the schools, established under the promise of Government assistance before the idea of restricting locally raised taxation to lower class schools was thought of, or they must by so much reduce the funds available for their more distinctively appropriate work of spreading elementary education." The matter could not be more clearly stated, and we think there cannot be the slightest hesitation as to which course should be adopted.

A suggestion made by the Calicut Local Fund Board has commended itself to the Board of Revenue, and will do the same with the public at large. They say the simplest and most consistent way of dealing with the difficulty will be to altogether relieve the Local Boards of their present anomalous duty of attending to higher and middle-class education in connection with these old rate schools. They and the schools have now been established for some years, and if they merit support and are satisfactorily managed, they ought not

to cost Provincial Funds more when administered by the Director of Public Instruction than they now cost in the shape of grants-in-aid. If they fail to be self-supporting to, at least, this extent, they may fairly be reduced to the *status* of lower class schools and relegated to the Local Funds Boards within whose province they will then naturally fall. These remarks of the Calicut Board shew conclusively that its members have grasped thoroughly the main principles of self-government. The Director of Public Instruction, while stating that the question raised by Government is a general one, says it practically relates mainly to a particular class of schools, "old rate schools which were made over some years ago to Local Funds Boards and Municipalities with their grants." In the Kurnool district we are told that three schools have been improperly receiving grants as middle schools, while the Kongayam school was receiving a grant of Rupees 1,650 when the whole expenditure amounted to Rupees 428 only. Naturally enough the Director is not anxious to take over these old rate schools. The expenses of his department are already very high, and we do not wonder at his reluctance to see them made higher by taking over schools in which the fees are very low, and which are not nearly as self-supporting as Government schools usually are. He suggests that the pupils in these schools should be called on to pay the same fees as the pupils in Government schools, and that if it be found impracticable to fill the classes on these terms, they might be reduced to lower class schools.

The Government, in their order on the whole correspondence, are very clear in their views, and it is satisfactory to find that the conclusion arrived at is that the present system of grants-in-aid from the proceeds of general taxation to Local and Municipal Funds for educational purposes is destitute of principles. They say that none but primary schools, as a rule, should be aided, and secondary schools as the exception, while higher class schools should be altogether excluded from assistance. With regard to the old rate schools, the Government have fully approved of the suggestions of the Director of Public Instruction, that the grants given to them shall be salary grants, that the fees shall be raised to the Government rates, and that the same course shall be pursued in the case of other middle-class schools, if Local Funds Boards and Municipalities be permitted to have such schools. The expenses of the educational departments throughout the country have risen very considerably of recent years, and the Government cannot be too careful in endeavouring to stop this continued increase. By all means, we say, continue the existing system of spreading primary education, but make the higher education self-supporting. By so doing the finances of the country will be relieved of a burden that is becoming very hard to bear.—*Madras Times*.

SANSKRIT MATHEMATICAL PROBLEMS.*

"I was thinking to-day," said Mr. Churchill, the Schoolmaster, a few minutes afterwards, as he took some papers from a drawer scented with a quince, and arranged them on the study table, while his wife as usual seated herself opposite to him with her work in her

* We shall be happy to receive Solutions to these interesting problems from any of our Hindu Correspondents.

hand,—“I was thinking to-day how dull and prosaic the study of mathematics is made in our school-books; as if the grand science of numbers had been discovered and perfected merely to further the purposes of trade.”

“For my part,” answered his wife, “I do not see how you can make mathematics poetical. There is no poetry in them.”

“Ah, that is a very great mistake! There is something divine in the science of numbers. Like God, it holds the sea in the hollow of its hand. It measures the earth; it weighs the stars; it illumines the universe; it is law, it is order, it is beauty. And yet we imagine—that is, most of us—that its highest end and culminating point is book-keeping by double entry. It is our way of teaching it that makes it so prosaic.”

So saying, he arose, and went to one of his book-cases, from the shelf of which he took down a little old quarto volume, and laid it upon the table.

“Now here,” he continued, “is a book of mathematics of quite a different stamp from ours.”

“It looks very old. What is it?”

“It is the *Lilawati* of Bhāscara Acharya, translated from the Sanscrit.”

“It is a pretty name. Pray what does it mean?”

“*Lilawati* was the name of Bhāscara's daughter; and the book was written to perpetuate it. Here is an account of the whole matter.”

He then opened the volume, and read as follows:—

“It is said that the composing of *Lilawati* was occasioned by the following circumstance. *Lilawati* was the name of the author's daughter, concerning whom it appeared, from the qualities of the Ascendant at her birth, that she was destined to pass her life unmarried, and to remain without children. The father ascertained a lucky hour for contracting her in marriage, that she might be firmly connected, and have children. It is said that, when that hour approached, he brought his daughter and his intended son near him. He left the hour-cup on the vessel of water, and kept in attendance a time-knowing astrologer, in order that, when the cup should subside in the water, those two precious jewels should be united. But as the intended arrangement was not according to destiny, it happened that the girl, from a curiosity natural to children, looked into the cup to observe the water coming in at the hole; when by chance a pearl separated from her bridal dress, fell into the cup, and rolling down to the hole, stopped the influx of the water. So the astrologer waited in expectation of the promised hour. When the operation of the cup had thus been delayed beyond all moderate time, the father was in consternation, and examining, he found that a small pearl had stopped the course of the water, and the long-expected hour was passed. In short, the father, thus disappointed, said to his unfortunate daughter, I will write a book of your name, which shall remain to the latest times,—for a good name is a second life, and the groundwork of eternal existence.”

As the schoolmaster read, the eyes of his wife dilated and grew tender, and she said,—

“What a beautiful story! When did it happen?”

“Seven hundred years ago, among the Hindoos.”

“Why not write a poem about it?”

"Because it is already a poem of itself,—one of those things, of which the simplest statement is the best, and which lose by embellishment. The old Hindoo legend, brown with age, would not please me so well if decked in gay colours, and hung round with the tinkling bells of rhyme. Now hear how the book begins."

Again he read:—

"Salutation to the elephant-headed Being who infuses joy into the minds of his worshippers, who delivers from every difficulty those that call upon him, and whose feet are revered by the gods!—Reverence to Ganesa, who is beautiful as the pure purple lotos, and around whose neck the black curling snake winds itself in playful folds!"

"That sounds rather mystical," said his wife.

"Yes, the book begins with a salutation to the Hindoo deities, as the old Spanish Chronicles begin in the name of God, and the Holy Virgin. And now see how poetical some of the examples are."

He then turned over the leaves slowly and read:—

"One-third of a collection of beautiful water-lilies is offered to Mahadev, one-fifth to Hari, one-sixth to the Sun, one-fourth to Devi, and six which remain are presented to the guru or spiritual teacher. Required the whole number of water-lilies."

"That is very pretty," said the wife, "and would put it into the boys' heads to bring you pond-lilies."

"Here is a prettier one still. One-fifth of a hive of bees flew to the Kadamba flower; one-third flew to the Silandhara; three times the difference of these two numbers flew to an arbour; and one bee continued flying about, attracted on each side by the fragrant Ketaki and the Malati. What was the number of the bees?"

"I am sure I should never be able to tell."

"Ten times the square root of a flock of geese——"

Here Mrs. Churchill laughed aloud; but he continued very gravely:—

"Ten times the square root of a flock of geese, seeing the clouds collect, flew to the Manus lake; one-eighth of the whole flew from the edge of the water amongst a multitude of water-lilies; and three couple were observed playing in the water. Tell me, my young girl with beautiful locks, what was the whole number of geese?"

"Well, what was it?"

"What should you think?"

"About twenty."

"No, one hundred and forty-four. Now try another. The square root of half a number of bees, and also eight-ninths of the whole, alighted on the jasmynes, and a female bee buzzed responsive to the hum of the male inclosed at night in a water-lily. O, beautiful damsel, tell me the number of bees."

"That is not there. You made it."

"No, indeed I did not. I wish I had made it. Look and see."

He showed her the book, and she read it herself. He then proposed some of the geometrical questions.

"In a lake the bud of a water-lily was observed, one span above the water, and when moved by the gentle breeze, it sunk in the water at two cubits' distance. Required the depth of the water."

"That is charming, but must be very difficult. I could not answer it."

"A tree one hundred cubits high is distant from a well two hundred cubits; from this tree one monkey descends and goes to the well; another monkey takes a leap upwards, and then descends by the hypothermuse; and both pass over an equal space. Required the height of the leap."

"I do not believe you can answer that question yourself, without looking into the book," said the laughing wife, laying her hand over the solution. "Try it."

"With great pleasure, my dear child," cried the confident school-master, taking a pencil and paper. After making a few figures and calculations, he answered—

"There, my young girl with beautiful locks, there is the answer—forty cubits."

His wife removed her hand from the book, and then, clapping both in triumph, she exclaimed—

"No, you are wrong, you are wrong, my beautiful youth with a bee in your bonnet. It is fifty cubits!"

"Then I must have made some mistake."

"Of course you did. Your monkey did not jump high enough."

She signalized his mortifying defeat as if it had been a victory, by showering kisses, like roses, upon his forehead and cheeks, as he passed beneath the triumphal archway of her arms, trying in vain to articulate—

"My dearest Lilawati, what is the whole number of the geese?"—

Longfellow's Kavanagh.

RELIGIOUS EDUCATION.

We take from *The Madras Times* the following notes of the Proceedings of the late Conference of Missionaries at Bangalore. The subject under consideration was:—

Education as a Mission Agency.—Its value as a Christianising agency. The influence of the University on Missionary Institutions. The advisability of seeking a place for the Bible in the University course as an optional subject.

The following missionaries read papers:—Rev. E. R. Hastings, (Jaffna); Rev. J. Hudson, (Bangalore); Rev. W. Miller, (Madras).

Mr. Hastings said that the number of students seeking instruction in English schools was a proof that the people desired education. The incentive was the opening of lucrative posts to educated men, and the preference given by Government to educated men for employment in public offices. If Government withdrew their aid few Hindoos would care to attain to higher education. Seeing there was this demand for higher education, the question was, Who should supply it? Does it warrant Missionaries engaging in it? The position of the missionaries with regard to educational work had entirely changed of late years. Formerly education was confined to missionary agency, but the Government have since stepped in and the mission schools have become, as it were, subordinate. Now, it was necessary to supplement this secular education by a Christian education. As to the results of the latter, perhaps they were poor in point of the number of converts made, but indirectly an incalculable deal of good was done. Higher education might be made a potent agency for good or evil, according to the motives set to work. If

Hindoo youths were educated simply by removing the restraints of their old religion, and destroying their faith in idolatry, why, it would prompt a spirit of pride and conceit, and make room for scepticism to creep in. But when the leaven of Christianity is added, it removes prejudices, and supplies what is wanted. The speaker said it was a great evil to employ any but Christian men for the work, for it was necessary if the educator hoped to make an impression, that he should throw heart and soul in his work, be thoroughly earnest and sincere, and be an example to his pupils in his own life. The position of the Christian Mission, Mr. Hastings said, was a defensive one, and would that Mission, which had introduced education into the country, allow secular agency to step in and prosecute the work? Mr. Hastings held that higher education had a great influence in promoting Christianity, and that influence would, in the end, show itself in the production of grand results. Then, again, Christianity imparts light and knowledge, and Christian youths will have higher education; should they be left, then, to receive that higher education under irreligious influences, or should it be imparted by Christian agency? The missionary bodies were most certainly responsible to provide higher education for such. Mr. Hastings disapproved of Mission schools being affiliated to Government University Examination. Students neglected altogether a Christian's course of study. All their time and attention was confined to cramming for the tests, and every other study which did not enter into the University in preparing for the prescribed University curriculum was entirely neglected. To remedy this evil he proposed that schools should be established in connexion with the S. I. Missions, which should be independent of all University control. Of course, this would be attended at first with disappointing results in point of attendance, but he was certain in the end that it would accomplish the object of making education a Christianising agency. In Jaffna, where Mr. Hastings hails from, such an institution exists, and the young natives of Ceylon prefer now studying to be useful, educated, and enlightened men, to cramming merely for a University Examination. The Institution is independent of Mission aid, and is under the direction of a Board, one-third of which is composed of Missionaries. In connection with the institution was a Boarding School. Native youths educated in a boarding school moved in a Christian atmosphere, and were constantly under Christian influences, and if such youths did not embrace Christianity, they would certainly not be bitter opponents of it. The expediency of using the Bible as a text-book for the University course was very questionable, as it comes to be looked upon as a mere common-place subject to be crammed for the examination, especially taught by a teacher who did not feel its influence. But Mr. Hastings was of opinion that a few verses of Scripture should be read every day in classes in Mission Schools, and the portions thus read should be expounded to the students. Scriptural studies, such as the Life of Christ, should be introduced into the course of higher-class education in Mission Schools, but they should not be subjects for examination. Mr. Hastings concluded by quoting some figures showing the success of the Jaffna college. Out of an attendance of 54 students, only 19 were Hindoos; six of the Christian youths were pursuing a course of study for the ministry.

The Rev. J. Hudson followed on the same subject. In Mysore all classes were admitted to the higher education of the mission schools. Although the number of converts thus made was small, the influence exercised by the youths who received a Christian education was far reaching. They exercised a direct influence on the morality of their countrymen, and disseminated among them the grand truths of Christianity they had been taught. Could there be any doubt that a secret work was thus being brought in the good cause? Though Hindoo families influenced in this manner, and convinced of the truth, did not make a profession of it, the Judgment Day would show whether God would not accept them. The young men from the mission schools were breaking down prejudices, he said, and preparing the way for a direct Christian influence being brought to bear on Hindoo women. Mr. Hudson did not think that a University course in Mission schools did any harm. Hindoo boys would not attend the schools unless the University course was studied. Missionaries must find time to give their pupils as much religious instruction as possible. The Bible should not be made a text-book. He impressed upon his hearers the great importance of missionary educationists moving as much as possible among their pupils in private life; of promoting a free and healthy intercourse with them, for the influence to do good in this way was very great. Lastly, Mr. Hudson could not see how the Bible could be introduced into the University course as an optional subject, and disapproved of the idea.

The Rev. Mr. Miller read an eloquent and forcible paper, in which he staunchly supported higher education as a Christianising agency. However such an institution as the one described by Mr. Hastings might do in Ceylon, it would be a great failure in Madras, where no native youth could obtain Government employment who had not passed the University tests. Like Mr. Hudson, he was certain that the educated youths from Mission schools were exercising an influence for good on their countrymen and preparing the way for successful evangelisation. He dwelt eloquently upon the duties of the Missionary teacher who must show his pupils that man does not live by bread alone, and should excite in them a desire for the truth. University education could no more be abolished by the Missionaries than they would wish their own schools to be abolished by the former. The only course to follow was to make the best of the matter. There is little use of clinging on to a railway train behind, and trying to pull it back. The only way was to get on the engine and control it. In the same way they should go with the University course and control it, and every obstacle for evil would be overcome. Mr. Miller did not think that it was expedient or necessary to make Scripture a University study. His experience was that native youths took a natural interest in Scripture, and an interest was most awakened in them during the hour for the Scripture lesson. It was very injudicious, therefore, to make it a forced study.

Discussion on the papers read here followed.

The Rev. Mr. Howland remarked that an American Mission institution had existed some years ago in Jaffna, but was abolished between 1855-58. The native Christian parents of the place had to send their children to Madras to be educated in secular schools. The youths, on their return, either went back to heathenism, or became infidels. The Missionaries then saw the necessity of reviving the Jaffna insti-

tution, which was done after some difficulty. Mr. Howland explained subsequently that Mr Miller's Christian institution did not exist in Madras at the time he referred to.

In reply to a question, Mr. Hastings explained that the pupils in the Boarding School he had alluded to in his paper, paid for their board.

Several speakers, including Bishop Sargent, gave their testimony to the religious and moral influence young men from Mission Schools exercised in the higher classes of the people. Mr. Ruthnum gave an interesting account of his own conversion, he having been a high caste, superstitious, and prejudiced Hindoo before he was led into the fold, which was brought about by his having become a student in Rev. Mr. Hay's school in Vizagapatam.

EXAMINATION PAPERS.

ENGLISH TEXT.

Matriculation Class.

I. Show from your text-book when the Tale of the Little Merchants must have been written, and state the moral maxim which the Tale is meant to illustrate.

II. (a). "Thus a third time he deprived himself of the means of earning his bread." Mention the circumstances that led in each of the three cases to Piedro's losing his bread.

(b). Point out some of the qualities that distinguish the English from the Italian character.

(c). What means was it that the carpenter thought useful for keeping one out of mischief?

III. Re-write the following sentences:—

(a). "The baker had scarcely finished speaking, when Francisco exclaimed, &c,"—beginning with 'no sooner.'

(b). "Here comes Piedro! I hope he is not the boy who sold you the wood, Mr. Baker? He is the boy, though,"—completing the clause after 'though.'

(c). "There was a prodigious number, more than what would have filled many honest measures,"—supplying fully the ellipsis between 'than' and 'would.'

(d). "Of all persons they should never have thought of taking anything from the good-natured little Rosetta,"—introducing the superlative on which the phrase 'of all persons' really depends.

IV. (a). Give the derivation and the primary and secondary meanings of *bankrupt* and *calculate*, *enferm* and *doomsday* (book).

(b). Distinguish *ingenious* and *ingenuous*.

(c). Name and explain the figures contained in:—

"Thank you for its being once more in my careless hands. You leave me without a soul that I like to speak to."

(d). Correct:—They mutually improved each other.

V. Paraphrase freely the following passage:—

He school'd us in a well-forged tale,
Of scheme the castle walls to scale,
To which was leagued each cavalier
That dwells upon the Tyne and Wear;
That Rokeby, his parole forgot,
Had dealt with us to aid the plot.

Where was the Knight of Rokeby imprisoned and how do you account for his imprisonment there? Give the date.

VI. Show or explain (1). How Wycliffe could say that Mortham was by

"all men deem'd decreed

By his own deadly snare to bleed."

(2). How Edmund could say to Bertram than Guy Denzil was "mesh'd in the net himself had made."

(3). What 'ambuscade' is referred to in the following and whence Mortham observed it:—

"Thence chanced it wandering in the glade

That he described our ambuscade."

VII. (a). Explain the allusions contained in the words 'clue' and "ill-starred." (b). Distinguish *conjure* and *conjure*. (c). Quote a line containing the word 'fell' used as an adjective. (d). Give the construction of the words in italics:—

Unquerd'm'd, I would give with joy
The father's arms to fob the boy.

S. P. G. College, Trichinopoly.

TAMIL TEXT.

Matriculation Class.

I. ஒவ்வொருவருடைய வரலாற்றையும் சுருக்கமாகவெழுதுக.

(a). நான் எந்தக்குலத்தரசன்? அவன் கானிற்சென்றதற்குக் காரணம்யாது? அவன் ஆண்டகரம் இக்காலத்தி லென்ன பெயராகவழங்குகிறது?

(b). சத்திரன் சுவர்க்கியென்பவன்யார்? அவன் எங்கு இருப்பவன்? உமது பாடத்தி லவனைப் புகழுவதற்கு நிமித்தமென்ன?

(c). சவாகுஎன்பவன்யார்? அவன் தமயந்தியைத் தெரியாதிருப்பானேன்? நானுக்கு மவனுக்குமுள்ள ஒற்றுமையென்ன?

(d). நனவெண்பா - நான்மணிக்கடிகை - ராவிலஸ் இவைகளைச் செய்தவர் யாவர்? செய்வதற்கு ஏதுவென்ன? அந்நூல்களின் வளமையும் நடையும் சரிதமும் எவ்விதம்?

II. பொழிப்புரை:—

(1). சங்கரிகி போற்றரு சத்திரன் சுவர்க்கி

வெங்கலிவாய்நின்றாலக மிட்டாற்போல்—மங்கையை பாம்பின் வாய்நின்று பறித்தான் பகைகடிந்த [வெம் காம்பின்வாய் வில்வேடன் கண்டு.

(2). சேதி நகர்க்கே திருவைச் செலவிட்டப்

போதிற் கொடைவணிகன் போயினான்—நீதி கிடத்துவான் மன்னவர்தங் கிரத்தியினைப் பார்மேல் நடத்துவான் வட்டை நடந்து.

(3). சுற்றன்னர் சுற்றரைக் காடலர் கண்ணோடார்

செற்றன்னர் செற்றரைச் சேர்ந்தவர்—தெற்றென

உற்றதுரை யாதாருள் சுரந்துபாம் புறையும் .

புற்றன்ன புல்லறிவி னார்.

- (4.) பின்னவா முன்னார்க்குப் பின்னார்க்குஞ் செய்வனை முன்னவா முன்ன மறிந்தார்கட்—கென்னும் அவாவா மடைந்தார் கட்டுள்ளத் தவாவாம் வரவிலார் செய்யும் வினை.

- (ii.) கிற்றிட்டவைகளுக்குரிய சொல்லில்க்கணமென்ன ?
(b.) முதற்பாவின் அணியென்ன ?
(c.) இரண்டாம்பாவில் ஏகாரத்துக்குப்பொருள்யாது ?
(d.) மேற்பாக்களிலுள்ள செய்யுள்விகாரம் எவை ?

III. பகுபதவுறுப்புகளாகப் பிரிக்க.

மாண்டவர்-ஏலாதான்-பைத்து - வெட்டுகென்றார் - புக் கான்-உளர்-சேறல்-சான்ற-துறக்கத்தவர்-கைத்து-தொட்ட - செய்யாள்.

IV. எளியநடையாற் பொருளுழுதுக.

- (1.) செய்தாரினல்லா சிதையாதவர்.
(2.) கதிரிமைக்கும் பூணரம் பூண்டான் புலர்ந்து.
(3.) பாடெய்தும் பாட்டேயுள்.
(4.) உண்டேனறக்கூந்தற் போரார்விழியாள் புலர்ந்து.
(5.) கெழுவினமை கேட்டாலறிக.
(6.) வெண்டோடன் செம்பங்கி வில்வேடன்.
(7.) தொழுத்திறந்து கன்றுட்டநந்துக் கறவை.
(8.) நீள்குழற்குரேறு மொவ்வாள் கலுழ்ந்து.
(ii.) கிற்றிட்டவைகளுக்குத் தொடரும் பொருளும்

எழுதுக.

- (b.) 1-3-5-ஆவதின் அடிகளைக்கொண்டு அர்த்தப்பாடல்களை முற்றுகவெழுதுக.
(c.) 8-ஆவதுக்குச் சொன்முடிபுகுறிச் சந்திக்கு நன்னுல்குத்திரங் கூறுக.
(d.) கறவையென்பதற்கு இலக்கணமென்ன ?

V. பின்கேட்பவைகளுக்கு உரியபாடல்களை எழுதுக.

- (1.) குரியத்தோற்றம்.
(2.) தமயந்த்சென்றபொழுது விதர்ப்பநகரநிலைமை.
(3.) மறையவன்சேதி யரசியைநோக்கிக் கூறல்.
(4.) வணிகன் வினாவுதல்.

VI. பின்வருபவைகளொவ்வொன்றையும் விரித்துக்கூறி அசுத்தஞ்சூரிய குத்திரமும் உதாரணமும் எழுதுக.

உலகவழக்கு-பொதுமொழி-இருதிணைக்கும் பொதுவினை-தொகாநிலத்தொடர்-காலவழுவமைதி - பல்பொருள் குறித்தவொருசொல்-ஆகுபெயர்-குறிப்புவினை.

VII. பின்வரும் பதங்களுக்கு அருத்தமென்ன.

யந்திரசக்தி-செய்தானகம்-ஆனந்தபூர்த்தி - கைவாங்குதல்-வைபவங்கள்-மெய்வண்ணம்-நுகர்ச்சி-எந்தாய் - வயோதிகர் - அலமந்து-துருக்கம்-கட்டுரை.

VIII. பின்வரும் வாக்கியத்தில் விடுபட்ட மொழிகளைப்பூண்ர்த்துக.

ஒழித்து—அனுபவிக்க—இன்பம் என்னும்—எவரும்—தன் னையிருப்பாய்—எண்ணி—வினோதத் துறையிலும்—நடித்து—அலுப்புண்டாக்கிய—பிறருக்கு—பகைத்தான்.

IX. பின் வருபவைகளைக்குறித்து உமது பாடத்திலுள்ளபடி எழுதுக.

- (1.) ராவிலல் தன்னுவாத்தியாரை வினாவினதும் அவர் கூறியதும்.
(2.) தன்னிளமையைக்குறித்துத் துக்கப்பட்டதும் சுத்தோஷப்பட்டதும்.
(3.) தனக்கும் மற்றப் பிராணிகளுக்கும் உள்ள ஏற்றத்தாழ்வைச் சிந்தித்ததையும்.
(4.) பள்ளத்தாக்கின் வருணனைபைச் சுருக்கமாகவும்.
(5.) காலக்கழிவைக் காட்டும் பொருளையும் அதனுலுண்டாகு மதியையும்.

X. மனிதர் எப்பொழுதும் மேலான குணத்தையே பொருளாகக்கொண்டு பழகவேண்டும் என்பதைப்பற்றி (25) வரிகளுக்கு மேற்படாது ஒருவாசகமெழுதுக.

S. P. High School, Trichinopoly.

TRANSLATION.

Matriculation Class.

I. Translate into English :—

(ii.) “அரண்மனை சமைத்திருப்பது ஏரிநீர் மட்டத்திற்கு மேல் முன்பின் முப்பது தப்படி உயர்ந்த மேட்டுத்தரையில், வாசம்செய்வோர் தராதரப்படி வேலைப்பணிக்கு ஏற்றதாழ் உள்ள வெவ்வேறு கூடம் கொலுச்சாவடிகள் அவ்வரண்மனையில் வகுத்து அமைத்திருந்தன. அந்தக்கூடங்கள் சாவடிகளின் முகடு வில்வனைவாகக்கனத்துப் பருத்தகற்களால் சமைத்திருந்தது. கல்லையும் கல்லையும் சந்துதெரியாமல் பொருத்தியது ஒருவிதப்பசை. அந்தப்பசை நாள் ஏற ஏற இருகிக்கல்லோடு கல்லாய்ச் சேரும் இயற்கையுள்ளது. அந்தப்பலத்தகட்டடம் சமைத்து வெகுநூண்டு சென்றும், சரற்காலத்துப் பெருமழைக்கும் நிரகரேகை மண்டலத்தில் வரலயமாய் அடிக்கும் சண்டமாருதத்திற்கும் அணுவத்தினையும் அசையாமல் கட்டுறுதி அழியாதிருந்தது. பழுது சிறிதும் இல்லாத மண்டபத்தைப் பழுதுபார்க்க நிமித்தம் இல்லையே.”

(b.) “ஆட்டிமந்தைகளும் கன்றுகாலிகளும் திரளாய்க்கடிமேயும் பசும்புற்காடு ஒருபக்கம்; மான் மறா முயல் முதலிய விலங்குகள் மகிழ்ச்சியாய்த் துள்ளிக் குதித்துவேகமாய்ப் பாயும் காட்டிடை வெளிநிலம் ஒருபக்கம்; மலையில் வெள்ளாட்டுக்குட்டிகள் உல்லாசமாய்த் துள்ளிவிளையாடும்; வஞ்சமனமுள்ள வானரங்கள் மரக்கிளைகளில் மகிழ்ச்சியாய்க் குதித்துத்திரியும்; மந்தகுணமுள்ள மதயானை கிளைபடர்ந்த மரநிழலில் படுத்திருக்கும்.”

(c.) அந்தக் கிடைபாதாளத்தில் வேகமாயிறக்கும் ஜலப் பிரளயம் நிறுதிட்டமான கற்குவை ஒன்றினின்றும் மற்ருன்றில் மடமடென்று விழும் ஒலியைக்கேட்டுச் செவி அதிகும். நீர் இறங்க இறங்க ஒலிகுறைந்து வெகுதூரத்திற் சேரும்போழுது நிசப்தமாயிருக்கும்.”

(d.) “எப்படி ஒரு குழந்தையானது பிறந்து வளர்ந்து வாலிபனாகி, பிரபலமான செய்கைகளுக்கிடமான மனுஷத்தனத்தை யடைந்து, பின்புதளர்ந்து விர்த்தனாகி இறந்து இருந்த இடமேதெரியாமல் மறைந்துபோவது இயல்போ: எப்படி ஒரு மரமானது ஒருசிறிய வீத்தினின்று தோன்றிச் சிலகாலம் பசிய இலையையும் இனியகனியையும் பொருந்திப் பின்பு பட்டுப்போவது சாதாரணமோ, அப்படியே இராஜாக்களுந்தோன்றிச் சிலகாலம் பிரபலமாயிருந்து பின்பு சகல அங்கங்களுந்தளர்ந்து ஒழிந்து போகும்.”

(e.) “சந்தனுமகாராஜன் நதியருகில் நிற்கும்போது கைவியின் மத்தியில் ஒருவாலிபன் விஸ்பிடித்தபடி அம்புதொடுத்த படி தோன்றினான்.”

Bring out the meaning of படி in the above.

(f.) இன்னொருவரின் இன்னொரு வயற்றில் இன்னொரு இன்னொருவருடன் பிறந்தான்,

1. நான் எழுதியபேன.
அவன் பிறந்த வீடு.
நீ வந்த வழி.
சாத்தன் போன ஊர்.
என்னைத்தான் அடித்தான்.
நானும் நீயும் போனோம்.
2. மாட்டைத் தண்ணீர் காட்டு.
வட்டிக்கு ஆகைப்படாதே.
நூலைக் குற்றம் கூறினான்.
தாயைப் பணக் கேட்டான்.

(g.) இன்றைக்கு உனக்கு வீணுக்கு வயிற்றுக்கு நான் சோரிட்டது.

இந்த வருஷத்தத்தஞ்சாலூர் மேலத்தோப்பு மாம்பழக்கொட்டை.

கண்ணபொறுத்தருள். வெண்ணெய் அருந்தியகன்வ பொறுத்தருள்.

(h.) Bring out the difference between the following pairs in your translation :—

- { கை கட்டினின்றான்.
- { கையைக் கட்டிக்கொண்டு நின்றான்.
- { சுந்தரம் தன்னை நல்லவன் என்றான்.
- { சுந்தரம் அவனை நல்லவன் என்றான்.

II. Translate into Tamil, Malayalam or Telugu :—

(a.) “The scientific traveller is the first to penetrate into unknown and barbarous regions, often pursuing his course amid privations and dangers, which zeal and perseverance alone can enable him to encounter or overcome. His researches open the field for the devoted messenger of religion, by whose means friendly intercourse is established with the natives, and light and civilization introduced. A mart is thus opened for the wares of the merchant; for, as soon as a barbarous people become civilized, they require clothing, utensils, and other manufactured articles; and thus, not only is our commerce extended, but employment also afforded for our manufacturing population at home. The intelligent missionary, again, residing in unknown lands, possesses frequent and favourable opportunities of adding to our stores of scientific knowledge, whilst the merchant spreads this information, and the benefits accruing from it, over the surface of the globe.”

(b.) “My father is of a different way of thinking,” said Pedro. “He always tells me that the buyer has need of a hundred eyes, and if one can blind the whole hundred, so much the better. You must know, I got off the fish to-day that my father could not sell yesterday in the market—got it off for fresh just out of the river—got twice as much as the market price for it; and from whom, think you?—why, from the very booby that would have bought the bruised melon for a sound one, if you would have let him.”

(c.) “A very great rogue was once heard to say, that he would, with all his heart, give ten thousand pounds for a good character, because he knew that he could make twenty thousand by it!”

(d.) In the end of 1698, Peter returned to Holland on his way home; and on taking leave of King William, he presented him with a ruby of the value of £10,000 drawing it from his waistcoat pocket, wrapped up in a bit of brown paper. It was truly a royal present, though not given after a very royal fashion; but Peter had a great contempt for forms and ceremonies, and William III was far too sensible a man to stand very greatly upon them.

- (e.) 1. There is no medicine against death.
2. He who navigates the ocean of sensuality will cast anchor in the port of miseries.
3. A grain of help is worth a bushel of pity.
4. Victory in a battle of words with a husband is only second to a defeat.
5. A good character is the best fortune to set up with.

- (f) 1. The earth is our great time-keeper.
 2. It is worth your while to cultivate the acquaintance of good men.
 3. I would fain have you not to be content with what is said in your book.
 4. The circulation of water is the very main-spring of all the life of the globe.

III. (a.) Compose English sentences to exemplify the use of the following verbs, and translate your sentences into your vernacular—*take after, take in, take of, take to, take up.*

(b.) Write down *six* Italian proverbs and translate them into idiomatic Tamil or give corresponding Tamil, Malayalam or Telugu proverbs.

Central College, Bangalore.

PHYSIOLOGY. F. A. CLASS.

- I. How do you define Physiology? Which are the two great questions which the science of Physiology answers? Does it answer them fully? 3*
- II. How are motion and heat related? Which are the points of similarity and difference between a locomotive steam engine and the body of an animal? 4
- III. Define oxidation what is the invariable accompaniment of all chemical unions? State an experiment which shows that chemical union may take place in the midst of moisture without producing flame or fire. 4
- IV. Of what elements is the material oxidized in the animal body composed? How is it obtained? Where does the oxidation take place and what are its results. 5
- V. Distinguish between secretion and excretion. Describe generally the construction of a gland. Name the excretory organs and the substances they chiefly excrete. 6
- VI. Which are the two things necessary for all muscular contraction? Describe a muscle and the process of its construction. 3
- VII. What are protids composed of? name some. What is the serum of blood? Describe briefly the process by which it is obtained from blood. 5
- VIII. Why does blood move only in one direction and why can it not move in the opposite direction? 4
- IX. (1) What causes the lungs to shrink when you make a hole in the diaphragm?
 (2) What is the difference between tidal air and stationary air? 5
- X. Name the different kinds of food giving instances. Where and by the action of what juices are the different kinds respectively digested? 6
- XI. Describe lacteals. What are the functions performed by the lymphatic system?

*The black numerals indicate the maximum number of marks for each answer.

Third College Class.

ELEMENTARY LOGIC.

- I. Explain:—
 (1) Logic is both a science and an art.
 (2) Logic is the science of sciences and the art of arts. 6
- II. What does Whately mean by saying Logic is wholly conversant about language? What is the disputed point to which he refers? What is Bain's solution of the difficulty? 12
- III. What is Hamilton's Quantification of the predicate and what are the objections to it? 6
- IV. What is the relation of the predicate to the subject in the following propositions:—
 (1) Man is a featherless biped
 (2) Virgil was born at Mantua
 (3) All triangles have the sum of their angles equal to two right angles
 (4) Charity is not obtrusive. 8
- V. Define:—Headmaster, Iron, Oratory, stating to which of the six classes of definitions given by Fowler your definitions belong. 12
- VI. Give the rules of a legitimate division and illustrate them. Divide and subdivide Inference according to Fowler. 7
- VII. How are the four kinds of propositions respectively converted? What is Permutation? Convert the following propositions:—
 (1) A hit—a very palpable hit!
 (2) A living dog is better than a dead lion.
 (3) Pennywise, pound foolish.
 (4) All is not gold that glitters.
 (5) None but the brave deserve the fair. 9
- VIII. Reduce ostensively and per impossibile Bokardo and Presison. 8
- IX. Prove that in the third figure the conclusion must be particular and that in the fourth figure the conclusion cannot be an universal affirmation. 8
- X. Why can the sorites have but one particular and one negative premise? 6
- XI. Examine the following arguments—(1) by stating them logically, (2) by giving their mood and figure, and (3) by pointing out fallacies if any:—
 (1) B, an old man, must be talkative as old men are subject to this fault.
 (2) Nothing is heavier than Platina, feathers are heavier than nothing; therefore feathers are heavier than Platina.
 (3) The works of Shakespeare cannot be read in a day; therefore the play of Hamlet cannot be read in a day. 18

CHINESE SCHOOL-BOYS.—“It is very fortunate for some of our little and lazy public school-boys that they do not happen to be subjects of the Emperor of China. In no country under the sun is educational discipline enforced with such rigour as in the Celestial Empire. A young Chinaman at an academy in Washington was exceedingly backward in his studies. The faculty of the school sent an official notification of the fact to the Chinese Government, at whose expense the dunce was being educated. The Government acted promptly and vigorously. Its instructions were brief and comprehensive—‘Send him home and we’ll behead him.’”

APPOINTMENTS.

Appointments made by the Director of Public Instruction, between the 16th July 1879 and 15th August 1879.

The following transfers of Deputy Inspectors are ordered :—

N. Devasikamani Mudaliar from the Vellore Circle to the Virdachellam Circle.

C. Appiah Sastri from the Virdachellam Circle to the Trichinopoly Circle.

Y. Amurthanayagam Pillai from the Trichinopoly Circle to the Salem Circle.

S. Atchayalinga Mudaliar from the Salem Circle to the Vellore Circle.

T. Somasundra Row to be Deputy Inspector of Schools, Gooty and Penakonda Circles, substantive *pro tem*, vice Hanumuntha deceased.

P. Venkoba Charry, B.A., to be 4th Assistant Master, Bellary College substantive *pro tem*.

C. Kubbisawmy Sastri, Deputy Inspector, Tanjore, (now on other duty) to be Deputy Inspector, South Coimbatore.

G. S. Seshayya, substantive *pro tem*, Deputy Inspector, Tanjore, to be substantive *pro tem* Deputy Inspector, South Coimbatore.

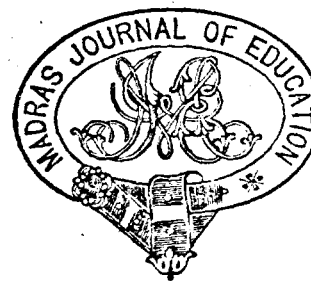
D. S. Kishnasawmy Iyer B.A., Deputy Inspector of Schools, South Coimbatore to be Deputy Inspector of schools, Tanjore.

G. Venkatasubba Row to be Head Master Middle School, Ankapelli, substantive *pro tem*, on Rs. 40.

M. Ramasawmy Iyer to be third Master, Government High School, Tellicherry, substantive *pro tem*, on Rs. 60.

C. Rajagopaul Pillay to be 1st Tamil Pundit in the Presidency College, vice Streenuvasaraghava Charriar, retired.

Mr. Sathu Seshayya, B.A., Acting Inspector of Schools, 4th class, and in charge of the 2nd Division, to act as Inspector of Schools, 4th class, and to be in charge of the 4th Division during the absence of Dr. Bradshaw on privilege leave, retaining charge of the current duties of the office of Inspector of schools, 2nd Division, until the return of Mr. Fortey, M.A.



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THE MONTH.

WE give in this number the full particulars of the New Middle Class Examination proposed by the Director of Public Instruction and with some slight modifications approved by Government.

The Superintendence of and the appointment of Examiners for this Examination which is to supersede the General Test will rest with the Commissioner for the U.C.S. Examinations.

We are unable to answer enquiries as to when the New Middle Class Examination will be first instituted, but as the usual General Test Examination will take place on the 9th and two following days of February next, the first Middle Class Examination cannot be held earlier than December 1880.

With regard to the Upper and Lower Primary School Examinations, as the Notification has already appeared in the Government Gazette, and has been also communicated to the Heads of Schools by the Inspectors, it is probably expected that arrangements shall be made in the various schools for commencing these Examinations in December next, but it would be well if definite instructions were issued. It will be difficult to make effective preparation and arrangements for the Examinations with less than a year's previous notice.

With reference to paras six and nine of the Notification we would inquire whether the Head Master of an Aided School is to be considered bound to arrange for the Examination of Candidates who may present themselves, but who have not been, and do not intend to become pupils of his school. Again in para eleven, it is not made clear whether the Lower Primary Examination is like the Upper Primary open to other than pupils of the School in which the Examination is held.

THE Master of a large and important Government School writes as follows :—

"May I suggest to you that it would be well to say something about the mode in which the University Examinations are conducted in the Mofussil. To my certain knowledge the arrangements made are scandalous, especially in some of the largest centres when malpractices are least suspected. I do believe, that of those who pass, 10 per cent. at least, get through unfairly. It is very necessary, I think, that the attention of the Syndicate should be drawn to this matter, and measures adopted to secure trustworthiness."

In our issues for May and for October 1877, we drew the attention of the University Authorities to the matter. We believe that our Correspondent's opinion is only too well founded, and that year by year the evil is increasing, and becoming more and more systematic.

THE Secretary of State for India accords his sanction to the deputation to England, for one year, of Miss Rajahgopaul, the Senior Assistant Mistress of the Government Female Normal School at Madras, for the purpose of studying the system pursued in English schools, and more especially in infant schools. The young lady is to receive during her absence two-thirds of her Indian pay, and she is to have a free first-class passage back to India.

PEOPLE'S PARK GYMNASIUM.—A piece of ground some two acres in extent at the south-west corner of the Park has been fenced in, and a large horizontal beam with all appliances is ready for use.

The latter consist of the following, namely :—

Two pairs vertical poles.	One rosary.
One rope ladder.	One fixed vertical pole.
One trapezium.	One vertical rope.
One pair rings.	One turning pole.
One inclined plane.	Two slanting ropes.
One pair slanting poles.	One slanting pole.

The cost of what has already been done is Rs 2,289-15-0, exhausting the funds in the hands of the Committee. It is, however, desirable that certain further appliances should be added costing in the aggregate about Rs 500. Anticipating support, the Committee has ordered these to be proceeded with.

In holding the distribution of prizes in Government Schools, the Inspector of the Fourth Division has been in the habit of making the occasion as public as possible, inviting the principal native officials and private individuals to attend. This has in many places led to much interest being taken year after year by those who attend these gatherings, and several persons present special prizes in addition to those given by Government.

He considers the liberality of these gentlemen deserving of being brought to your notice and receiving the appreciation of the Head of the Educational Department and of Government, and gives the following list of the names of those who have recently presented prizes and rewards to boys in Government Schools :—

High School, Chittur.

M.R.Ry. V. Masilamani Mudelliar	Rs. 7	First non-Brahmin Hindu in
(a former pupil).	in books.	Matriculation Class.
Shaik Madar Sahib (Dresser,	Do.	A Dictionary, First boy in
District Jail).		Mahomedan Department.
Mahomed Yusuff Sahib	Do.	Regularity in Mahomedan
(Merchant).	Do.	Department.
" D. Srinivasula Naidu (In-	Rs. 2½	The best Telugu Scholar.
spector of Police).	in books.	

Arni School.

M.R.Ry. Iyala Naidu (Pensioned	Rs. 10	First boy in next Compara-
Deputy Collector).	in books.	tive Examination.
Meerudin Sahib (Deputy	Rs. 2	} Special prizes in books.
Collector).		
" Lakshmana Naidu (Police	Rs. 5	
Inspector).		
" Hanuman Sing (Deputy	Rs. 2	
Tahsildar).		
" Govindu Row (Taluk Over-	Rs. 2	
seer).		
" Marugasa Mudelliar (Local	Rs. 1	
Fund Overseer).		
" Sundra Mudelliar (Manager,	Rs. 1½	
Deputy Collector's Office).		
" Sudarasana Charriar (Plea-	Rs. 2	
der).		

Arcot School.

M.R.Ry. Venkatasubbier (Tahsildar).	Rs. 3	} Special prizes in books.
" A. Varadarajulu Mudelliar		
(Police Inspector).	Rs. 5	
Syed Kadar Basha Sahib,	Rs. 2	
(Sheristadar).		

Government College, Salem.

M.R.Ry. S. Rajaratna Mudelliar (Zemindar, of Kanan Kurichi).	Rs. 50	For a gold medal for the first boy at the Matriculation Examination.
" Veeraragava Mudelliar (Tahsildar).	" 25	Rs 15 for the first boy in the Fifth Class at the Comparative Examination, and Rs.10 for the first boy in the Upper IV Class.
" C.Manicka Mudelliar (Talak Sheristadar, Dharmapuri)	" 10	English Composition.
" C. Ramasesha Iyer, B.A. (Head Clerk, Collector's Office).	" 10	
Abdul Guffer Sahib (Inspector of Police).	" 10	
" Arunachella Iyer (Town Sub-Magistrate).	" 10	For Recitation and Map Drawing.
" Seetharama Iyer (Translator, District Court).	" 5	
" S. Venkatasubbier (District Magistrate's Javab Nevis).	" 5	

His Grace the Governor in Council is gratified to hear of the liberality of the native gentlemen named.

A DISHONEST CANDIDATE.—Hariharaputra Pillai, age 37, son of the late Pitcha Pillai, residing at Tiunevelly, having personated a candidate bearing his name, who passed the General Test Examination in 1864, and thus obtained admission to the Special Test Examinations held in 1875, is declared to be ineligible for admission to any future examination, or for employment in the public service in any capacity.

The movement in regard to English spelling, which resulted last year in a request from a large number of School Boards for a Royal Commission to inquire into the question, has led to the formation of a society under the title "English-Spelling Reform Association." The Association is not committed to any special scheme of reform, but is content with advocating the general principle of improvement, and with the collection of materials for the formation of sound judgment upon the question. The list of members of the Association includes the Bishop of Exeter, Sir Charles Reed, Mr. Robert Lowe, Dr. Abbott, Professors Max Müller and Sayce, and Mr. E. B. Taylor. The office of the Association is at 20, John Street, Adelphi.

TEACHERS AND PARENTS.—In that "good time coming" (says an American contemporary) there will be sympathy between the teacher and parent. Instead of children drawing themselves up in battle-array, as if the teacher were a sworn enemy, they will be tractable. Disciplining a school will not bring premature wrinkles and gray hairs. The teacher will no longer be regaled with felicitous notes like the following:

"Mis—you say you don't want my Boy shode in his rithmetick now ive teached A good spel and i shel use My own jidgment bout it i shel do as many sums for my Boy in his rethmetic as i chews

if you wood encurridge Schollers mor in thare steddeys and knot bee so hard on sum i think thay wood like yeu Beter i don't want my gurl to studdey mentel rethmetic tis no count fur gurls but put her threw in readin writin and spelin thats what i believe in when they pay you sech big wages i think you orter hev evenin spelin and ritin schools yours respectavely."

In short, when that millennial day shall have been ushered in, teachers, retaining their independence of character, and so liking their work, will, like the rest of mankind, live to a green old age.

U. C. S. EXAMINATION.—The Commissioner for the Uncovenanted Civil Service Examinations gives notice that the next Annual Examination (according to the *General Test* prescribed by Government Notification dated 26th April 1861) of Candidates for employment in the Uncovenanted Civil Service will be held on the 9th and two following days of February 1880, at the following places:—

Chatterpore,
Chicacole,
Vizagapatam,
Rajahmundry,
Masulipatam
Kurnool,
Cuddapah,
Bellary,
Nellore,
Chittūr,
Madras,
Cuddalore,
Salem,
Coimbatore,

Combaconum,
Tranquebar,
Tanjore,
Trichinopoly,
Madura,
Palamcottah,
Trevandrum,
Cochin (Ernacollum),
Calicut,
Tellicherry,
Mangalore,
Bangalore,
Ootacamund and
Secunderabad.

2. Candidates must send in their applications on printed Forms,

NOTE.—For Trevandrum and Cochin the application should be sent to the Resident of Travancore; for Bangalore, to the Director of Public Instruction, Mysore; and for Secunderabad, to the Executive Commissariat Officer, Secunderabad.

which may be obtained from all Tahsildars and Treasury Deputy Collectors. The forms of application must reach the Collectors of the Districts in which Candidates desire to be examined on or before the 15th November 1879. Under no circumstances will applications received after that date be accepted.

3. Candidates must be not less than eighteen years old, and must pay to the Officer from whom they obtain the form of application the prescribed fee (see paragraph 11), a receipt for which will be given separately, and also on the face of the form which is supplied to them. The fee must be paid in every case without exception, and will not be returned under any circumstances.

4. No application will be received unless it is accompanied by a certificate, signed by a Medical Officer or Medical Subordinate of the rank given in the margin, showing that the Candidate has been vaccinated or has had the small-pox. In the case, however, of Candidates who produced certificates at any previous examination, no

Zillah Surgeon.
Sub-Assistant and Native Surgeon.
First and Second Apothecaries.
Superintendent of Vaccination.

further voucher of this description will be necessary. Candidates will not be permitted to produce their vaccination certificates on the day of examination.

5. Candidates for the English or the Anglo-Vernacular Branch must answer the papers in History, Geography, and Arithmetic *in English only* but Candidates who have already passed one of the branches of the test will not be required to take up History, Geography, and Arithmetic again.

6. Candidates will be required to execute the Arithmetic paper in *English* figures; no marks will be given for any answers which are executed in *Vernacular* figures. Also in this paper Candidates will be required to show an accurate knowledge of Vulgar and Decimal Fractions and Proportion (G. O., 27th August 1874, No. 296, Educational Department). In all the papers executed in the Vernacular the words must be written separately, a space being left before and after each word, and the writing must be plain.

7. To facilitate reference, those Candidates who have already passed one branch of the General Test, Uncovenanted Civil Service Examinations, should specify in their applications the year in which they passed, and the page, &c., of the Gazette containing their names.

8. Persons who have passed the Matriculation Examination and who wish to undergo the test in Spelling and Writing only, as notified under date 21st January 1876 and 7th April 1878, will be supplied with a special form of application through the Collectors.

9. Officials in the service of Government prior to 1st June 1867 for whom a modification of the examination has been sanctioned by Government, as notified under date the 26th July 1876, should apply to the undersigned direct on a special form which will be supplied on application to this office. The fee for the modified test is Rs. 3, which should be remitted by a *Money Order*.

10. No Candidate will be admitted to the Examination at any other place than that named in his application, and the place so named should be the nearest examination station to the Candidate's permanent place of residence. *To prevent mistakes, Candidates should submit their applications direct to the Collector of the District in which the station at which they desire to be examined is situated.*

11. The following shows the fee which each Candidate is required to pay for admission to the Examination:—

- For the English Branch only, Rupees five.
- For the Vernacular Branch only, Rupees five.
- For the Anglo-Vernacular Branch, Rupees seven.
- For Matriculated Students, Rupees two.

UNIVERSITY OF MADRAS.—The attention of candidates for the ensuing F.A. and B.A. Examinations is called to Bye-laws 49 and 64, respectively, according to which each Candidate should forward with his application a certificate of having passed the previous Examination.

MIDDLE CLASS EXAMINATION.

No. 41. *From Colonel R. M. MACDONALD, Director of Public Instruction, to the Acting Chief Secretary to Government, dated 19th May 1879, No. 2081-P.*

I have the honor, with reference to G. O., No. 77, of the 11th March 1879, to submit a Draft Notification, in which I have formulated my proposals for the institution of a Middle-School Examination, which is to supersede the present General Test and which is to be open to all candidates, whether pupils in schools or not.

2. After drawing up the Notification I had a conference on the subject with the Commissioner for the Uncovenanted Civil Service Examinations. Mr. Sullivan does not agree with Mr. Longley in considering that the examination should be conducted by the Commissioner. He wishes the examination to be conducted by the Director of Public Instruction with the aid of the Secretary to the Uncovenanted Civil Service Examinations and his establishment. I see no objection to this arrangement.

3. The following remarks will explain the general working of the scheme. Male candidates have to be examined in six subjects, of which three are compulsory and three are optional. The curriculum now followed in Government schools will enable a boy from the upper fourth class to come up in the following subjects:—

- | | |
|--------------------------------|---------------------|
| <i>A. Compulsory.</i> | <i>B. Optional.</i> |
| A. English, | B. Second language. |
| C. Arithmetic. | E. Mathematics. |
| D. Geography & Indian History. | J. English History. |

East Indian boys will probably try and shirk the second language. In that case they will have to choose one of the following subjects:—

- F. Physical Geography.
- G. Physiology or Hygiene.
- H. Political Economy.
- I. Agriculture.

In aided schools, the same subjects will be brought up generally, but English History is not always studied in these schools, and in such cases one of the other alternative subjects may be brought up. Boys and grown-up persons who have no turn for Mathematics may also take advantage of the option which the scheme gives them of substituting some other subject.

4. Female candidates are to be examined in five instead of six subjects. Most of them will probably bring up only one language, East Indian girls English, Native girls their own vernacular. All will have to pass in one language, and also in Arithmetic, Geography and Indian History. They will have to choose two other subjects. East Indian girls will probably take up English History and some little book on the laws of health. Native girls will probably take up Physical Geography and Hygiene. Possibly some may take up Archbishop Whately's *Easy Lessons on Money Matters*, which was formerly prescribed for Taluk Schools and translated into Tamil. The scheme provides for native girls being examined in all the non-language subjects through the medium of the vernacular.

5. The successful candidates are to be divided into two classes. A somewhat high degree of proficiency will be required to place the

candidate in the first class, which will render him, when old enough, eligible for employment in the public service in certain small appointments. A first-class certificate will also be accepted as a substitute for the general education test for fourth grade schoolmasters and second grade schoolmistresses, but persons holding these certificates will still be required to pass in Method and teaching power, if they wish to be employed as schoolmasters, and in Method, needle-work and teaching power, if they wish to be employed as schoolmistresses. In the event of the present examinations for the schoolmasters' fourth grade and the schoolmistresses' second grade being abolished and examinations in Method being restricted to persons trained in Normal Schools, a corresponding alteration would be made in these provisions. The present distinction between a perfect and imperfect certificate in the case of persons bringing up only one language will be maintained.

6. A place in the second class will only entitle the candidate to enter the upper department of a High School.

7. I am not sure that I have quite understood the remarks in paragraphs 3, 4 and 5 of the Government Order. It has not been proposed to make any change in the education given in schools with a view to specially qualifying men for the public service. A certain amount of general education has been hitherto required, and the question as to what particular amount should be required is of course a point on which opinions may differ. The General Test now in force was laid down many years ago. If Government consider that the modified test now proposed should render a person eligible not only for the smaller, but also for the higher appointments, paragraph 16 of the Draft Notification will have to be amended accordingly.

8. A statement is annexed contrasting the proposed Middle-Class Examination with the existing General Test and the Matriculation Examination.

9. I propose submitting a separate letter on the Upper Primary and Lower Primary Examinations.

10. The following is a summary of my proposals on the present subject:—

- (a) The present General Test to be abolished, the Middle-School Examination to be substituted for it.
- (b) The examination in this modified form to qualify only for certain appointment of small value. The Matriculation or some higher examination to be required as a qualification for more important appointments.
- (c) The Middle-School Examination to be conducted either by the Commissioner for the Uncovenanted Civil Service Examinations or by the Director of Public Instruction, as may be decided by Government. If the latter, the services of the Commissioner's Secretary and his establishment to be available for conducting the examination.
- (d) The examination to be self-supporting, a fee of Rupees 5 being charged in the case of pupils in schools, and of Rupees 7 in the case of all other persons.
- (e) The successful candidates to be arranged in two classes, the first indicating the proficiency required as a qualification for the public service, the second the proficiency required to

qualify the candidate for admission into the upper department of a High School.

- (f) A place in the first class to be also taken as equivalent to the general education test for a schoolmaster's certificate of the fourth grade and a schoolmistress' certificate of the second grade, male candidates being required to pass the departmental tests in method and teaching a class, and female candidates in method, needlework, and teaching a class.

ENCLOSURE No. 1.

Notification.

An examination styled the Middle-School Examination shall be held annually under the superintendence of the Commissioner for the Uncovenanted Civil Service Examinations, and the Director of Public Instruction at such stations as may be determined on from time to time and shall be open to all male and female candidates. It shall commence on the 1st December, or if that day falls on a Sunday, on the 2nd December.

2. The fee in the case of pupils in schools shall be Rupees 5, and in the case of all other persons Rupees 7.

3. Candidates must send in their applications on printed forms, which may be obtained from all Tahsildars and Treasury Deputy Collectors. The forms of application must reach the Collectors of the Districts in which the candidates desire to be examined on or before the 15th September. Under no circumstances will applications received after that date be accepted.

4. Candidates must pay to the officers, from whom they obtain the form of application, the prescribed fee, a receipt for which will be given separately, and also on the face of the form which is supplied to them. The fee must be paid in every case without exception, and will not be returned under any circumstances.

5. No candidate will be admitted to the examination at any other place than that named in his or her application, and the place so named should be the nearest examining station to the candidate's school or permanent place of residence. To prevent mistakes, candidates should submit their applications direct to the Collector of the district, in which the station at which they desire to be examined is situated.

6. Every male candidate must be examined in six, and in not more than six, and every female candidate in five, and in not more than five, of the following branches. Male candidates must come up in Branches A, C and D, female candidates in Branches A or B, C and D. The choice of the remaining branches is left to the candidates:—

A. English (120 marks.)

- (a) Handwriting. Copying rapidly and in a good clear hand a manuscript or lithographed paper (20 marks.)
- (b) Orthography. Writing from dictation a passage from a book equal in difficulty to the Supplement to the Fourth Book (20 marks.)
- (c) Translating into the vernacular one or more passages from a book, not previously studied, equal in difficulty to Chambers' Moral Class Book (30 marks.)
or, if the candidate knows no vernacular,

Paraphrasing one or more passages of poetry, and not previously studied, equal in difficulty to Selections in Poetry No. I (30 marks.)

- (d) Translating a vernacular letter or easy narrative into English (30 marks.)
or, if the candidate knows no vernacular,
Writing a letter on a given subject (30 marks.)

- (e) Grammar as contained in Dr. R. Morris' English Grammar (Macmillan's Primer Series), and Sullivan's attempt to simplify English Grammar, pages 1 to 120, or any similar books (20 marks.)

B. Second Language (120 marks.)

- (a) Handwriting. Copying rapidly and in a good clear hand a manuscript or lithographed paper (20 marks.)

- (b) Orthography. Writing from dictation (20 marks.)

- (c) Composition such as a description of a place, an account of some useful natural or artificial product or the like (30 marks.)

- (d) Grammar as contained in the grammars used in the third, lower fourth and upper fourth classes of a Government school or any others of equal difficulty (20 marks.)

- (e) Text Book.—The following or such books as may from time to time be prescribed for Government schools (30 marks):—

Tamil.—Poetical Anthology, No. II.

Telugu.—Nala Charitram.

Malayalam.—Punchatantram, Part II.

Canarese.—Poetical Anthology published by the Basel Mission Press.

Uriya.—Ramayana, Sundra Kanda.

Hindustani.—Urdu Poetical Reader, Majmua Sakhun, Part II, pages 1 to 30.

Persian.—Gulistan (expurgated edition). Books II and III.

C. Arithmetic (80 marks.)

The first four Simple and Compound Rules, Reduction, Vulgar and Decimal Fractions, Simple and Compound Proportion.

(English figures must be used and the candidate must be acquainted with the principal Indian weights and measures.)

D. Geography and Indian History (100 marks.)

- (a) The Geography of Asia and Europe as contained in Clyde's Elementary Geography or any similar book (25 marks.)

- (b) The Geography of India as contained in Duncan's Geography of India, pages 1 to 106 or any similar book (25 marks.)

- (c) The History of India to the battle of Jubbulpore in 1817 (50 marks.)

E. Mathematics (60 marks.)

- (a) Euclid, Book I (35 marks.)

- (b) Algebra to the end of Fractions (25 marks.)

F. Physical Geography (60 marks.)

- Geikie's Physical Geography (Macmillan's Science Primer) or any similar book.

G. Physiology or Hygiene (60 marks.)

- (a) Foster's Physiology (Science Primer) or any similar book,

or

- (b) First Lessons in Health by J. Berners, Personal care of Health by Dr. Parker, Dr. Dhanakoti Raju's Elements of Hygiene or any similar book.

H. Political Economy (60 marks.)

Archbishop Whately's Easy Lessons on Money Matters or any similar book.

I. Agriculture (60 marks.)

Robertson's Agricultural Class Book or any similar book.

J. English History (60 marks.)

The History of England to the accession of Henry IV.

7. The examination will be conducted in the order of time and subjects shown below:—

Days.	Hours.	Subjects.
First ...	10 — 1 ...	Geography and Indian History.
Do. ...	2 — 4 ...	Arithmetic.
Do. ...	4 — 4½ ...	English Handwriting.
Second ...	10 — 12½ ...	Translation, &c., and English Grammar.
Do. ...	12½ — 1 ...	English Dictation.
Do. ...	2 — 4 ...	Mathematics.
Do. ...	4 — 4½ ...	Handwriting in second language.
Third ...	10 — 12½ ...	Second language. Composition, Grammar and Text Book.
Do. ...	12½ — 1 ...	Do. Dictation.
Do. ...	2 — 4 ...	English History.
Fourth ...	10 — 12 ...	Physical Geography.
Do. ...	2 — 4 ...	Physiology or Hygiene.
Fifth ...	10 — 12 ...	Political Economy.
Do. ...	12 — 4 ...	Agriculture.

8. Marks will be deducted for bad writing and spelling in every subject. In non-language subjects however the deductions for spelling will not exceed 10 per cent. of the maximum and for writing 5 per cent. of the maximum number of marks for each branch.

9. Candidates who bring up English must answer the non-language papers in English. Candidates who do not bring up English may answer them in the Vernacular.

10. The candidates will be ranked in the order of proficiency, as determined by the total number of marks obtained by each and will be arranged in two classes.

11. The first class will contain those who have obtained not less than

- (a) One-half of the maximum marks in English Handwriting.

- (b) One-third of the maximum marks in Branches A and C.

- (c) One-fourth do in every other branch in which the candidate has been examined.

- (d) One-half of the aggregate number of marks.

12. The second class will contain those who have obtained not less than

- (a) One-third of the maximum marks in English Handwriting
 (b) One-fourth do. in Branches A and C.
 (c) One-third of the aggregate number of marks.
13. Female candidates who do not bring up English will be ranked in the first class, provided they obtain not less than
 (a) One-half of the maximum marks for Handwriting in the language selected by them.
 (b) One-third of the maximum marks in Branches B and C.
 (c) One-fourth do. in every other branch in which the candidate has been examined.
 (d) One-half of the aggregate number of marks.
14. They will be ranked in the second class provided they obtain not less than
 (a) One-third of the maximum marks for Handwriting in the language selected.
 (b) One-fourth of the maximum marks in Branches B and C.
 (c) One-third of the aggregate number of marks.
15. Certificates will be issued by the Commissioner Director, to the passed candidates, specifying the subjects in which they have been examined and the class in which they have been placed.
16. A first-class certificate will render the holder eligible, on attaining the age of 18, to appointments under Government of the value of Rupees 15 and upwards to Rupees 30 inclusive, provided that any such appointment requires a knowledge of only the language or languages in which the candidate has passed.
17. It is to be distinctly understood that the Government do not undertake to provide appointments for all persons who may pass the prescribed examinations under these rules. Appointments will, as before, be regulated by the requirements of the public service, and will be made by the same authorities as heretofore. It is likewise to be understood that it will still, as before, be open to Government, and with their sanction, to the controlling Courts and Boards, whenever they see necessary to prescribe the period of service, which must be passed in one grade of appointment before promotion to a higher grade altogether irrespective of these rules.
18. In the Educational Department a first-class certificate will be accepted as equivalent to the general education test for fourth-grade schoolmasters and second-grade schoolmistresses. In the case, however, of candidates who have passed only in one language, the certificate will be held only equivalent to the general education test required for an imperfect certificate. The holder of a first-class certificate, whether perfect or imperfect, will still be required in the case of males, to pass the departmental examination in method and teaching a class, and in the case of females, in method, needlework and teaching a class.
19. A first or second class certificate will qualify any person for admission as a pupil into the upper department of a High School.

UPPER AND LOWER PRIMARY SCHOOL EXAMINATIONS.

No. 42. From Colonel R. M. MACDONALD, Director of Public Instruction, to the Acting Chief Secretary to Government, dated Madras, 6th May 1879, No. 2165-P.

I have the honor, with reference to G. O., No. 77, of the 11th March 1879, and in continuation of my letter, No. 2081, of the 19th May 1879, to submit draft rules for the Upper Primary and Lower Primary School Examinations.

2. In the Upper Primary School Examination I propose every candidate shall be examined in five branches:—

Compulsory.

- A. First language, Reading and Writing.
 B. Arithmetic.
 C. Geography.

Optional:

- D. First language (Poetry and Grammar).
 E. Second language.
 F. History.
 G. Hygiene.
 H. Agriculture.

In Government Schools most boys will bring up E as a matter of course and will choose D or F. In aided schools history is not generally read in the second class and in these schools D and E will be generally brought up. East Indian boys and girls will rarely bring up a second language and will choose two subjects out of D, F and G. Under the head of History, I have placed English History as an alternative to Indian History, as the former is read by East Indians in some elementary schools. Agriculture being one of the alternative subjects in results schools is also included under the head of optional subjects.

3. The examination will be left as far as possible to the Masters and Mistresses of schools, and the general responsibility for the examination will rest with the head of the institution. On further consideration I do not think it will be practicable to assign different subjects to different Head Masters and Head Mistresses with a view to ensuring uniformity of standard, without making the examination more elaborate affair than such an examination ought to be.

4. The subject laid down for the Lower Primary Examination are those named by the Government of India. In the case of Primary schools connected with schools of a higher grade it is proposed that the examination shall be conducted in the same way as the Upper Primary Examination, but in purely elementary schools some other agency is necessary, and in such cases the examination will form a part of the work done at the regular inspection of the school.

ENCLOSURE No. 1.

Upper Primary School Examination.

An examination styled the Upper Primary School Examination shall be held once a year in every Government and Private Middle school under inspection. It shall commence on the 8th December, if that day falls on a Sunday, on the 9th December, and shall continue as long as may be necessary.

2. Every candidate shall be examined in five of the following branches, of which three are compulsory and two are optional :—

Compulsory.

A. First language. (Reading and Writing).

(a) To read at sight with fluency and intelligence a passage of ordinary difficulty from a book or newspaper in a vernacular language, or in the case of Europeans and Eurasians in the English language (15 marks).

(b) To write a passage to dictation from the same (25 marks).

B. Arithmetic.

(a) To work miscellaneous questions in Reduction, the Compound Rules and Vulgar Fractions (40 marks).

(b) Mental Arithmetic applied to bazaar transactions (10 marks).

C. Geography.

To answer questions on the Geography of Asia as contained in Duncan's Introduction to the Geography of the World, or any approved Geographical primer (40 marks).

Optional.

D. First language (Poetry and Grammar).

Europeans and Eurasians (English).

(a) To recite a few lines from Palgrave's Children's Treasury of English Song, First Part (Macmillan's Primer Series), or any approved poetical primer, and to answer questions on the meaning and subject-matter. Two hundred lines to be brought up (20 marks).

(b) To answer questions on Elementary English Grammar with parsing and applications of the rules to the poetry brought up (20 marks).

Natives (Vernacular).

(a) To recite a few lines from the Tamil or Telugu Anthology, No. 1, or any approved book of equal difficulty in any vernacular language, and to answer questions on the meaning and subject-matter. Two hundred lines to be brought up (20 marks).

(b) To answer questions on Elementary Vernacular Grammar with parsing and applications of the rules to the poetry brought up (20 marks).

E. Second language.

Europeans and Eurasians (Vernacular).

(a) To read a passage from a book equal in difficulty to the second part of the First Book of Lessons in any vernacular language (15 marks).

(b) To construe a passage from the First Book of Lessons or from any approved book of equal difficulty, previously prepared (15 marks).

(c) To write to dictation a passage from the same (15 marks).

(d) Oral translations of very easy sentences into the vernacular (15 marks).

Natives (English).

(a) To read a passage from a book, not previously studied, equal in difficulty to the Second Book of Reading of the Madras School Book Society (15 marks).

(b) To construe a passage from the Second Book of Reading of the Madras School Book Society or any approved book of equal length and difficulty, previously prepared (15 marks).

(c) To write to dictation a passage from the same (15 marks).

(d) Oral translation of very easy sentences into English (15 marks).

F. History.

Morris's History of India, Chapters IV—XII, or a corresponding portion of any other approved History of India (40 marks),

or

History of England from the commencement to the death of Stephen in any approved Elementary History (40 marks).

G. Hygiene.

Dr. Dhanakoti Raju's Elements of Hygiene, Personal Care of Health of Dr. Parkes, First Lessons in Health by J. Berners, or any approved primer (40 marks).

H. Agriculture.

Robertson's Agriculture Class Book or any approved primer (40 marks).

3. The Dictation and Arithmetic may be done on paper or on slates. The rest of the examination, including, of course, mental Arithmetic, shall be *visâ voce*.

4. Candidates who obtain one-fourth of the maximum number of marks in branches A and B and one-third of the aggregate number of marks shall be declared to have passed, and shall receive a certificate signed by the Principal or Head Master specifying the branches in which they have passed.

5. This certificate shall entitle the candidate to admission, without further examination into any Government or Aided Middle School, provided that no candidate shall be admitted into an English Middle School who has not passed in English in either branch A or E or into a Vernacular Middle School who has not passed in the vernacular in either branch A or E.

6. In Aided Middle Schools which are unconnected with any school of a higher grade, the examination shall be conducted by the Head Master or Head Mistress, who may, if necessary, avail himself or herself, of the aid of any competent Assistant Master or Assistant Mistress in the school. In Aided Middle Schools, which are located in the same building with a College or High School, the head of the institution may conduct the examination or delegate it to qualified Assistants. In Government Middle Schools, the examination shall be conducted by the Deputy Inspector, Head Master or any Master or Masters appointed by the Principal of the College or Inspector of the Division.

7. At the close of the examination, the Principal, Head Master or Head Mistress shall furnish the Inspector of the Division with a list showing the names of the candidates examined, the schools from which they came up, the number of marks obtained by them in each

branch and on the whole, and shall also report the names of the examiners by whom the examination was conducted.

8. The Inspector of Schools shall publish the names of the successful candidates in the District Gazette, and shall specify the branches in which they have passed, the schools from which they came up, and the school at which the examination was held.

9. A fee of one rupee may, if deemed necessary, be levied from each candidate in all Aided Middle Schools to meet petty charges connected with this examination. In Government Middle Schools this fee shall be levied only in the case of candidates who have not been reading in the Upper Primary School of the institution and shall be remitted to the treasury.

10. Applications for admission to the examination must be addressed before the 15th November to the Principal, Head Master or Head Mistress of the institution at which the candidate wishes to be examined, but such application may be dispensed with in the case of pupils coming up for the primary school of the institution itself.

Lower Primary School Examination.

11. An examination styled the Lower Primary School Examination shall be held once a year in every Government and Aided Primary School, which is located in the same building with a school of a higher grade. It shall commence on the 5th December, or if that day falls on a Sunday, on the 6th December, and shall continue as long as may be necessary.

12. Every candidate shall be required,

- (a) To read at sight with facility a moderately easy book in a vernacular language (15 marks).
- (b) To write to dictation from the same (25 marks).
- (c) To work sums in the first four Rules of Arithmetic, Simple and Compound, including easy miscellaneous questions (45 marks).

13. In the case of Europeans and Eurasians, English will be the vernacular language.

14. Candidates who obtain one-fourth of the maximum number of marks in each subject and one-third of the aggregate number of marks shall be declared to have passed and shall receive a certificate to that effect from the Head Master or Head Mistress.

15. This certificate shall entitle the candidate to admission into any Government or Aided Upper Primary School, provided that no native candidate shall be admitted into an English Upper Primary School without such further examination in English as the Head Master of such school may deem necessary, and no English or Eurasian candidates shall be admitted into a Vernacular Upper Primary School without such further examination in the vernacular as the Head Master of such school shall deem necessary.

16. In Aided Upper Primary Schools of the class referred to in paragraph 11 the Lower Primary School Examination shall be conducted by the head of the institution or by any Masters or Mistresses appointed by him or her. In Government Schools the examination shall be conducted by the Deputy Inspector or by any Masters or Mistresses appointed by the Inspector of the Division.

17. At the close of the examination the Principal, Head Master or Head Mistress shall furnish the Inspector of the Division with a list

showing the names of the candidates examined, and the number of marks obtained by them in each branch and on the whole, and shall report the names of the examiners by whom the examination was conducted.

18. In Government and Private Primary Schools, unconnected with any school of a higher grade, the Inspectors of Schools and Deputy Inspectors are authorized to give certificates of having passed the Lower Primary School Examination to such pupils as have in their periodical examinations come up to the standard prescribed.

No. 43. From Colonel R. M. MACDONALD, Director of Public Instruction, to the Acting Chief Secretary to Government, dated Madras, 5th July 1879, No. 2813.

I have the honor, with reference to your Official Memorandum, No. 1345, of the 2nd July 1879, to state that if the Middle School Examination is under the control of the Commissioner for the Uncovenanted Civil Service Examinations, it will, I presume, be his duty to appoint Examiners who will be remunerated out of the fees levied, as is now done in the case of the General Test Examination. If the examination is under my control the same duty will, I presume, devolve on me, as in the analogous case of the Teachers' Certificate Examinations.

2. If the examination is under the control of the Commissioner, the arrangements for supervision will probably be very much the same as those now in force with regard to the General Test Examination. I receive a letter and a statement every year from the Secretary intimating to me the arrangements proposed with regard to buildings and superintendence, and instructions are issued accordingly to the Educational Officers concerned. A copy of my Proceedings, No. 124-P, of the 15th January 1879, is enclosed, as showing the nature of this annual circular.

3. If the examination is under my control it will be conducted very much in the same way as the Teachers' Certificate Examinations are conducted now, as shown in the accompanying copy of my Proceedings, No. 4056-P, of the 24th October 1878.

4. I do not think that the standard proposed for a first class certificate can be safely raised. It is higher than the standard laid down for a first class in the Matriculation Examination, which is as follows:—

"One-third of the marks in English, one-fourth in each of the other branches, and one-half of the whole."

No marks are laid down in the notification regarding the General

Subject.	Maximum.	Required for a Pass.	Test, but previous to preparing my scheme. I ascertained from the Secretary that the marks required for a pass were as shown in the margin. It will be observed that half marks are assigned for Writing, and that for Arithmetic very little more than a third is required. Such as it is, the examination is one in which the great majority of the candidates fail.
Handwriting	100	50	
Dictation	100		
Spelling	100	150	
Grammar & Composition.	300	75	
Arithmetic.	200	70	
History	100	25	
Geography.	100	25	

No. 44. ORDER THEREON, 22nd August 1879, No. 325.

In his letters of the 19th and 26th May 1879, Nos. 2021 and 2165, the Director of Public Instruction submits, with reference to G.O., 11th March 1879, No. 77, formal proposals for the institution of a Middle School Examination to supersede the present General Test, and draft rules for the Upper and Lower Primary School Examinations. The scheme of the Middle Class School Examination is accompanied by a draft notification. In his letter of the 5th July 1879, No. 2813, he replies to certain inquiries by Government regarding the arrangements proposed for the conduct of this Examination, and the marks to be assigned to certain subjects.

2. His Grace the Governor in Council generally approves the proposals of the Director regarding the several examinations, subject to the following amendments in regard to the middle-class scheme:—

- (a) The arrangements for the superintendence of, and the appointment of Examiners for, this examination will rest with the Commissioner for the Uncovenanted Civil Service Examinations.
- (b) In Rule 5 the following words will be omitted: "and the place so named should be the nearest examination station to the candidate's school, or permanent place of residence."
- (c) The proportion of marks for Handwriting and Arithmetic will be raised.

3. Government are not prepared to accept the Madras University Matriculation Examination, at its present standard, as a test of qualification for appointments exceeding Rupees 20 monthly, but if the standard in Handwriting and Arithmetic is raised sufficiently the Government would then accept it. The Director will accordingly bring the matter under the notice of the Senate. Should the authorities of the University deem it undesirable to raise the tests as suggested, the Director will submit proposals for instituting a higher examination for appointments above Rupees 30.

NOTES ON SHAKSPERE'S JULIUS CÆSAR.

(Continued from page 358.)

SCENE II. ACT III.

Part the numbers. Divide the mob.

I will hear Brutus speak. 'Speak' is here in the Infinitive.

Lub. Several verbs of perception, and some others (the auxiliaries) are followed by the infinitive with its sign omitted. "Know" is so used in the perf. pres. e.g., "I have known him go without dinner."

The noble Brutus is ascended. Is intransitive verb. Indic. pres. perfect.

Verbs implying state or position can adopt their tense auxiliaries from *to be* as well as *to have*, e.g. "he has gone" = he is gone. Cf. arrive, descend, rise, &c.

Had you rather Cæsar were living. "Were living." Progressive conjug. of subj. mood.

And die, &c. Infinitive modified by "had you."

All limits "you;" all indef. numeral.

Slaves. Factitive object.

Shakspeare uses the Subjunctive where we should use the Conditional mood. Macaulay with many modern writers would banish the Subjunctive from the language.

There is tears. When the verb precedes its nom., Shakspeare generally makes the verb singular.

The question of his death. The statement of the argument as to his death.

Extenuated. Lessened. *Enforced* = Exaggerated. *Mourned* perf. part from *mourn* used trans. for "mourn over," we mourn an event, we may mourn a person, but not in modern Eng. a body.

A place in the commonwealth. An office in the state. They shall all receive the rights of citizens, and have a voice in the direction of affairs under the new government.

Save I. Cf. Act V. Scene 5.

"All the conspirators save only he".

Compare also "save the waves and I." BYRON'S *Isles of Greece*.

"The so-called prepositions *save* and *except*, borrowed from the Norman French, are remnants of the Latin ablative absolute—"*En excepta*, nihil amicitia praeestabilius:" "*except this*, nothing surpasses friendship" (*Cicero*). The old English writers appear to have regarded it as an imperative. In imitating the French idiom, they render it *out take*.

For all was gold men might see.

Out take the feathers and the tree—*Chaucer*.

Save (O. E. *sauve*, *sauf*) was also an ablative absolute.

None *save thee and thine*, I've sworn

Shall be left upon that morn.—*Byron*.

Save thee is (1) "salvo te" = (2) *sauvé toi* = (3) *sauf thee* :

All armed, *sauf here* hedges.—*Chaucer*.

As the case-endings are lost, these absolute words are often regarded as nominatives :

There was no stranger with us in the house *save we two*.—*Eng. Bib.*

When all slept sound *save she* who bore them both.—*Rogers*.

(See ADAM'S English Grammar.

Beholding to you. The verb here is not *behold* to look upon, but from the verb *hold* i.e., to retain. The Imperf. part. was formerly used as often as the Perf. part. Now we should never say anything but "beholden." Each form is precisely equivalent to obliged.

On the Lupercal. I. e., on the feast of Lupercal—(See Act I.)

Methinks there is much reason in his sayings. *Methinks* is a Compound verb from a Saxon verb which equals *seem* (not to think) + the personal pron. Our old writers sometimes use "*methinks*," both expressions = it seems to me.

The envious Casca. Envious here = spiteful, full of hatred.

The Nervii. A Belgian people overcome by Cæsar.

The most unkindest cut of all. Double comparatives and superlatives are frequent in Elizabethan English.

Then I and you and all of us fell down. We fell in Cæsar's fall; he represented us.

Gracious drops. "Gracious" here = graceful, becoming.

What private griefs, &c. Griefs = grievances.

There were an Antony. There would be an Antony.

Every several man. Emphatic repetition.

To walk abroad. For you to walk abroad in and recreate yourselves in. Abroad here means out of the house. It now generally means "in a foreign country."

I heard him say Brutus and Cassius are rid, &c. If this stands, "him" must be Octavius. Collier and others read "them" i.e., the people.

Are rid. Have ridden

He comes upon a wish. He has come just as I am wishing for him.

Answer every man directly. Directly = in a straightforward manner.

You'll bear me a bang for that. You will bear a bang from me for saying that.

(End of Act III.)

ALGEBRA AND TRIGONOMETRY.

Solutions.

(For the questions see page 359)

I. i. Resolving the Numerator and the Denominator into factors we have.

$$\frac{(a+b+x)(ab+ax+bx-a^2-b^2-x^2)}{(a+b+x)(ab+ax+bx)} = \frac{1}{1+a^2+b^2+x^2}$$

$$\therefore a+b+x=0 \quad \therefore x=-(a+b)$$

$$\text{Again } \frac{ab+ax+bx-a^2-b^2-x^2}{ab+ax+bx} = \frac{1}{1+a^2+b^2+x^2}$$

$$\therefore \text{Each} = \frac{ab+ax+bx-a^2-b^2-x^2}{ab+ax+bx} = \frac{1}{1+a^2+b^2+x^2}$$

$$\therefore \frac{1}{1+a^2+b^2+x^2} = 1 \quad \therefore x^2=-(a^2+b^2) \quad \therefore x=\sqrt{-(a^2+b^2)}$$

$$\text{ii. } x+y=c-cxy=c(1-xy) \quad \therefore \frac{x+y}{1-xy}=c$$

$$\text{Similarly } \frac{x+z}{1-xz}=b \text{ and } \frac{y+z}{1-yz}=a.$$

$$\therefore \frac{\frac{x+z}{1-xz} - \frac{y+z}{1-yz}}{1 + \frac{x+z}{1-xz} \cdot \frac{y+z}{1-yz}} = \frac{b-a}{1+ab}$$

$$\text{Simplifying we have } \frac{x-y}{1+xy} = \frac{b-a}{1+ab}$$

$$\text{Again } \frac{\frac{x+y}{1-xy} + \frac{x-y}{1+xy}}{1 - \frac{x+y}{1-xy} \cdot \frac{x-y}{1+xy}} = \frac{c + \frac{b-a}{1+ab}}{1-c \cdot \frac{b-a}{1+ab}}$$

$$\therefore \frac{2c}{1-x^2} = \frac{b+c-a+abc}{1+ab+ac-bc}$$

Now squaring both sides, and adding 1,

$$\frac{(1+x^2)^2}{(1-x^2)^2} = \frac{(b+c-a+abc)^2 + (1+ab+ac-bc)^2}{(1+ab+ac-bc)^2}$$

$$= \frac{(1+a^2)(1+b^2)(1+c^2)}{(1+ab+ac-bc)^2}$$

$$\therefore \frac{1+x^2}{1-x^2} = \pm \frac{\sqrt{(1+a^2)(1+b^2)(1+c^2)}}{1+ab+ac-bc}$$

$$\therefore x^2 = \pm \frac{\sqrt{(1+a^2)(1+b^2)(1+c^2)} - (1+ab+ac-bc)}{\sqrt{(1+a^2)(1+b^2)(1+c^2)} + (1+ab+ac-bc)}$$

$$\therefore x = \pm \sqrt{\frac{\sqrt{(1+a^2)(1+b^2)(1+c^2)} - (1+ab+ac-bc)}{\sqrt{(1+a^2)(1+b^2)(1+c^2)} + (1+ab+ac-bc)}}$$

II. Let x denote the first term and y the common difference

$$\therefore x + (a-1)y = a^2-bc \text{ (Tod. Alg. Art. 449.) and}$$

$$x + (b-1)y = b^2-ac.$$

Subtracting the Second from the first

$$(a-b)y = (a-b)(a+b+c) \quad \therefore y = a+b+c$$

$$\text{and } x = a^2-bc - (a-1)(a+b+c)$$

$$\text{Now the } n\text{th term} = x + (n-1)y = a^2-bc - (a-1)(a+b+c) - (n-1)(a+b+c) = c^2-ab.$$

$$\text{III. } 1 \ 2 \ 21 \ 70 \ 161 \ 306 \quad (\text{i})$$

Subtract the 1st term from the 2nd, the 2nd from the 3rd and so on, until a regular series is formed.

$$\text{Thus } 1 \ 19 \ 49 \ 91 \ 145 \quad (\text{ii})$$

$$18 \ 30 \ 42 \ 54 \quad (\text{iii})$$

As a general rule the n th term of 1st series the first term of the 1st series + the sum of the $(n-1)$ terms of the second; and the n th term of the 2nd series = the first term of the 2nd series + the sum of the $(n-1)$ terms of the third, and so forth. By this way the n th term of the given series is found to be $2n^3-3n^2-4n+6$.

$$\begin{aligned} \therefore S &= 2 \{ 1^3+2^3 \dots n^3 \} - 3 \{ 1^2+2^2 \dots n^2 \} - 4 \{ 1+2 \dots n \} + 6n \\ &= 2 \left\{ \frac{n(n+1)}{2} \right\}^2 - 3 \frac{n(n+1)(2n+1)}{6} - 4 \cdot \frac{n(n+1)}{2} + 6n \\ &= \frac{n^4-6n^2+7n}{2}. \end{aligned}$$

ii. Proceeding as before the n th term of the series is found to be $2 \cdot 2^{n-3}$

$$\therefore S = 2 \left\{ 2^1 + 2^2 + \dots + 2^n \right\} - 3n$$

$$= 2 \cdot \frac{2 \{ 2^n - 1 \}}{2 - 1} - 3n = 2^{n+1} - 4 - 3n$$

IV. The given series may be divided into two thus:—

$$\begin{aligned} 1 &= 1 + 0 \\ -n \cdot \frac{1+x}{1+nx} &= -\frac{n}{1+nx} - \frac{nx}{1+nx} \\ + \frac{n(n-1)}{2} \cdot \frac{1+2x}{(1+nx)^2} &= + \frac{n(n-1)}{2(1+nx)^2} + \frac{n(n-1)}{2} \cdot \frac{2x}{(1+nx)^2} \\ - \frac{n(n-1)(n-2)}{3} \cdot \frac{1+3x}{(1+nx)^3} &= - \frac{n(n-1)(n-2)}{3(1+nx)^3} - \\ &\quad \frac{n(n-1)(n-2)}{3} \cdot \frac{3x}{(1+nx)^3} \\ \dots &\dots \dots \dots \end{aligned}$$

$$\begin{aligned} \text{The series} &= \left\{ 1 - \frac{n}{1+nx} + \frac{n(n-1)}{2(1+nx)^2} - \frac{n(n-1)(n-2)}{3(1+nx)^3} \dots \right\} \\ &- \frac{nx}{1+nx} \left\{ 1 - (n-1) \cdot \frac{1}{1+nx} + \frac{(n-1)(n-2)}{2} \cdot \frac{1}{(1+nx)^2} \dots \right\} \\ &= \left(1 + \frac{1}{1+nx} \right)^n - \frac{nx}{1+nx} \left(1 - \frac{1}{1+nx} \right)^{n-1} \\ &= \left(\frac{nx}{1+nx} \right)^n - \frac{nx}{1+nx} \left(\frac{nx}{1+nx} \right)^{n-1} = 0. \end{aligned}$$

$$\begin{aligned} \text{ii. The series} &= 1 - \left\{ 1 - \frac{1}{2} - \frac{1}{2^2} \cdot \frac{1}{2} - \frac{1 \cdot 3}{2^3} \cdot \frac{1}{2} - \frac{1 \cdot 3 \cdot 5}{2^4} \cdot \frac{1}{2} \dots \right\} \\ &= 1 - \left\{ 1 - \frac{1}{2} + \frac{1(\frac{1}{2}-1)}{2} - \frac{1(\frac{1}{2}-1)(\frac{1}{2}-2)}{3} + \right. \\ &\quad \left. \frac{1(\frac{1}{2}-1)(\frac{1}{2}-2)(\frac{1}{2}-3)}{4} \dots \right\} \\ &= 1 - (1-1) \frac{1}{2} = 1. \end{aligned}$$

VI. The expression.

$$= 2 \left\{ (\sin^2 \theta + \cos^2 \theta)^4 - \cos^8 \theta - \sin^8 \theta \right\} \left\{ 1 + \tan^2 \theta + \cot^2 \theta + \tan^4 \theta \cot^4 \theta \right\} - \cos^2 2\theta$$

$$= 2 \left\{ 4 \sin^8 \theta \cos^2 \theta + 6 \sin^4 \theta \cos^4 \theta + 4 \sin^2 \theta \cos^6 \theta \right\} \times$$

$$(1 + \tan^2 \theta)(1 + \cot^2 \theta) - \cos^2 2\theta$$

$$= 2 \sin^2 \theta \cos^2 \theta (4 \sin^4 \theta + 6 \sin^2 \theta \cos^2 \theta + 4 \cos^4 \theta) \sec^2 \theta \operatorname{cosec}^2 \theta - \cos^2 2\theta$$

$$\text{But } \sin^2 \theta \operatorname{cosec}^2 \theta = 1, \text{ and } \cos^2 \theta \sec^2 \theta = 1$$

$$\therefore = 2 (4 \sin^4 \theta + 6 \sin^2 \theta \cos^2 \theta + 4 \cos^4 \theta) - \cos^2 2\theta$$

$$= 2 \left\{ 4 (\sin^2 \theta + \cos^2 \theta)^2 - 2 \sin^2 \theta \cos^2 \theta \right\} - \cos^2 2\theta$$

$$= 2 \left\{ 4 - 2 \sin^2 \theta \cos^2 \theta \right\} - \cos^2 2\theta$$

$$= 8 - 4 \sin^2 \theta \cos^2 \theta - \cos^2 2\theta$$

$$= 8 - \sin^2 2\theta - \cos^2 2\theta = 7.$$

$$\begin{aligned} \text{ii.} &= \frac{(1 - \sin^2 \alpha)(1 - \sin^2 \beta) + \sin^2 \alpha \sin^2 \beta}{1 + (1 - 2 \sin^2 \alpha)(1 - 2 \sin^2 \beta)} + \\ &\quad \frac{(1 - \sin^2 \alpha) \sin^2 \beta + \sin^2 \alpha (1 - \sin^2 \beta)}{1 - (1 - 2 \sin^2 \alpha)(1 - 2 \sin^2 \beta)} \\ &= \frac{1 - \sin^2 \alpha - \sin^2 \beta + 2 \sin^2 \alpha \sin^2 \beta}{2 - \sin^2 \alpha - 2 \sin^2 \beta + 4 \sin^2 \alpha \sin^2 \beta} + \\ &\quad \frac{\sin^2 \alpha + \sin^2 \beta - 2 \sin^2 \alpha \sin^2 \beta}{2 \sin^2 \alpha + 2 \sin^2 \beta - 4 \sin^2 \alpha \sin^2 \beta} \\ &= \frac{1}{2} + \frac{1}{2} = 1. \end{aligned}$$

iii. Observing $\tan(45 + \theta) \tan(45 - \theta) = 1$ and multiplying and dividing the first by $\tan(45 + \theta)$ and the second by $\tan(45 - \theta)$ we have

$$\tan(45 + \theta) \cdot \frac{a \tan(45 + \theta) - b}{a \tan(45 + \theta) + b} = \tan(45 - \theta) \cdot \frac{b \tan(45 - \theta) - a}{b \tan(45 - \theta) + a}$$

$$= \tan(45 + \theta) - \tan(45 - \theta)$$

$$= \frac{\sin(45 + \theta - 45 + \theta)}{\cos(45 + \theta) \cos(45 - \theta)} \quad (\text{Tod. Trig. Art. 89})$$

$$= \frac{\sin 2\theta}{\cos^2 45 - \sin^2 \theta} = \frac{\sin 2\theta}{\frac{1}{2} - \sin^2 \theta} = \frac{2 \sin 2\theta}{1 - 2 \sin^2 \theta} = 2 \tan 2\theta$$

$$\text{v. } \log_{b^2}^a \times \log_{a^2}^b = \frac{1}{2} \log_{b^2}^a \times \frac{1}{2} \log_{a^2}^b \quad (\text{Tod. Trig. Art. 137})$$

$$\text{But } \log_{b^2}^a \times \log_{a^2}^b = 1 \quad (\text{Art. 138})$$

$$\therefore \log_{b^2}^a \cdot \log_{a^2}^b = \frac{1}{2}$$

$$\text{In the same way } \log_{b^3}^a \cdot \log_{a^3}^b = \frac{1}{3}$$

$$\therefore \log_{b^2}^a \cdot \log_{a^2}^b \cdot \log_{b^3}^a \cdot \log_{a^3}^b = \frac{1}{5}$$

$$\begin{aligned} \text{VII. } \therefore \frac{\sin 2\theta + \sin 2\phi}{\sin 2\theta - \sin 2\phi} &= \frac{\tan(\alpha + \beta) + \tan(\alpha - \beta)}{\tan(\alpha + \beta) - \tan(\alpha - \beta)} \\ &= \frac{\frac{2 \sin(\theta + \phi) \cos(\theta - \phi)}{2 \cos(\theta + \phi) \sin(\theta - \phi)}}{\frac{\sin(\alpha + \beta + \alpha - \beta)}{\cos(\alpha + \beta) \cos(\alpha - \beta)}} \\ &= \frac{\sin(\alpha + \beta - \alpha + \beta)}{\cos(\alpha + \beta) \cos(\alpha - \beta)} \end{aligned}$$

$$\therefore \frac{\tan(\theta + \phi)}{\tan(\theta - \phi)} = \frac{\sin 2\alpha}{\sin 2\beta}$$

$$\begin{aligned} \text{VIII. } \tan(B + C) &= \frac{\tan B + \tan C}{1 - \tan B \tan C} \\ &= \frac{\frac{2 + \tan \theta}{1 - 2 \tan \theta} + \frac{3 + \tan \theta}{1 - 3 \tan \theta}}{1 - \frac{2 + \tan \theta}{1 - 2 \tan \theta} \cdot \frac{3 + \tan \theta}{1 - 3 \tan \theta}} = \frac{2 \tan \theta - (1 - \tan^2 \theta)}{2 \tan \theta + (1 - \tan^2 \theta)} \end{aligned}$$

$$= \frac{\frac{2 \tan \theta}{1 - \tan^2 \theta} - 1}{\frac{2 \tan \theta}{1 - \tan^2 \theta} + 1} = \frac{\tan 2\theta - 1}{\tan 2\theta + 1} = \tan(2\theta - 45^\circ)$$

$$\therefore \tan(B + C) = \tan(2\theta - 45^\circ) \text{ and } \tan A = \tan(45^\circ + \theta)$$

$$\therefore \tan(A + B + C) = \frac{\tan A + \tan(B + C)}{1 - \tan A \tan(B + C)} =$$

$$\begin{aligned} &= \frac{\tan(\theta + 45^\circ) + \tan(2\theta - 45^\circ)}{1 - \tan(\theta + 45^\circ) \tan(2\theta - 45^\circ)} \\ &= \tan(\theta + 45^\circ + 2\theta - 45^\circ) = \tan 3\theta. \end{aligned}$$

$$\text{IX. } \therefore \text{Since } \frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c} \text{ we have the expression.}$$

$$\begin{aligned} &= \frac{a}{\sin A} \left\{ \frac{\sin A}{a} \cdot a^2 \sin(B - C) + \frac{\sin B}{b} \cdot b^2 \sin(C - A) \right. \\ &\quad \left. + \frac{\sin C}{c} \cdot c^2 \sin(A - B) \right\} \\ &= \frac{a}{\sin A} \cdot \left\{ a^2 \sin A \sin(B - C) + b^2 \sin B \sin(C - A) \right. \\ &\quad \left. + c^2 \sin C \sin(A - B) \right\} \end{aligned}$$

[But $\sin A = \sin(B + C)$. &c.]

$$\begin{aligned} \therefore &= \frac{a}{\sin A} \left\{ a^2(\sin^2 B - \sin^2 C) + b^2(\sin^2 C - \sin^2 A) \right. \\ &\quad \left. + c^2(\sin^2 A - \sin^2 B) \right\} \\ &= \frac{a}{\sin A} \left\{ a^2 \sin^2 B - b^2 \sin^2 A + b^2 \sin^2 C - c^2 \sin^2 B + c^2 \sin^2 A \right. \\ &\quad \left. - a^2 \sin^2 C \right\} \end{aligned}$$

$$= \frac{a}{\sin A} \times 0 = 0. \text{ For } a \sin B = b \sin A. \text{ \&c.}$$

$$\text{ii. We have } \frac{a^2}{\sin^2 A} = \frac{b^2}{\sin^2 B} = \frac{c^2}{\sin^2 C}$$

$$\therefore \text{Each} = \frac{a^2 - b^2}{\sin^2 A - \sin^2 B} = \frac{b^2 - c^2}{\sin^2 B - \sin^2 C} = \frac{c^2 - a^2}{\sin^2 C - \sin^2 A}$$

$$\begin{aligned} \text{or } \frac{a^2 - b^2}{\sin(A + B) \sin(A - B)} &= \frac{b^2 - c^2}{\sin(B + C) \sin(B - C)} \\ &= \frac{c^2 - a^2}{\sin(C + A) \sin(C - A)} \end{aligned}$$

$$= \frac{a^2 - b^2}{\sin C \sin(A - B)} = \frac{b^2 - c^2}{\sin A \sin(B - C)} = \frac{c^2 - a^2}{\sin B \sin(C - A)}$$

$$\begin{aligned} \therefore \frac{\frac{\sin A}{a} \cdot a^2 - \frac{\sin B}{b} \cdot b^2}{\frac{c}{\sin C} \cdot \sin C \cdot \sin(A - B)} &= \frac{\frac{\sin B}{b} \cdot b^2 - \frac{\sin C}{c} \cdot c^2}{\frac{a}{\sin A} \cdot \sin A \sin(B - C)} \\ &= \frac{\frac{\sin C}{c} \cdot c^2 - \frac{\sin A}{a} \cdot a^2}{\frac{b}{\sin B} \cdot \sin B \sin(C - A)} \end{aligned}$$

$$\therefore \frac{a \sin A - b \sin B}{c \sin(A - B)} = \frac{b \sin B - c \sin C}{a \sin(B - C)} = \frac{c \sin C - a \sin A}{b \sin(C - A)}$$

Trichinopoly.

SAMUEL V. THOMAS.

EXAMINATION PAPERS.

ENGLISH POETRY.

Maharaja's High School, Mysore.

Senior F. A. Class.

Julius Cæsar : Milton Book iv : Odyssey Book ix.

C. M. Leonard, B.A.

I. (a) The external composition of 'Julius Cæsar' is defective, as the piece evidently falls into two halves. State what the action turns on in each half respectively, and show how both halves are in reality connected.

(b) What is meant by the dramatic unities? Are they observed in 'Julius Cæsar'?

(c) Remembering the history of the time, what principle is represented by (1) Cæsar, (2) Brutus and Cassius (3) the second Triumvirate?

(d) Whence did Shakspeare derive his idea of the ghost? Why does he give it the likeness of Cæsar and make it appear to Brutus alone? Mention two other important plays in which ghosts are introduced. What play may be regarded as a continuation of 'Julius Cæsar'?

II. (a) Contrast very briefly the characters of Brutus and Cassius.

(b) Mention the female characters in this piece and state in a few words the part each is made to play.

(c) Quote or give the substance of the passage that shows in what estimation Lepidus was held by his colleagues.

III. Explain the following passages, mentioning the speakers.

(a) These growing feathers pluckt from Cæsar's wing
Will make him fly an ordinary pitch :
Who else would soar above the view of men
And keep us all in servile fearfulness.

(b) Indeed it is a strange disposed time :
But men may construe things after their fashion,
Clean from the purpose of the things themselves.

(c) For if thou path, thy native semblance on,
Not Erebus itself were dim enough
To hide thee from prevention.

(d) O Cassius you are yond with a lamb
That carries anger as the flint bears fire :
Who much enforced, shows a lusty spark,
And straight is cold again.

(e) Forgetful what from him I still received
And understood not that a grateful mind
By owing owes not, but still pays, at once
Indebted and discharged.

(f) If I must contend, said he,
Best with the best, the sender not the sent,
Or all at once ; more glory will be won,
Or less be lost.

(g) Though roofs far richer we far off possess,
Yet, from our native, all our more is less.

(h) Our dear loss the less,
That they survived, so like for like success.

(i) Or if to fetch
That, and the sight of his fair roofs and friends,
Be fatal to him, let him that amends
For all his miseries, long time and ill
Smart for, and fail of.

(j) Explain the figures in (a) and (d). What other readings have been given of (c) and (d)?

IV. (a) What does Satan say about "free will"? What keeps him from submitting? What does he say would be the result of his regaining his former state? How does he excuse his devilish intentions towards the "gentle pair."

(b) Sum up Milton's opinions (1) as to the relative status of man and woman, (2) on celibacy.

(c) Refer to two passages in which Milton exhibits his religious and political antipathies.

V. (a) In what peculiar sense is each of the following words used?

In Julius Cæsar :—*climate, flatterers, griefs, nice, bestow, instances* :—

In Milton :—*propriety, apply, purpose, matron, vigilance, manuring* :—

In Chapman :—*breast, atone, prevention, inwards, fat, bags* :—

(b) What expressions are used in your text for the following :—

In Milton :—*equator, Kings of Upper Egypt, nightingale, horizon, paradise, noonday.*

In Chapman :—*good rule, rowing, depopulate, sunset, sight, fertility* :—

In Julius Cæsar :—*re-echo, midnight, high-spiritedness, bribery, to die* :—

VI. (a) Explain briefly :—I am promised forth : my answer must be made : thou has no figures : I never stood on ceremonies : Well, to our work alive : by your leave gods—this is a Roman's part :—myself am hell : evil, be thou my good : the crisped brooks ran Nectar : living sapphires : half wheeling to the shield, half to the spear :—made strong head : ghastly dark : heap of fortitude : a nurse of name : gross surprise : gross fool.

(b) Give short grammatical notes on the words italicised :—

Listen great things : he puts *him* out his only eye : that you do love me I am *nothing* jealous : the noble Brutus is *ascended* : there is tears for his love : that made *both* sky, air, earth and heaven : when Adam moving speech *turned* him *all ear* to hear new utterance flow : went not a milking.

VII. (a) When did Chapman flourish? What are the main characteristics of his translation? Mention three other translators of the Odyssey.

(b) Describe the land and the habits of the Cyclops. Quote or refer to the passages that give one an idea of Cyclopean strength.

- VIII. (a) Define:—*Archaism, Paronomasia, Anachronism*. Give two examples of each from "Julius Cæsar" two examples of the first from Milton and Chapman, and one example of the second from the *Odyssey* Book ix.
- (b) Quote three Latinisms from Milton and give some examples of compound epithets from Chapman.
- (c) Give the two similes used by Milton in describing the entrance of Satan into the garden of Eden; and those used by Ulysses in describing how the Cyclop was blinded.
- (d) Give some instances (six will do) of words used in your text that are now obsolete, or have undergone a change in form.

Senior F. A. Class.

PHYSIOLOGY.

Examiner—S. Cress, B.A.

- I. Describe the circulation of the blood, and the functions of the valves of the heart.
- II. Define the terms—Vascular—capillary Systole Diastole—Emotion—Corpuscles—Plasma—Hæmoglobin—Mammal—Clot—Coagulation—Fibrin.
- III. What are the circumstances favourable to coagulation and what those that retard it?
- IV. Enumerate the gaseous matters and the proportions of each in 100 cubic inches of blood. Analyse 50 cubic inches of air.
- V. Name and define the four parts into which the air of the body is divided.
- VI. What effect would the following circumstances have on the human frame?
1. Extracting the kidneys.
 2. Covering the skin with impenetrable varnish.
 3. A rise in temperature.
 4. The smell of food.
- VII. Name the constituents of
1. Proteids. 2. Fats. 3. Amyloids.
- VIII. Name the six kinds of movements of the levers with an example of each.

Senior F. A. Class.

PART I—THE GREEKS AND PERSIANS.

Examiner—Rev. C. H. Hoeken.

- I. Draw a rough map of Greece and insert the following Greek States, Athens, Bœotia, Argos, Mycenæ, Macedonia, Thebes, Thessaly and Sparta. What kept the Greek States separate? What bond of union was there between them?
- II. Sketch the character of Cyrus. Give an outline of the plan of Government he instituted after the capture of Babylon. What was the substance of his famous Edict mentioned in the Bible? What was the extent of the Persian Empire at his death?

III. Write a brief history of the Athenian Republic from the time of Solon to that of Darius I. What were the causes which led the Persians first to make war with Greece? What was the result of the first invasion?

IV. What were the reasons which led Xerxes to invade Greece? What preparations were made by the Greek States? What States held aloof from the contest? and why? What was the result of the battle of Mykale?

PART II—EUROPEAN HISTORY.

I. Write a short history of Macedonia from the time when it was first recognized as a Greek State till its conquest by the Romans.

II. State the causes which led to the destruction of the Roman Commonwealth and the establishment of the Empire.

III. Distinguish between Allodial and Feudal Tenure; and define according to the text-books the terms, Bretwalda, Guelf, Slave, and Emperor.

IV. Give an outline of the history of the Roman Empire during the reign of Justinian.

V. What is meant by, "The Holy League," "Triple alliance," "Diet of Worms" and "Treaty of Utrecht?"

VI. Assign events to the following dates:—B. C. 202, 27, A. D. 1096, 1453, 1538, 1613, 1814.

London Mission Institution, Vizagapatam.

Matriculation Class.

GENERAL ENGLISH.

I. Arrange the following into six lines of Iambic pentameter:—
If my erring soul has strayed from virtue's path, misled by the day's
illusive scenes; if some false delight has charmed my giddy sense
snared by example (and) warmed by passion, my calmer thoughts
reprove the wretched choice, and my best hopes are centred in
Thy love.

II. Give the full meaning of the prepositions in Italics:—(1.) He will be here *by* two o'clock. (2.) We sailed from Peru *for* China. (3.) This is *above* comprehension. (4.) *On* our part expect punctuality. (5.) *For* me, my stormy voyage is at an end.

III. Punctuate the following passage and describe and give the construction of the subordinate clauses in it:—

The gigantic machinery employed in pumping our mines working our mills and manufactures and driving our steamships and locomotives in like manner depends for its supply of power upon so slight an agency as little drops of water expanded by heat that familiar agency called steam which we see issuing from that common tea-kettle spout but which when pent up within an ingeniously contrived mechanism displays force equal to that of millions of horses and contains a power to rebuke the waves and set even the hurricane at defiance.

IV. Rewrite the following with the changes required :—

- (1) It is not the calling that degrades the man, but the man that degrades the calling (change the Active into the Passive Voice.)
- (2) Canst thou expect thou betrayer of innocence, to escape the hand of innocence? (Remove the Interrogation.)
- (3) Nothing is so opposite to the true enjoyment of life, as the relaxed and feeble state of an indolent mind. (Use first the comparative degree and secondly the superlative.)
- (4) The more a man speaks of himself, the less he likes to hear another talked of. (Begin the sentence with if.)
- (5) The gentle mind is like the smooth stream, which reflects every object in its just proportion and in its fairest colours. (Remove the figure.)

V. Correct the following, and give reasons for your answer :—

- (1) The deaf man whose ears were opened, and his tongue loosened, doubtless glorified God.
- (2) No human happiness is so complete, as does not contain some imperfection.
- (3) There can be no doubt but that the pleasures of the mind excel those of sense.
- (4) The tutor commends him for being more studious than any other pupils of the school.
- (5) One of the first, and the most common extreme in moral conduct, is placing all virtue in justice, or in generosity.

VI. Express the meaning of the following sentences in different ways :—without paraphrasing them

A wolf let into the sheepfold, will devour the sheep. He who lives always in the bustle of the world, lives in a perpetual welfare.

VII. (a.) How are nouns formed from verbs? Verbs from verbs, and adjectives from nouns?

(b.) Define augmentatives, and patronymics. Give examples.

(c.) Give the meaning of the suffixes and affixes in sweetheart, finish, paragraph, oppose, gainsay, malefactor, hypothesis, sedition, epitaph, lawyer, favourite.

VIII. Distinguish between sex and gender. What nouns have no gender? Give examples of masculines formed from feminines; and feminines formed from masculines by a change of termination.

IX. The parts of speech are not the names of classes of words taken by themselves, but of words as they are constructed in sentences.

Explain the statement, illustrating your answer, by the following words :—*but, that, taking, trouble, false, forge, contract.*

X. What difference in signification or usage is there in the following expressions :—*older and elder; bold and brave; drunk and drunken; weighty and heavy; stay; stop; he is gone and he has gone; he has died; and he is dead.*

XI. Write an essay on the advantages of Printing and Writing.

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Matriculation Class.

ENGLISH PROSE.

I. What peculiarities of style or diction do you find in Dickens' history? How far has the author succeeded in making this a *child's* history? Mention some of his other works.

II. Fill up the blanks with suitable words or phrases und underline them :—

By such means, and—taxing and oppressing the English people—every possible—The Red King became very rich. When he wanted money—any purpose, he raised it—some means—and cared nothing—the injustice he—, or the misery he—. Having the opportunity—buying—Robert the whole duchy—Normandy—five years, he taxed the English people more—and made the very convents sell their plate to supply him—the means to make—. But he was as quick and eager—putting down revolt as he was—raising money; for a part—the Norman people objecting to being sold—this—, he headed an army—them—all the speed and energy—his father.

III. When and where was the battle of Hastings fought? Describe the banners of the contending parties. What weapons were made use of in the battle and what were their battle cries?

IV. (a) Change into Indirect narration :—

FitzStephen said, "My liege, my father served your father all his life, upon the sea. He steered the ship with the golden boy upon the prow, in which your father sailed to conquer England. I beseech you to grant me the same office. I have a fair vessel in the harbour here, called the White Ship, manned by fifty sailors of renown. I pray you, sire, to let your servant have the honour of steering you in the White Ship to England."

"I am sorry, friend," replied the king, "that my vessel is already chosen, and that I cannot sail with the son of the man who served my father."

(b) Change into Direct narration :—

Becket defiantly replied to the knights that the power of the clergy was above the power of the king. That it was not for such men as they were, to threaten him. That if he were threatened by all the swords in England, he would never yield.

V. Distinguish between the italicized words in each sentence.

- (1) The *clash* and *din* resounded in the air.
- (2) The king could neither *soothe* nor *quell* the nation.
- (3) It was *sung* and *told* in *melancholy* songs and *doleful* stories.
- (4) The court began to *rob* and *plunder*.
- (5) *Shaken* and *tumbled* the body was driven in a cart.

VI. Describe the character of Rufus, William the Conqueror, Robert, and Henry I, by a few appropriate adjectives.

VII. (a) Give the primary and secondary meanings of :—*minstrels, estates, brave, humour, cheer.*

(b) What are the different meanings in which the following words are used :—*hold, charms, incense, note, plate.*

(c) Give the derivation of *carouse, pommel, maudlin, squander, errand.*

VIII. (a) When the horsemen rode against them with their battle-axes they cut men and horses down. (Punctuate this in two different ways, and give the meaning in each case.)

(b) The army fell upon them *with great slaughter* (expand the italicized portion into a clause.)

(c) In the—sunset and in the—moonlight (supply the epithets omitted.)

(d) Edgar himself was not important enough for anybody to care much about him (use *so.....as*).

(e) He made England a great grave (expand into a simile.)

(f) Count Eustace of Boulogne led the fray when the Dover man was slain at his own fireside. (Explain the allusion.)

IX. Explain the following:—(1) fire and sword worked their utmost horrors, (2) rue one's jests, (3) repented of his repentance, (4) made good cheer, (5) there was little to choose between the Priests and the Red King.

X. "Besides all these troubles, William the Conqueror was troubled by quarrels among his sons." Write a short account of these troubles.

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Matriculation Class.

GEOGRAPHY.

I. What do you know of the Saragossa Sea, Bores, Waterspouts, Region of Calms, the Geysers, Land-slips, Artesian wells.

II. Define an Ocean Current. What causes the ocean currents? "How do they tend to diffuse and equalize temperature?"

III. What are the distinctions between insular and excessive climates? In what manner do Icebergs assist in the moderation of climates?"

IV. Account fully for the following phenomena:—

1. The climate of Patagonia and the Falkland Islands is remarkably mild in winter.

2. Some springs are intermitting.

3. The Himalaya Mountains exhibit diversities of temperature on their opposite sides.

4. Clouds serve to indicate the position of islands.

5. "The wind goeth towards the south, and turneth about unto the north; it whirleth about continually, and the wind returneth again according to its circuits."

V. Name and describe the two Great Lake Regions of the world. What rivers take their source from them?

VI. What great projects are about to be undertaken in Africa and America? Mention some of the advantages that may follow from them.

VII. Draw a map of Australia, marking on it the present political divisions and the chief towns.

VIII. Name (1) the islands situated on the Equator.

(2) The latest formed town in Africa.

(3) The largest of the French Islands in the West Indies.

(4) The most northerly settlement in the world.

(5) The chief seat of the cotton manufacture in the United States.

IX. (1) Where do the following principally live:—

Bugis, Battas, Creoles, Esquimaux, Zulus, Hottentots, Dyaks.

(2) What is the meaning of Agulhas, Cairo, Buenos Ayres, Papua, and Vera Cruz. Where are these situated?

X. What are the exports of the United States, Brazil, New Guinea, Guiana and Mexico.

XI. Contrast the Physical features of South America with those of Africa.

S. P. G. School, Trichinopoly.

Matriculation Class.

PHYSICS.

I. Define the three states of matter mentioning the properties peculiar to each.

II. Define the Centre of Gravity of a body.

If a man sitting in one scale of a weighing machine, press with a stick against any point of the beam, between the point from which the scale is suspended and the fulcrum, will he appear to weigh more or to weigh less than his actual weight?

III. Define Specific Gravity.

(a) A piece of wood weighs 6 lbs. in air; a piece of lead which weighs 12 lbs. in water is fastened to it, and the two together weigh 10 lbs. in water. Find the specific gravity of the wood.

(b) Suppose a pound weight of a substance, twice as specifically heavy as water, to be hung into the water contained in a vessel, which is standing on a table, by a string not attached to the vessel; what would be the increase of pressure on the table?

IV. In a vessel not quite full of water, and closed at the top by a flexible membrane, a small glass balloon, open at the lower part, contains sufficient air just to make it float: explain the principle upon which the balloon sinks when the membrane is pushed in.

V. A piece of cork is attached by a string to the bottom of a bucket of water so as to be completely immersed and the bucket being placed in the scale of a balance is supported by a weight in the other scale. If the string be cut will the weight begin to rise or fall? State your reasons.

VI. Is it advantageous to a buyer of diamonds that the weighing of them should be made when the barometer is high or when it is low, supposing their specific gravity to be less than that of the substance used as the weight? Explain your answer.

VII. (a) Describe briefly the syphon and explain clearly its action. What will be the effect of making an aperture at any point in the leg outside the vessel below the level of the free surface of the water in the vessel? What will be the effect of making an aperture above this level in either leg? State your reasons.

(b) Find the limit to the height of the highest point of a syphon above the surface of water at a place where the mercurial barometer stands at 25 inches, the specific gravity of mercury being 13.58.

VIII. How is sound produced? The discharge of a pistol on Mount Everest does not produce such a noise as it does at the earth's surface. Explain this.

IX. Having given a certain temperature to be 58 degrees according to Fahrenheit's thermometer, find the number of degrees indicating it on DeLisle's thermometer where the space between boiling and freezing point is divided into 150 degrees and the boiling point is taken as the zero of the scale.

X. Define Force, Velocity, Density, Friction, Temperature and Volume.

ENGLISH.

Fifth Class.

I. Paraphrase:—

As Jupiter's all-seeing eye
Surveyed the worlds beneath the sky,
From this small speck of earth were sent
Murmurs and sounds of discontent:
For every thing alive complained,
That he the hardest life sustained.

- (a.) In the first line use the preposition 'of' for the possessive ending.
- (b.) Bring out clearly the force of 'of' in the third and fourth lines.
- (c.) Analyze the above passage, shewing the relation of the subordinate clauses to the principal.

II. Express as similes:—

- (1.) Gold sowed the world with every ill.
- (2.) Gold is the canker of the breast.

III. (a.) In what sense are the following words used in your text:—

- Swain, school, ancient, certain, bespoke, bound, while, rank, and close.
- (b.) Explain clearly:—
- (1.) To consume the midnight oil; wordy torrent; to glean morals from nature; the fleecy brood; the shaggy lord.
- (2.) The three Norman lions kept watch over the field.
- (3.) Who by that search shall wiser grow,
When we ourselves can never know?
- (4.) Our skin supplies the wrangling bar;
It wakes their slumbering sons to war.
- (5.) Even Virtue's self by knaves is made
A cloak to carry on the trade.

IV. Notice any peculiarities in:—

- (1.) Nor envy nor ambition knew.
- (2.) Can grave and formal pass for wise?
- (3.) Upon either side of him sat Bhishma and Arjuna, upon golden carpets.
- (4.) 'Tis gold instructed coward hearts
In treachery's more pernicious arts.

V. (a.) What morals does the shepherd draw from the bee, the ant, the dog, the dove, the hen, the pie, the wolf and the serpent?

- (b.) Give in your own words the reply of Plutus to the miser.

VI. Supply the ellipsis in each of the following:—

- (1.) But envy, calumny and spite
Bear stronger venom in their bite.

- (2.) What, silent all, and none consent?

- (3.) The English cared no more for the showers of Norman arrows than if they had been showers of Norman rain.

VII. What is the usual order of an English sentence? Note exceptions to the general rule. Put the following passage in prose order and explain the allusion contained in it:—

Or, like the wise Ulysses thrown
By various fates on realms unknown,
Hast thou through many cities strayed,
Their customs, laws, and manners weighed?

VIII. Expand the italicized phrases into clauses:—

- (1.) *With the first dawn of day*, they arose.
- (2.) I have also seen a horse and a pig associate together,
for want of any other companions.
- (3.) Heaven gives you power *to succour the distressed.*
- (4.) From nature, too, I take my rule
To shun contempt and ridicule.
- (5.) And thus explored *his reach of thought.*

IX. Parse fully the words in italics:—

- (1.) They walked *one* on each side.
- (2.) Jove bids *disperse* the murmuring crowd.
- (3.) Heaps upon heaps of dead men lay strewn, a dreadful
spectacle, all over the ground.

X. The pigeon strength of wing despised.

- (a.) For 'despise' substitute laugh, care, scorn, look, slight, making the other necessary changes.
- (b.) Form four sentences introducing 'now that,' 'so that,' 'such that,' and 'in order that.'

XI. Rewrite according to the directions given below:—

- (1.) Beneath these jaws what numbers fell! (Using the indicative form.)
- (2.) Nor imitate the restless mind of mankind. (Using 'not' for 'nor'.)
- (3.) Listen not to him, for he has spoken falsehoods. (Using the passive voice.)
- (4.) He is the cleverest boy in the class. (Using the positive degree.)
- (5.) I cannot discover what advantage you have derived from committing such crimes. (Beginning with 'it'.)

XII. Correct, referring to the rules of grammar:—

- (1.) He told me that he will cure me from the disease if I shall promise to attend his directions much carefully.
- (2.) English are gradually colonizing Australia since the last fifty years.
- (3.) I am suffering by the fever, therefore don't get angry upon me and grant leave.

ARITHMETIC AND ALGEBRA.

(Questions and Solutions.)

I. A and B set out from the same place, at the same time and in the same direction. A travels uniformly 18 miles per day, and after 9 days turns and goes back as far as B has travelled during those 9 days; he then turns again, and pursuing his journey overtakes B at the end of $22\frac{1}{2}$ days after the time they first set out. Find B's rate of walking.

II. A and B start from P and Q, the opposite extremities of a road, and after travelling for 10 hours, meet each other at a place M 50 miles nearer to Q than to P. They resume their journey and arrive at Q and P in $7\frac{1}{2}$ and $13\frac{1}{2}$ hours respectively. Find the distance between P and Q and the rates of travelling of A and B.

III. A train leaves Madras for Salem and going $\frac{1}{4}$ of the distance safe, meets with an accident, and then proceeds with $\frac{3}{4}$ of its former velocity and reaches Salem $2\frac{1}{2}$ hours late. Had the train started an hour earlier, and the accident happening 30 miles farther on, it travelled with $\frac{2}{3}$ of its original rate, it would have arrived 2 hours sooner. Find the distance and the rate of the train.

IV. I left home between 2 and 3 and on my return between 5 and 6, the hands of my watch had exactly changed places. Calculate the hour of my return.

V. A can do as much work in 17 days as B, C, and D together in 4 days; B can do as much in 7 days as A, C, and D together in 3 days, and C can do as much in 13 days, as B and D together in 7 days. How long will it take A, B, and C together to do what D could alone perform in 65 days?

VI. A room is 21 feet long, 15 feet 6 inches wide, 10 feet high; it contains 3 windows, the recesses of which reach to the ceiling, and are 4 feet 6 inches wide; there are in it 4 doors, each 6 feet 6 inches high and 3 feet 3 inches wide; the fire-place is 6 feet wide and 4 feet high; a skirting 1 foot 8 inches deep runs round the walls; find the expense of papering the room at 9d. a square yard.

VII. Show that

$$\left(\frac{x}{a} + \frac{a}{x}\right)^2 \left(\frac{x^2}{a^2} + \frac{a^2}{x^2}\right) = \left(\frac{x}{a} + 1 + \frac{a}{x}\right)^2 \left(\frac{x}{a} - 1 + \frac{a}{x}\right)^2 - 1.$$

VIII. Simplify

$$\frac{\frac{a(2x-a)}{x-a} + \frac{b(2c-b)}{a-b} + \frac{c(2b-c)}{b-c} + \frac{x(2c-x)}{c-x}}{\frac{a^2}{a-b} + \frac{b^2}{b-c} + \frac{c}{c-x} + \frac{x^2}{x-a}}$$

IX. If $ad = bc$, prove that

$$(a^n + b^n + c^n + d^n)(a + b + c + d)^n = \{ (a + b)^n + (c + d)^n \} \{ (a + c)^n + (b + d)^n \}$$

X. Solve the equation:—

$$\frac{a+c}{2} (1+x) - x = \sqrt{(a+cx-x)(c+ax-x)}$$

Solutions.

I. A walks in 1 day 18 miles

$\therefore 22\frac{1}{2}$ days 405 miles.

Now, by the question,

405 miles = The distance walked by B in $22\frac{1}{2}$ days.

+ The distance walked by B in 18 days.

= The distance walked by B in $40\frac{1}{2}$ days.

Now, B walks in $40\frac{1}{2}$ or $\frac{81}{2}$ days 405 miles.

$\therefore 1$ day 10 miles.

$\therefore$ B's rate of walking = 10 miles per day.

II.

M
P ————— Q

A travels P M or Q M + 50 miles in 10 hours.

Also, A travels Q M in $7\frac{1}{2}$ hours.

$\therefore$ A travels 50 miles in $2\frac{1}{2}$ hours.

$\therefore$ A travels in 1 hour $\frac{50 \times 2}{5}$ or 20 miles.

Again,

A travels in 1 hour 20 miles.

$\therefore 17\frac{1}{2}$ hours 350 miles.

$\therefore$ P Q = 350 miles.

Again,

B travels in $(10 + 13\frac{1}{2})$ or $\frac{70}{3}$ hours P Q or 350 miles.

$\therefore 1$ hour 15 miles.

$\therefore$ A's rate of walking = 20 miles per hour.

B's = 15 miles per hour.

P Q = 350 miles.

III.

G D
M ————— S

Let C and D represent the places where the accidents occur. Then MC = $\frac{1}{4}$ of the whole distance and CD = 30 miles.

In the first case, the train is $2\frac{1}{2}$ hours late.

In the second case, the train is $1\frac{1}{2}$ hours late.

Now,

At the usual rate, the train travels C S in a certain time (T)

$\therefore$ At $\frac{2}{3}$ $\therefore \frac{2}{3}T - T$ or $\frac{1}{3}T = 2\frac{1}{2}$ hours. $\frac{2}{3}T$

$\therefore \frac{2}{3}T - T$ or $\frac{1}{3}T = 2\frac{1}{2}$ hours.

$\therefore T = 7\frac{1}{2}$ hours.

Time taken to travel $\frac{3}{4}$ of whole distance at the usual rate = $7\frac{1}{2}$ hours.

∴ the whole distance MS at the usual rate = 10 hours.

Again,

At the usual rate, the train travels DS in a certain time (T)

$$\therefore \frac{1}{3} T - T \text{ or } \frac{1}{3} T = 1\frac{1}{2} \text{ hours.}$$

$$\therefore T = 6 \text{ hours.}$$

Now,

At the usual rate, the train travels MS in 10 hours.

MC in $2\frac{1}{2}$ hours.

DS in 6 hours,

30 miles in $1\frac{1}{2}$ hours.

∴ The usual rate of the train = 20 miles per hour.

∴ MS = (10×20) miles = 200 miles.

IV.

Let M and H represent the minute hand and the hour hand respectively. Let A and B represent the positions of the hands, when I left home.

When I return, H has passed over the space AB and M has passed over 2 rounds + (1 round - AB) = 3 rounds - AB = $180^\circ - AB$.

Now,

When H passes over 5 minute divisions, M passes over 60 minute divisions.

$$\therefore \begin{array}{l} 1 \\ AB \end{array} \quad \begin{array}{l} 12 \\ 12 AB. \end{array}$$

$$\therefore 12 AB = 180^\circ - AB.$$

$$\therefore 13 AB = 180^\circ$$

$$\therefore AB = \left(\frac{180}{13} \right)^\circ$$

On my return H is at B and M is at A, that is, M is $\left(\frac{180}{13} \right)^\circ$ in advance of H.

Now,

At 5 o'clock, the distance between M and H = 25 minute divisions

∴ The distance gained by M over H

$$= \left(25 - \frac{180}{13} \right)^\circ = \left(\frac{145}{13} \right)^\circ$$

Again,

M gains (60 - 5) or 55' over H in 1 hour or 60'.

$$\therefore \begin{array}{l} 1' \\ \left(\frac{145}{13} \right)^\circ \end{array} \quad \begin{array}{l} \left(\frac{12}{11} \right)' \\ \left(\frac{1740}{143} \right)' \end{array} = 12 \frac{24}{143}.$$

$$\therefore \text{Time required} = 12 \frac{24}{143} \text{ past 5.}$$

V.

A's work in 17 days = (B's + C's + D's) work in 4 days.....(1)

B's work in 7 days = (A's + C's + D's) work in 3 days.....(2)

C's work in 13 days = (B's + D's) work in 7 days.....(3)

From (1),

(C's + D's) work in 4 days = A's work in 17 days - B's work in 4 days.

∴ (C's + D's) work in 1 day = A's work in $\frac{17}{4}$ days - B's work in 1 day.

From (2),

(C's + D's) work in 3 days = B's work in 7 days - A's work in 3 days.

∴ (C's + D's) work in 1 day = B's work in $\frac{7}{3}$ days - A's work in 1 day.

∴ A's work in $\frac{17}{4}$ days - B's work in 1 day = B's work in $\frac{7}{3}$ days - A's work in 1 day.

∴ A's work in $\frac{17}{4}$ days = B's work in $\frac{7}{3}$ days.

∴ A's work in 1 day = B's work in $\frac{4}{3}$ days.....(4)

Again,

B's work in 7 days = (A's + C's + D's) work in 3 days.

∴ B's work in 7 days = (C's + D's) work in 3 days + B's work in $\frac{4}{3}$ days.

∴ B's work in $\frac{7}{3}$ days = (C's + D's) work in 3 days.

∴ B's work in 1 day = (C's + D's) work in $\frac{9}{10}$ days.

Again,

(B's + D's) work in 7 days = C's work in 13 days.

∴ B's work in 7 days = C's work in 13 days - D's work in 7 days.

∴ B's work in 1 day = C's work in $\frac{13}{7}$ days - D's work in 1 day.

∴ (C's + D's) work in $\frac{9}{10}$ days = C's work in $\frac{13}{7}$ days - D's work in 1 day.

∴ D's work in $\frac{17}{10}$ days = C's work in $\frac{22}{5}$ days.

∴ C's work in 1 day = D's work in $\frac{11}{5}$ days.....(5)

Now, B's work in 1 day = (C's + D's) work in $\frac{9}{10}$ days.

= D's work in $\frac{12}{5}$ days.

A's work in 1 day = B's work in $\frac{4}{3}$ days.

= D's work in $\frac{8}{5}$ days.

∴ (A's + B's + C's) work in 1 day = D's work in $\left(\frac{8}{5} + \frac{12}{5} + \frac{11}{5} \right)$ days.

= D's work in $\frac{31}{5}$ days.

Now,

What D can do in $\frac{31}{5}$ days, A + B + C can do in 1 day.

∴ 1 day,

$\frac{12}{5}$

∴ 65 days,

19 days.

∴ Time required = 19 days.

VI. Area of the 4 walls = $2H(L + B)$

$$= 20(21 + 15\frac{1}{2}) \text{ sq. ft.}$$

$$= 700 \text{ sq. ft.}$$

Area of the 3 windows = $(3 \times 10 \times 4\frac{1}{2}) \text{ sq. ft.}$

$$= 135 \text{ sq. ft.}$$

Area of the 4 doors = $(4 \times 6\frac{1}{2} \times 3\frac{1}{2}) \text{ sq. ft.}$

$$= 169 \text{ sq. ft.}$$

Area of the fire-place = $(6 \times 4) \text{ sq. ft.} = 24 \text{ sq. ft.}$

Area of the skirting

$$= 1\frac{1}{2} \{ 2(21 + 15\frac{1}{2}) - 3 \times 4\frac{1}{2} - 4 \times 3\frac{1}{2} - 6 \} \text{ sq. ft.}$$

$$= 13\frac{1}{2} \text{ sq. ft.}$$

$\therefore$ Area to be papered.

$$= \{ 730 - (135 + 169 + 24 + 13\frac{1}{2}) \} \text{ sq. ft.}$$

$$= 419 \text{ sq. yards.}$$

Now,

Cost of papering 1 sq. yd. = £ $\frac{5}{80}$

$\therefore$ $419 \text{ sq. yds.} = £\frac{419 \times 5}{80}$

$$= £11.14.11.$$

VII. Given Expression

$$= \left(\frac{x}{a} + \frac{a}{x} \right) \cdot \left(\frac{x^2}{a^2} + \frac{a^2}{x^2} \right)$$

$$= \left(\frac{x^2}{a^2} + \frac{a^2}{x^2} + 2 \right) \left(\frac{x^2}{a^2} + \frac{a^2}{x^2} \right)$$

$$= \left(\frac{x^2}{a^2} + \frac{a^2}{x^2} + 1 + 1 \right) \left(\frac{x^2}{a^2} + \frac{a^2}{x^2} + 1 - 1 \right)$$

$$= \left(\frac{x^2}{a^2} + \frac{a^2}{x^2} + 1 \right)^2 - 1$$

$$= \left(\frac{x^2}{a^2} + \frac{a^2}{x^2} + 2 - 1 \right)^2 - 1$$

$$= \left\{ \left(\frac{x}{a} + \frac{a}{x} \right)^2 - 1 \right\}^2 - 1$$

$$= \left\{ \left(\frac{x}{a} + \frac{a}{x} + 1 \right) \left(\frac{x}{a} + \frac{a}{x} - 1 \right) \right\}^2 - 1$$

$$= \left(\frac{x}{a} + \frac{a}{x} + 1 \right)^2 \left(\frac{x}{a} + \frac{a}{x} - 1 \right)^2 - 1$$

VIII. Numerator

$$= \frac{a(2x-a)}{x-a} + \frac{b(2a-b)}{a-b} + \frac{c(2b-c)}{b-c} + \frac{x(2c-x)}{c-x}$$

$$= \frac{ax + a(x-a)}{x-a} + \frac{ab + b(a-b)}{a-b} + \frac{bc + c(b-c)}{b-c}$$

$$+ \frac{cx + x(c-x)}{c-x}$$

$$= \frac{ax}{x-a} + a + \frac{ab}{a-b} + b + \frac{bc}{b-c} + c + \frac{cx}{c-x} + x$$

$$= \left(\frac{ax}{x-a} + a \right) + \left(\frac{ab}{a-b} + a \right) + \left(\frac{bc}{b-c} + b \right) + \left(\frac{cx}{c-x} + c \right)$$

$$= \frac{x^2}{x-a} + \frac{a^2}{a-b} + \frac{b^2}{b-c} + \frac{c^2}{c-x}$$

$$= \frac{a^2}{a-b} + \frac{b^2}{b-c} + \frac{c^2}{c-x} + \frac{x^2}{x-a}$$

$$\therefore \text{ Given Expression} = \frac{\frac{a^2}{a-b} + \frac{b^2}{b-c} + \frac{c^2}{c-x} + \frac{x^2}{x-a}}{\frac{a^2}{a-b} + \frac{b^2}{b-c} + \frac{c^2}{c-x} + \frac{x^2}{x-a}} = 1$$

IX. Given Expression.

$$= (a^n + b^n + c^n + d^n)(a + b + c + d)^n$$

$$= a^n(a + b + c + d)^n + b^n(a + b + c + d)^n + c^n(a + b + c + d)^n + d^n(a + b + c + d)^n$$

$$= (a^2 + ab + ac + ad)^n + (ab + b^2 + bc + bd)^n + (ac + bc + c^2 + cd)^n + (ad + bd + cd + d^2)^n$$

$$= (a^2 + ab + ac + bc)^n + (ab + b^2 + ad + bd)^n + (ac + ad + c^2 + cd)^n + (bc + bd + cd + d^2)^n$$

$$= \{ (a+c)(a+b) \}^n + \{ (a+b)(b+d) \}^n + \{ (c+d)(a+c) \}^n + \{ (c+d)(b+d) \}^n$$

$$= (a+b)^n \{ (a+c)^n + (b+d)^n \} + (c+d)^n \{ (a+c)^n + (b+d)^n \}$$

$$= \{ (a+b)^n + (c+d)^n \} \{ (a+c)^n + (b+d)^n \}$$

Q. E. D.

$$X. \quad \frac{a+c}{2}(1+x) - x = \sqrt{(a+cx-x)(c+ax-x)}$$

$$\text{or } (a+c)(1+x) - 2x = 2 \sqrt{(a+cx-x)(c+ax-x)}$$

$$\text{or } a + cx + c + ax - 2x = 2 \sqrt{(a+cx-x)(c+ax-x)}$$

$$\text{or } (a+cx-x) + (c+ax-x) - 2 \sqrt{(a+cx-x)(c+ax-x)} = 0$$

$$\text{or } (\sqrt{a+cx-x} - \sqrt{c+ax-x})^2 = 0$$

$$\text{or } \sqrt{a+cx-x} - \sqrt{c+ax-x} = 0$$

$$\text{or } \sqrt{a+cx-x} = \sqrt{c+ax-x}$$

Squaring both sides, $a + cx - x = c + ax - x$

$$\therefore x(c-a) = c-a \quad \therefore x = 1.$$

HOW TO WRITE ENGLISH.

(Continued from page 331.)

Some specimens of style—and some very different ones in all respects were given in my last article, which was of course designed as an introductory one to the whole subject, and was therefore rather discursive: most readable papers are so. It would be very easy to methodise this series of articles, by means of the usual process of classification, and divisions and sub-divisions. This is the mechanism of treatises; and it has its uses, greater or less, according to the subject matter. It, however, rarely conduces to the interest of the reader. Now this subject of *How to write English* does not seem to me to require classification much. I am doubtful whether a disregard of it altogether may not aid my object, and impress what I wish to say more strongly and lastingly on the reader's mind. If so, it will chime with the general aim of those who now govern and support this *Journal*; namely, that of bringing down knowledge to the level of ordinary apprehension, and as far as possible adapting it to popular taste. Nothing is so injurious to education as distasteful modes of imparting it; nothing so helpful* to ignorance as the untoward vehicles of knowledge. By the set phraseology and stiff didactic wisdom in even sensible educational essays and articles and books which abound just now, and always have abounded, more or less, since teaching came into fashion, it happens that much knowledge escapes men, which, if more pleasantly strewn before them, they would more readily take. A vast deal of information is also wasted by the diffuseness of books, and their much verbiage, as well as prolixity of exposition and manifold repetitions; so that Lord Bacon's advice is far more to be followed now than even in his own time, when writers wrote more tersely, and were not, as now, paid for the quantity they enabled the publisher to make the public buy. "Some books," said Bacon, "are to be tasted, others to be swallowed, and some few to be chewed and digested." Very few are worth this latter process now-a-days certainly. The multiplication of books is an evil as well as a benefit. As no one can, even on a given subject, read all books, a skimming of them ensues, which often grows into a bad habit of superficial reading.

Before citing more specimens of style in latter times, I would fain supply an early one that I accidentally before omitted. It is that of Chaucer's prose. Now though Chaucer was truly a poet, he was also a great pattern of style. And that was the reason why he was and is, after nearly four centuries, so eminently famed as a poet. His descriptions are so admirably terse, truthful, and life-like. He dealt out his vivid impressions of what he saw or heard in such simple and vigorous words, and in sentences so Saxon in mould and expression, that it is no wonder he won the English heart and taste of his times. It was his triumph to raise the mother tongue out of the disesteem into which the Conquest cast it, with its long-lived sequel of foreign fashions. By making the rugged national language

* I think it probable that this word is not in Todd's Johnson; I cannot tell and do not care. I and some more writers intend to use a few new words; if they signify their meaning plainly, and are otherwise useful and needful, good grammarians will forgive and peradventure assist their adoption.

the vehicle (as has been well said) of his graphic and minute descriptions, his playful fancies, his tender and kindly thoughts, Chaucer not only struggled successfully with and greatly improved the elements of a tough half-formed language, but he enshrined its best parts and handed them down to become, as they now are, the strongest materials of our modern English, and the back-bone of its frame-work. He laid the basis of a national literature. A little modernised, here is an extract of his descriptive prologue to the *Canterbury Tales* :—

There was also in our company a nun, a Prioress called Madame Eglantine, a demure and simply smiling lady, whose sharpest speech was "By Saint Eloy!" She could chant by heart the whole of the divine service, sweetly twanging it through her nose. She was mistress of the French language, as it is spoken at the school of Stratford-le-Bow; but the French of Paris was to her unknown. Her conduct at meals was precisely well-bred and delicate, all her anxiety being to display a courteous and stately deportment, and to be regarded in return with esteem and reverence. So charitable and piteous was her nature, that a dead or bleeding mouse in a trap would wring her heart. She kept several little dogs, which were pampered on roast meat, milk, and the finest bread. Bitterly would she take on if one were ill-used or dead; in short, she was all conscience and tender heart.

To speak of her features, her nose was long but well shaped, her eyes light and grey as glass, her mouth delicately small, soft and red, and her forehead fair and broad. For dress she wore a neatly made cloak and a carefully crimped neckerchief: on her arms a pair of beads of small coral, garnished with green, from which depended a handsome gold brooch, with a great A engraved upon it, and underneath the motto—"Amor vincit omnia."

Here is another picture :—

A sergeant at law, cautious and shrewd, who had often been at consultation, was there also. A prudent and deferential man; he had been frequently appointed justice of assize, by patent and commission. Many were the fees and robes with which he had been presented, on account of his great legal knowledge and renown. There was no purchaser like him, and his dealings were above suspicion. He was the busiest of men, and yet he seemed more busy than he was. He had at his fingers' ends all the terms, cases, and judgments from the time of the Conquest, and in his indictments the man was clever that could detect a flaw; he knew all the statutes by heart. He rode in a plain coat of mixed cloth, fastened with a narrow striped silken girdle.

A country gentleman, commonly called a Franklin, was in our company. He had a fresh coloured rosy face, and a beard as white as a daisy. A sop in wine was his favourite morning beverage; for he was a true son of Epicurus, believing that the most perfect happiness consisted in perfect enjoyments. He possessed a noble mansion, and was the most hospitable of entertainers. He dined at quality hours—always after one o'clock, and so plenteously stored was his table that his house may be said to have snowed meat and drink, fish, flesh, and fowl; and of these the daintiest. His suppers were furnished according to the season. Many a fat partridge had he in his preserve; and stewed bream or pike was a common dish at his board. Ill befell his cook if the sauce were too pungent, or the dinner not punctually served. He kept open house, and the dining table in hall remained covered the whole day.

He had been at several times justice of the peace, sheriff, steward of the hundred court, and knight of the shire. Among all the country gentlemen

round there was not his compeer. At his girdle, which was as white as morning milk, hung a dagger and a silken purse.

There is scarcely a living writer, after all the fresh light and experience of the intervening ages—who could paint portraits so perfect or vivid as these in as few words. The force of this style is derived from its extreme simplicity. If there were the least effort for effect, the smallest search for fine expressing or ornament in figure or phrase, the virtue of this writing and its point and nerve would be seriously damaged. The power of this simplicity of style is wonderfully great; few ever achieve it. Even Cobbett, who was among the greatest of English classics who ever wrote, sometimes erred in using too many expletives. He fell into this mistake, perhaps, by passion. He so frequently wrote abusively and dealt in invectives, seldom omitting an epithet of contempt or denunciation which was likely to hit its mark, that he insensibly used more adjectives and expletives than he needed. Perhaps I may afterwards give examples, for Cobbett furnished both useful rules and serviceable models.

I wish the student to observe carefully, not only the shortness of the sentences and the aptness and fewness of the words in these extracts from Chaucer, but also the admirable skill with which they are put together.

In the last paragraph see how much precision of meaning is secured by the placing as well as use of the three words "at several times." Most writers would have said "several times." If so, it would have been doubtful whether the lawyer had filled these offices together or separately; the word "at" prevents the doubt; he held them separately as well as severally. Many would have placed these words at the end of the sentence, and then it would have been doubtful whether he was merely knight of the shire several times, or that he several times held all these offices. By placing the words before them ambiguity is obviated. Let this be noted as one of the many features of a good style, namely, to express one's meaning without possibility of misapprehension.

The description of the bounteous board kept by the Franklin is inimitable. "And of these the daintiest;" also, "Ill befell his cook if the sauce were too pungent," &c. What racy lively modes of saying what would be trite enough if tamely expressed. No rules can be laid down for these and such like modes of phrase. It requires a lively fancy to excel in this knack of expression. The words are choice, without being far-fetched or pedantic. "There was not his compeer." How well this sounds, and how much better than his "equal" is the word "compeer." Oftentimes these well chosen words, if they lie a little out of the common track, give great zest to what one writes; they are the condiments of style. The description of the sergeant at law so shrewd and cautious—"a prudent and deferential man," is also excellently given, and conveys much historical information as well as the description of the individual. The demure and simply smiling Prioress, the Lady Eglantine—by Saint Eloy! how well she may be painted from those few truly graphic words, that so well tell us of her modest virtues and comely graces. These be indeed models of style, the more remarkably excellent because Chaucer had no pattern to imitate; though he has set one to each succeeding generation of imaginative writers, who

would be sadly off if bereft of all the aid they have gained from his and many other good old models.

One great cause of confusion in style is that which arises from not sufficiently considering what is the antecedent in a sentence, and what the predicate.

"Among the innumerable historical authors (writes Johnson in the Rambler) who fill every nation with accounts of their ancestors, or undertake to transmit to futurity the events of their own time, the greater part, when fashion and novelty have ceased to recommend them, are of no other use than chronological memorials which necessity may sometimes require to be consulted."

Now "the authors" are the antecedents to "their ancestors," and yet Johnson never meant to say so. He meant those of the nation, but the word "their" does not apply to a noun of multitude such as nation. What arrant nonsense it would be to write "the nation forfeited *their* right!" The second word "their" does refer to authors, and thus makes the meaning more obscure than before. Then we have the word "than" as applying to its antecedent "greater part," which many people would suppose referred to "events," or forwards to the "chronological memorials" which follow after. In fact the words "of these authors" are needed after "greater part," to shew the reference to them. All this sad confusion would have been avoided by a simplification of the sentence, thus:—

"The greater part of the authors' works which fill a nation with accounts of its ancestors, or record the events of the time in which they were written, are of no other use, when fashion and novelty have ceased to recommend them, than that of chronological memorials which it may be necessary to consult."

At least I guess this to have been Johnson's meaning.

Here is another bad sentence, also from Johnson:—

"I asked the question with no other intention than to set the gentleman free from the necessity of silence, and give him an opportunity of mingling on equal terms with a polite assembly, from which, *however uneasy*, he could not then *escape*, by a kind introduction of the only subject on which I believed him to be able to speak with propriety."

Cobbett says of this:—"This a very bad sentence altogether. 'However uneasy' applies to *assembly* and not to *gentleman*. Only observe how easily this might have been avoided. 'From which *he however uneasy*, could not then *escape*.' After this we have 'he could not then *escape*, by a *kind introduction*.' We know what is meant, but the Doctor, with all his *commas*, leaves the sentence confused. Let us see whether we cannot make it clear:—

'I asked the question with no other intention than, by a kind introduction of the only subject on which I believed him to be able to speak with propriety, to set the gentleman free from the necessity of silence, and to give him an opportunity of mingling on equal terms with a polite assembly, from which he, however uneasy, could not then escape.'

Let us see if we cannot improve on this improvement by simply transposing the different parts of the sentence; for though Cobbett has now rescued it from ambiguity, he leaves it still awkwardly worded; and it is seldom desirable to place the antecedent after its pronoun: the pronoun 'him' precedes the antecedent 'gentleman.' Sometimes this is an elegant mode of inversion, but here it has the

bad effect of increasing the difficulty of making clear one of Johnson's lengthy sentences. In the first place the pleonasm of "no other intention" should be absconded. Everything that need be expressed may be thus worded:—"I asked the question solely in order to introduce the only subject on which I believed the gentleman able to speak with propriety, and to enable him to converse on equal terms with a polite assembly, from which he could not then escape; however uneasy he might be."

(To be continued.)

THE KINDERGARTEN SYSTEM.

(Concluded from page 335).

To sum up:—

1. I claim for the Child-garden System the credit of being the best preparation for schools, even as they at present stand. Whatever may be the system, or want of system, upon which children are educated after their seventh year, they must be the better for having been *naturally* trained up to that time. In the Kindergarten their senses have been trained; they can use their fingers deftly; they have been used to observe and examine; Knowledge has always been a pleasure to them, therefore they do not set out with any dislike for lessons and school work; their future teachers find a prepared soil in their minds, and the requirements of Discipline have also been prepared for, by habits of cheerful Obedience and order and Neatness. Though reading and writing do not strictly belong to the Kindergarten, there is, in this country, most obvious reason for letting the transition be made under Kindergarten teachers. No part of teaching (School, proper) probably is more difficult than the teaching to read and write, when wrongly done. The German plan of learning to Read, Write, and Draw at once, is eminently Froebelian, and it has been, with perfect success, applied to the English language. This plan, when properly carried out, thoroughly interests the children. It is often said that children must, at school, be taught to do what they do not like; as they will, at school, and yet more in life, be compelled to do what they do not like. Quite true; and if children, trained in Kindergarten or anywhere else, have not learned to do what they *individually*, with their lower self, would not *choose*, they have been trained to no purpose. But surely it is not necessary to find out distasteful things to do. To do *what one enjoys* very well, with great pains, requires self-conquest, and perhaps answers better in the end than trying to make children do what they cannot like. This training *must* make the children most ready for schools, even as they are, and we have the evidence of experienced teachers that Kindergarten children are the best grounded and prepared.

2. Being the best preparation for other schools, Kindergarten would seem to establish its right to the place which is usually conceded to it by those who view it with any favour; that it is the best "Infant School." The gifts, the games, the songs, the omission of all harshness, the entirely gentle and loving treatment, the atmosphere of happiness which pervades the true Child-garden, speaks to every human heart as the true educational "milk for babes." We feel this is the system for the *poor*; for children whose lives are not

so bright, and sweet, and happy with ease, comfort, beauty, as we would have all children's lives to be. It may be doubted whether the Kingdom of Heaven will be realized upon Earth anywhere so well as by putting our gutter children into Kindergarten. But the children of the *rich* are often left to hirelings, "whose own the sheep are not," and what training that is need not be specified. True Kindergarten-enthusiasts say that this training to play and work with others—social training under careful superintendence, learning bodily aptitudes, quickness of sense, skill of hand—not only preparing the intellect for all future work, practising faculties of form and number, but learning the true life-lesson, *to live together*, to yield the will, give others their share, take your place, work for the whole,—is just as good for *rich* as for *poor*.

3. Froebel's system, as thought out by himself, meant a Reform of Education *throughout*; and the Kindergarten was the first storey of the building. Had he lived, he might have arranged methods for the second seven years of life, as skilfully as he has done for the first. His great aim, as realized in the Kindergarten, the harmonious development of the whole nature in each one, is manifestly the purpose of all education, to the end of life. Some of us are endeavouring to carry out his ideas in that second period of seven years which closes childhood and ends in youth. His motto of method, "Do and you will know," or "Learn by working," may be seen to apply (if one will think) to that age when, usually at present, from the imperious necessity of bodily exercise, Play is turned into Work. Athletics are made idols, and every conceivable exertion of body is cultivated and desired, provided only it be not useful, provided only it do not produce anything! The natural check upon the Play-mania of the day may be found in Carpentry and Field-work, which, when fairly tried, are just as refreshing as play, and more interesting. The order of acquirement—Impressions first, then Ideas, last Words—may make some havoc in our established plans of education, whereby when there is something worthy to be known we say "Go to, let us teach it to our children," and we swoop down upon them with Grammars and Dictionaries, Pinnock's Catechism, and books of all sorts, suited to every Standard up to the *uth*: but if we do find that forcing does no good: that human plants can only grow according to law, and bear fruit in season, so that many things we now teach early will be begun late, and some now taught will be left to them later to learn—this is at once Froebel and human Nature!

The University of Calcutta v. The University of Cambridge.—An Indian Newspaper in a controversial article on the subject of Education, has the following:—"We now approach our second correspondent (anonymous) who would have been a little more worthy of our respect, had he, before he had the effrontery to charge us with falsehood and ignorance, looked a little nearer home. For though it may be part and parcel of rhetorical chicanery to create a diversion by impugning the veracity of your opponent, yet the artifice, once exposed, serves only to strengthen the cause of truth! He says that we have the impudence to assert that 'honours' may be bought at the Universities at home; and adds that it is of course false. But let us look at our words which he thus falsely interprets. 'It happens not to be unknown that University honours can not only be

had almost as cheaply as from any hungry German University, but that they may, after the ninth term, be run down, fox-like, after a three years' chase, &c. Surely our correspondent, who speaks with such an air of authority, should have known that even a German degree is not to be had for the coin alone; nor can an English degree be had without it: £12 and £25 at Cambridge, being respectively the fees for the B.A. and M.A. degrees. The German test is only somewhat easier, and what the Cambridge test is our readers may judge for themselves on information volunteered by a Cambridge B.A., himself an honor-man. 'Students who intend to graduate in classical honours are required to take mathematical honours in *Little Go*, and *vice versa* for those graduating in mathematical honours.' And as to what a Cambridge M.A. degree means, our readers may further learn on the authority of a Cambridge M.A., a gentleman who has taken honours in classics; but who is wholly innocent of mathematics. 'The M.A. degree, on its attainment, means simply that you are three years older than you were.' In other words, any one not a natural, and who can pass one or two preliminary examinations, just to show that he is pretty well up in classics or mathematics—not in both—becomes six years after he has been at the University, *ipso facto*, an M.A. How unlike the cheap yet Draconic code of the Calcutta University, which, while it gives you a B.A. degree for twenty rupees, exacts a competent knowledge of all the subjects of examination. And when we add that from among these English University men, our Colleges cannot afford to get any but the worst specimens of their type, our readers will be better able to judge of what we mean. Have we not said enough? Shall we yet go on to summon the 'sons of wealth and pride' who have obtained honorary degrees without satisfying any test?"

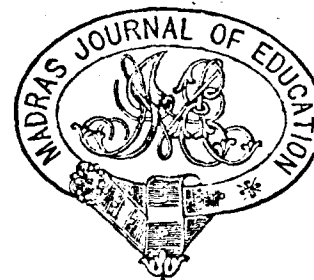
APPOINTMENTS.

Appointments made by the Director of Public Instruction, between the 16th August and 15th September 1879.

M. Singaravelu Mudelliar, Deputy Inspector of Schools, Bellary, to be Deputy Inspector, Gooty and Pennukondah Circles on Rs. 100.

T. Somasundra Row, Acting Deputy Inspector, Gooty and Pennukondah Circles to be Deputy Inspector Bellary Circle on Rs. 80.

M. Ramasawmy Iyer, to be Acting Head Master Government High School, Cannanore on Rs. 85.



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THE MONTH.

THROUGHOUT the Presidency, Teachers are at present sorely exercised by the late orders making the new Upper and Lower Primary, and the new Middle School Examination not only compulsory, but forcing them on at once in December and January next. If the courses of study pursued in all the Schools of the Presidency exactly coincided with the courses laid down in the new schemes, even then a year's previous notice might be reasonably expected. But in very many cases, the portions studied do not so correspond. Thus, with regard to the Upper Primary Examination, instead of the Geography of Asia, one school has studied Europe, and another America, during the year. Instead of the period of Indian History embraced in Chapters IV to XII in Morris, some have prepared Chapters VI to XIV, and in many aided Schools, more especially in Girls' Schools, the classes have not worked through Vulgar Fractions.

With regard to the Middle School Examination, the difficulties are still greater. The pupils of the Fourth Classes in many aided schools have throughout the year been preparing for the General Test Examination, when suddenly they are told that they must prepare for a different Examination; and must commence subjects of which they have before been in many cases quite ignorant. The course laid down in the scheme after deliberate consideration as a twelve-month's course, they are told that they must run over in

three months. The great complaint against our schools is of the want of thoroughness, but surely in this requisition, Government itself gives encouragement to cram and superficial knowledge. It is manifestly unfair with so short a notice to make the promotions into the 5th Class to depend on the results of this Middle School Examination in January next. Is a pupil who prefers to appear for the alternative General Test Examination in February to be debarred from promotion for that reason?

In many Schools too, Sanskrit or Latin is taken as the alternative language by some of the pupils. Neither of these languages are on the list of optional subjects, and accordingly such boys are placed at a great disadvantage, and must commence some entirely new subject and qualify themselves in it within three months to pass the Examination. As these languages are accepted by the University, we submit that they ought also to find a place in the new scheme.

From our Correspondents both in the Presidency town and in the Mofussil, we learn that there is a very general disinclination on the part of the pupils in the Fourth Classes of Schools to present themselves for Examination next January in subjects which they have not had time to prepare, and it is feared that it will be altogether impracticable to force pupils to pay a fee of Rs. 5 and to present themselves for Examination against their will.

We cannot therefore think that the authorities in these circumstances, can expect the heads of schools to make their promotions to the Fifth Class next January, dependent upon the appearance and success of pupils at the Middle School Examination. If the rule be rigidly applied the very first year, after only three months previous notice, the effect will be to ruin the Preparatory Classes of all Grant-in-aid, and of many Government Schools for 1880, and to work similar ruin in the Matriculation Classes for 1881. Private Schools under adventurers qualified and unqualified, will everywhere start up to prepare candidates for Matriculation, and as the University does not recognize the Middle School Examination, pupils will prefer to take the shortest cut to University distinctions, and will leave our classes in shoals. Thus the cause of Education throughout the Presidency will receive a blow from which it will take long to recover.

In stating last month that the first Middle Class Examination could not be held earlier than December 1880, we

assumed that as the new Examination is to take the place of the General Test, and as the General Test was already advertised for next February, the two examinations would not be made so nearly simultaneous. But we were in error. The following order has been promulgated by the Director of Public Instruction :—

A Government Notification instituting a Middle School Examination was published in the *Port St. George Gazette* of the 21st instant, page 709. The date fixed for this annual examination is the 1st December, but the first examination will be held instead on the 6th January 1880, as announced in the Notification published in the same Gazette page 1108 and applications will be received up to the 20th November.

As it is desirable that the Secretary to the Commissioner for the Uncovenanted Civil Service Examinations should receive early information with regard to the number of pupils who intend to appear at this Examination, Headmasters of Government and Aided Institutions are requested to furnish him at once with a list in the annexed form in anticipation of the regular applications which will reach the Secretary through the Collectors.

An order has also been issued making the Upper and Lower Primary Examinations compulsory in all Government and Aided schools in December next.

In answer to several correspondents, we beg leave to state that we have been informed on good authority that in order to secure a second-class certificate in the new Middle School Examination it is not necessary that a candidate should pass in any of the three optional subjects. He may even fail to secure a single mark in Branch D which is a compulsory branch, and yet pass the Examination if he obtains an aggregate of 180 marks out of the maximum of 540 in the subjects that he brings up.

It is we believe not compulsory on all boys in the Upper Fourth Class to go up for the Middle School Examination, but only on such boys as are to be promoted to the 5th Class.

The following alterations have been made in the Draft of the Middle School Examination scheme given in our last issue :—

On page 393 omit the words "and the place named should be the nearest examining station to the Candidate's School or permanent place of residence."

On page 395, for "one-half of the maximum marks in English Handwriting" read "60 per cent., of the maximum marks." &c.

For "one-third of the maximum marks in Branch A and C" read "one-third in Branch A and one half in Branch C."

On page 396, under "Female Candidates" for "one-half of the maximum marks for Handwriting" read "60 per cent." &c.

For "one-third of the maximum marks in Branches B & C," read "one-third in Branch B and one half in Branch C."

THE Matriculation Examination will, for the first time, be held this year at Hyderabad, and the Resident has made the necessary arrangements for superintending the examination. About twenty-five candidates have sent in their names, of whom two are young ladies.

PEOPLE'S PARK GYMNASIUM.—At a meeting held at the Municipal Office on the 22nd September last, at which were present :

L. R. BURROWS, Esq.	The Very Rev. Dr. COLGAN.
J. T. FOWLER, Esq.	D. SINCLAIR, Esq.
Dr. HARVEY.	VIZARUNGUM MOODALIAR, Esq.
The Rev. W. MILLER.	Jas. BRADSHAW, Esq.

it was resolved that rules for the use of the Gymnasium should be circulated to all likely to be interested in its use.

The Gymnasium is ready for use temporarily upon terms arranged in anticipation of a code of rules being determined upon by the representatives of different Schools interested.

The Rev. W. Miller, the Very Rev. Dr. Colgan and Dr. Harvey have promised on behalf of the institutions represented by them to give their support to the Gymnasium.

There is at present a difficulty about an Instructor, but this is not likely to continue, as it is very rarely that competent men are not obtainable from the garrison.

Opinion is invited on the following rules :—

1. Youths using the Gymnasium shall belong to a recognised School, and the Head Master of the School shall be expected to provide for the good conduct of pupils while within the enclosure.

2. Pupils admitted to the Gymnasium shall be divided into two classes,

- A. Those undergoing a regular course of instruction.
- B. Those who are sufficiently advanced to use the apparatus without the aid of a teacher.

3. Class A will have the preferential right to any apparatus that the Instructor may require.

4. As a rule a class will consist of from 10 to 15 and three classes can be exercised at once. The lesson will last for one hour to an hour and a half, and the fee for each lesson will be half a rupee a class, payable by the Head Master or representative of the School. A fee of two annas a month will be demanded from each member of class B.

5. It is not to be supposed that the Gymnasium, at any rate in its present state, will suffice for all the scientific exercise required

for the youth of Madras. It is merely a central institution for instruction and competition.

6. Head Masters desirous of having instructors trained at the gymnasium may attach them to a class or make special arrangements for instruction out of the regular hours.

7. The ordinary hours of instruction will be from sunrise to 7 A.M., and from 5 P.M., to sunset daily, weather permitting.

8. As the Director of Public Instruction proposes to recommend a salary grant for instructors, it is to be hoped that some surplus may be obtained from the fees to offer prizes for competition among the pupils at large.

9. The ordinary course of instruction will extend over 12 months, and will be based upon that prescribed by Mr. Archibald MacLaren for Military recruits.

With reference to Rule 4, it has been determined to levy a fee in addition to ordinary fees in all Government Schools where a gymnastic instructor is employed. The probable cost of a European Instructor is Rs. 15 a month, and of a Native Instructor Rs. 10 a month.

THE Committee of Patcheappa's High School have, we are informed, determined upon raising the standard of instruction in that School to the level of a collegiate institution, and accordingly First Arts classes are shortly to be opened.

In the Municipal report for Madras city just issued, we find that in the nine months ending 31st December last the corporation spent Rs. 4,226-11 on education out of a total grant of ten thousand rupees. The Municipality aided only elementary schools for boys, all grants on account of girls, whether in purely girls' schools or in mixed schools have been paid by the Government. The new system of grants came into force on the 1st April 1873 under which schools instructing up to the fourth standard were to be aided by the Municipality, others receiving Government grants. The system under which grants are given has been changed for vernacular schools but not for Mahomedan schools, which are worked under the present system of grants and allowed to continue for the next five years on account of the backward state of education among the Mahomedans. The inspectors employed by the Municipality found it impossible to inspect all the schools in the city within nine months; they inspected and reported upon 102 schools out of 147. The Deputy Inspector states in his report that "the severity of the new rules for results grants as also the reduction in the rates of grants themselves prevented schools from receiving from the Municipality as much as they used to do in former years." The number of pupils examined in the different schools was 1,571 and the amount of grant-in-aid paid was Rs. 2,682-11. Of the schools that obtained Government grants, eleven belonging to the Church Mission Society were inspected and 162 pupils examined. Three mixed schools maintained by the S. P. G. Mission with forty-four pupils came under inspection. There are, we observe, mixed Roman Catholic Schools in New Town; nineteen pupils were examined in them; there are also schools belonging to the same mission in Royapettah and North Black town. Some of

the private schools maintained at Triplicane and Mint Street, Town, have a pretty large attendance—close upon a hundred pupils are on the roll of each, and the grant from the Municipal funds was Rs. 166 and 153 respectively. No other elementary school in Madras for the support of which the Municipality contributes, has such a large attendance.

THE most encouraging feature in the educational history of Bengal for the year 1878-79 is that, for the first time, since the Department was constituted, the contribution from private sources to the total cost of education has exceeded the Government grant, a result to which, as the Director observes, the experience of the last few years has steadily pointed. The Government contribution, which in the previous year fell from 53 to 51 per cent., or, excluding building charges, from 52 to a fraction over 50 per cent., has now decreased to 47.75 per cent. The departmental figures show that out of a total expenditure on education of Rs. 43,45,000, the Government contribution amounted to Rs. 21,72,000, while the people paid Rs. 23,73,000, their contributions in the previous year having been Rs. 21,43,000.

THE distribution of Prizes to the Pupils of Pachappa's High School took place on Thursday, October 16th, Mr. Puckle, C.E., presiding; there was a fair attendance of the friends of the Institution. We were glad to observe that the Chairman declined to follow in the usual track of those who expect higher motives in Hindu pupils than are to be found operative among students all the world over. To pursue knowledge for its own sake is a noble end, but how few in any country propose to themselves that end only. To obtain the means of an honourable livelihood, to rise to distinction in the public service, or to exercise influence and authority among one's fellow men are also aims which lead, and properly lead young men "to scorn delights and live laborious days," and the Chairman did wisely in acknowledging such aims as perfectly legitimate, and in encouraging the earnest student with the hope that he has a very fair chance of success in his endeavours towards them. We have the pleasure to quote here Mr. Puckle's address:—

"The report that we have just heard read gives a satisfactory account of the progress made during the past year, in one of the largest educational establishments of Madras. It is, as was remarked on the occasion of the recent retirement of the highly respected Principal, Mr. Lovercy, in whose honor I have had much pleasure in giving a prize newly founded by his old friends and pupils, an institution of which Madras may well be proud, managed, as it is, by an entirely native committee, it has from the first worked successfully and has turned out students who have risen to high distinction in various branches of the Government service. It is an error to suppose, however, that this school was founded by a native of Madras. Patcheappah Mudaliar died 100 years ago, when education was almost unknown in Madras, and he endowed various religious

institutions and private charities with no less than a lakh of pagodas. The provisions of his will, however, were in great part neglected, and the funds bequeathed were so grossly plundered by the executors that the Supreme Court intervened and assumed control of the estate. In the course of time these funds amounted to no less than eight lakhs of rupees, and, after assigning the original lakh of pagodas and the interest accruing thereon to religious institutions and charities, the balance was spent in founding the educational establishments at Madras, Chillumbrum and Conjeeveram now known as Patcheappah's Schools. It has often been urged, with much eloquence, by distinguished patrons of Patcheappah's schools, that knowledge should be sought for its own sake, and that the desire to enter Government service should not be the sole object of study. Theoretically we all must agree, but, taking into consideration the circumstances of the bulk of the students here, I cannot help feeling some sympathy for those who devote themselves so earnestly to the pursuit of knowledge, even though their one aim and object is to pass the tests required to qualify for the Government service. If that service, as it now is, is compared with what it was when I first came to this country, the contrast is very striking. Then there were but two main departments, the Revenue and the Judicial. The Head Sheristadar and Sudr Ameen in each district, with a few Tahsildars and Pesbears, were the only superior officers, and the pay of a Tahsildar was then about half of that of the lowest grade Tahsildar now. Since then the departments have multiplied; the Educational, Public Works, Police, Postal, Telegraph, Railway, Settlement, Survey, Salt, Stamps and many other departments require well-paid Assistants and Managers for the due control of establishments. The superior grade of Deputy Collector, comprising 51 officers, with salaries of from 250 to 600 Rs. a month, is of recent creation, and the Registration Department provides employment for a large body of educated men. In fact, place and position have been found as fast as the spread of education provided qualified men to fill the appointments made, and now the highest prize of the service is thrown open to those who by education and merit can show that their nomination is likely to do credit to the Covenanted branch of the service. It has been usual to somewhat disparage the qualifications of University graduates. My experience, however, has been that the education that they have received enables them readily to master the subjects that they have later to deal with, and I have found them superior in every way to the old-fashioned up-country gomastah, who, though he may have inherited some acquaintance with office routine, and is helped to the utmost by friends and relations, rarely rises to high position and is throughout life deficient in important qualifications. In illustration, I may mention that the first B. A. that I met in the province where I served as Collector, was raised from the post of the sub-Registrar to that of Sheristadar in the Judge's Court, and before he had been five years in the Government service he was made a District Munsiff, and will no doubt rise higher as opportunity offers. And so important is it thought to be to secure the services of well-educated men in the office with which I am connected, that of 20 appointments made in the last 2 years, 7 have been given to B. A.'s and 10 to individuals who have passed the Matriculation Examination, and before long I hope to see

every vacancy in the superior cutcheries and Government offices filled by men who have passed at least the Matriculation Examination. With the prospect of such employment before them, it is not to be wondered at that knowledge is so earnestly sought for, and I conceive that the public service benefits very considerably by the greater enlightenment and higher tone of the educated men who now leave, in an appreciable degree, the mass of the Government employes of this Presidency. I make these remarks to encourage those present and especially those who have just received prizes, not to rest satisfied with passing the General Test to qualify for the public service, but to persevere with their studies through the University course, and in doing so I wish them the success that they well deserve."

EXAMINATION IN VERNACULAR LANGUAGES:—The following is a letter from C. Bernard, Esq., C.S.I., Officiating Secretary to the Government of India, Home, Revenue, and Agricultural Departments (Examinations), to the Acting Chief Secretary to the Madras Government:—"I am directed to acknowledge the receipt of your letter, No. 91, dated the 20th March, forwarding a copy of the revised rules which it is proposed to issue for the examination in the vernacular languages of all uncovenanted officers, European or Eurasian, of the grades designated therein, and requesting that the adoption of these rules may be sanctioned by the Government of India. In reply, I am to say that the Governor-General in Council considers that the proposed rules may now be brought into operation, subject to the restriction that, until further orders on the matter are received, they should not be applied to officers of the undermentioned departments, which are directly subordinate to the Government of India, namely,—The Post Office Department; the Telegraph Department; the Great Trigonometrical Survey; the Topographical Survey; the Marine Survey; the Geological Survey; and the Account and Paper Currency Department. The Governor-General in Council considers it to be very desirable that many of the officers in these departments should be conversant with the vernaculars of the districts where their duties for the time being may lie. But these officers are liable to be, and practically are, transferred from one province of the Empire to another, and it is inexpedient to compel them to pass linguistic examinations in all the provinces where they may from time to time be employed. I am to add that the rules must be considered for the present to be experimental, inasmuch as they provide for new and considerable rewards to uncovenanted officers, inclusive of Eurasians and Europeans brought up in India. In other Provinces such rewards are not given to these classes of public servants, and it is only in consideration of the multiplicity and difficulty of the vernacular languages in the Madras Presidency that the special rewards proposed in the draft rules enclosed in your letter are now experimentally sanctioned."

The above has been communicated, with reference to G.O., dated 20th March 1879, No. 90, to the Committee for the Examination of Assistants, who will adopt the rules experimentally, excluding the officers of the departments named in the Government of India's letter.

LOCAL FUNDS AND PRIMARY EDUCATION.—The Collector of Malabar reports that the Local Fund Board of Tellicherry Circle are opposed to raising the fees in the middle-class schools, as well as to the introduction of the house-tax, for providing adequately for education in their circle, as suggested in paragraph 5 of G. O., dated 28th February 1879, No. 366; and they propose to meet the expenditure incurred on account of the eight middle-class schools and the Mopla Inspecting Schoolmaster by reducing the number of pure results grant schools.

As regards sanitation referred to in paragraph 6 of the Government Order, the Local Fund Board hope to be able to provide an increased allotment for sanitary purposes in their budget for the next official year 1880-81, there being no funds available for the purpose in the current year.

The Resolutions passed by the Local Fund Board in reference to the above subjects at their meeting held on the 3rd June last were:—

"The Board are of opinion that fees cannot be raised in the middle-class schools. They also strongly object to the imposition of the house-tax for educational expenditure. The Board observe that, as not more than Rupees 1,000 can be provided from the sources indicated by Government, there will be still a deficiency of Rupees 3,960, to meet which the Board have no option but to adopt the expedient proposed by the President and the Inspector of Schools for retrenchment, viz., by reducing the number of purely results grant schools.

As regards sanitation nothing can be done for the current year. The Board hope to be able to give an increased allotment under the head 'Sanitation.'"

The Local Board should reconsider their resolution regarding the abolition of primary schools for the purpose of supporting middle-class schools. The former constitute the principal object of Local Board education. The proper course in the present case is apparently to raise the middle-class school fees. Primary Education must be provided for before middle-class schools.

NOTES ON SHAKSPERE'S JULIUS CÆSAR.

(Continued from page 404.)

ACT IV. SCENE 1.

In this scene, Antony first discloses his downright villainy. He suggests that the Triumvirate should in order to save money proscribe some of the legatees under Cæsar's will.

Prick him down. Make a mark against his name.

Publius. This is an error. The person was not Publius but Lucius Cæsar a brother of Antony's mother.

A slight unmeritable man. Unmeritable = undeserving. As Mr. Knight observes, it is well-known that the Triumvirs did not meet at Rome, although it is evident that Shakspeare places his scene in that city by Lepidus being sent to Cæsar's house and by his being told that he should find his confederates "or here or at the Capitol."

To ease ourselves of divers slanderous loads. To relieve ourselves from slanders by means of his popularity. Lepidus, as a brave

soldier, had a party that favoured him, which the other Triumvirs secured by uniting him with themselves.

One that feeds on objects, arts and imitations. Who devotes his attention to objects, processes and imitations which have grown stale with other men.

Antony means to say that Lepidus is a mere copyist, utterly deficient in originality.

Listen great things. For this transitive use of *listen*, cf. Macbeth II. Sc. 2 line 28.

"Listening their fear I could not say. Amen."

Our means stretched. Our resources made the most of.

We are at the stake and bayed about. The figure here is taken from bull-baiting, a sport formerly common in England.

To do you salutation. An archaism = pay compliments. Salutation = Sanskrit namaskaram.

In his own change or by ill officers. Either from a change in his own self, or by the mismanagement of his officers.

To wish things done undone. To wish done things undone.

Familiar instances. Acts of intercourse.

Hot at hand. "In hand" i.e., not under the influence of the bridle, or "at hand" may = at first.

Fell. Here a trans. verb = to cause to fall i.e., to fell.

Hides wrongs. Conceals the wrongs that you commit.

Griefs = grievances.

Lucilius do you the like, &c. In this speech, it is evident that Lucius and Lucilius have been transferred between the first and the third line, the "let" having been inserted in the latter after the mistake was made, in order to make out the metre.

Titinius, as a friend to Brutus and Cassius (see *Dramatis personæ*) was of the same rank as Lucilius, and it would have been an insult for him to have been associated with Lucius a mere servant.

Lucius and Titinius at some distance from it. This stage direction is entirely modern; Lucilius not Lucius should have been mentioned in it.

Let me tell you Cassius, you yourself. Catalogic verse—a syllable is wanting and this makes it trochaic.

Cf. "Then let me tell you Cassius you yourself." Here the measure is iambic.

That every nice offence should bear his comment. That every small error should be strictly noted. *His* is here used for the modern *its*.

Condemned to have = Blamed for having.

The name of Cassius honours this corruption. Honours = gives sanction to.

And chastisement does therefore hide its head. Offenders escape.

Sell the mighty space of our large honours. Sell the great glory we have acquired.

I am a soldier, I. The second I is most likely "aye."

In Shakspeare's time that form of the affirmative adverb was very often by Ben. Jonson and other writers written as "I." It here most likely stands as the emphatic adverb.

To make conditions. To administer affairs.

Have mind upon your health. Pay regard to your safety.

Must I budge. Although a French word, *budge* has become popularized.

You shall digest the venom of your spleen. I will give you cause enough to continue to indulge your ill humour by making you the object of my derision.

I shall be glad to learn of noble men. Collier's Corrector and some editions read "abler" for "noble;" "Abler" is doubtless correct.

Indirection. Crooked or dishonest dealings.

Such rascal counters. "Counters" used for counting, now pieces of ivory or any other substance used in games for calculating, they are sometimes called *tallies*.

Here *counters*, mere representatives of value, are contrasted by implication with coins which are really valuable, and by way of contempt coins are called counters.

Com'd by rote. *Com*, *ken* and *can* = to know, are all the same word originally. Cf. *cunning*.

Rote from *rota* a wheel.

I could weep my spirit from mine eyes. *Weep* intrans. used trans. "weep" often governs a cognate accus.

Cf. "Weep bitter tears."

"Weep tears of joy."

Plutus. The God of wealth—corresponding to the Indian *Kubera*.

It shall have scope. The antecedent of "it" is "anger;" *scope* as often used in Shakspeare and Bacon is equivalent to room for free motion but its only proper meaning is a mark at which to aim—Cf. telescope, microscope. The bull's eye in a target is the *scope*. The confusion of meaning is a strange one.

Dishonour shall be honour. I will reckon your dishonourable conduct as no more than honour.

Blood ill-tempered.—"ill-tempered" = ill-mixed.

Plutarch relates that the poet who rebuked Brutus and Cassius was Marcus Phaedrus.

The Cynic (*i. e.*, curish) philosophers—held that every man should live by himself and have nothing to do with other people but grumble at them. Diogenes lived in a tub. Their dress and conduct were both quaint. Hence the conduct of this man whom Shakspeare strangely calls a poet.

Their jiggling fools. "Jiggling" = rhyming.

Companion hence. "Companion" is often thus used by Shakspeare in the sense of "fellow."

Of your philosophy you make no use, &c. Brutus was a Stoic, and the Stoics taught all things were indifferent to the wise man.

Cassius on hearing of the cause of Brutus's disquiet, now candidly expresses surprise that Brutus did not even kill him.

Impatient of my absence and grief. This is an Anacoluthon. She was impatient and felt grief.

Her attendants absent. "Attendants" nominative absolute. Shakspeare follows Plutarch, but Pliny and others say Portia survived Brutus.

Now sit we close. Poetical imperative. Cf. "Break we our watch up." *Hamlet*.

Nothing Morecal. Brutus now presends to know nothing of Portia's death.

She must die once. *Once* = Some time or other.

I have as much of this in art as you He means as a philosopher he knows what he should do, but his nature could not bear it so well.

Our work alive. i. e., which concerns the living not the dead. Cf. "Let the dead bury their dead."

Come on refreshed, new added, &c. "New-added" = new-added to, i. e., increased with new ones, but some of the best editions read new-hearted i. e., encouraged.

From which advantage shall we cut him off. "Shall we." These words should probably be transposed.

Under your pardon. Pardon and permission are often synon. in Shakspeare.

There is a tide in the affairs of men, &c. A noble expression of a heathen sentiment, in which Fate is recognised rather than the Providence of God. The Christian's motto is "Hope on, hope ever;" whatever past failures may have been, his life is a perpetual renewal an ever recurring regeneration. His very failures and mistakes, if his heart at this time is right before God, become blessings and helps to him in his onward course.

This passage is often mischievously quoted.

In shallows and in miseries. Observe the mixture of the substance and figure.

Poor knave I blame thee not. *Knave* is still used in German for "boy" or "servant." Cf. *Villain churl*, *ωρεως* &c.

Villain = one who worked on a villa or farm; *churl* = a countryman.

Look Lucius, here's the book I sought for so. Observe the implied apology of Brutus to his boy, which he expands on the boy's showing that he did not take it as an apology.

If Lucius had been of gentle blood, he would have said "I am glad you have found it"—instead of repeating the justification of himself which Brutus had already given. A good contrast between the gentleman and plebeian. Brutus in his rejoinder condescends to make his apology more general.

Enter the ghost of Caesar. Plutarch does not say that the ghost was the ghost of Caesar, nor is it so named here, but the stage direction is justified by Brutus' speech to Volumnius in Scene V of Act V:—"The ghost of Caesar hath appeared to me two several times by night."

Thy evil spirit Brutus. The spirit which presages ill to thee.

(To be continued.)

LONDON MISSION COMPARATIVE EXAMINATION.

August 1879.

Matriculation Class.

GENERAL ENGLISH.

Time 3 hours.

- I. "The sad and solemn Night
Has yet her multitude of cheerful fires;—
The glorious hosts of light
Walk the dark hemisphere till she retires :
All through her silent watches, gliding slow,
Her constellations come, and climb the heavens, and go.
And thou dost see them rise.
Star of the Pole ! and thou dost see them set :
Alone in thy cold skies,
Thou keep'st thine old, unmoving station yet,
Nor join'st the dances of that glittering train,
Nor dipp'st thy virgin orb in the blue western main.
On thine unaltering blaze
The half-wrecked mariner, his compass lost,
Fixes his steady gaze,
And steers, undoubting, to the friendly coast :
And they who stray in perilous wastes by night,
Are glad when thou dost shine to guide their foot-
steps right."
And, therefore, bards of old,
Sages, and hermits of the solemn wood,
Did in thy beams behold
A beautiful type of that unchanging good,
That bright, eternal beacon, by whose ray,
The voyager of time should shape his heedful way."
- Express the meaning of these verses in your own words as concisely as you can.
- II. Form nouns from Remember, Deceiving, Earnest, Please, Satisfy, Seize, Excel.
- III. Give the diminutives of Crown, Goose, Swan, Ice, Shade.
- IV. "I will tell you a story" said a mouse to a cat.
"Out with it then" said the cat.
"Once on a time there were two small mice,"
"Then they were not alone" said the cat
"And so we had a steak we were going to cook,"
"Then you were not starved," said the cat,
"So we put it up on the roof that it might cool itself well"
"Then you did not burn your tongues" said the cat,
"So then a crow came and gobbled it up"
"And so I'll gobble you up" said the cat.
- (a) Write, in a simple sentence, the story told by the mouse.
- (b) Write the whole in the style of indirect narration.

V. Replace the words italicised in each sentence.

(a) By a phrase as specified under each.

"I closed my eyelids *lest the gems should blind my purpose.*"

By a Gerund.

"You would not be acting generously *if you did not give him the benefit of the doubt.*"

By an Infinitive.

"Not many travellers are so daring *that they wander out of beaten tracks.*"

By an Infinitive.

(b) By one word.

To support oneself by one's own exertions is necessary to a state of independence.He is very *devoted to the interests of his country.*He was cured of his disease but he *was in a weak state for a long time.*

VI. Use each of the following words, in a simple sentence, accompanied by its appropriate preposition:—

Depend, Yield, Make, Reconcile, Resolve.

VII. Give the meaning of the words italicised in

"I *as well as* he went to Calcutta;" "He can do it *as well as* you can desire;" "Are you *as well as* you were yesterday."

VIII. Point out the affix in each of the following words and give its meaning.

Sluggard, artist, picturesque, particle, physic.

IX. Compose three sentences (a) (b) (c) using the Nominative case absolute instead of an adverbial clause of reason in (a) of time in (b) and instead of an adjective clause in (c).

X. Name the part of speech of *as* and *but* in each of the following sentences.He met him *as* he went to town.*As* he met him then he spoke to him.He is *as* rich *as* his brother.He left the house *but* he did not go home.He gained nothing *but* fame.There was not a ship *but* sailed away.

XI. Correct the following expressions.

They have no other alternative *but* to come.Repetition is always to be preferred *before* obscurity.

He bought a horse, such a horse which I hope never to see again.

The mob is cruel and they are ignorant.

I found he was left the town.

He lent to his friends a quantity of books.

He stood prostrate at the feet of the king.

XII. Write each of the following sentences making the changes specified under each of them:—

"He was agreeably surprised that he was received graciously, and he accepted at once the invitation to dine."

As a simple sentence.

"The animals found in these frozen regions have a double interest to the voyager, both because they supply him with nourishing food, and because they interrupt the intense solitude of that vast and silent land."

Beginning with "The intense solitude."

"No part of the world affords a more difficult or dangerous piece of navigation than the approaches of the Northern coasts, of the United States in winter."

Changing the comparative into (a) the positive and (b) the superlative.

"It has been estimated that the quantity of heat discharged over the Atlantic from the waters of the Gulf Stream, in a winter's day, would be sufficient to raise the whole column of atmosphere that rests upon France, and the British Islands from the freezing point to summer heat."

Changing "to raise" into the passive voice, and making it the principal verb.

XIII. Analyse

"The shades of night were falling fast,
As through an Alpine village passed
A youth, who bore, mid snow and ice,
A banner with the strange device,—
Excelsior?"

ENGLISH POETRY.

Time 3 hours.

Part I.

I. Explain fully the following, using only very simple language:—

"Ruler of Mortham's destiny!"

"Though dead, thy victim lives to thee."

"Once had he all that binds to life,"

"A lovely child, a lovelier wife;"

"Wealth, fame, and friendship were his own—"

"Thou gavest the word, and they are flown."

"Mark how he pays thee."

II. (a) Give the exact equivalents of the words:—Smoulder, totter, flit, prowl, clutch, bounce, erst, distraught, stow, noose.

(b) Each of the following words is used in two very different senses in the Poetry. Give them:—fell, list, mass, prank, train.

(c) With what meanings are the following words used in Rokeby? Give also their other meanings:—boots, book, crew, grave, let.

(d) Shew the force and suitability of each of the epithets in italics:—amazement's iron trance, brown August, heavy corn, the red sun was setting, hardly rustic, plighted troth.

III. Give at least two, and not more than three single and expressive epithets to describe the most striking characteristics of 1st Wycliffe. 2nd Bertram. 3rd Edmund.

IV. (a) "It was my goodly lot to gain a reliquary and a chain. Demand not how the prize I hold! It was not given, nor lent, nor sold."

Substitute "I" for "it" in each case, making suitable alterations.

(b) "That lost—I need not tell thee why—thou mad'st thy wit thy wants supply."

"How he was wounded by the way, I need not, and I list not say."
In each of these cases substitute "*it*" for "*I*" so as not to change the sense.

(c) "Lord Wycliffe knows it, and none so well."

Express the same sense using a comparative.

(d) Supply the ellipsis in:—"He hurried as if all were lost."

V. (a) Expand the phrases in italics into sentences, underlining them, and stating the kind of sentence in each case.

1. Maids their sickles fling aside, *to gaze on bridegroom and on bride.*

2. Arm'd with such powers as well had freed young Redmond *at his utmost need.*

3. The tread hath waked *the dwelling of the dead.*

4. By tenfold odds oppressed at length, *despite his struggles and his strength,* he took a hundred mortal wounds.

5. He bade Sediton's voice be dead, *on peril of the murtherer's head.*

6. *Despite his ill-dissembled fear,* there swam in Edmund's eye a tear.

(b) Contract the sentences in italics into phrases commencing with the word "*too*" followed by an Infinitive.

1. Deeds, *which prudence might not dare,* appal not vengeance and despair.

2. His feeble frame was worn *so low that nature could no more sustain the agony.*

(c) In the following sentence convert the italicised nouns into Infinitives.

"From the gleaner's hand the ear drops, while she folds them for a prayer and blessing on the lovely pair."

(d) O'Neale it was, who, in despair, *robb'd* Mortham of his infant heir."

Use the word "steal" instead of "rob" making suitable alterations.

VI. (a) They pour'd *mouldering* from the rocky door, and parted—to return no more.

(b) A scroll was offer'd by a page, who *told,* a muffled horseman late *had* left it at the castle gate.

(c) What saw he?—not the *church's* floor.

(d) *Fool* that I was! but 'tis too late.

(e) If she prove stubborn, shall I dare to *drop* the axe?—Soft! pause we there.

Write critical notes on the construction, usage, or meaning of each of the words italicised, or on anything that you regard as noteworthy.

ENGLISH PROSE.

Part II.

VII. What did the old gardener mean when he said—"One can't judge of the day till one sees the evening as well as the morning." Illustrate the truth of the saying from the text.

VIII. 1. I am sure you have *the one*, and let me see whether you have, as I believe you have, *the other*.

For what do the words italicised stand?

2. Of all persons we should never have thought of taking anything from the good natured little Rosetta.

Rewrite beginning "The good natured little Rosetta."

3. In Naples are there not a hundred ways of making money for a smart lad like me?

Rewrite in the assertive.

4. He does more than he says.

Remove the comparative.

5. Next summer is not yet come.

Remove not without altering the sense, making such changes as are necessary.

IX. 1. What is the difference between:—

(a) F's father assured him that neither melon nor pine-apple should be spared.

F's father assured him that neither melon nor pine-apple could be spared.

(b) Is it not clear that our crafty hero would have gained by this?

It is not clear that our crafty hero would have gained by this.

2. Correct the following:—

(a) They left Naples just as the sea-breeze after the heats of the day was most refreshingly felt.

(b) But I only left it for a few minutes, brother.

(c) All this was had for asking for.

X. 1. Bring out the force of the words italicised.

(a) I would not lose my hat *for* twice its value.

(b) I'll make you remember it *against* another time.

(c) My large book *of* prints.

2. Substitute words for those in italics.

(a) With the *cool* justice of an Englishman.

(b) His unprincipled friends began to look *cold* upon him.

(c) I am *well* with my father at home.

(d) To hear the *event* of the present trial.

XI. 1. Give the construction of the words italicised.

(a) *Off* with you to market.

(b) What can I want *more*.

(c) *Why* from the very booby.

(d) You have been out of them a great *while*.

(e) A pleasant walk to you *my young friends*.

2. Give the derivation of:—

Panegyric—unanimous—superstition.

3. Mark the accents on.

Refuse (noun), expert (adj), frequent (verb).

XII. 1. Change into the Indirect narrative:—

"But how happened it that you did not sell your wood?"

Oh! I forgot; did not I tell you that?—when I went back for my basket, do you know it was empty, quite empty—not a chip left—some dishonest person had carried it off—Had not I reason to cry now Carlo?"

2. Explain the following:—

(a) The burnt almonds had an effect upon the public judgment.

- (b) He was contemplating her with the eye of a painter.
- (c) He was hardened to the sense of shame by the loss of reputation.
- (d) Carlo laughed with a benevolent sense of superiority.
- (e) My ode was to have been set to music.

INDIAN HISTORY.

Time 3 hours.

I. Sketch the career of Mahomet the Prophet. What are his successors called? What gave rise to the division of the Mussulmans into the Soonee and Shiah sects?

II. What led to the establishment of the Bhaminy kingdom in the Deccan? Account for the name Bhaminy. What other portions of the empire of Delhi declared themselves independent about the same time?

III. To what dynasties did the following emperors severally belong?

Altumsh, Ferozeshah, Allah, Kutb-ud-dien.

Give a brief account of the reign of each.

IV. Describe the means by which Aurungzebe succeeded in establishing himself on the throne of Delhi.

V. What European power first made a settlement in India? What nations followed? Name the few towns in India still belonging to France.

VI. Give particulars of the contest for the thrones of the Carnatic and Hyderabad in the middle of the 18th century. Mention the chief persons concerned and the principal events that took place.

VII. State all you know regarding the following personages:—

Abu Rihan, Sir Thomas Roe, Ballajee Kishwanath, Albuquerque, Zenghis Khan, Sumroo, and Nana Farnavese.

VIII. Explain the following terms which occur in connexion with Indian History.

Mohurram, Khoosba, Omrah, Ameer, Begum, Peishwa, Soobhadar, Suttee.

IX. Write a short account of Hyder's first war with the English.

X. Give the date, the contending parties, and the result, with regard to the following battles.

Sikri, Wandewash, Panniput, Buxar, Malvelly, Porto Novo, Pollilore, and Panjani.

XI. State when, and between whom the following treaties were concluded, and what were the provisions of each.

(1) Poorundhur, (2) Salbye, (3) Chunar, (4) Mangalore.

XII. (a) Assign events to the following dates.

1001, 1022, 1393, 1498, 1639, 1664, 1707, 1775.

(b) Assign dates to the following events.

1. The first siege of Seringapatam, 2 The Massacre at Patna, 3 Formation of the United East India Company, 4 Invasion of Nadir Shah, 5 The siege of Arcot.

PHYSICAL AND GENERAL GEOGRAPHY.

Time 3 hours.

Part I.

I. Explain the connection between the indications of a barometer and the changes of the weather.

II. State the conditions on which the temperature of a place depend.

III. Explain fully the expression.

(a) The sea regulates the temperature.

(b) The salt of the sea is derived from the waste of rocks.

(c) The height of the snow-line varies with the latitude.

IV. What is a drainage area and how may one be marked off on a map?

V. Give proofs of the following phenomena.

(a) That the atmosphere is not throughout of uniform density.

(b) That evaporation goes on from the surface of glaciers.

(c) That the land rises and sinks.

Part II.

I. What and where are the following?

Cairntoul—Vaigatz—Taganrog—Sambre—Arkeig—Hindu-koosh—Versailles—Rum.

II. Draw an outline map of Europe marking on it.

The Carpathians, Pyrenees, Balkans and Apennines.

Moscow, Amsterdam, Geneva, Cherbourg, Cracow, Christiana, Corinth, Mikau,

The Rivers Rhine, Tagus, Danube, Seine, Tiber, Tana.

III. Name:—

1. The highest mountain in Spain.

2. The longest river in Russia.

3. The smallest county in England.

4. The largest lake in Europe.

5. The most northerly point of Ireland.

6. The most important of the Protected Sikh states.

IV. 1. Name the boundaries of British Burmah, its divisions and most important places.

2. What are the chief parts of the Madras Presidency?

3. Where do the following rivers rise? Into what do they flow? Mention two important towns situated on each.

Indus, Ganges, Godavery, Krishna, Brahmaputra.

V. 1. Name the countries in which the following are found, giving your answer in a tabular form.

Gold, Silver, Iron, Copper, Lead, Zinc, Coal, Tin.

Give the names of the Ionian Islands. To whom do they belong?

VI. It is said that the sun never sets on the British Empire. Show by your answer the truth of this statement.

VII. If a traveller went overland to Constantinople from London, name the countries he would traverse, and the principal towns at which he would stop, mentioning one thing for which each is noted. Returning to London by sea what straits must he go through and what islands and capes would he pass?

- VIII. 1. Where do the following principally live?
Kookies, Bheels, Charuns, Walloons, Goojurs, Newars.
2. Where are the following languages spoken?
Prabratya, Gaelic, Ooriay, Basque, Hindee, Manx.

ARITHMETIC.

I. Express the value of each of the following as a circulating decimal.

(I.) $9\cdot1 + \cdot01691 + 8\cdot23 + 4\cdot567$

(II.)
$$\begin{array}{r} 1 \\ 3 \\ 2 + \frac{\quad}{5} \\ 4 + \frac{\quad}{6 + \frac{1}{2}} \end{array}$$

II. If 140 lbs. of Congou at 8 annas per lb : 60 lbs. of Gunpowder tea at 13 annas per lb : 50 lbs. of Souchong at R. 1 per lb : 40 lbs. of Pekoe at R. 1-4-0 per lb : and 30 lbs. Orange Pekoe at R. 1-8-0 per lb : be mixed together, what is the average cost per lb. of the tea?

III. Shew that the following may be expressed as a circulating decimal -

$$\frac{1}{5 \times 2^5} + \frac{1}{5^5 \times 2^5} + \frac{1}{5^5 \times 2^7} + \frac{1}{5^7 \times 2^5} + \dots \text{ad inf.}$$

IV. A merchant has ready money between Rs. 500 and Rs. 650 to lay out. He finds that he can spend it exactly either in knives at Rs. 1-7-4 each; or in small clocks at Rs. 11-10-8 each; or in spectacles at Rs. 8-12-0 per pair; or in an equal number of each of these goods. What is the sum he has and how many articles could he buy in each case?

V. Extract the square root to 7 places of decimals if necessary, of 9876583161; and of 25'097.

VI. A room is built with a semi-circular end, but the other walls are straight. The total length inside is 30 feet, the breadth 21 feet, and the height 16 feet. Find the area of the walls and the cubic content of the room, having given that the circumference of a circle = $\frac{22}{7}$ times the diameter, and the area = $\frac{22}{7}$ times the square of the radius.

VII. A can run $\frac{11}{12}$ as fast as B. How much start ought B to give A in a mile race? Or, if they both start from the same place and A can run a mile in 5 min. how long ought B to wait after A has started, before he starts, in order that it may be a good match?

VIII. A and B lend equal sums of money for the same time. A gets 5, and B gets 6 per cent. simple interest. A's amount comes to £210, and B's to £222. What did each lend and for how long?

IX. A can build a wall in 14 days of 11 hours each by completing work at the rate of 3 cubic feet in 7 minutes. B can work at the rate of 4 cub. feet in 9 minutes. If B joins A after the latter has done half of the work, how long will they take to finish the wall?

X. By having fresh horses every 5 miles, I can get along at the rate of 10 miles an hour. But if I post horses only every 10 miles

the horses cannot continue at a faster rate than 8 miles an hour. I lose 5 minutes every time I change horses. I am charged Rs. 5 an hour in the former case, and Rs. 4 an hour in the latter case. Find the time occupied and the cost in each case in a journey of 100 miles.

GEOMETRY.

Time 3 hours.

Part I.

I. If two triangles have two sides of the one equal to two sides of the other, each to each, and the angles opposite to a pair of equal sides equal to each other, then shall the two triangles be equal in all respects.

(a) Under what restriction is this proposition true? Prove it with the necessary restrictions.

II. If a straight line falling on two other straight lines, makes the alternate angles equal to each other, the two straight lines shall be parallel.

(a) Can straight lines which being produced ever so far both ways do not meet, be otherwise than parallel? If so, when?

III. Enunciate and prove the two corollaries to I. 32.

(a) An interior angle of a regular rectilineal figure is $1\frac{1}{2}$ right angles. Find the number of sides in the figure.

IV. To a given straight line apply a parallelogram equal to a given pentagon, and having an angle equal to a given rectilineal angle.

V. ABC is a triangle. The angles at B and C are bisected by the straight lines BD and CD respectively which meet at the point D ; AD is joined. Shew that AD bisects the angle at A .

Part II.

VI. (a) Shew that II. 4. can be deduced at once from II. 2 and 3.

(b) On what principle is II. 13. divided into three cases? Do acute-angled triangles alone belong to the first case? Explain your answer.

VII. If a straight line be divided into two equal parts and also into two unequal parts, the rectangle contained by the unequal parts, together with the square on the line between the points of section, shall be equal to the square on half the line.

AB is divided at C and D ; if the rectangle $AC.CB$ be equal to $AD.DB$, shew that AC is equal to DB .

VIII. If two circles touch one another internally, the straight line which joins their centres, being produced, shall pass through the point of contact.

In a circle are described two others, touching it internally, and each other externally. Shew that the perimeter of the triangle formed by joining the three centres is equal to a diameter of the original circle.

IX. Straight lines in a circle equally distant from the centre are equal to one another.

The straight line joining the middle point of two chords in a circle is produced both ways to meet the circumference. If the parts produced be equal, shew that the chords are equal.

ALGEBRA.

Time 1½ hours.

- I. (a) Resolve into 3 factors, $x^3 + \frac{3}{2}x^2 - \frac{7}{2}x + 1$.
 (b) Shew that $1 + 2 \cdot 2^{2n} + 1 + 4 \cdot 4^{2n}$ is divisible by 9, n being a positive integer.

II. Simplify (1) $\frac{1 - 47a^2 + a^4}{1 - 329a^2 + 48a^4}$

(2) $\frac{1}{(x-y)^2(y-z)} - \frac{1}{(y-x)^2(x-z)} + \frac{1}{(z-x)^2(x-y)}$

$$= \frac{1}{(x-z)^2(z-y)}$$

- III. If $x^2 + y^2 + z^2 = a^2 + b^2 + c^2 = 1$, Shew that
 $(1 - ax - by - cz)(1 + ax + by + cz) = (az - cx)^2$
 $+ (bx - ay)^2 + (cy - bz)^2$.

IV. Solve the equations:—

(a) $\sqrt{3x+4} + \sqrt{3x-5} = 9$.

(b) $\left. \begin{aligned} \frac{m}{y} - \frac{n}{x} &= \frac{n}{p} \\ \frac{n}{y} + \frac{m}{x} &= \frac{m}{p} \end{aligned} \right\}$

V. Two trains pass each other in 2" proceeding in opposite directions. If they had proceeded in the same direction, it would have taken 30". Find the ratio of the speeds of the two trains.

PHYSICS.

Time 3 hours.

I. Account as well as you can for the following singular phenomena:—

- (a) Dew-drops assume a beautiful globular shape as they naturally form on the surfaces of leaves or grass.
 (b) A man can dance on a rope if he uses a long heavy pole in his hands.
 (c) When a large lump of metal and a small piece of paper fall together, the large substance reaches the ground first although it presents a far larger surface to the resistance of the atmosphere.
 (d) Iron sinks in water, and yet iron ships float. Wood floats in water and yet wooden ships sometimes sink.
 (e) A bell is set ringing under the exhausted receiver of an air-pump, but we cannot hear any sound.
 (f) A man boils his food on the top of a very high mountain and finds that he cannot cook it enough.

- (g) A thermometer placed in water shews 60°. It is then taken out of the water and a piece of cloth is dipped into the same water and tied round the bulb. The thermometer now falls rapidly.

II. A quantity of mercury in one scale of a very sensitive balance is in perfect equilibrium with the brass weights in the other scale. What would be the effect of placing the whole under the receiver of an air-pump and exhausting? Give the reason.

What would be the effect, if, instead of placing it in vacuo, we put it into a vessel of water?

III. When you read that the Specific Gravity of cork is .24 what do you understand by it, and what proportion of a piece of cork would you expect to find floating above the surface of water?

Describe the whole process of finding the S. G. 1st of cork; 2nd of oil.

IV. Describe fully the action of a common pump in raising water.

If a pump can raise water 34 feet, how high could it raise 1st Mercury whose S. G. is 13.6; and 2nd spirit whose S. G. is .85?

How do you account for the difference?

V. Water is flowing from a large reservoir through a syphon. State what will be the effect upon the outflow, 1st as the surface of the water sinks in the reservoir; 2nd as the mercury sinks in a Barometer. Give clear reasons.

VI. What is the use of a Thermometer attached to a Barometer?

State all the advantages of using Mercury 1st in a Barometer; and 2nd in a Thermometer.

VII. Mention the three ways in which Heat is conveyed from one place to another.

If we wish to boil a vessel of water, why cannot we apply heat at the top?

If we wish to freeze a vessel of water, why should we not apply a freezing mixture at the bottom?

Do the same conditions apply to Mercury?

CORRESPONDENCE.

TO THE EDITOR OF THE MADRAS JOURNAL OF EDUCATION.

SIR,—I beg, you will be kind enough to instruct me through your Journal how to parse the word *each* in the following sentence:—

"You are fined two annas *each*."

CAWNPUR,

4th October 1879.

Yours obediently,

G. D.

When the ellipsis is supplied, the full expression is "You are fined two annas *each one of you*." "Each" is then seen to be an Indef. pronoun here used adjectively, (see Morris' English Accidence page 147) or we may parse "*each*" as an Indef. pronoun in apposition to "*you*," and so agreeing with *you* in case, but differing in number owing to its distributive sense, e.g. "You, each, are fined two annas."

As Mason observes, it seems anomalous at first sight that a word like *each* which is essentially singular should be attached to a plural word, but we have exactly the same idiom in Latin. *Quisque* in the singular may be used to distribute a plural subject.—ED. M. J. OF E.

THE UNIVERSITY AND PRIVATE STUDENTS.

SIR.—The question of throwing open to private students the higher examinations in Arts of the Calcutta University assumes a new interest when regarded in connection with the Eurasian community. It cannot be denied that this community is a poor one. Few Eurasian fathers can afford to give their sons the benefit of a complete college course. A few send their children to England for their education. But these are exceptions. The majority of sons may consider themselves fortunate if they can be kept in school till the age of eighteen. Most of those who go up for the Entrance Examination are past sixteen or seventeen. He must be a little prodigy who is fit to pass that examination under sixteen. Seventeen then being the usual age at which a student matriculates, we see that he has barely time to get out of the schoolboy stage, when he is taken out of school; and, if I may be allowed the use of a vulgar phrase, made to look out for a 'job.' He is thus deprived of an opportunity of being educated to a higher standard, and is sent, before his time, into the world, to contend with its difficulties. And, unless he is one who has an extraordinary love for books, he retains through life the vague notions of literature and science which he has gathered in the school-room and in the cricket field. But, you say, cannot a young man continue his studies himself during his leisure hours? No doubt he can if he has a love for knowledge. But how many young men are there in every hundred who will study because they love knowledge, or rather (for knowledge is attractive to all), how many are there who love knowledge with a love strong enough to induce them to

'Scorn delights, and live laborious days'

in her service? They must have some immediate benefit in view before they will 'buckle down' to study. They must have something to spur them on. One stimulus to the pursuit of knowledge is the hope of obtaining a degree, or the benefit which the possession of a degree entails. Throw open degree examinations to private students, and you give a young man something to work for, or, at any rate, something to keep him from the curse of idleness.

Pshaw! the idea of pursuing knowledge for the sake of the material benefits she may confer on one! I hear some reader of this say, Knowledge should be approached as a lover, as a "Goddess great," or else be left alone. Yes.

"To some she is the Goddess great,"

but at the same time she is

"To some the milch cow of the field;
Their care is but to calculate
What butter she will yield."

'And if we cannot get a man to use knowledge except as a milch cow yielding milk and butter, why, it is better to get him to use her so, than not to use her at all. If by the use of the cane you can make a boy learn his spelling, do so by all means, if you cannot get him to learn it in any other way. The cane acts as a stimulus to the boy. The hope of material benefits acts as a stimulus to the votary of knowledge.

Although the question of the admission of private students to degree examinations is one that affects all classes, yet the Eurasian community would be especially benefited by the withdrawal of the rule which excludes from the benefits of a University all but those who "have prosecuted a regular course of study in any affiliated institution." The Eurasian Association might do a great piece of service to their countrymen if they would present a petition to the University authorities on the subject of the repeal of this obnoxious rule which renders the University of service to the rich alone.—

Statesman.

October 20th, 1879.

NOTES ON POPE'S 'ESSAY ON CRITICISM.'

94. *Parnassus*: a range of mountains extending from Ceta through Doris and Phocis to the Corinthian gulf. The name is, however, generally restricted to the highest part of the range, a few miles north of Delphi, which became the resort of Apollo and the Muses.

Top; it is celebrated for its 'two summits,' Tithorea and Lycorea. She *showed*, exhibited, her sons, or asked us to look at her sons, high, &c.

97. *Equal steps*: steps equal to those walked by her sons.

98. *Just precepts*: Pope obtains this idea from a remark of Quintilian.

99. *From them*: from great examples. *Heaven*; he had said above the *source* was nature. See l. 73, and note on l. 86.

102. *Muses*: should be in the possessive case. Criticism is here said to help poetry as a handmaid or nurse her mistress. Compare Addison's *Cato*, Act IV. 267 and Scott's—

"O Caledonia, stern and wild,
Meet nurse for a poetic child." *Lay of the Last Minstrel.*

For the nature of Criticism and the character of the true critic, see Brown's Lectures, iii. p. 16;

104. *Following wits*: succeeding writers; they, departing from this intention of serving poetry, inasmuch as they could not be poets, tried to become critics and used their powers against poets.

108. *Pothecaries*: apothecaries. Though justified in the familiar language of early dramatists, it is scarcely proper in a serious didactic piece like the *Essay on Criticism*. Addison remarks in the *Spectator*, No. 135, para. 11.—"It is perhaps this humour of speaking no more than we needs must, which has so miserably curtailed some of our words, that in familiar writings and conversations, they often lose all but their first syllable as in 'mob. rep. pos. incog.' and the like [in the case before us it is the first syllable that is lost]; and as all ridiculous words make their first entry into a language by familiar phrases," &c. The Poticary is one of the 'Four P.'s' of John Heywood's *Interlude*.

109. *Doctor's bills*: physician's prescriptions. *Mistaken rules*: rules which they (the apothecaries) do not understand.

112-114. Warburton remarks:—"The first, the *apes* of those Italian Critics, who at the restoration of letters having found the Classic writers miserably mangled by the hands of monkish librarians,

very commendably employed their pains and talents in restoring them to their native purity. The second, the *plagiaries* from the French who had made some admirable commentaries on the ancient critics."

117. *Explain the sense away*: load the text with commentary on commentary, or explanation on explanation, so that the meaning is completely lost. See Job xxxviii. 2 "Who is this that darkeneth counsel by words without knowledge." Compare SWIFT *On Poetry*.

A forward Critic often dupes us
With sham quotations *Peri Hupsous*
And if we have not read *Longinus*
Will magisterially outshine us.
Then lest with *Greek* he overrun ye
Procure the book for love or money,
Translated from Boileau's Translation,
And quote *Quotation on Quotation*.

120. *His fable*: the story on which his subject argument is founded; *the scope*: the end or intention he sets before him.

123. After this verse the author at first inserted the following lines:—

"Zoilus, had these been known without a name,
Had died, and Perault ne'er been damn'd to fame;
The sense of sound antiquity had reign'd,
And sacred Homer yet been unprofan'd,
None e'er had thought his comprehensive mind
To modern customs, modern rules confin'd;
Who for all ages writ, and all mankind."

Criticize: judge correctly.

125. Compare Psalm i. verse 2:—"In His law doth he meditate day and night."

127. Trace poetry upwards to Homer, the father of poetry.

129. *Mantuan muse*: Maro Publius Virgil, the prince of Latin poets, born (70 B. C.) a few miles from Mantua: a town of Gallia-beyond-the-Po, or in other words in North Italy. His chief work is the *Æneid*, then the *Georgics* and *Bucolics*. *Comment*: illustrative guide.

139. An allusion to Virgil's own words in *Bucolic*, VI. 3-6.

"But when I tried her tender voice, too young,
And fighting kings and bloody battles sung,
Apollo checked my pride."

131. Compare the concluding words of Ovid's *Metamorphoses* and the last Ode of Horace, Book III, writing of their own poetry:—

"More durable than brass, the frame
Which here I consecrate to fame;
Higher than pyramids that rise,
With royal pride, to brave the skies;
Nor years though numberless the train,
Nor flight of seasons, wasting rain,
Nor winds that loud in tempests break,
Shall e'er its firm foundations shake,
Nor shall the funeral pyre consume
My fame!" &c.

To outlast the immortal—is a bull. The original form in which the lines stood was not so objectionable:—

"When first young Maro sung of kings and wars
Ere warning Phoebus touched his trembling ears."

135. An allusion to the tradition preserved by Servius, as Pope himself informs us, "that Virgil began with writing a poem of the Alban and Roman affairs, which he found above his years, and descended first to imitate Theocritus on rural subjects, and afterwards to copy Homer in Heroic poetry."

138. Dr. Aiken justly points out the inconsistency between this line and l. 272. There are a number of lines throughout the poem, whose consistency with each other it would be rather difficult to justify.

Stagirite: Aristotle born at Stagira, B. C. 384. Pope refers here and elsewhere chiefly to the *Poetics* and *Rhetoric*. The other subjects on which he wrote were *Logic*, *Metaphysics*, *Ethics* and *Politics*.

142. *Happiness*: unexpected good fortune, the literal meaning of the word, and the common meaning of its root *hap*.

Care: the result of care or careful attention to rules.

144. Quintillian remarks:—"It is determined not by any rational principle, but by a certain inexplicable mental impulse. Though many have tried to give an explanation, none of the explanations are satisfactory." Book VI, iii. 1.

145. *Master-hand*: the hand of a master or of a person highly skilled. *Reach* is used both transitively and intransitively. Here transitively, meaning to attain to. This idea is also from Quintilian, Book II, Chap. XIII.

150. *Licence*: breach of rule. *Pegasus*: the muse. Fig. Metonymy. The figure is confused.

153. *Art*: is here distinguished from genius. The poet abruptly drops the figure of the muse riding on Pegasus.

154. *Without passing through the judgment*: without being approved by, &c., acquires power over the emotions.

157. *Rise out of*: differ from.

159. *Gloriously offend*; Compare Dryden's *Aurungzebe*.

"Mean'soul, and darst not gloriously offend."

170. *Freer beauties*: graces obtained by invading the rules or by licence. Cowper uses the same figure taken from painting to illustrate the work of the poet, *Timepiece*, l. 294.

"Then to dispose his copies with such art,
That each may find its most propitious light,
And shine by situation, hardly less
Than by the labour and the skill it cost."

The idea and the illustration are taken from Horace's *Art of Poetry*, 361-365:—

"Poems like pictures are: some charm when nigh,
Others at distance more delight the eye;
That loves the shade, this tempts a stronger light,
And challenges the critic's piercing sight;
That gives us pleasure for a single view;
And this, ten times repeated, still is new."—FRANCIS'S *Tron*.

See note on *Cato*, I, iv. 146.

175. An idea taken from Dionysius of Halicarnassus's *De struct. orat.*

Equal ranks: uniform ranks, so that they could be easily numbered. *Powers*: battalions, forces. See *Paradise Lost*, V. 600.

180. *Homer nods*: Homer, or the great poet, makes a mistake as if sleeping. Pope refers us to Quintilian's words.

There is an allusion here also to Horace's *Art of Poetry*, l. 359.
 "Bonus dormitat Homerus :—

"If honest Homer slumber o'er his muse
 Although perhaps a kind indulgent sleep
 O'er works of length allowably may creep." Francis.

Compare Roscommon's *Essay on translated verse* :—

—"The greatest part
 Of what some call neglect is studied art.
 When Virgil seems to trifle on a line,
 'Tis but a warning piece, which gives the sign
 To wake your fancy and prepare your sight,
 To reach the noble height of some unusual flight."

181. *Green with bays*, &c. : still adored is each ancient poet. The allusion is to the custom of decorating by means of garlands or festoons of flowers, leaves, or grass, the altars when prepared for sacrifice. The *bay* is another name for the *laurel* tree which was sacred to Apollo. Berry-bearing twigs of it were formed into wreaths for the heads of victorious heroes and poets. In later times, the degree of Doctor was conferred in the same way, hence the term *laureation*. *Bachelor*, as in the B. A. degree, is supposed to originate in the same ceremony, being from *bacca laurea* that is the *laurel berry*. A laurel crown is still used as an emblem of the honour to which poets, scholars, artists and warriors aspire. Horace in the Ode already quoted, addresses Apollo :—

"With laurel wreaths my head surround,
 Such as the god of verse have crowned."

182. *Above the reach*, &c. : so high that profane critics cannot touch them.

184. *All-involving age* : 'tempus edax rerum.' Ovid's *Metamorphoses*, xv. 234. "Time the devourer of all things."

186. *Pæan* : a hymn or song which was originally sung in honor of Apollo. Always joyful, it expressed hope and confidence. It was sung as a song of thanksgiving or to propitiate the god. It was also sung alike before engaging in battle and after it was finished.

204. Compare Roscommon's *Essay on Translated verse* :—

"Pride, of all others the most dangerous fault,
 Proceeds from want of sense, or want of thought,
 The men who labour and digest things most
 Will be much apter to despond than boast ;
 For if your author be profoundly good,
 'Twill cost you dear before he's understood."

206. *Recruits* : supplies, l. 80. *Recruit* is scarcely the proper word after *denied*. *Recruit* is, properly, supply in room of what is wasted. Nor can *pride* be properly described as *useful* in the circumstance.

216. *Pierian spring* : Hippocrene, the spring of the Muses. Pieria was a district of Macedonia separated from the rest of Macedonia by the edges of Mount Olympus. It was celebrated as the first seat of the Muses. Hence they were called *Pierides*. A portion of Olympus and its off-shoots in Pieria was called *Pierus*. Thus the adjective *Pierian* came to mean anything belonging to the Muses, as for example *Pieria via* : the study of poetry,

225. This passage was originally written by Pope.

"So, pleased at first the towering Alps to try,
 Filled with ideas of fair Italy,
 The traveller beholds with cheerful eyes
 The lessening vales, and seems to tread the skies."

215. Compare Fuller's *Holy State, The True Church Antiquary*. "A little skill in antiquity inclines a man to Popery, but depth in that study brings him about again to our religion."

233. *A perfect judge*, &c. The thought is taken from Quintillian.

236. *Where nature moves* : in which nature inspires.

237. *That malignant*, &c. : that ill-natured, stupid joy arising from finding fault.

242. Compare Horace's *Art of Poetry*, lines 373-378.

"Yet take this lesson home ; some things admit
 A moderate point of merit, e'en in wit.
 But gods and men and booksellers agree
 To place their ban on middling poetry." Conington.

245. See notes on *Cato*, I, iv. 2.

248. Warburton remarks :—"The Pantheon I would suppose ; perhaps St. Peter's ; no matter which ; the observations is true of both."

253. Compare Suckling's *Epilogue to the Goblin* :—

"High characters," cries one, and he would see
 Things that never were, nor are, nor e'er will be.

And Sheffield's *Essay on Poetry* :—

"There's no such thing in nature, and you'll draw
 A faultless monster, which the world ne'er saw."

258. *Spight* for spite.

263. "The incident is taken from the second part of *Don Quixote*, first written by Don Alonso de Avellanada and afterwards translated or rather imitated and new modelled by no less an author than the celebrated Le Sage." Warburton.

270. *Dennis of the Grecian stage*. Dennis, the son of a London saddler, was born 1657. He criticised Addison's *Cato* severely. Pope, in 1713, wrote a miserable pamphlet against him called "*The Narrative of Dr. Robert Norris on the Frenzy of J. D.*"

"He lived to receive from Pope the sneeringly bestowed alms of a prologue written for his benefit in his blind old age." He died 1734. The text alludes to the nine dramatic pieces which Dennis wrote or altered, the best of which were *Liberty Asserted*, and *Appius and Virginia*.

276. *The Unities*. The Three Dramatic Unities were those of Time, Place and Action.

Macaulay remarks in his essay on the *Life of Byron* :—"It would be amusing to make a digest of the irrational laws which bad critics have formed for the government of poets. First in celebrity and in absurdity stand the dramatic unities of place and time. No human being has ever been able to find anything that could, even by courtesy, be called an argument for these unities, except that they have been deduced from the general practice of the Greeks. It requires no very profound examination to discover that the Greek dramas, often admirable as compositions are as exhibitions of human

character and human life, far inferior to the English plays of the age of Elizabeth.....All the master-pieces have been composed, in direct violation of the unities, and could never have been composed, if the unities had not been violated. It is clear, for example, that such a character as that of Hamlet, could never have been developed within the limits to which Alfieri confined himself." Macaulay's *Essays*, vol. I. p. 154.

278. *Were but, &c.*: if only a combat in the lists were left out.

280. *Renounce the Stagirite*: violate the rules of Aristotle.

Compare Buckingham's *Essay on Poetry*.

"Humour is all; wit should be only brought
To turn agreeably some proper thought."

See also Campbell's *Philosophy of Rhetoric* I, i, 1 note. (B.A. Course)

308. *Content*: trust. They rest satisfied or contented that there is sense.

309. *Words are like leaves*; the simile is taken from Horace's *Art of Poetry*.

313. *Expression is the dress*: a very stale metaphor.

Some by old words, &c., taken from *Quintillian*, i. 6.

326, 7. A favourite quotation.

323. *Fungosa*, an awkward character in Ben. Jonson's play *Every man out of his humour*, who endeavours to translate himself into the likeness of another character called Fastidious Brisk. "He follows the fashions like a spy afar off, he makes it the whole bent of his endeavours to wring sufficient means from his wretched father to put him in the courtier's cut; at which he earnestly aims but so unlikely, that he still lights short of a suit."

337. The idea is taken from Persius' *Satire*, i.

341. *Parnassus*: mountains extending from Doris to Corinth, sacred to the muses.

345. *Though oft the ear, &c.*, an idea found alike in Cicero and Quintillian.

346, 347. From Dryden. "He *crawls* along with ten little words in every line, and helps out his numbers with [for] [to] and [unto], and all the pretty expletives he can find, while the sense is left half tired behind it." *Essay on Dramatic poetry*.

347. *Ten long words*: It is worth remarking the number of monosyllabic lines in the *Essay on Criticism*. Mr. Neil enumerates them thus:—"lines 35, 73, 81, 107, 113, 226, 232, 254, 284, 303, 335, 338, 347, 358, 399, 426, 451, 504, 574, 599, 632, 673, 685, 727, 744," twenty-five in all. It must be noticed, however, that a monosyllable is not necessarily low.

Alexandrine; generally understood to be derived from this measure being used in the metrical romance "Alexandrics" written about 1200, A.D. by Gauthier de Chatillon. The following line (i.e. 359) is a good illustration of it. Compare Virgil's description of the wounded snake, *Georgics*, iii. 424.

"Till stretched in length, the unfold'd foe retires
He drags his tail and for his head provides
And in some secret cranny slowly glides."

361. *Denham*: born in Dublin, 1615. He wrote the tragedy *Sapho*, the poem *Cooper's Hill*, and translated *Virgil, &c.* He died 1688 and was buried in Westminster Abbey.

Waller, born at Coleshill, Herts, 1605. He wrote a *Panegyric* on Cromwell, and an ode "to the King upon his Majesty's Happy Return." He also died in 1688, the year in which Pope was born.
—Abridged from the *Calcutta Student*.

HINTS AND ADVICE TO EXAMINEES.

In answering the papers, attention should be paid to the following *General directions*, which were prefixed to the Indian Civil Service Examination Questions of 1858.

1. In every answer the precise import of the question should first of all be well considered, and then kept throughout clearly and steadily in view, and it must be understood and remembered that the introduction of any matter which does not come within the terms of the question will be merely time and labour thrown away, however good in itself the irrelevant matter may be.

2. Every answer should be in the form of a regularly-constructed sentence, or series of sentences, and not in that of a tabular statement, still less of a mere memorandum; and it should be complete in itself, and intelligible independently of the question.

3. The punctuation should be carefully attended to. A deduction will be made from the *valuation of the answer* wherever this is neglected.

The following hints will be found useful by the candidate:—

1. Before commencing to answer a paper, read carefully all that is printed on it. Sometimes the examiners indicate certain questions which all must attempt to answer; sometimes they restrict the number of questions which it is *allowable* to answer; sometimes they give directions as to the penmanship, manner of folding the paper, margins, &c. From inattention to any of these, you may have a deduction made from the valuation of your answers. You must also note carefully the *time* allowed for answering.

2. Read over the whole of the questions before commencing to answer any; note carefully those that you think you can answer, and confine your attention to them until they are answered to your satisfaction.

3. In beginning to answer, weigh each question carefully, and make sure that you perfectly understand its meaning.

4. Never begin a sentence till you know exactly what you mean to say in it. If necessary write it down on a piece of waste paper: you will thus avoid erasures on your manuscript; and erasures are seldom made without affecting the grammar and punctuation of a sentence, for which the valuation of the answer will be diminished.

5. Answer all that is asked in the question as fully as you can, but not with undue minuteness. A certain average time should be allowed to each answer. No extra valuation is given to an answer on account of its length; and if you waste time you may have to give in your paper before you have come to the end of the questions that you can answer, and you will thus lose marks that may be all-important.

6. Do not, in order to increase your marks, attempt to *guess* any answer. It is scarcely possible to do so without being detected; and the examiner will then suspect your other answers, and they may suffer in valuation in consequence.

7. Write carefully and legibly, and read over every answer attentively, looking well to the spelling, grammar, and punctuation. Make your sentences short and perfectly unambiguous in their meaning; use no introductions; do not attempt any fine writing either as exordium or peroration; and avoid all affectation of style, undue employment of foreign words, and colloquial expressions.

Demerits.

The object of the candidate is of course to pass, and to pass with as much credit as possible. There must be no mistake about this. His purpose is not to show knowledge of a subject, but simply to get marks: this point should never be lost sight of. If you do not agree with me in this at the outset, we differ in our premises, and my advice will be useless. Competitors would save themselves and their examiners a world of trouble if they would continually bear in mind this first principle. At all events I shall start with it, and repeat that the aim of the examinee is the favour of the examiner. This cannot be achieved by anything but studious and scrupulous care to answer neither more nor less than the questions asked. Nothing can possibly be more irritating to an examiner, than to have to wade through a *savago* of irrelevant matter in a vain endeavour to extract the particular grain of which he is in search, and which, after all, may not be there at all.

The answers of a candidate should be as terse and pointed as those of a witness under cross-examination. University papers are not to be used as an arena for a pantathletic display of originality or deep reading. The art of being examined is not so much to express one's knowledge as to conceal one's ignorance. Many a one has by supererogatory curvettes, demivoltes, and caracoles, proved himself irretrievably unsound, when his paces would have never been suspected if he had confined himself to the amble, trot, and canter, demanded of him by the examiner. The learned 'Varronianus,' whose pupil I had the honor to be, used to say; "A little knowledge and plenty of style is what I want in my pupils; much knowledge and little style is a very poor substitute."

Attend therefore carefully to your style. Caligraphy, correctness in punctuation, spelling, and syntax, are the prime elements of style. A hundred other little niceties and elegancies will add themselves to the student who anxiously endeavours to make himself a perfect examinee. I remember in the 'Little-go' Examination of 1857, three of us were contented to prepare ourselves for the Paley papers by listening to a *bird voce* explanation of the subject by a common friend who was well read in it. Alas! the teacher was plucked in the subject, and the three pupils, who had learnt solely from his lips, all passed. This was style against knowledge.

All such little matters as leaving a margin on the left side of your paper, and writing your name legibly, and in full, at one corner of each sheet, and the number of the sheet at the other, come under the general term *Style*. And here I must not forget a piece of advice which is lamentably wanted by you eastern students. Write your answer to each question on a separate piece of paper: this is *always* desirable, and a *sine qua non* in Mathematical solutions. In the end you will really use far less paper, and it is waste of time (which is marks) to be obliged to re-write a whole sheet of fair work simply because of a failure in the last few lines. This is avoided by

never beginning a second question on the same sheet as one already complete.

Common sense too is a faculty that cannot be too highly prized. Consider always when you have solved a question whether your answer is commonly sensible. Harvey Goodwin (the benefactor by his 'Course' of all examinees) said that in a Cambridge Poll Examination, in answer to an arithmetical question about the price of papering a room so many feet high, long, and broad, he received solutions giving the sum at prices of every conceivable value between 2½d. and £80,000,000!

See therefore that you send up no *ridiculous* results in your mathematical papers; believe me, I am giving you no unnecessary caution in this matter. I remember at the Delhi College a greedy horse, in a double rule-of-three sum, that ate the enormous quantity of 60,000 seers of gram in a week; and five builders (absolute Rustains) who raised a pillar of greater dimensions than the Kutub in three hours and a half.

Have all dates, tables, and mathematical formulæ by heart, so that no effort of the mind is required to recall them. Many a man has failed in an examination from not knowing tables. I shall never forget looking round the Cambridge Senate House in a paroxysm of misanthropy, because I could not call to mind that a cubic foot of water weighed 1,000 ounces.

The brain should not have to be pestered during the strain of an examination for the number of acres in a square mile, or the numerical value of the ratio of a circle to its diameter. The remembrance of such formulæ as

$$S = (2a + n - 1)b \frac{n}{2} \text{ or}$$

$$AM. MA' : MP^2 :: AC^2 : BC^2$$

should be instantaneous and without effort.

My own practice was, to suspend placards of formulæ in divers conspicuous positions in my rooms, and read them in all those little odds and ends of time that occur almost hourly to every body. By thus perpetually being, as it were, stared in the face by the expressions, I was at length able to repeat mechanically, without the least attention to their meaning, sheets on sheets of tables and formulæ. I remember Mr. Todhunter, under whose guidance I read the higher Mathematics, used to say, "Give me a stupid man with 500 formulæ well in his head and I'll warrant he shall beat the best natural mathematician in the world."

Remember what I said at first, that I am speaking to you as examinees, not as students. I am perfectly aware that to have at one's finger's ends the author of the Beaux' Stratagem, the date of the invention of glass, or the value of $\tan 18^\circ$, is a very mean accomplishment for a man who aspires to learning and wisdom. I am considering you for the nonce simply as competitors for University Degrees and Honors: and as such, you require rather than a large amount of knowledge, a factitious facility in the reproduction or exhibition of a far smaller quantity. Do not, from considering these things, conclude that examinations are either pernicious in their effects or fallacious as tests of proficiency. Doubtless it would be well for every examiner to have a long interview with every candi-

date, and by careful cross-questioning thoroughly sift his knowledge of every subject; but this being obviously impossible, the present system must be persisted in, at all events until a better be devised, and that I fear is a very remote contingency.

I sum up by a concise repetition of what I have said at greater length above.

Write plainly and clearly—on one side of your paper—one answer on each sheet—what is asked of you and no more. Begin always with a question which you are sure you can solve perfectly, lest by failing in the outset you be flurried for the whole paper; if you see no such question you may be sure you are already plucked. Take your time; if you know the work you will 'floor the paper' by slowly writing; if you do not, no tachygraphy will help your ignorance.

Avoid flippancy: it is barely probable that you may know more of the subject in hand than the examiner, and even if you do, it is nothing to the purpose.

And above all, be honest. Let every man look at it in this light, that if he attach his name to a paper, whose contents are not absolutely the product of his own unassisted brain and hand, he is virtually committing forgery and perjury, the grosser and more shameless as he involves another, an innocent person, in the punishment due solely to himself.

Bentley used to say that a man who would cheat in an Examination for Honors, would not scruple to sell his dead mother's hair. I am not sure that I do not endorse the opinion of the king of commentators.—*Punjab Educational Magazine for July, 1865.*

THE EXAMINATION ROOM.

THE near approach of the great Examinations of the year suggests to us a remark or two which may not be useless to some of our younger readers. Those about to submit to the ordeal are of course eagerly expecting the first day; but even the least interested can hardly be ignorant of what is approaching, it is made so prominent by the appointment of Examiners, the nomination of examination superintendents, the constant movement of persons between office and the press bearing copy marked "confidential," proofs carefully sealed up to be delivered only to "the master" and well secured parcels similarly protected; to say nothing of the formidable packets "*On Her Majesty's Service*" which the Post office writers take up and examine on both sides to make sure that they have got hold of a post letter and not a cooly load for the next printing office; all these signs make known to the most careless saunterer that the time is at hand.

These preliminaries involve an amount of work and responsibility which few have much conception of except those actually engaged in it. The great anxiety is to get the questions fairly struck off, the type broken up, and rough proofs destroyed, without any thing escaping. Next comes the labour of sorting and counting the papers and packing them. In ordinary matters work of this kind is of course left to subordinates, but this cannot be done in a case where the purloining of a single paper might make it necessary to reject the answers of hundreds of persons.

Success in an examination does not depend entirely on what a man

knows; his ability to bring out what he knows, to arrange it properly, to give what is asked for and no more, have a great deal to do with determining the place he shall take. Besides these, the power of withdrawing his attention from every thing but his own work, fixing it on one thing at a time, of economizing time, of exercising his judgment in selecting the questions to be answered; all this must be within the power of a candidate who is to do full justice to himself. A good deal of preliminary training is of course necessary to any thing like perfection in these points, and no amount of advice on them can be of very much good to one who hears it for the first time, or stands much in need of it. At the same time, a few remarks on each may not be entirely useless.

The ability to concentrate one's attention on the work in hand is of great value in all circumstances; to a person undergoing an Examination, who has a fixed portion of work to get through, or at least, make the best of, within a limited time, it may be said that nothing is so valuable. One of the first things therefore that a man who goes into an Examination room to be examined should do on getting his question paper is just rigidly to fix himself on it, taking no more notice of what the other people in the room are doing than if they were a hundred miles away. A person at all experienced in conducting examinations can tell almost at a glance which are the well trained men and which the loose inaccurate badly-trained ones. The latter are generally eager to get their papers, but in this they are not peculiar; then, having got the questions, instead of steadily settling down to answer them, they seem to get intensely interested in the movements of the person who is giving out the papers, carefully watching him serve the others; that completed, they again look at their questions; and at last, when they begin to think of making a start they find no pen ready, or no paper, and literally at the end of half an hour they have not written a line, although a sixth or a fourth of the available time has gone.

We would urge every one, as a prime condition of success in an examination, to begin at once. Never mind other people; if they do good papers you will gain nothing by looking at them; if they do bad ones that will be no help to you. The examiner is no respecter of persons, and every one of whom he has to judge must stand on his own bottom.

The advantage of a good start is enormous. The confidence and freedom from anxiety which is felt by a man who has got through, say, half or two-thirds of his work when half the allotted time has expired, doubles his powers for the remainder of the time. Feeling safe, and that he has nothing to fear, he is cool and collected, with every faculty available. The dawdler, on the other hand, who finds at the end of half the time that he has hardly begun, gets flurried and confused; he goes sprawling on at random, writing anything that comes uppermost, thinking that he must at least make a show of something, but this something turns out to be nothing but flummery when weighed in the inexorable scales of the examiner, who demands answers to his questions, and casts pages of what is not asked for to the waste paper basket.

This beginning at once is one way of economizing time: another lies in judiciously choosing the question to be tackled. We have known many instances of good men standing absurdly low from not

attending to this. Such men, seeing some difficult question in a paper, which they think they can gain credit by answering, attack it at once; but, though it may be by no means beyond their ability, the flurry of examination, and, after a little while, the nervousness attendant on feeling that they are not doing much, confuses and stupefies them, and when the papers are called for, they, perhaps, have not done a single question; or, if they have done one or two, nothing like what they ought to have done, and would have done, had they exercised a little more judgment in choosing their questions.

No man can choose the most difficult question to start with without great risk. Indeed the risk is too great for any man to incur. It is like a man who has but a thousand pounds in the world, betting his thousand pounds to a shilling: if the bet is won the gain is insignificant, while, if it is lost, the loss is irreparable. Supposing a difficult problem is solved, it will not probably carry more than the total number of marks assigned to two easier questions, while, yet, it may be, half a dozen of these easier questions could be answered in less time than the difficult solution takes. We must always remember too that the chances are against the solution being arrived at within the limited time allowed. We would therefore offer the following as a simple and safe guide to any one undergoing examination. On receiving the question paper, read it through carefully, twice if necessary. Next, mark all the questions which you are quite sure you can answer; then set to and answer these. If this is done before the time is expired, read over carefully the remaining questions, and select such as you know something of, making the best you can out of them. Then, lastly, try any of those left. Proceeding so, a man sets himself on safe ground. Supposing him at all well prepared for the examination, then his answers to the questions first selected make him sure of a pass; next, the something he can make out of the others raises him to a fair position; and, lastly, the difficult one or two, which, feeling perfectly easy, he is likely to handle, will place him in a first rate position; and if he cannot manage these, he has still done enough to be satisfied with: while, had he begun with the difficult problems, he would probably have failed; and then, finding his attempts useless and turning back to the easy and otherwise safe questions, he would blunder over them and end by doing little or nothing.

Another important point is never to let your thoughts wander to other questions than the one you are answering. These you should have nothing whatever to do with. While answering one question out of a paper you should act exactly as if that was the only question in the paper. For the time, you have no more to do with the others than if they had never been set. If you are thinking about another question which is easy, you are tempted to skip the answer you are writing in order to get to it; and, if it is a difficult one coming which you are somewhat doubtful about, that engages your thoughts, half of the attention which should be all concentrated on the work in hand to ensure its being well done, is wandering off to the next question, and what you could do well, is badly done, because you are thinking of what you know you cannot do well, and which must, after all, be done badly. In examinations, however, as in most things else, one thing thoroughly well done tells much more than half a dozen incomplete or badly finished attempts. 1

Sticking to the question and giving what is asked for and no more are also important points in which very many fail. Every candidate may depend upon it however that a short answer to the point gets more marks than even the same statement mixed up with a good deal which is irrelevant. There are several reasons why a wordy rambling answer should not be valued very highly. First it shews that the mind of the writer has not been properly trained to discriminate between what is connected with the question and what is not. Next it gives the impression that the writer, conscious of his inability to give the answer required, is trying to hide his ignorance, and, if possible, throw dust in the eyes of the examiner. And, lastly, an examiner dislikes to wade through two or three pages to find what the writer actually has to say, and is not unlikely to give rather less credit than is really due for the knowledge possessed on account of the confused way in which it is expressed. And the examiner is right. Any moderately advanced examination is meant to test a youth's general education, and these indications of a bad loose education ought to weigh in his eyes against those he is examining.

This recommendation, to answer the question in hand accurately and tersely, with no wordiness or dragging in of extraneous matters, we would reiterate, and urge careful attention to. The more so that some young men doubt the wisdom of acting on it. Only a few days ago we had a conversation with a young man about to enter for the University B. A. Degree examination, and gave him according to our wont, a few hints for his guidance; among others the one now under discussion. To our surprise, while agreeing that our advice was sound, he yet thought that it would not do for candidates to act on it, as, said he, "Mr. ——— likes long answers and gives very few marks for short ones even though they may be correct." We have a slight acquaintance with the gentleman named and have no doubt whatever that those who have formed this opinion of his likings are utterly mistaken. The opinion expressed by our young friend has however suggested to us one caution. A mere negative or affirmative is not a sufficient answer; because an examiner cannot tell whether such an answer is a guess or based on a reason, the process by which the conclusion is arrived at must therefore be given in such a case.

In Mathematical processes again we hold an exhibition of the full work, of every step, to be indispensable; and as a hint which may be useful to some, we would say be accurate in the use of symbols.

Lastly, the careful arrangement of an answer is an important minor point. A candidate should always remember that an examiner is better pleased with a well written neatly arranged paper than he can be with a slovenly blotted scrawl; and he will be so predisposed in favor of the former that, in any cases where he hesitates a short time before determining the exact number of marks to be given, the good arrangement of the matter will plead in favor of the higher number. This as it tells in every question and in every paper will make a considerable difference in the total of marks awarded.

STYLE IN GEOMETRICAL ANSWERS.

THERE are few points in which the generality of students fail so much in answering questions in Mathematics, as those of *style*.

We are convinced that their defects, in this respect, arise mostly from bad training, inaccurate habits of thought, and careless working at the preparatory schools, and could be remedied by a little care, watchfulness, and perseverance on their part.

It is in their answers to questions in Geometry especially that this bad style is so often noticed. We have had as many as six or seven pages of large-sized paper sent up in answering a single proposition in Euclid; the object of the Examinee being, apparently, to cover as much paper as possible, and to give the Examiner the greatest amount of trouble, in trying to extract the essential parts of the proof from a disordered mass of inconsequential syllogisms.

As an illustration of bad style, we give the solution to an exercise on Prop. X, Book IV. of Euclid as nearly as possible in the words in which we received it lately from a student. We also give the same proof arranged and condensed in the style in which we would wish it to be answered.

5. If A be the vertex and BD the base of the constructed triangle, D being one of the points of intersection of the two circles employed in the construction, and E the other; and AE be drawn meeting BD produced in F, prove that FAB is another isosceles triangle of the same kind.

The reader will have no difficulty in drawing the figure, we call C the point in which AB is cut, so that $AB \cdot BC = AC^2$.

The style in which we have received answers.

5. If A be the vertex, and BD the base of the constructed triangle, D being one of the points of the intersection of the two circles employed in the construction, and E the other; and AE be drawn meeting BD produced in F, prove that FAB is another isosceles triangle of the same kind.

Since ACDE is a quadrilateral figure inscribed in a circle, and since, in a quadrilateral figure inscribed in a circle, the opposite angles are together equal to two right angles (Euclid Prop. XXII. Book III), therefore the angles ACD and AED are together equal to two right angles, but the angles ACD and BCD are also together equal to two right angles (Prop. XIII, Book I), therefore the two angles ACD and AED together are equal to the two angles ACD and BCD taken together, take away the common angle ACD, and the remaining angle BCD is equal to the remaining angle AED.

Again it has been proved (Prop. X, Book IV) that the angle DCB is equal to the angle CBD, but the angle AED has been proved equal to the angle BCD, therefore the angle AED is equal to the angle ABD. Again the side AE is equal to the side AD, both being radii of the same circle, therefore the angle ADE is equal to AED, but AED has been proved equal to ABD, therefore ADE is equal to the angle ABD; and the angle AED is equal to ABD, but ABD is equal to ADB, therefore the angle ADB is equal to AED.

Again it has been proved that the angle AED is equal to ADB, and the angle ADE equal to ABD, therefore, in the triangles ABD and ADE, the angles ABD and ADB are respectively equal to the angles ADE and AED, therefore the angle BAD is equal to the

angle DAE, therefore the whole angle BAF is double of the angle BAD, but ABF is also double of BAD, therefore BAF is equal to ABF, therefore the triangle ABF having the angles ABF and BAF equal is an isosceles triangle. Again, in the triangles ABD and ABE, the angle BAF is equal to ABD, and the angle ABF is equal to ADB, therefore the third angle in the one BAD is equal to the third angle in the other ABE, but ABD is double of BAD, therefore ABD is double of ABE, and BAF is equal to ABD, therefore BAF is double of the angle ABE, therefore the triangle ABE has each of the angles at the base double of the vertical angle.

Q. E. D.

The style in which it should be answered.

5. ACDE is a quadrilateral inscribed in a circle

$$\therefore \angle BCD = \angle AED.$$

But by Euclid iv. 10.

$$\angle BCD = \angle CBD = \angle ADB.$$

$$\therefore \angle AED = \angle CBD.$$

$\therefore$ The isosceles triangle ADE is equiangular to the triangle ABD.

$$\therefore \angle BAF = 2 \angle BAD = \angle ABD.$$

$\therefore$ ABF is an isosceles triangle equiangular to ABD

$\therefore$ It has the angles at the base double of the vertical angle.

Q. E. D.

A comparison of the above solutions will, we think, convince our readers of the great importance of style. There are many reasons why an ill-arranged rambling answer should not get high marks. We have not space at present for a discussion of these reasons, but will conclude with a few words of advice to candidates for examinations.

Bear continually in mind that what is wanted of you is *quality*, not *quantity*.

Make your solutions as terse and concise as is consistent with clearness, taking care to keep each step in the proof distinctly separate from the others. Good penmanship is not so much necessary as neatness in arrangement.

Write your answers neatly on one side of the paper only. If possible, and it is nearly always so in your questions, get the answer to each question into *one* page.

Make neat diagrams of a medium size, and *print* on them the letters which denote points and angles.

Use, in writing out Euclid, all recognized abbreviations and algebraical symbols. We believe there are very few Examiners, in these days, who would object to them, and most will certainly be delighted to get them, if they are *distinctly* written. Any Examiner who objects to symbols and abbreviations should state his idiosyncrasy.

Of course to those who do not thoroughly understand the reasoning in Euclid, and who trust to their getting the propositions off by heart, and we are afraid there are many such, all advice as to style and conciseness will be useless. We have received answers in which the enunciation was repeated, although given on the question paper, and the enunciations of several propositions, which occurred in the proof, given in full, merely because the Examinees remembered

them off by heart, and wanted to make a show of writing, while some important and difficult steps in the reasoning were omitted altogether. The excuse for this was that "they were told to write their propositions as concisely as possible."!!—(From the *Calcutta Indian Student*.)

W. G. W.

NATIVE OPINION ON THE BIBLE IN GOVERNMENT SCHOOLS.

A MISSIONARY in Madras writes to us:—"I enclose a letter recently received by one of our missionaries from a Mysore non-Christian Native; he has sent it to me thinking that, as an unsolicited expression of Native opinion, it is of some value, and asks me to forward it for publication." The following is the letter alluded to:—

The conversations I have lately had with an English gentleman who takes a deep interest in Indian politics lead me to express my opinion and that of my friends regarding the introduction of the Bible into Government Schools and Colleges in India. I do so with some diffidence, but, at the same time, in the hope that my opinion may be taken as that of a disinterested party in the matter.

I think that natives, I mean educated natives, do not object, as is erroneously imagined by the majority of the English people, to read the Bible in Government or any other schools, as a book of history or literature. Without a knowledge of it they cannot appreciate sufficiently the beauties of the English language; nor can they understand the different allusions made so frequently by the English authors whose works they have to read.

We cannot properly understand Milton's "Paradise Lost" and "Regained," which are on the list of University text-books, unless we have a knowledge of the Bible, and on this ground alone it is very necessary that it should be one of the subjects studied in Government Schools and Colleges in India.

We natives read in Government schools, as a general rule, the works of Johnson, Gibbon, and other writers, to the exclusion of authors of the present day, and form our language after their style, quite forgetting that these authors belong to a past age.

When, accordingly, we speak and write in their language to Europeans on the affairs of every-day life, they are amused at our seeming affectation. But we speak and write in that style, just because these works do not teach us to express ourselves in a simpler manner, and we thus labour under a great disadvantage.

When I was speaking to the gentleman alluded to in the beginning of this letter, I asked him what books he would advise me to read to acquire an easier and simpler style. He recommended to me the Bible, and to convince me of the power of its language, he took me to his study and shewed me several passages in Macaulay's Essays, especially with reference to the Puritans, where that writer has employed Bible expressions, which added all the more to the elegance and force of that celebrated author's diction.

If then this be true, it is a powerful argument in favor of the introduction of the Bible into Government schools. As a book of history, it furnishes us with satisfactory accounts of the earlier ages of the world; indeed, it takes us back even beyond the period of

written profane history, and gives us accounts of nations of ancient times, such as Egypt, Assyria, Babylon and Nineveh, whilst in the New Testament we have most interesting allusions to the Roman Empire and to the general state of the world during that particular era of its history.

It is an undisputed fact that Missionaries were the first in the field in educating the natives; and not one among the many thousands attending their schools, as far as I know, has objected to read the Bible. It might be said they had no option. But even since the establishment of Government schools of a high order, the attendance at Mission Schools has certainly not fallen off. Both systems work side by side without clashing, and if natives had any objection to studying the Bible, they would have naturally left the Missionaries for the Government. But such has not proved to be the case, and at the present time in Bangalore, which is the head-quarters of education in Mysore, there are more students in Mission schools, where the Bible is read, than in Government schools, from which it is excluded.

It may not be out of place to mention here that the grandson of the celebrated Poorniah, who was Prime Minister at the Court of Mysore many years ago, used to go to a Mission school in preference to the High School.

As a general rule educated Hindus, even those going to Government Schools, keep a copy of the Bible in their libraries to explain the numerous allusions made to it which they meet with in the course of their English studies, and, as a case in point, last year or the year before last, I forget which, about 300 copies of the Bible were purchased in the city of Mysore alone, chiefly by the higher classes of Hindus for the purpose I mention. What I have said, I trust, tends to shew that natives do not entertain such a hatred or indifference to the Bible and to the reading of it as English people seem to believe they do.

When General Dobbs—who is as much esteemed by the people of this Province as the late Sir Mark Cubbon was himself—left the country, the natives founded two scholarships to perpetuate his name, which were respectively given to the Wesleyan Mission School and to the Government High School at Bangalore. If they had any objection to the reading of the Bible they would not have given one of the scholarships to the Wesleyan Mission School.

I now wish to add a few words as to the benefits and advantages which the Government itself would derive in a political point of view from a free introduction of the Bible into its schools. If natives came to understand the true basis on which Christianity rests, and the doctrines which it inculcates, (of which I need not say the masses are completely ignorant,) they would surely not attribute to the Government of India, as they do now, a perpetual crusade against their religion, when laws are introduced which are formed for the benefit of the people, and which have no connection whatever with the propagation of the Christian religion. I shall take the liberty to cite one or two instances in which efforts of the British Government for the benefit of the people generally have been erroneously viewed by the masses through misconception of its intention.

When it was resolved recently by the Local Municipal Board that a registration of births and deaths should be taken and a separate

piece of ground allotted as the burial ground for different castes of Hindus, it was looked upon, by most natives, as a step taken on the part of Government to break through the barriers of caste distinctions, with the ultimate object of preparing the way for the spread of Christianity. Again, the same suspicion shewed itself when the new Police was organised, because those who enlisted in it were ordered to wear a peculiar kind of dress, and also when the new system of jail discipline was introduced. The taking of the late census in this Province was also attributed to the same cause.

In such and similar instances, where the orders of the Government have any tendency to interfere with old customs, they are invariably thus misinterpreted, though it is obvious the Government have no wish whatever to meddle with our caste prejudices or interfere with our religion in the least.

Were the Hindus acquainted with the real tenets of Christianity they would regard all the actions of Government in their proper light as steps taken for their welfare, and indirectly for that of the Government itself, whose legislation would then be easy, being accepted in its integrity and without suspicion. They would learn that Christianity cannot be brought about by external acts, but that it is a religion to be accepted and believed in the heart.

The chief reason why Hindus think that the introduction of such measures as I have alluded to are intended for the destruction of caste is that, when they were under Mahomedan sway, Mahomedanism was propagated, especially in Mysore, by actual interference with caste prejudices and by forcing the people to eat with the Mussalmans and to wear their style of dress and so forth. The Koran, in fact, was carried in the one hand and the sword in the other. Having thus suffered at the hands of the Mahomedans, it is but natural that the Hindus should view with suspicion all innovations whatever, and that they should think the English are also trying to spread their religion by gradually undermining caste prejudices.

But were the Bible placed in the hands of natives and read by them they would clearly see and apprehend that the religion of Christ is not one to be spread by external means or at the point of the sword. The introduction of the Bible into Government schools, would not, I certainly think, violate religious neutrality in the least; that is, if it were introduced not with the object of proselytizing. On the former score neither parents nor students would raise any objection whatever, but, on the contrary, they would be very glad to avail themselves of the opportunity of acquiring the easy, and at the same time vigorous style of expression which the Bible is calculated to impart. The reading of a text-book does not necessarily require a belief in its teaching. The Government by introducing the Bible give us the advantage of studying a pure English style, while at the same time, its doctrines need not be enforced. We have this particular advantage in reading native religious works which form the subject of University Examinations in Government Schools, pains being always taken to point out their beauties of style, and to master their meaning, while no effort is made to enforce their teaching. When native religious works thus form subjects of University Examinations, I do not see, any reason why the Bible cannot be put on the same footing.

I think, then, I have shewn conclusively that the natives do not at all object to read the Bible, and that in fact the policy of the Government in excluding it from the course of studies prescribed for its schools, tends very unwisely to attach a great deal too much importance to the subject in the ignorant native mind. The conduct of the Government in fact with regard to this subject makes us (natives) believe that it is a most dangerous book, a literary barrel of gunpowder that may at any time explode and cause infinite disaster. On this account it is apparently (carefully) excluded from our schools, and Government servants always shrink from talking on the subject in their dealings with us. If the people in England wish to ascertain the truth or otherwise of what I say, those who are interested in the subject both in the Government service and out of it, might offer a prize, such as had been recently offered in Bengal for the best essay on native manners and customs, for a well-written essay having for its subject the question whether the Bible should or should not be introduced into Government schools as a literary work.

A short time ago I remember having read in an English paper that the Marquis of Salisbury attended a meeting with reference to this very subject. If his Lordship or any one else were to offer a prize for an essay eliciting the opinion of the Hindus, I am sure many would agree with me. At all events a clear opinion would be gathered from the natives, which would have very great weight in deciding the question, and if it comes to be understood in England that the natives of this country do not object to the reading of the Bible in Government institutions, the obstacles in the way of a most beneficial change being effected both on political and literary grounds, would be removed.

It is simply because the Government are under the impression that natives are averse to it, that they have excluded the book from their schools. I may add that the Bible is read in the schools of some of the independent Native States. It used to be, and is probably now read in Travancore, and also at Indore, the capital of the Maharaja Holkar's dominions.

In conclusion I would beg to draw your attention to the remark made by the late Sir Herbert Edwards that if the natives only knew what Christianity was, the rebellion of 1857 would not have taken place, for a knowledge of the Bible would have convinced them that biting greased cartridges could not have possibly made them Christians.—*Madras Times*.

HOW TO WRITE ENGLISH.

(Continued from page 433.)

It is the absurd use of the word "mingle" instead of converse, as is really meant, which requires the preceding verbiage about being released from the necessity of silence. The poor gentleman needed not to be helped to *mingle*, but to be helped to talk. It is always best to place a distinct branch of the sentence, though subordinate to the rest, *after* the material parts. Thus I have avoided putting in "however uneasy" parenthetically. I prefer, even though it costs three more words, to place it by itself at the end, so as to stand like a separate sentence. The more we cut up what we write into distinct sentences the better. Where it is impossible to get rid of a long sentence, the next best rule is to divide it, so as to make it approach to distinct sentences. It will be often found that these subordinate appendages may be dispensed with altogether. Were I not bound to express in the above example all that the great lexicographer meant to say, I should certainly omit the above appended sentence; for if the unhappy gentleman *could not escape* from the assembly in which he seems to have been imprisoned, what need is there to say that he could not, though he were "uneasy." There seems just as much and no more occasion to say that he could not escape though sick, though sleepy, though ashamed, though alarmed, &c. &c. All these provocatives to escape are already barred by the allegation that *he could not escape*. Major in se minus continet. If there be no sense in this wordiness there is still less grace; the words appended injure the euphony of the sentence and certainly do not increase its force. If we omit those last five words, I think I may safely say that I have more plainly expressed in forty-four words what Johnson originally wrote in sixty-two, and Cobbett certainly improved in sixty-three.

I do not apologise for this minute criticism. On the contrary I invite and recommend it. I think to do this is certainly to improve our style, and not only to teach us how to detect and abridge our own redundancies, but to attain precision and force in expressing our ideas.

The main reason why people indulge in amplifications is that they have little, not that they have much to say. Redundant foliage usefully conceals scanty fruit. Here is a precious sample of verbal chaff, not very successfully concealing the paucity of grains:—

"In the eternal chemistry of being and of circumstance history is evolved. Outward phenomenal reality and inward conscious thought here meet together, become fused into one, and result in a new fact. Time, the arch experimenter, is continually varying the conditions in which these, the chief co-efficients in human life are brought into relation with each other; and hence that series of actions and reactions—the collective phenomena of which we call history—is undergoing ceaseless change. The events of to-day affect the events of to-morrow, and the undulations of the influences of the past work for ever onward into the future. The act intended and accomplished generates other purposes, and affects, in multiplex modes, the course and issue of other events. No thought is ever invested in one final, permanent conclusive act. Each gives an impulsive and a tendency to a wide scheme of consequences and contingencies." &c. &c. &c.

That is to say—if we may presume to reduce this superlatively

beautiful writing and about a page more of it into three words—causes produce effects. Thus as a gifted contemporary aptly remarks in its review of this astounding essay—"voluminous merit is seldom intense." Here again is a passage from the same author in which the sense is so utterly bewildered by words that I have not the slightest notion what it means, more than that man is affected by circumstances and that he also affects them,—a somewhat self-evident truism:—

"From the crowding, dizzying, stupendous multiplicity of external phenomena, whose influences affect him on every point, man elaborates the beautiful orderliness of purpose; from the chaos of impressions which the various environments of his being originate in him, he derives incentives to action, and from—

'The sights the sounds, the struggle, and the strife
Of hourly being,'

he acquires the hardihood which, under the guidance of a wisely enthusiastic zeal enables him, with cumulative persistency, to subdue obdurate circumstances, and to work out his ideas into act, fact, reality!!"

Let all persons desirous of cultivating a good style cherish such jargon as this, and set it up as a beacon of avoidance. Every man of good sense shudders at such stilted bombast, and turns in disgust from any author who does his ideas, if he has any, the cruel injustice of clothing them in such tawdry garb. This love of fine writing often induces men insensibly into the grossest errors. *Exempli gratia*:—

"Thought is life, and history is its flower and fruit. In all the great crisis of history we find the affluent inspiration of a new idea pouring invigorating energy into life—unseen spiritual thought becoming operant in changing the credence of the world, and determining the outward and actual outgoings of the period."

So far from it, the great "crisis of history" have been mainly wrought by rebellious, conquests, and the fiercest excesses of carnal passions, and have been about as little brought to pass by "spiritual thought," as are the phases of the moon, or the libations of Hodge the ploughman. Fine writing and a stilted style are snares even to deep thinkers; but they are sure pitfalls to feeble minds.

Swift and Thackeray are the best models I can suggest of the reverse. They both excel in the power of simple writing. Each expresses what he means in such an easy manner, that one thinks at first sight any body might have so expressed himself. This arises from the natural mode in which the thoughts flow in familiar words; but it is not so easy thus to write:—

"— ut sibi quivis
Speret idem, sudet multum, frustra que laboret
Ansus idem."

It is an excellency which springs from a well disciplined mind, a clear intellect, and in no small degree, an ingenuous nature. Inasmuch as the best specimens of a plain style are fraught, nevertheless, with beauty, and often with wit, and oftener with sprightliness of fancy, such perfection is not attainable by rules, nor is it the necessary result of much practice. Still much towards it may be effected, by those who will take the trouble of trying. The best practicable

modes I may here repeat are those of endeavouring to imitate the best models, by rewriting passages which we have read over attentively enough to gather the ideas without remembering the words; then by comparing our own compositions with the original, and amending our own. The next lesson is to practice the arrangement and then the expression of our own thoughts; and thus cultivate composition and style. Great care is requisite in this. *Festina lente*. Quintillian admirably says—"By writing hastily we shall never learn to write well: it is by writing well that we shall learn to write quickly."

(To be continued.)

MISCELLANEOUS.

RELIGION AND SCIENCE.—Science aims at generalization; faith seeks the perfection of the individual. Science seeks to know, while faith strives to do. Science is intellectual: is ethical. Science throws light on the world's history and upon the arts of life and the wonders of creation. Science is now, and must long continue to be the possession of the few; religion is universal. If there are some exceptions, as some contend, these are such as by their degradation furnish the best comment on the rule, and in every nation he that fears God can come to Him and serve Him. Science makes no pretence to supply those motives which religion has furnished through all the ages for devotion of life and high endeavour. All epochs in which faith has prevailed have been the most heart-stirring and fruitful, both as regards contemporaries and posterity; whereas, on the other hand, all epochs in which unbelief has obtained its miserable triumph, even when they boast of some seeming brilliance, are not less surely doomed to speedy oblivion. Can either of these two agents of progress dispense with the other? I think not. And if that be so, the misunderstanding that exists between them—and that seems to be a gulf widening daily—is to be deplored. The aspiration of science, or as some at least interpret it, is that all men may bask in a sunshine of knowledge with no mist of prejudice or feeling to tint its dry light with illusive hues, no cloud of personal hopes and longings to soften its vivid beam. Vain hope! Be the light as pure as it may, all that I can receive of it is that which is glassed in the mirror of my own mind, and the colour of the mirror, its situations, its narrowness, its false curves, will all affect the image that it renders back. What we have a right to complain of is that so many persons say that religion may now be dispensed with, pointing to the very safeguards which religion has wrought for society as a proof that order is so firmly rooted that science needs no help. We read the signs of the times differently. If you could persuade me that we are the children and heirs of a strife for existence; if you could prove—as you cannot—that love of kindred and country and that remorse for sin and hopes for the future are but modified reminiscences of the time when we were represented by some soulless speechless, unconscious tribe of animals, is there not cause to dread the result? Nay, do you not see something of the danger round about? In one country, girls of 15, and youths with down upon their chins dragged into exile or to death for trying to overturn society by

flame and blade; in another a fair city given over to the lowest of the people to waste with fire; in another a hideous reed of pessimism. It is a bad world, and the more we avoid its concerns and the less we have to do with them the better for us. Creeping like mildew over the minds and will of a people and in the country where materialism has most strongly established itself, these are what you find. Are you not afraid to remind man of his low origin, of his schooling of strife for existence, at the same time that you tell him that no master eye's is upon him, and no care is felt anywhere for what he shall do? Will not the answer be, "If I am a child of strife, let me strive. If I am descended from the brutes, brute passions are my oldest inheritance?" To you of science, belong the secret harmonies of the world, its immense history, the wealth of wonder and beauty; to us man's sorrows and aspirations. There is room for both. Both represent a real need. Sometimes, in the fresh of your success, in the triumph of a new discovery, when you are tempted to think that the satisfying light and sweetness of scientific truth should now be all in all, remember that your word of scorn for religious work might happen to spill the cup of consolation from the very lips of one to whom it has hitherto been sweet, or quench the light in some much afflicted home, which may hear of your sneer and will never master your discovery. There is room for both, and a call for both. To you belong the wonders of the heavens, of moon and stars, of sun and earth; to us it belongs to convince each man he is not lost and forgotten in a universe that widens as we gaze. God is mindful of you too. He counts your sorrows, compassionates your sins, wakes up your love for Him, bids you work for Him, and calls you home to Him.

COMMENDATION.—The very position in which the teacher is placed forces him to become critical; and there will never be any lack of opportunities for the exercise of his powers in that direction. Imperfection is the natural condition of a learner. "You have put down these boys as learning Division," said a young Assistant Inspector to a veteran teacher, in an angry tone, "and they can't do a sum in it." "Just the very reason they are in that class to *learn* it," was the crushing reply. To teach is really to chase away existing imperfections. But is this to be done only, or even chiefly, by dwelling upon the wrong? The pupil must be led to improvement; but what is so calculated to do this as frequent and judicious praise? Fault-finding repels; it produces unpleasant feelings; it may be, often must be submitted to; but it tends to destroy rather than to create regard or sympathy. We avoid the fault pointed out; but how much more effective, as well as more pleasant, the expression of approbation, the whisper of praise. Oh! that voice of praise! what has it not done? whom does it not affect? The timid child leaps at the sound of its voice; the hero who has passed through scenes of peril and suffering without emotion, weeps and trembles at the acclamations of the multitude. And cannot we, more than we ordinarily do, use this mighty instrument in the work of teaching? Cannot we, should not we, mingle more abundantly than is our wont commendation of what needs to be continued with the necessary pointing out of what needs to be amended? We may depend upon

it, that, could we praise more, we should attach our children to us more firmly. Many an imperfect exercise, many a faulty copy, many an ill-prepared lesson has cost the little pupil much toil and effort; and is it not likely that his feelings will be wounded, his ardour damped, if we dwell only on the imperfection he could not avoid, and pass by unheeded the effort he has made to do his duty? But the failure is more obvious than the labour; and unless we set ourselves plainly and determinately to the task, it is almost impossible to discover those unobtrusive actions which merit our approval beneath what seems naturally to call for correction or reproof. Here is the difficulty: in justice to ourselves and our pupils we should overcome it. Not only will we make our work more pleasant, but it will also make our teaching more effective. Many are disheartened by a sense of their perpetual shortcomings who would be cheered by a cordial assurance that they were making progress. It is a difficult hill a learner is climbing; let us rather inspire him with the desire of progress than reproach him with not ascending more rapidly. A little girl had just written a line of her first copy, and was crying with vexation at the miserable failure of her attempts at imitating the letters. The pen lay motionless; she felt she could not learn; she was in despair. Just then a gentleman came in, and seeing her distress, and having ascertained the cause, he said, "Ah! better than the first line I wrote, considerably, and now look there;" and he wrote his name in a bold free hand upon the leaf of his pocket-book. The little learner forgot her tears; the fingers were soon again busy; she went to work with a will. Would that all of us could learn the lesson this simple narrative imparts.—*English Journal of Education*.

APPOINTMENTS.

Appointments made by the Director of Public Instruction, between the 16th September and 15th October 1879.

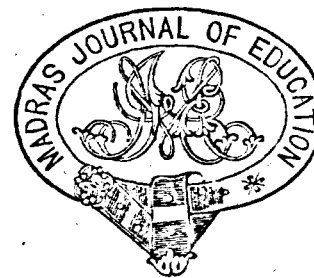
M. Kameswarow, B.A., to be 2nd Assistant substantive *pro tem.*, Berhampore College, on Rs. 100.

Babu Sasi Bhushana Palit, substantive *pro tem.*, 3rd Assistant, Berhampore College, on Rs. 70.

B. Sessa Iyengar, to be substantive *pro tem.*, Headmaster Government Middle School, Kolitalai, on Rs. 40.

M. Seshagiri Prabhu, to act for Vythenatha Iyer, (on leave) as Assistant Master Government High School, Tellicherry.

P. Krishnamacharry, to act for M. Singaravelu Moodelly, (on leave) Deputy Inspector of Schools, Gooty and Pennakonda Circles.



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THE MONTH.

THE number of Candidates registered for the Matriculation Examination of our local University this year is 3,354, the largest ever known.

It is expected that the results will be published about the end of January.

THE Upper and Lower Primary Examinations, by the time the Journal is published, will, in accordance with the order of Government have taken place in all Government and Aided Schools. It appears to us to be a great mistake to draw a hard and fast line in deciding between the boys who are to be promoted and those who are not to be promoted to the second and third classes in our primary schools. The Head master of a school, or the teacher of a class, after a year's observation of a boy's work, can pronounce as to his merits for promotion with far more confidence than when he is called upon to decide by the result of a single examination. Owing to circumstances, a clever and industrious boy may not do himself justice in a single examination; or he may be prevented by sickness or other causes from attending during the whole or a part of the examination days, and thus for no fault of his own, he is to be denied promotion, and doomed to waste a valuable year of school life in the same class with the idlers and the dullards of his last year's classmates.

It has been said that this is no greater hardship than when a youth, otherwise competent and deserving, is prevented from appearing for Matriculation, and so is unable to join a First Arts Class. But we contend that the cases are quite different. Our Local University is not a teaching, but an examining body, and has not the same means of judging of the capacity and circumstances of each student, as has the Headmaster of a school, or it would be bound as far as possible to take them into account. In the English Universities, when a man, who it is well known would have distinguished himself in the class list, is prevented by sickness from appearing, his prospects are not thereby ruined, but his name is honourably mentioned with the addition of "*Ægrotat*," and a certificate from his college tutor will remedy as far as possible the misfortune which the candidate had no power to control. When such consideration is shown, and justly shown, in the highest examinations of the English Universities, surely it is not expecting too much with regard to our very elementary examinations, when we say that the Headmaster of a High School or College in India should have some little discretion allowed him in the promotion of deserving boys unavoidably absent from sickness or other causes on the fixed day or days of the examination.

WE have received from Mr. D. N. Wadia, M.A., Principal, Sir Jamsejee Jejeebhoy Parsee Benevolent Institution, and late Senior Fellow of Elphinstone College, Bombay, a small volume of Selections from the British Poets with Biographical notices and explanatory notes. The book is neatly printed, got up at the *Dynella Press* of the Bombay Education Society.

THE London correspondent of the *Northern Echo* tells a story of a recent Oxford examination. The competitors at an examination for a scholarship had to translate into Greek prose the passage in which Lord Beaconsfield described Mr. Gladstone as "a sophistical rhetorician, inebriated with the exuberance of his own verbosity, and gifted with an egotistical imagination that can at all times command an interminable and inconsistent series of arguments to malign an opponent and to glorify himself." One of the candidates, after having made the translation, appended to it the following observation:—"The bombastic and inflated style of Lord Beaconsfield cannot be converted into the pure Greek of Demosthenes, but it is probable that the worse the Greek the more accurately would it represent the taste and spirit of the original." The examiners, considering this comment a piece of impertinence, deducted several marks from its author on that account, but he nevertheless succeeded in obtaining the scholarship.

THE LAWRENCE ASYLUM SCHOOLS.—We learn from the Reports that on the working of the Asylum farm during the past twelve months the profits have amounted to Rs. 1,949-2-5 notwithstanding heavy losses in live stock due to an outbreak of cattle-plague, a loss on the potato crop, a rise in the cost of labor, and an outlay from which no immediate return can be expected on a new tea plantation. As smaller fodder crops will now suffice for the requirements of the Farm, it is proposed to reduce the area under cultivation for farm produce and to grow tea and cinchona. It is hoped that the development of these industries will prove a source of permanent income to the institution and furnish a training school for lads who desire employment in the neighbouring estates.

The carpenters and smiths' shop is shown to be rather more than self-supporting by calculating the value of the work done for the school at rates supposed to cover the cost of material and labor. Only four boys above sixteen and one under sixteen appear to have been learning carpentering, and it does not appear that any of those who have left the institution during the year have taken up carpentry as a trade.

The tailors' shop and knitting department have yielded a considerable profit. Ten boys above sixteen and thirty-eight below sixteen have been learning one or both of these industries, but it does not appear that any of those who have left during the year have become tailors.

Twenty-two lads above sixteen and seventeen below sixteen attended the telegraph class, and no less than fourteen obtained employment in the Government Telegraph Department.

Two lads above sixteen were learning shoe-making and one was apprenticed on leaving to a boot and shoemaker.

Six boys sent up for the Peter Cator Examination, lower grade,—all passed, and Mr. Gell, who conducted the examination in physical geography for the Viceroy's medal reports that the thirteen candidates who presented themselves for this examination were all well prepared.

Mr. Garthwaite's report of his inspection both of the Male and Female Branches shows on the whole a very gratifying amount of improvement. The teaching of Hindustani still continues however a failure. This language was substituted some years ago for Tamil because it was supposed to be more generally useful to boys who might be employed in any part of India. As it is evident, however, that the amount that they learn under the present arrangement is not sufficient to be of any practical use, I am inclined to think that Tamil should again take the place of Hindustani. Tamil is on the whole the most useful vernacular for the Presidency, and it seems probable that a good many of the boys who join the Asylum must have a sufficient colloquial knowledge of Tamil to enable them to learn to read and write Tamil without much difficulty.

Mr. Garthwaite considers that the four pupil teachers should be called monitors on the ground that they are not apprenticed and that they do not appear for any literary or departmental tests. The Head Master points out, however, that these lads are bound to serve the Asylum for four years and that they are constantly employed every forenoon in assisting the masters or in teaching under their supervision, and every afternoon in prosecuting their studies under

the direction of the Head Master. They cannot go up to the Matriculation Examination because they know no language except English, and they do not go up for the Teachers' Certificate Examination because teachers' certificates are practically of little value. It may be observed that a person who holds a certificate can always obtain employment as a teacher more easily than one who is uncertificated, and that, if a pupil teacher never goes up for any examinations, it is difficult to know whether he is making real progress or not. I cannot see any reason why these pupil teachers should not have hitherto gone up for such examinations as the Fourth Grade or the General Test, or why they should not go up hereafter for the new Middle School Examination and the departmental test in method and teaching a class.

Nine girls went up for the Peter Cator Examination and greatly distinguished themselves. None appeared for the last Teachers' Certificate Examinations on the ground that they were not old enough. It may be remarked that there is no limit of age for these examinations and that the examination for the third grade is so easy that girls of eleven or twelve go up for it. Mr. Garthwaite thinks that the pupil teachers who have passed in some grade or other of the Teachers' Certificate Examination should be required to pass in teaching a class. The Head Mistress points out that she has no time to prepare them for this examination, but, if she supervises their teaching, she is practically affording all the help that can be expected. I do not see what difficulty there is in carrying out Mr. Garthwaite's suggestion.

The health of both Asylums has been good. The Medical Officer remarks that the standing sanitary defects of the institution, *viz.*, deficient supply of water and want of separate hospital accommodation with contagious wards, have formed the subject of special reports.

The condition of the Asylum is thus summed up in the Government Order:—

The report on the Ootacamund Lawrence Asylums shows that the year 1878-79 opened with 318 boys and 59 girls and closed with 321 boys and 59 girls exclusive of day-scholars, whose number is not stated. During the year 65 boys and 10 girls left the Asylums. Of the boys, 6 enlisted, 14 obtained employment in the Government Telegraph Department, 10 were apprenticed to the Lawrence Asylum Press, and 1 to a boot and shoemaker; the remaining 34 were removed by their relatives.

Of the girls, 2 married, 1 entered service, 1 died, and 7 were removed by their friends.

Forty-two boys above the age of sixteen were employed in the telegraph class, tailoring, carpentry, &c. Twenty-five of these were provided for, and there remained on the 31st March 1879, 17 boys over the age of sixteen.

Eighty-four boys under sixteen were under training in telegraphy, carpentry, tailoring, &c. The general health of both boys and girls was good.

Both boys and girls attained high positions in the Peter Cator Examinations. The Government are not disposed to substitute Tamil for Hindustani, and doubt whether it would be more of a success than Hindustani, which is more widely useful and easier to learn colloquially.

The suggestion that the pupil teachers should be called monitors will be considered by the Committee.

EDUCATION IN NORTH-WEST PROVINCES AND OUDH.—The cost to the provincial revenues of each pupil in the three Government Colleges of the North-Western Provinces was Rs. 809 against Rs. 891 in 1876-77. The increased cost is due to an increase in the gross expenditure, as the number of pupils was larger than in the previous year. The cost of each pupil in the Sanscrit College, Benares, was Rs. 56 against Rs. 77 in 1876-77, the diminution in expenditure being mainly due to the abolition of the Anglo-Sanscrit Department. There was also a satisfactory decrease in the cost of the education supplied by the High schools, the Normal schools, and the Vernacular girls' school. A comparison of the cost of education in the North-Western Provinces with that of similar education in Oudh is not of any great use, as there is still dissimilarity between the two systems. But it is clear that the State spends less, as a rule, per pupil in Oudh. There are 11 anglo-vernacular high schools in Oudh which educate students at an average rate of Rs. 33-13-0 per annum, whereas in the North-Western Provinces each pupil of a High school costs Rs. 48. The cost of primary education in the village schools of Oudh is Rs. 2-12-0 per boy against Rs. 3-8-0 in the Halkabandi schools of the North-Western Provinces. It would appear that the greater costliness of the educational establishments of the latter province is justified, as it should be, by their greater efficiency.

The special difficulties connected with the scarcity prevailing during the year 1877-78 have already been referred to. It is obvious, however, that sure progress, though it may be slow, is being made in the improvement of village schools and the diffusion of elementary education. The influence of the district committees and the interest displayed by district officers are beginning to be felt. The defects still apparent are irregularity of attendance on the part of the pupils and want of method and of tutorial ability on the part of the teachers. There are indications that those who are qualified to teach are apt to expend their energies on a few boys in the higher classes, to the neglect of the bulk of the pupils. These defects can only be remedied by energetic action on the part of the Deputy Inspectors. It is their duty to keep a careful record of the results of the inspection of every school and to lay it before the Committee. The latter, by judicious rewards and distinctions, may do much to stimulate a healthy competition among the teachers, and to make them desirous to show rather a good standard of attainment in all the classes produced at inspections than a suspiciously large roll of attendance. If the Deputy Inspectors on their visits were to insist on the masters teaching the classes in their presence, they would be able to correct defective methods of instruction and to discover teachers who are hopelessly inefficient. The Deputy Inspector is the executive officer of the committee, and should be made to understand thoroughly the objects to be aimed at.

According to statistics the primary schools in Oudh are superior to those of the North-Western Provinces; not only is the percentage of efficient schools higher, but the average roll-call of each school is 42 against 31 in the North-Western Provinces. It is asserted how-

ever, and probably this is correct, that the instruction given in the Oudh schools is inferior in quality. Little attention is paid to spelling, writing, or arithmetic, and the teacher aims solely at carrying his pupils through a few reading books. Many of the schools are merely expansions of indigenous schools; the original maulvis and pandits have been kept on and induced by a small salary to adopt Government class-books and course of study. It will be long, in spite of all efforts, before such men can be introduced to abandon the traditions of the indigenous system. Some of the district reports touch on the question as to whether village schools should be allowed to teach beyond the primary standard. In Oudh the teaching is confined to it, and the more promising boys are passed on by means of scholarships to tahsili schools. This is indisputably the right system. To allow village-schoolmasters to spend their time and labour on imparting secondary education to a few of the elder boys, to the neglect of the others, would be fatal to the general spread of elementary education. A teacher's character should be estimated by the progress made by all his classes, but especially by that made by the lower, as they are the most troublesome to deal with. Unless this criterion be rigidly applied, the village-schoolmaster is generally found to neglect the mass of beginners for a few pupils who are more advanced and more likely to do him credit.

There were 142 free schools maintained by municipalities in the North-Western Provinces during the year. In giving elementary instruction to the poorer classes of towns these schools do good work. Care, however, should be taken that persons who can afford to pay for their children's education at a tahsili school do not send them to the municipal free school. The figures relating to indigenous schools are so unreliable as to be practically worthless.

PETER CATOR PRIZES.

HIGHER GRADE EXAMINATION.

September 24, 25, 1880.

PRIZES—There will be four Money Prizes of Rs 150, 100, 70, and 50, respectively, and Certificates of Merit to all who obtain half the total number of marks.

An additional Prize to the highest non-Christian Candidate.

SUBJECTS—OLD TESTAMENT.—The history of Abraham, Gideon, Saul, Elijah, and Elisha.

NEW TESTAMENT.—The Gospel of Matthew, The Epistle of James.

CHRISTIAN EVIDENCES.—Pascal's thoughts on Religion, chapters 1, 4, 5, 6, 9, 10, 11, 13, 14, 15, 16, 18, 19, 20, 23, 26, 27, 28.

MEMORITER.—Psalm xxv.

Isaiah lv

1 Corinthians xvi.

September 1881.

SUBJECTS—OLD TESTAMENT.—History of the Jews from the beginning of Jehu's reign until the carrying away into Babylon.
The Prophecy of Amos.

NEW TESTAMENT.—The Gospel of St. Mark.

The Epistle to the Galatians.

CHRISTIAN EVIDENCE.—Bunyan's Pilgrim's Progress, Part I.

MEMORITER.—Genesis iii.

Exodus xx, 1—17.

Psalm viii.

Isaiah lv.

John x, 1—18.

1 Corinthians xiii.

The Examination is open to all persons between the age of sixteen and twenty-six, except Ministers and Catechists.

The names of Candidates duly filled up in the printed blank form of application, which can be had at the Church Mission Office, Madras, must be sent in on or before the 31st of July, with the entrance fee of one rupee. Applications made after that date can only be received on payment of a double entrance fee till the 15th of August. A printed form of acknowledgment will be forwarded to each on the receipt of the entrance fee, and this printed form will have to be produced at the time of examination.

LOWER GRADE EXAMINATION.

September 24, 25, 1880.

PRIZES—Ten Money Prizes of Rupees 60, 50, 45, 40, 35, 30, 25, 20, 15, and 10, respectively, will be awarded to the ten highest Candidates, and Certificates of Merit to all who obtain half the total number of marks.

Extra Prizes for non-Christian Candidates.

SUBJECTS—OLD TESTAMENT.—Genesis i—xxxvi.

NEW TESTAMENT.—Gospel of St. Mark.

Acts of the Apostles i, ii.

MEMORITER.—Exodus xxxiv, 5—9.

Psalm xxiii, li.

Isaiah liii.

John iv, 1—26.

Philippians iv, 6—8.

1 Thessalonians v, 1—11.

Candidates must not be below fourteen nor above nineteen at the time of examination.

Matriculated Students, Students in Theological Colleges, and persons who have already obtained Cator Prizes are not admissible as Candidates.

The names of Candidates duly filled up in the printed blank form of application, which can be had at the Church Mission Office, Madras, must be sent in on or before the 31st of July, with the entrance fee of eight annas. Applications made after that date can only be received on payment of a double entrance fee till the 15th of August. A printed form of acknowledgment will be forwarded to each on the receipt of the entrance fee, and this printed form will have to be produced at the time of examination.

Peter Cator Prize Examination, 1879.

LIST OF SUCCESSFUL CANDIDATES.

Higher Grade.

	Rs.
S. Joseph, Private Study, Ediangoody	150
Stephen Yesudian do. do.	100
Joseph S. Martyn, Madras Christian College	70
T. P. Kothandaramiah, do. do.	50

The following have obtained Certificates :—

Samuel V. Thomas, Private Study, Ediangoody.
 William L. Venkataramiah, Madras Christian College.
 Thomas R. Toussaint, do. do.
 Peter B. Ragavelu, do. do.
 Daniel A. Hobday, do. do.
 Manuel Joseph, Private Study, Ediangoody.
 R. Aseervatham, L. M. Seminary, Nagercoil.
 T. M. Elias, C. M. S. College, Cottayam.
 Josiah J. Hobday, Doveton Protestant College.
 G. E. Kambararya, Madras Christian College.
 John Cotelengum, do. do.
 Samuel Eades, Bishop Cotton's School, Bangalore.
 T. K. Mani, Private Study, Madras.
 D. Bhakkeanathan, S. P. G. Seminary, Sawyerpuram.
 Alfred D. Zaccheus, Madras Christian College.
 E. J. Kuryan, C. M. S. College, Cottayam.
 Paul Apollus, L. M. Seminary, Nagercoil.
 P. V. Kuruvilla, C. M. S. College, Cottayam.
 Phoebe Bell Hart, Private Study, Madras.
 John B. Hutton, Doveton Protestant College.
 A. Daniel, L. M. Seminary, Nagercoil.
 A. Bhashyam, Madras Christian College.
 Dermaken J. Daniel, L. M. Seminary, Nagercoil.
 John R. Barefoot, Doveton Protestant College.
 Richard J. Fox, do. do.
 John A. Sloan, do. do.
 Annie Ballantyne, Private Study, Cocanada.
 K. V. M. George, C. M. S. College, Cottayam.
 P. J. Ittiyera, do. do.
 T. K. Matthan, do. do.
 John D. Solomon, S. P. G. High School, Vepery.
 John A. David, Madras Christian College.
 A. O. Matthai, C. M. S. College, Cottayam.
 S. A. Samuel, L. M. Seminary, Nagercoil.
 Thomas Cornelius, Madras Christian College.

Lower Grade.

The following have obtaining Prizes and certificates in the Examination held in September last :

Esther E. Ellis, Doveton Girls' School,	Rs.	60	0	0
M. G. Zachariah, C. M. Col., Cottayam	"	50	0	0
Robert L. Hall, Doveton Protestant College	"	45	0	0
Daniel Timothy, L. M. Seminary, Nagercoil	"	40	0	0
Louisa Bridle, Lawrence Asylum, Ooty	"	35	0	0
James Lychlander, Bishop Corrie's School	"	30	0	0
P. P. Thommen, C. M. College, Cottayam	"	25	0	0
S. Aaran, L. M. Seminary, Nagercoil	"	20	0	0
Elizabeth Perry, Military Asylum, Madras	"	15	0	0
S. Sebangnam, S. P. G. Seminary, Sawyerpuram	"	10	0	0

The following have obtained Certificates :—

Eleanor Gahan, Mission Normal School, Madras.
 G. Suviseshamuttu, S. P. G. Seminary, Sawyerpuram.
 Samuel John, L. M. Seminary, Nagercoil.
 Alice Franklin, Mission, Normal School, Madras.
 V. T. Kuriyan, C. M. College, Cottayam.
 Edward L. C. Smith, Doveton College.
 Hannah P. Newland, Civil Orphan Asylum.
 Chalmer R. Dunhill, Doveton College.
 J. Devasagaim, L. M. Seminary, Nagercoil.
 Louisa C. Kelly, Doveton School, Madras.
 Adela F. Harris, Civil Female Asylum, Madras.
 Jane Horwood, Lawrence Asylum, Ooty.
 Harriet A. A. Dawson, Doveton School, Madras.
 Vethamanickum Henry, L. M. Seminary, Nagercoil.
 Robert E. Cripps, Bishop Corrie's School.
 Abraham B. Fenn, C. M. College, Cottayam.
 P. P. Eippa, do. do.
 P. Cundasawmy Moodelliar, F. C. Mission School.
 Mary Crawford, Lawrence Asylum, Ooty.
 T. William Stewart, Bishop Corrie's School.
 G. John, L. M. Seminary, Nagercoil.
 P. Ethirajulu Raju, F. C. Mission School.
 Samuel Elenjiam, Winslow Wesleyan School.
 John B. Drieberg, Doveton College.
 T. Sebangnam, L. M. Seminary, Nagercoil.
 Paul Daniel, do. do.
 Emily Pouch, Military Female Asylum.
 John Jones, Orphanage, Vizagapatam.
 William J. Winckler, Doveton College.
 P. P. Joseph, C. M. College, Cottayam.
 James D. V. Martyn, Free C. M. School.
 Eva F. Turnbull, Mrs. Kolhoff's Seminary.
 G. Yesuadian, S. P. G. Seminary, Sawyerpuram.
 Samuel Abraham, C. M. S. Institution, Palamcottah.
 Khaja Khan, Harris School, Madras.
 Ernest W. Evans, Doveton College.
 G. Z. Thomas, S. P. G. Seminary, Sawyerpuram.
 Camellia R. Pincott, Military Orphan Asylum.
 T. P. Joseph, Provincial College, Rajahmundry.

Laura H. Taylor, Doveton School, Madras.
 Y. Arumeinayagam, S. P. G. Seminary, Sawyerpuram.
 James T. Fischer, Civil Orphan Asylum.
 Ernest Mills, Doveton College.
 Augusta C. Burton, Davidson Street School.
 P. M. George, C. M. S. College, Cottayam.
 Mercy C. Halliburn, Military Female Orphan Asylum.
 G. Manuel, S. P. G. Seminary, Sawyerpuram.
 Jane Black, Lawrence Asylum, Ootacamund.
 Julius J. Reynaud, Doveton Protestant College.
 Mabel J. Klyne, Doveton Girls' School.
 Arul Samuel, Private Study.
 Edward Hankins, Civil Male Orphan Asylum, Madras.
 Grace Thomas, Lawrence Asylum, Ooty.
 Jacob Lazar, Bishop Corrie's Grammar School.
 Eugenie Platcher, Doveton Girls' School.
 John E. G. Wheatley, Doveton Protestant College.
 Robert S. Rajahgopaul, Bishop Corrie's Grammar School.
 Percy J. Berry, Doveton Protestant College.
 James Harris, L. M. Seminary, Nagercoil.
 Lydia L. Mayley, Davidson Street Girls' School.
 Henry C. Plunkett, Doveton College.
 Georgiana Harris, Civil Orphan Asylum.
 M. Moses, L. M. Seminary, Nagercoil.
 Agatha L. Dalton, Military Orphan Asylum.
 Mary L. Faulkner, Doveton School.
 Laura E. Eddington, Military Female Asylum.
 Joseph David, S. P. G. High School, Madras.
 K. K. Varugis, C. M. College, Cottayam.
 Elspeth S. Gordon, Orphanage, Vizianagaram.
 Alice Haywood, Doveton School.
 Richard C. Adolphus, Doveton College.
 M. Soobaroyen Chetty, London Mission School.
 V. Narasinga Rao, F. C. M. School.
 T. Shaik Mahomed Hussain, F. C. M. School.
 C. Murugasa Moodelly, F. C. M. School, Chingleput.
 William H. Hall, Bishop Corrie's Grammar School.
 Herbert P. Taylor, Doveton College.
 P. J. Itticheeriyar, C. M. College, Cottayam.
 N. Joseph Ambrose, London Mission Seminary, Nagercoil.
 Louisa G. Jacobsz, Christ Church School, Madras.
 G. Lazarus, London Mission, Madras.
 S. Manuel, London Mission Seminary, Nagercoil.
 Henrietta J. Woods, Military Orphan Asylum.
 Y. Yesadian, S. P. G. Seminary, Sawyerpuram.
 Jeremiah Trutwein, C. M. Orphan Asylum, Madras.
 C. Cunniah, Free Church School, Madras.
 Mary Burrows, Lawrence Asylum, Ooty.
 G. Vencataramanjulu Raju, Free Church Mission School.
 B. T. Narasima Charry, Church Mission School, Bezwarah.
 N. Joseph, S. P. G. Seminary, Sawyerpuram.
 Robert W. Pedroza, Doveton College.
 James S. Bartley, Bishop Corrie's School.
 David J. Mustrie, Doveton College.

George C. Gordon, Orphanage, Vizianagaram.
 Robert Franklin, Bishop Corrie's School.
 George H. Barefoot, do.
 Joseph Gawthorne, do.
 A. Swaminathan, London Mission Seminary, Nagercoil.
 Vardon R. Marcar, Doveton College.
 Patrick E. Rath, Bishop Corrie's School.
 Frederick Gainsford, Presidency College.
 Benjamin R. Fewkes, Doveton College.

Summary.

Number of candidates Registered	359
do. do. Examined	317
Prizes	10
Certificates, excluding prizemen	102

THE Secretary of State has approved the action of the Madras Government in granting honoraria of Rs 2,000 and Rs 250 respectively to Mr. L. Garthwaite and Dr. Bradshaw, for compiling and editing a "First English Reader" for use in the schools of the Madras Presidency.

THE *Indian Mirror* understands that "a marriage has been arranged between Miss Anna Turkhud, the youngest daughter of Dr. Atmaram Pandurang, of Bombay, and Mr. Harold Littledale, who has just come out to India as Vice-Principal of the Rajkumar College. The interesting ceremony will take place in the course of the current month. Miss Anna Turkhud was educated in England, and is a highly accomplished Mahratta lady. The marriage will be solemnized in the civil form unaccompanied by religious rites." Her brother, it may be mentioned, is married to an English lady.

NOTES ON POPE'S 'ESSAY ON CRITICISM.'

(Continued from page 463.)

349 *Expected rhymes.* The *Essay on Criticism* is scarcely free from the fault here condemned. *Arts* and *parts* are made to rhyme *three* times, and *art* and *part*, *five* times; *past* rhymes with *last*, *five* times; *fools* with *rules*, *four* times; *fit* with *wit*, *four* times; *wit* with *wit*, *twice*; *join* with *line*, *twice*; *good* with *blood*, *twice*; and that so near as lines 246, 360. These words seldom rhyme with any other words. Then, as examples of defective or faulty rhymes, we have *none*, *own*, *known*; *call*, *equivocal*; *horse*, *course*; *show'd*, *trod*; *giv'n*, *Heav'n*; *prov'd*, *belov'd*; *turn'd*, *learn'd*; *steer*, *character*; *esteem*, *thom*; *take*, *tract*; *eyes*, *precipice*; *thoughts*, *faults*; *fault*, *thought*; *join'd*, *mankind*; *delight*, *wit*; *dome*, *doom*, *Rome*; *appear*, *regular*; *caprice*, *nice*; *light*, *wit*; *good*, *blood*; *glass*, *place*; *still*, *suitable*; *ear*, *repair*, *there*; *Jove*, *love*; *prove*, *love*; *err*, *singular*; *take*, *speak*; *fool*, *dull*; *extreme*, *fle'me*. We do not profess to have exhausted either list; no doubt change of pronunciation since Pope's day will explain away to some extent, one or two of these.

365. Lord Roscommon says—

"The sound is still a comment to the sense."

"They are both well expressed: only *this* supposes the sense to be assisted by the sound; *that* the sound assisted by the sense." Warburton.

366. *Soft is the strain, &c.*, taken from *Vida Poet.* lib. iii. v. 403. *Zephyr*, the west wind, always personified as mild and gentle.

370. *Ajax*, son of *Telamon*, the bravest of the Greeks at *Troy*, after *Achilles*. The idea is taken from *Vida, Poet.* iii. 417.

Camilla, Queen of the *Volsci*, who assisted *Turnus* against *Æneas*. *Virgil* thus describes her :—

"Last from the *Volscians* fair *Camilla* came,
And led her warlike troops, a warrior dame.
Outstripped the winds in speed upon the plain,
Flew o'er the fields, nor hurt the bearded grain :
She swept the seas, and as she skinned along,
Her flying feet unbathed on billows hung."—*Dryden*.

374. *Hear how Timotheus*, an allusion to *Dryden's Alexander's Feast, or the Power of Music*.

"*Timotheus*, placed on high,
Amid the tuneful choir,
With flying fingers touched the lyre,—
The trembling notes ascend the sky,
And heavenly joys inspire,
The song began from *Jove*,
Who left his blissful seats above,
(Such is the power of mighty love)," &c.

'What *Timotheus* was,' neither *Pope* nor *Dryden* well knew. One thing seems to be clear, that he died, if not before *Alexander* was born, certainly not long after. The popular musician and poet of *Miletus*, was born in 446 B.C., and died at the Court of *Archelaus* in *Macedonia*, B.C. 357. He increased the strings of the lyre from seven to eleven.

376. *The son of Lybian Jove* : *Alexander the Great*, born 356 B.C. He was called the son of *Jupiter Ammon* by the priests. See *The Temple of Fame*, l. 151.

"High on a throne, with trophies charged, I viewed,
The youth that all things but himself subdued,
His feet on sceptres and tiara strode,
And his horned head belied the *Lybian* god."

391. The same editor remarks :—"It need hardly be pointed out that the 'nil admirari' [to admire nothing] desiderated by *Horace* includes moral self-restraint as well as intellectual equanimity." the allusion is to *Horace's Epistles*, Book I., vi. 1, 2, thus translated by *Connington*.

Not to admire, *Numicius*, is the best,
The only way, to make and keep men blest.....

384. *Avoid extremes*. In his *Epistle to Allen*, *Lord Bathurst*, *Pope* writes :—

"Extremes in nature equal good produce,
Extremes in man concur to general use."

406. Compare *Horace's Epistle II.*, i. 34. (*Connington's Translation*.)

"It is said that poetry's like wine,
'Till age, we know, will mellow and refine,
'Till, let me grant the parallel, and ask
How many years a work must be in cask"...
chafe to hear a poem called third-rate,
or as ill-written, but as written late ;
or hear your critics for their ancients claim,
or charity, but honour and high fame."

440. *School divines* : Theologians of the philosophical school of *Aristotle*.

441. *Sentences* : selected passages from the *Christian Fathers*. *Peter of Lombard* was called the 'Master of Sentences' from his great knowledge of these.

Was deepest read : was considered most learned.

444. *Scotists* : followers of *John Duns Scotus*, 'the subtle doctor,' 1265-1308. He lectured on *Lombard's Sentences* to 30,000 students at *Oxford*. He was the leader of the *Realists* against the *Nominalists*. *Hallam* says : "The greatest of the schoolmen were the *Dominican Thomas Aquinas* and the *Franciscan Duns Scotus*. They were founders of rival sects, which wrangled with each other for two or three centuries. But the authority of their writings, which were incredibly voluminous, impeded in some measure the growth of new men." *Intro. to the Liter. of Europe*. Chapter i. *Thomists* : the followers of *Thomas Aquinas*, the 'Angelic Doctor,' 1224-1274. The *Thomists* leaned in *Philosophy* to *Nominalism*. The opposition to the *Scotists* was, however, chiefly on religious points.

445. *Duck Lane* : near *Smithfield*, *London*, where in *Pope's* time, old book stalls were kept.

447-452 originally stood :—

The rhyming clowns that gladdened *Shakespeare's* age,
No more with *Crambo* entertain the stage.
Who now in anagrams their patrons praise,
Or sing their mistress in acrostic lays ?
Even pulpits pleased with merry puns of yore,
Now all are banished to the *Hibernian* shore,
Thus, leaving what was natural and fit,
The current folly proved their ready wit,
And authors thought, &c.

448. *Lord Kames* thus illustrates the *Cæsura* from the *Essay on Criticism*. "But supposing every long syllable to be accented, there is, in every line, one accent that makes a greater figure than the rest, being that which precedes the capital pause (the *Cæsura*). It is distinguished into two kinds ; one that is immediately before the pause, and one that is divided from the pause by a short syllable It may be safely pronounced a capital defect in the composition of verse, to put a low word, incapable of an accent, in the place where this accent should be ; this bars the accent altogether ; than which I know no fault more subversive of the melody if it be not the barring of a pause altogether. I may add affirmatively, that no single circumstance contributes more to the energy of verse, than to put an important word where the accent should be, a word that merits a peculiar emphasis." To show the bad effect of excluding the capital "accent" he gives the following from the *Essay on Criticism*.

Of leaving what || is natural and fit. l. 448.
Nor yet purged off || of spleen and sour disdain. 528.
No pardon vile || Obscurity should fine. 531.
When love was all || an easy monarch's care. 537.
For 'tis but half || a judge's task to know. 562.
'Tis not enough, || taste, judgment, learning, join. 563.
That only makes || superior sense beloved. 578.
Whose right it is, || uncensured to be dull. 590.
'Tis best sometimes || your censure to restrain. 597.

KAMES' *Elements of Criticism*. Chap. 18, Sec. 4. *Rambler*, No. 90.
453. *Make themselves the measure of mankind*; the doctrine of Protagoras was, "that man is the measure of all things." Compare Young's *Night Thoughts*, Night vi., 307.

"Each man makes his own stature, builds himself."

"Were I so tall as reach the pole
Or grasp the ocean with my span.
I must be measured by the soul
The mind's the standard of the man."—Watts.

459. *Parsons*. The parson alluded to, was Jeremy Collier, the author of *A short view, &c., of the English stage*; *The critic and the beau* was the Duke of Buckingham, the author of the *Rehearsal*.

463. *Blackmore*, Sir Richard, (1652—1729), author of *The Creation*, attacked the dramatic authors generally in the preface to his poem of *Prince Arthur*, and Dryden, individually, in *A Satire on Wit*. He is the quack Marcus of Dryden's Prologue to the *Secular Masque*; and is referred to by Swift as one of the few who 'have reached the low sublime.' But he 'beat his painful way' in spite of critics great and small, and lived to be saluted by Dennis as the author of a poem equal to that of Lucretius in poetical beauty, and superior to it in argumentative strength. *Ward. Milbourn*, Rev. Luke, a poet of little merit or repute who died 1720. He was, however, regarded as the first of Critics. See *Dunciad*, ii. 349.

"Each reverend Bard arose;
And Milbourn chief, deputed by the rest."

465. *Zolins*, a grammarian born in Amphipolis, who flourished in the reign of Philip of Macedon. He was noted for the captious asperity of his criticisms on Homer.

475. *Who stays till, &c.* "Bis dat qui cito dat." 'He gives twice who gives quickly'; supposed to have been copied from Publius Syrius.

479. *A thousand years*, alluding to the age of the Antediluvian Patriarchs. See Genesis, chap. v.

481. *Bare three-score*, alluding to Psalm xc. 10.

W'en the ripe colours soften and unite. There is no more common metaphor than that founded on the likeness existing between writing and painting. See above, note on line 170.

488. *Ripe colours* is explained by the words *soften* and *unite*. It is a process which requires age.

491. *Just begins to lice*: perceptibly beings to appear life-like.

494. *Unhappy*: unfortunate.

512. *Triumphs*: the highest military honour obtainable in Rome. It was so called from *Thriambos*, the Greek name of Bacchus and originated in Romulus's carrying the *spolia opima* in procession to the Capitol. A general, in order to obtain a triumph, had to kill 5,000 enemies of Rome in one battle in a just war, and thereby to enlarge the boundaries of the Republic.

513. *Crowns*. See note on *Virginia*, l. 157. *Student*, p. 155.

513. *Crown*: top. We have here an unworthy play upon the word. *Parnassus*. See note, l. 94.

521. *Sacred lust of praise*. Compare Virgil's *Awis sacra fames*. "Sacred (in the sense of accursed) lust of gold."

526 *et seq.* The poet authorises the critic to discharge his spleen

and disdain on dullness and obscenity as illustrated in the profligate luxury of the reign of Charles II. and the *licentious impiety* of that of William III. See Macaulay's *History of England*, Chapter II. People's Edition, Volume I. p. 81, where the character of Charles II. is described.

538-539. "The principal 'wits to be found 'mongst noblemen' and men of fashion in the reign of Charles II. were besides the Duke of Buckingham, the Earl of Rochester, the Earl of Roscommon, the Earl of Dorset, the Marquis of Halifax, Lord Godolphin, and Sir Charles Sedley. Though Dryden was laureate under Charles II., he was long left in indigence by the king, and, in laying his case before the government, bitterly exclaimed 'Tis enough for one age to have neglected Mr. Cowley, and starved Mr. Butler.' See R. Bell's *Life of John Dryden in Poetical Works*, l. 53, ff." *Ward*. The *Jills* that ruled the state were Nell Gwynne; Barbara Palmer, Duchess of Cleveland; the Duchess of Portsmouth; Hortensia Mancini, Duchess of Mazarin, &c.,—"Women whose charms" says Macaulay, "were the boast, and whose vices were the disgrace of three nations."

541. *Mask, &c.* Alluding to the custom, in that age, of ladies going in masks to play. *Unimproved*: without advantage being taken of their being concealed by their masks. That is they did deeds of which they would be ashamed without masks.

544. *Foreign reign*: that of William of Orange. "Pope," Bowles remarks, "for obvious reasons seems to forget there was such a king as James II." See the character of William in Macaulay's *History*, Vol. II. p. 2.

546. Pope tells us that here he has omitted two lines "as containing a *national reflection*, which in his stricter judgment he could not but disapprove on any people whatever." *Unbelieving priests*: the 'Latitudinarian' divines of the Low Church party, of whom Bishop Burnet was the most prominent. *Ward*.

550. *Satire* is scarcely suitable for the pulpit. There is a good deal of truth in what Cowper says:—

"Yet what can Satire, whether grave or gay?
It may correct a foible, may chastise
The freaks of fashion, regulate the dress,
Retrench a sword blade, or displace a patch;
But where are its sublimer trophies found?
What vice has it subdued?"

560. Part III here commences.

568. *Positive persisting fops*: Compare Douglas Jerrold's.

"Dogmatism is puppyism full grown."

"A man should never be ashamed to own he has been in the wrong, which is but saying, in other words that he is worse to-day than he was yesterday." Pope's *Thoughts on various Subjects*.

581. *Nor be so civil, &c.*, which Pope was in his conduct as critic towards his friend Wycherley.

585. *Appius*: John Dennis, so called in consequence of his tragedy of *Appius and Virginia* which was damned in 1709. The thunder employed in it, being both good and expensive, was, to the author's indignation, 'stolen' for the representation of *Macbeth*.

He is the 'Sir Tremendous' of Pope and Gay's farce, *Three hours after marriage*. Ward. See note above, l. 270.

587. *Tyrant in old tapestry*. In Pope's Narrative on the Phrenzy of J. D., he describes Dennis's room thus:—"I observed his room was hung with old tapestry, which had several holes in it, caused, as the old woman informed me, by his having cut out of it the heads of divers tyrants, the fierceness of whose visages had much provoked him."

591. *Without learning, &c.*, referring to a barbarous privilege enjoyed by noblemen, and others till lately at some ancient European Universities.

592. *Unsuccessful satire*. Young remarks:—

"Satire recoils wherever charged too high;
Round your own fame the fatal splinters fly."

593. *Fulsome dedicators*. See Bacon's maxims in the first book of the *Advancement of Learning*. Ward.

601. *Top's lashed a-sleep*. A top or peg-top is a toy in the form of a cone, kept spinning round on its apex by a lash or whip very freely applied to it. When spinning very fast on one spot, it is said to be asleep.

612. *Bookful block-head, &c.* Cowper says:—(*Task*, VI.)

Knowledge dwells
In heads replete with thoughts of other men;
Wisdom in minds attentive to their own."

616. *Dryden's Fables*, among his master-pieces written in 1699.

Durfey's Tales. Durfey or D'Urfey; a writer in whom the art of versification probably reached its nadir; one of those poets who in Pope's times usually attached themselves to the chariot wheels of some noble patron, and in our own are occasionally provided for out of the Royal Bounty Fund. Durfey's Mæcenas was that Warton to whom, according to Pope, the attachment of women and fools was a condition of existence. Besides a sequel in five acts to the *Rehearsal* and some 'original' dramas, elegies and panegyrical pieces, Durfey wrote the *Tales* on which his literary infamy chiefly rests. These versified stories, partly 'comick' and partly 'moral,' abound in every description of offence against the laws of taste, grammar, and rhyme, but are otherwise comparatively harmless. Ward.

619. With him *Garth did not write, &c.* "A common slander at that time, in prejudice of that deserving author. Our poet did him this justice, when that slander most prevailed; and it is now (perhaps the sooner for this very verse) dead and forgotten." Pope. Sir S. Garth, an eminent physician, born in 1670, published the *Dispensary*, a mock heroic poem, in six Cantos, in 1699, to support the College of Physicians in a war waged against the apothecaries to prohibit them from prescribing as well as compounding medicines. See above, lines 108—112. The House of Lords decreed against Garth and the College. His friendship with Pope continued from 1703 to 1718. Pope calls him 'good natured,' says that he 'inflamed him with early praise,' and that, if ever there was a good Christian, without knowing himself to be so, it was Dr. Garth. He dedicates his pastoral *Summer* to him. As an intimate friend of Addison's, he wrote the Epilogue to *Cato*. He died January 1719.

So Johnson was publicly reported to be the author of a consider-

able part of Goldsmith's *Traveller*, of which he wrote exactly nine lines, and Goethe of a considerable part of Schiller's *Camp of Wallenstein*, of which he wrote two lines. But the crowning discovery of this class, that Shakspeare did not write his own plays, has been reserved for the present generation. Ward.

621. *When would poets mend*. Wycherley and Addison did mend under Pope's corrections, and so did Voltaire and Racine under each other's corrections.

622. *No place so sacred, &c.*: a literal translation of a saying of Boileau.

623. Before the fire of London, St. Paul's churchyard was the head-quarters of the booksellers, who have never wholly deserted it. Ward.

625. *For fools, &c.* Compare the noble passage in the *Dunciad* III. 213 ff.

"Yet oh, my sons, a father's words attend;
(So may the fates preserve the ears you lend)
'Tis yours a Bacon or a Locke to blame.
A Newton's genius, or a Milton's flame;
But oh! with One, immortal One, dispense;
The source of Newton's Light, of Bacon's Sense.
Content, each emanation of His fires
That beams on earth, each Virtue He inspires,
Each art He prompts, each charm He can create,
Whate'er He gives, are given for you to hate.
Persist, by all divine in man unawed,
But, 'learn, ye DUNCES! not to scorn your God.'"

Johnson's famous line about the female atheist seems to have been suggested by the lines in the *Essay on Criticism*.

Compare also SHAKSPEARE'S Richard III., i. 3.

"That wrens may prey where eagles dare not perch."

623-624. Between these two lines Pope originally had—

"In vain you shrug and sweat and strive to fly:
These know no manners but of Poetry.
They'll stop a hungry Chaplain in his grace
To treat of Unities of time and Place." Warburton.

636. *Humanly*. "Human and humane are sometimes confounded, though the only authorized sense of the former is *belonging to man*; of the latter *kind and compassionate*. *Humanly* is improperly put for *humanely* in these lines of Pope." CAMPBELL'S *Rhetoric*, Book II., Chap. III.

642. Compare Pope's line

"So teach the world with reason to admire."

645. *Mighty Stagirite*: Aristotle. See l. 138, and Warton's valuable note on his works in Roscoe's Edition of Pope's Works. *Mæonian Star*: Homer, so called because he is supposed to have been born at Smyrna in Lydia, anciently called Mæonia. See Horace's Ode, l. vi. 1, 2, where a follower of Homer is called "a bird of Mæonian verse," and IV., ix. 5, where Homer himself is called Mæonian.

"Not though Mæonian Homer holds
The first rank, &c."

Pope had originally written these lines :—

"That bold Columbus of the realms of wit,
Whose first discovery's not exceeded yet;
Led by the light of the Mæonian star,
He steered securely, and discovered far.
He, when all nature was subdued before,
Like his great pupil, sigh'd and long'd for more;
Fancy's wild regions yet unvanquished lay,
A boundless empire, and that owned no sway,
Poets, &c."

Conquered nature, means according to Warburton, not *physical* but *moral nature*; according to Warton not *moral* but *physical*. We would say both. Aristotle, as a matter of fact, conquered both. He was both a metaphysician and a naturalist.

653. *Horace*, a celebrated Roman poet, born 65, died 8 B.C. His fame as a poet rests chiefly on his *Odes*, as a critic on his *Epistles* to the Pisos and to Augustus, and his *Art of Poetry*, which, however, is merely the precepts of Aristotle rendered into Latin Hexameters. His *Satires* abound in wit, humour and good sense. He was patronised by Maecenas who bestowed upon him his well-known Sabine farm.

655. *Dionysius of Halicarnassus*, the author of treatises on the *Composition of words*, the *Art of Rhetoric*, and various criticisms, flourished about 30 B.C. Warton considers "these prosaic lines, this spiritless eulogy, much below the merit of the critic whom they are intended to celebrate."

667. *Petronius Arbiter*, the minister and associate of Nero in his pleasures and debaucheries. In his *Satire*, he exposes the vices of his age with an obscenity as disgusting as the vices themselves. To escape punishment, he committed suicide by opening his own veins. His "criticisms evince a writer well acquainted both by taste and study with the principles of composition; and for these, he has obtained the distinguished honour of being placed in the shrine of Aristotle, Horace, and Longinus, by a critic [Pope] unexcelled by any." *History of Roman Literature, Encyclop. Metrop.* pp. 154—156.

669. *Quintillian*: the most celebrated of Roman Rhetoricians, born in Spain, 42, A.D., died about 118. His *Institutiones Oratoriae* is the most perfect system of oratory extant and extends to twelve books.

675. *Dionysius Cassius Longinus*, Philosopher and Critic, author of the *Treatise on the Sublime*, born 210, put to death 273, A.D. The nine muses, were *Colliope* of epic poetry, *Olio* of history, *Erato* of amatory poetry, *Mempomene* of tragedy, *Thalia* comedy, *Terpsichore* dancing, *Urania* astronomy, and *Polyphymnia* eloquence. There were originally only three.

680. *Sublime he draws*. It is said that when the Prince of Condé heard part of Longinus on the *Sublime* read, he exclaimed "Behold the Sublime! Behold his veritable character."

684. *Her eagles*: the banners or standards of Rome.

686. *Rome rhyming with doom*. Shakespeare used both pronunciations of this word. *Ward*.

Second deluge; for an account of the first see Genesis, chap. vii.

Goths. The name was first regarded as synonymous with Getae, the inhabitants of the banks of the Lower Danube and the shores of

the Black Sea, whence they emigrated to the North West. They afterwards, under Alaric, joined with other tribes in destroying Rome in 410 A.D. *The Monks* destroyed many ancient books in order to transcribe their ridiculous lives of saints on the obliterated vellum... Inflamed with the blindest zeal against everything Pagan, Pope Gregory VII [whom we must now regard as infallible!] ordered that the library of the Palatine Apollo, a treasury of Literature formed by successive emperors, should be committed to the flames." *DISRAELI'S Curiosities of Literature*, Art. "Destruction of books." It is rather candid of Pope, himself a Roman Catholic, to confess what he does in the line before us.

687. *Erasmus*, born at Rotterdam, 1467, died at Basle, 1536. He is regarded as the most learned man of his age, and so far was the glory of the priesthood. He attacked very furiously the mendicant order of monks, as he regarded them the chief barrier to the restoration of letters. The monks who held "it a proof of their consummate piety, being so illiterate as not to be able to read," abused him in turn, hence he is their *shame*. They used to say, that he laid the egg that Luther hatched. See HALLAM'S *Lit. of Europe*, Vol. I. Part I. Chap. IV, pp. 279—290.

Johnson tells us, that the "zealous papists thought the monks treated with too much contempt, and Erasmus too studiously praised; but to these objections he had not much regard."—*Life of Pope*.

696. *Vandals*, a German people of Gothic origin, who were originally settled in the Giant's Mountains. They began to annoy the Romans about 160 A.D. They plundered Rome in 455. Their kingdom was in turn destroyed by Balisarius and annexed to the Byzantine empire. *Holy Vandals*: the monks.

697. *Leo*. The papacy of Leo X (Cordina, de Medici) lasted from 1513 to 1521. The rebuilding of St. Peter's Church was commenced under his predecessor, Julius II., for whom some of Raphael's greatest works were executed. Leo (also infallible!) favoured art and learning.

698. *Withered bays*: laurels withered, inasmuch as learning had previously been neglected. *With sweeter notes*. Warton writes: "I have the best authority that in the age of Leo X, music did not keep pace with poetry in advancing towards perfection."

704. *Raphael*, the greatest painter of any age, born in 1483. He died at Rome in 1520.

Vida of Cremona is a critical writer chiefly known by his *Art of Poetry*, subsequently and probably in consequence of Pope's encomium, translated into English by Christopher Pitt. This *Art of Poetry*, written about 1520, is chiefly directed to a consideration of the rules of Epic poetry; and was the first of many similar discourses by Italian poets, Torquato Tasso among the number. *Ward*. Hallam says that "his versification is often hard and sonorous, the elisions too frequent; and even where the subject admits of it, not always so elevated as we should desire." *Lit. of Europe*, Vol. I. part I., Chap. VIII. p. 431.

707. *Cremona* was a Roman colony in the north of Italy, near the confluence of the Adda and the Po. Mark Jerome Vida was born in its chief town of the same name.

708. *Near to Mantua*, in allusion to Virgil's words in the 9th Eclogue, l. 28, where Mantua is said to be in the vicinity of Cre-

mona. This application is made in Kennet's edition of Vida. Mantua, the birth-place (70 B.C.) of Virgil is a town in Cis-Alpine Gaul in an island in the river Mincio.

709. *Latium*: a country of Italy lying south of Etruria from which it was separated by the Tiber. Virgil says that it received its name from Saturn, because he there *lay hid (latui)* in safety. Virgil uses the word for all Italy. Chased by the Duke of Bourbon in 1527 when he sacked Rome.

714. *Boileau's* (1636—1717) *Art Poétique*, in four Cantos, like Pope's Essay itself, heralds no new literary era; it is rather a summary by an independent critic of precepts which apply to poetic literature in general, though they are frequently pointed by special and even personal application. Nicolas Despreaux Boileau was born in 1636 and lived till 1711. Besides the A. P. his *Epistles* and *Lutrin* are his most noteworthy productions; as a satirist, he is of the school of Horace rather than of Juvenal; as a critic, he is distinguished by incisiveness rather than breadth. His *Odes* have no exceptional merit—Ward. "His fundamental doctrine was that 'reason is the soul of writing and truth its only object.'" Boileau glories in the fact that he rules *in right of Horace*. He writes in the conclusion of his last book:—

"That which my muse brings from Parnass I offer,
Gathered while yet young from Horace's rich coffer."

710. *Britons*. De Quincy remarks:—"Boileau, Pope certainly admired too much; and for the sake of a poor parallelism with a passage about Greece in Horace, he has falsified history in the most ludicrous manner, without a shadow of countenance from facts, in order to make out that we, like the Romans, received laws of taste from those we had conquered." *Miscellaneous works*, Vol. XV. Article Pope, p. 140.

De Quincy alludes to Horace's Epistles II, i. 156:

"Greece, conquered Greece, her conqueror subdued,
And Rome grew polished, who till then was rude."

723. *Such was the muse*: John Sheffield, Duke of Buckingham, author of an *Essay on Poetry*. Dryden also warmly complimented the noble poet in the dedication to his translation of the *Æneid*, and Dr. Garth in his first edition to his *Dispensary*. Pope thinks his character well described in Dryden's words:

—The muses' friend
Himself a muse In Sannadrin's debate
True to his prince, but not a slave to state."

Abs. and Achit.

Pope enjoyed his friendship till his death, which took place in 1721. Lines 723, 724 were not in the first edition. The latter line is a quotation from Buckingham's *Essay*.

Walsh was born 1663 and died 1708. His chief works are *A Dialogue concerning Women*, *Letters and Poems*, &c. Pope's *Fourth Pastoral* was written to the memory of Mrs. Tempest at the suggestion of Walsh, who had also celebrated her in a Pastoral elegy entitled *Delia*. Dr. Johnson says of him that "he is known more by his familiarity with greater men, than by anything done or written by himself."

739-740. Compare these with the following line, commonly ascribed to Horace, but which cannot be traced further back than the publication of Henault's *Abrégé Chronologique* (to which it was fixed as an epigraph) published in 1744:—

"Indocti discant et ament meminisse periti."

In the third edition, Henault acknowledged that he had given it as a translation of Pope's lines.

741. These concluding lines bear a great resemblance to Boileau's conclusion of his *Art of Poetry*, but are perhaps superior.

—The Calcutta Student.

TECHNICAL EDUCATION.

THE following letter addressed by Mr. Chisholm to the Secretary to the Trustees of Patcheappah's Charities deals with a subject in connection with education of no small importance. Mr. Chisholm pleads for greater attention being given to technical instruction and he characterises, not infelicitously, the education now being exclusively given as being but half education. As Superintendent of the School of Arts, Mr. Chisholm has done very good work and it is not unlikely that the Trustees of Patcheappah's Charities will fail to see the force of his argument in urging the desirability of such bodies as Patcheappah's Trustees helping poor students of the School of Arts:—

TO THE SECRETARY

TO THE TRUSTEES OF PATCHEAPPAH'S CHARITIES.

SIR,—The importance of technical education is now so universally acknowledged that it almost seems a work of supererogation to advocate its cause.

I regard the present time however as peculiarly favorable for bringing the matter prominently to the notice of your committee. The recent famine, the exhausted exchequer, the rate of exchange, and the distressed condition of a large part of the community, are all caused in part or aggravated by that system of half education introduced into this country singularly misnamed the higher education.

In these days it is absolutely necessary that ninety-nine men out of every hundred should undergo a second training beyond the mental training received at school, and in nearly every case this technical training is as difficult to acquire as the mental training. The subject is receiving the most earnest attention in European countries and in London itself a technical college will be shortly established. A leading London journal states "The instruction of the industrial classes of England in the science of their handicrafts is coming to be recognised as a thing of pressing necessity, and what is called technical education is already one of the social war-cries of the day. Amongst other movements in connection with the idea we find for example, the corporate guilds of the City of London engaged in a proposal which goes so far as to promise the creation at their expense of a special Technical College—with a building probably on the Thames embankment."

I would ask the gentlemen of your committee who have been mentally trained, to consider their own ignorance of technical industries, what would they themselves do to gain a livelihood unless fortune had favored them with means and wealth? Could any of them cut a paving stone, or paint a name over a shop door! I think not, and yet cheap as the labor of the stone mason and the sign board painter is, they had to learn its technicalities before they could command a price in the market.

The system of education throughout India is almost exclusively a gigantic machine for mental training only—which I term for all wordly purposes *half education*—pushed to its utmost limits it can only produce; Statesmen, Philosophers, Poets, Authors, Clerks and Accountants—now every one of these several classes beyond the actual requirements of the community is a useless drone the food he eats would keep alive a creator of commodities. I instanced the stone mason and the sign board painter not without reason. There is in this country an ignorant prejudice against technical education which must be overcome before any real advance will be made. Stone cutting carried to perfection is *sculpture* and sign board painting *high art*—there is no line of demarcation; either one gradates imperceptibly into the other, the manual labor is in both cases the same—the chisel and gavel must be handled alike by mason and sculptor the brush and maulstick by sign writer and painter? You look down on the honest crafts, but there is probably not half a dozen men in the whole of India who would gain the same entrée into English society as Baron Marrochetti did, or Sir Fred. Leighton does, the one a sculptor, the other a painter. Indeed so curious an idea prevails in this country as to what is, and what is not an honorable avocation, that native and Eurasian gentlemen of means prefer shop-keeping to a profession—and if they have no means they would rather shake their legs at a desk from morning till night for 15 Rs. a month, than learn an industry which would bring them in two or three times that sum. In the School of Arts where technical education is taught, I have one or two English ladies and gentlemen and the sons of Blacksmiths and Carpenters—there is no one to bridge the chasm between the Blacksmith and the English gentleman, and nothing that I can do will induce the Blacksmith to work at his father's craft, or the potter's son to work at the wheel. I am hopeful however. From two branches of Industry I have already discharged all men, decorating and gilding and glass enamelling, and if I can only get at the proper material to teach, I hope in a few years to have a highly trained body of boys capable of producing work of artistic excellence and great value. In this good work your Committee can assist me, for when once the great educational bodies recognise technical education, all prejudices will cease, and a more refined class enter the institution.

Before proceeding further let me correct an erroneous impression which prevails regarding this school. It is generally imagined that the work consists of feeble flights into the regions of high art, but this is not the case. It is essentially an Industrial Institution. Drawing is taught in all its branches and in teaching drawing it is as necessary to place before the student the best examples of the highest genius, as it is to put Macaulay or DeQuincey into the hands of a boy who wishes to learn English. The Drawing taught will

teach a boy to be a good carpenter or a great painter according to his ability or genius, but all ambitious flights are discouraged.

The system I pursue at the School of Arts is as follows:—

The student enters for a fee of annas 8 a month and studies under an Assistant Master until he passes "Free hand." I enclose two test papers of passed students in order that you may see clearly what this is. After passing free hand the youth is then admitted as a student and devotes the whole of his time to the work. In the morning he pursues his studies, in the afternoon he works at a craft, in return he obtains Rs. 10 a month which is sufficient to support him while he passes through the course; at present the Institution does not derive much benefit from the student's services, but as they become skilful the work turned out during the afternoon will amply repay it. I have now upwards of—students on Rs. 10 per mensem and as they are paid out of the monthly grant it is practically reduced by that sum.

In this scheme work is essential and it taxes my ingenuity not a little to find work at all times which will be remunerative. A large lump of money is spent in experiments which are absolutely necessary before improvements can be made. Our appliances are worn out and of the rudest description, our building is not much better than a godown, we have little or no sympathy from the outside public and most of our students are too poor to provide themselves with the necessary materials for drawing. I do not note these things in a complaining spirit for the genius that cannot overcome such small difficulties is not worth much, and the fact that the Institution is now for the first time since its establishment in a good condition, financially, makes me hopeful for the future. Still the assistance of bodies such as yours will be most gratefully received.

The liberality of Government in purchasing the institution if seconded by your Committee in increasing our monthly grant or presenting us with a new kiln will do much to place technical education on a sounder and broader basis.

I would suggest that some member of your Committee should visit the Institution, and if they will come in the afternoon they will see the students actually working.

(Signed) R. F. CHISHOLM.

S. P. G. College, Trichinopoly.

F. A. CLASS.

I. Name and explain the different methods of estimating angles in Trigonometry.

II. (a) The angle subtended at the centre of a circle by an arc which is equal in length to the radius is an invariable angle.

(b) An arc of 40° on a circle, whose radius is 6 inches, is found to measure π inches; and this length, applied to the circumference of another circle, is found to cover an area of 25° ; what is the radius of the latter circle?

III. Prove Geometrically that:—

$$(1) \sin(90^\circ + A) = \cos A; \text{ and } \cos(90^\circ + A) = -\sin A.$$

$$(2) \sin \theta = \frac{2 \tan \frac{\theta}{2}}{1 + \tan^2 \frac{\theta}{2}}; \text{ and } \frac{1 - \tan^2 \frac{\theta}{2}}{1 + \tan^2 \frac{\theta}{2}} = 1 - 2 \sin^2 \frac{\theta}{2}$$

IV. Prove that:—

$$(1) \text{ if } \cos(\alpha - \beta) \cdot \cos(\theta + \phi) = \cos(\alpha + \beta) \cos(\theta - \phi), \\ \text{then } \cot \alpha \cot \beta = \cot \theta \cot \phi.$$

$$(2) \text{ if } \sin \alpha + \sin \gamma = 2 \sin \beta \cos(\beta - \alpha). \\ \text{then } \alpha, \beta \text{ and } \gamma \text{ are in arithmetical progression.}$$

$$(3) \text{ if the cosines of } \phi - \alpha, \phi, \text{ and } \phi + \alpha \text{ be in harmonical progression.}$$

$$\text{then } \cos \phi = \sqrt{2} \cos \frac{1}{2} \alpha.$$

V. Find an expression for all the angles which have a given tangent.

VI. (a) Determine x from the equation:—

$$\sin(x - a) + \sin(2x + a) = \sin(x + a) + \sin(2x - a)$$

(b) Eliminate θ from the equations:—

$$(a + b) \sin \theta + (a - b) \cos \theta = \sqrt{a^2 + b^2}; \quad a \sin^3 \theta + b \cos^3 \theta = \sqrt{3ab}$$

VII. Express the cosine of $A + B$ in terms of the sines and the cosines of A and B when each of the angles A and B is greater than a right angle and their sum is less than three right angles.

VIII. Prove that,

$$(1 - a^2 \sin^2 \theta) \{ 1 - a^2 \sin^2(\theta - \phi) \} - \{ \cos \phi - a^2 \sin \theta \sin(\theta - \phi) \}^2 = (1 - a^2 \sin^2 \phi)$$

IX. Investigate the relation that must exist among the angles A, B, C , in order that $\cos^2 A + \cos^2 B + \cos^2 C + 2 \cos A \cos B \cos C - 1$ may be zero.

$$X. \text{ Prove that } \frac{\sec(2^{2n+1}A) - 1}{\sec(2^{2n}A) - 1} = \frac{\tan(2^{2n+1}A)}{\tan(2^{2n}A)};$$

and thence shew that

$$\frac{(\sec 2A - 1)(\sec 2^2A - 1)(\sec 2^3A - 1) \dots \text{to } n \text{ factors}}{(\sec A - 1)(\sec 2A - 1)(\sec 2^2A - 1) \dots \text{to } n \text{ factors}} \\ = \cot \frac{1}{2} A \tan(2^{2n-1}A)$$

Trigonometry Solutions.

I. Vide. Todhunter's Plane Trigonometry Art 13.

II. (a) Vide. Do. Art 16.

(b) Let the circumference of the first circle be represented by x and that of the 2nd by y . Then the arc is to the whole circumference as the angle on which it stands is to four right angles.

$$\text{Therefore } 40^\circ : 2\pi :: a : x \quad \therefore a = \frac{40^\circ}{2\pi} x$$

$$\text{Also from (2) } 25^\circ : 2\pi :: a : y \quad \therefore a = \frac{25^\circ}{2\pi} y$$

$$\therefore \frac{40^\circ}{2\pi} x = \frac{25^\circ}{2\pi} y \quad \therefore x = \frac{5}{8} y$$

Again if r and r' represent respectively the radii of the two circles $\frac{r'}{r} = \frac{y}{x} = \frac{y}{\frac{5}{8}y} = \frac{8}{5} \therefore r' = \frac{8}{5} r = \frac{8}{5} \times 6 \text{ inch} = 9\frac{3}{5} \text{ inch.}$

III. (1) Vide. Todhunter's Plane Trigonometry Art 52.

(2) With any straight line AB as diameter describe a circle. Take any point C in the circumference and join C with D , the centre of the circle. Join AC and BC . From C draw CE perpendicular to AB . Then since AB is bisected at D and divided into two unequal parts at E $\therefore AE \cdot EB + DE^2 = DB^2 = CD^2 = CE^2 + DE^2$.

$$\therefore AE \cdot EB = CE^2 \text{ (add to these equals } AE^2)$$

$$\text{then } AE \cdot EB + AE^2 = CE^2 + AE^2 \text{ i.e. } AE \cdot AB = AC^2$$

$$\text{i.e. } 2CD \cdot AE = AC^2$$

$$\therefore CD = \frac{AC^2}{2AE} \therefore \frac{CD}{CF} = \frac{AC^2}{2AE \cdot CE} \therefore \frac{CE}{CD} = \frac{2AE \cdot CE}{AE^2 + CE^2}$$

$$\text{i.e. } \frac{CE}{CD} = \frac{2 \cdot \frac{CE}{AE}}{1 + \frac{CE^2}{AE^2}} \text{ (dividing both the numer. \& denomr. by } AE^2)$$

$$\text{i.e. } \sin \theta = \frac{2 \tan \frac{\theta}{2}}{1 + \tan^2 \frac{\theta}{2}} \text{ (for if } \angle CDE \text{ represents } \theta, \text{ then } \angle CAE = \frac{\theta}{2})$$

$$(2) \tan^2 \frac{\theta}{2} = \frac{CE^2}{AE^2} = \frac{CE^2}{AC^2} + \frac{AE^2}{AC^2} = \frac{CE^2}{AC^2 - CE^2}$$

(the same figure and the same notation is used as in III (1))

$$\text{i.e. } \frac{CE^2}{AE^2} = \frac{\frac{CE^2}{AC^2}}{1 - \frac{CE^2}{AC^2}} \quad \text{i.e. } \tan^2 \frac{\theta}{2} = \frac{\sin^2 \frac{\theta}{2}}{1 - \sin^2 \frac{\theta}{2}}$$

(adding and Subtracting both Numerator and Denominator)

$$\frac{1 - \tan^2 \frac{\theta}{2}}{1 + \tan^2 \frac{\theta}{2}} = \frac{1 - \sin^2 \frac{\theta}{2} - \sin^2 \frac{\theta}{2}}{1 - \sin^2 \frac{\theta}{2} + \sin^2 \frac{\theta}{2}} = 1 - 2 \sin^2 \frac{\theta}{2}$$

$$\text{IV. (1) } \cos(\alpha - \beta) \cos(\theta + \phi) = \cos(\alpha + \beta) \cos(\theta - \phi)$$

$$\therefore \frac{\cos(\alpha - \beta)}{\cos(\alpha + \beta)} = \frac{\cos(\theta - \phi)}{\cos(\theta + \phi)}$$

$$\therefore \frac{\cos(\alpha - \beta) + \cos(\alpha + \beta)}{\cos(\alpha - \beta) - \cos(\alpha + \beta)} = \frac{\cos(\theta - \phi) + \cos(\theta + \phi)}{\cos(\theta - \phi) - \cos(\theta + \phi)}$$

$$\therefore \frac{2 \cos \alpha \cos \beta}{2 \sin \alpha \sin \beta} = \frac{2 \cos \theta \cos \phi}{2 \sin \theta \sin \phi} \quad \cot \alpha \cot \beta = \cot \theta \cot \phi$$

$$(2) \sin \alpha + \sin \gamma = 2 \sin \beta \cos(\beta - \alpha) = 2 \sin \beta \cos \beta \cos \alpha + 2 \sin \alpha \sin^2 \beta$$

$$\therefore \sin \gamma = \sin 2\beta \cos \alpha + 2 \sin \alpha \sin^2 \beta$$

$$= \sin 2\beta \cos \alpha - \sin \alpha (1 - 2 \sin^2 \beta)$$

$$= \sin 2\beta \cos \alpha - \sin \alpha \cos 2\beta \quad (\text{for } \cos 2\beta = 1 - 2 \sin^2 \beta)$$

$$= \sin(2\beta - \alpha)$$

$$\therefore \gamma = 2\beta - \alpha \therefore \gamma + \alpha = 2\beta$$

$$\therefore \alpha, \beta, \gamma \text{ are in Arithmetical Progression.}$$

$$(3) \cos(\phi - \alpha), \cos \phi, \cos(\phi + \alpha) \text{ are in H.P.}$$

$$\therefore \cos \phi = \frac{2 \cos(\phi - \alpha) \cos(\phi + \alpha)}{\cos(\phi - \alpha) + \cos(\phi + \alpha)} = \frac{2(\cos^2 \phi - \sin^2 \alpha)}{2 \cos \phi \cos \alpha}$$

$$\therefore \cos^2 \phi \cos \alpha = \cos^2 \phi - \sin^2 \alpha$$

$$\therefore \cos^2 \phi (1 - \cos \alpha) = \sin^2 \alpha \therefore \cos^2 \phi \cdot 2 \sin^2 \frac{\alpha}{2} = 4 \sin^2 \frac{\alpha}{2} \cos^2 \frac{\alpha}{2}$$

$$\therefore \cos^2 \phi = 2 \cos^2 \frac{\alpha}{2} \therefore \cos \phi = \sqrt{2} \cos \frac{\alpha}{2}$$

V. Vide Todhunter's Trigonometry Art 68.

$$\text{VI. (a) } \sin(x - a) + \sin(2x + a) = \sin(x + a) + \sin(2x - a)$$

$$\therefore \sin(x - a) - \sin(x + a) = \sin(2x - a) - \sin(2x + a)$$

$$\therefore 2 \sin(-a) \cos x = 2 \sin(-a) \cos 2x$$

$$\therefore \cos x = \cos 2x$$

$$\therefore x = 2n\pi \pm 2x \therefore x = \frac{2n\pi}{1 \pm 2}$$

$$\text{VI. (b) } a(\sin \theta + \cos \theta) + b(\sin \theta - \cos \theta) = \sqrt{a^2 + b^2} \dots\dots\dots (1)$$

$$a \sin^3 \theta + b \cos^3 \theta = \sqrt{3ab} \dots\dots\dots (2)$$

$$\text{Squaring (1) } a^2(\sin^2 \theta + \cos^2 \theta + 2 \sin \theta \cos \theta) + b^2(\sin^2 \theta + \cos^2 \theta - 2 \sin \theta \cos \theta) = a^2 + b^2 - 2ab(\sin^2 \theta - \cos^2 \theta)$$

$$\text{i.e. } a^2 + a^2 \sin 2\theta + b^2 - b^2 \sin 2\theta = a^2 + b^2 - 2ab(\sin^2 \theta - \cos^2 \theta)$$

$$\therefore \sin^2 \theta (a^2 - b^2) = 2ab \cos 2\theta$$

$$\therefore \frac{\sin 2\theta}{\cos 2\theta} = \frac{2ab}{a^2 - b^2} \quad \text{i.e. } \tan 2\theta = \frac{2ab}{a^2 - b^2}$$

$$\text{i.e. } \frac{2 \tan \theta}{1 - \tan^2 \theta} = \frac{2ab}{a^2 - b^2} = \frac{2 \frac{b}{a}}{1 - \frac{b^2}{a^2}} \therefore \tan \theta = \frac{b}{a}$$

$$\therefore \frac{\sin \theta}{\cos \theta} = \frac{b}{a} \therefore a \sin \theta = b \cos \theta$$

$$\text{From (2) } a \sin^3 \theta + b \cos^3 \theta = \sqrt{3ab}$$

$$\text{i.e. } a \sin^3 \theta + a \sin \theta \cos^2 \theta = \sqrt{3ab} \quad (\text{for } a \sin \theta = b \cos \theta)$$

$$\text{i.e. } a \sin \theta (\sin^2 \theta + \cos^2 \theta) = a \sin \theta = \sqrt{3ab} \therefore \sin \theta = \frac{\sqrt{3ab}}{a}$$

$$\text{also } \cos \theta = \frac{\sqrt{3ab}}{b}$$

Substitute this value in (1) then

$$(a + b) \frac{\sqrt{3ab}}{a} + (a - b) \frac{\sqrt{3ab}}{a} = \sqrt{a^2 + b^2}$$

VII. Similar to Art. 79 in Todhunter's Plane Trigonometry.

VIII. The Exp. = $1 - a^2(\sin^2 \theta + \sin^2(\theta - \phi))$

$$+ a^4 \sin^2 \theta \sin^2(\theta - \phi) - \cos^2 \phi$$

$$- a^4 \sin^2 \theta \sin^2(\theta - \phi) + 2a^2 \cos \phi \sin \theta \sin(\theta - \phi)$$

$$= 1 - \cos^2 \phi a^2 \{ \sin^2 \theta + \sin^2(\theta - \phi) \} + 2a^2 \cos \phi \sin \theta \sin(\theta - \phi)$$

$$= \sin^2 \phi - a^2 \{ \sin^2 \theta + \sin^2(\theta - \phi) - 2 \cos \phi \sin \theta \sin(\theta - \phi) \}$$

$$= \sin^2 \phi - a^2 \{ \sin^2 \theta + \sin^2 \theta \cos^2 \phi + \cos^2 \theta \sin^2 \phi - 2 \sin \theta \cos \theta \sin \phi \cos \phi$$

$$- 2 \cos^2 \phi \sin^2 \theta + 2 \sin \theta \cos \theta \sin \phi \cos \phi$$

$$= \sin^2 \phi - a^2(\sin^2 \theta - \sin^2 \theta \cos^2 \phi + \cos^2 \theta \sin^2 \phi) = \sin^2 \phi - a^2 \{ \sin^2 \theta$$

$$\times (1 - \cos^2 \phi) + \cos^2 \theta \sin^2 \phi \}$$

$$= \sin^2 \phi - a^2 \{ \sin^2 \theta \sin^2 \phi + \cos^2 \theta \sin^2 \phi \} = \sin^2 \phi - a^2 \sin^2 \phi (\sin^2 \theta$$

$$+ \cos^2 \theta) = (1 - a^2) \sin^2 \phi$$

IX. Vide Todhunter's Plane Trigonometry Art 115.

On by (iii. 35), if two straight lines cut one another within a circle, the rectangle contained by the segments of one of them is equal to the rectangle contained by the segments of the other. Let AF and DE cut one another in B. Let AB = portion of lotus seen at first above the surface of the water DE; BC portion under water. Then, as before, when the lotus is submerged CD = its position. (N.B.—RS = bottom of water.) Now, by enunciation, $BD \times BE = AB \times BF$, and from the nature of the question the construction of proposition 3. Book iii., is followed, *viz.*: AF passes through the centre C and cuts the surface of the water ED at right angles $\therefore EB \perp BD$ (3. iii.). Hence $EB \times BD = BD^2 = 36^2$ inches = 1296 inches

= $AB \times BF$ (as above). But $AB = 9$ inches. $\therefore BF = \frac{1296}{9} = 144$ ins.

Hence $AB + BF = 144 + 9 = 153$ inches, and $AC = \frac{1}{2}(AB + BF) = \frac{1}{2}(153) = 76\frac{1}{2}$ inches. Now BC (the depth of water = $AC - AB = (76\frac{1}{2} - 9)$ inches = 67 $\frac{1}{2}$ inches = 5 feet 7 $\frac{1}{2}$ inches. Answer.

Another Solution by Pandit Gopi Nath, 2nd Master of the High School, Partabgarh, Oude:—

In the above figure, let BA represent the height of the water lily above the water which is 1 span or $\frac{1}{2}$ cubit. Join CD, Then DBC is a right angled triangle of which $BD = 2$ cubits and the difference between the hypotenuse and the other side *viz.*, $BA = \frac{1}{2}$ cubit, for $CA = CD$.

Find the hypotenuse and the other side thus:—

The square of 2 cubits is equal to the product of the sum of the hypotenuse and the other side into their difference, therefore if the square of 2 cubits be divided by $\frac{1}{2}$ cubit, the quotient will be the sum of the hypotenuse and the other side. In this way we find that the sum of the hypotenuse and the other side is 8. Thus, the difference of the hypotenuse and the other side is $\frac{1}{2}$, and their sum is 8. Add and divide by 2, thus we obtain $\frac{17}{4}$ which is the hypotenuse. Subtract $\frac{1}{2}$ from 8, and we obtain $\frac{15}{4}$, which is the other side, that is the depth of the water is $3\frac{3}{4}$ cubits.

VI. A tree one hundred cubits high is two hundred cubits distant from a well; from the top of this tree one monkey descends and goes to the well; another monkey takes a leap upwards, and then descends by the hypotenuse, and both pass over an equal space. Required the height of the leap.

Solution:—

Let x = the height of the leap upward from the top of the tree, then the square of the hypotenuse described by the monkey in falling is that of a right angled triangle whose base is 200 cubits and height $100 + x$ cubits which by Euclid I. 47 = $200^2 + (100 + x)^2$

But by the question this hypotenuse plus the height of the leap upwards = 300 $\therefore$ this hypotenuse = $300 - x$

$$\text{and } (300 - x)^2 = 200^2 + (100 + x)^2$$

$$40,000 = 800x$$

$$x = 50 \text{ Answer.}$$

EXAMINATION PAPERS.

Maharajah's High School, Mysore.

Senior F. A. Class.

TRIGONOMETRY AND EUCLID, BOOK, XI.

Time—3 hours.

Examiner—W. A. Porter, M.A.

1. Define the Cosine and Cosecant of an angle. Given $\sec \theta = 3$, find $\text{Cosec} \theta$.

2. For what values of θ between 0 and 2 II are the following quantities positive.

(1) $\sin \theta + \cos \theta$

(2) $\tan \theta + \cot \theta$

3. Prove the formula.

$$\cos(A - B) = \cos A \cos B + \sin A \sin B$$

in the case where A and A — B both lie between 90° and 180° .

4. Represent as the product of two factors the following expressions.

(1) $\sin A + \sin B$.

(2) $\cos A - \sin B$.

5. Prove the following equalities:—

(1) $\frac{\cos 3A + \sin 3A}{\cos A - \sin A} = 1 + 2 \sin 2A$

(2) $\frac{\sin^2 A - \sin^2 B}{\sin A \cos A - \sin B \cos B} = \tan(A + B)$

and find the general value of θ in the equation.

$$\cos 5\theta + \cos 3\theta = \cos \theta.$$

6. Two sides of a triangle are 9 and 7, and the included angle is $64^\circ 12'$; find the other angles.

Given $\log 2 = .3010300$.

$\log \tan 57^\circ 54' = 10.2025255$

$\log \tan 11^\circ 16' = 9.2993216$

$\log \tan 11^\circ 17' = 9.2999804$

7. In a plane triangle prove that

$$\sin \frac{A}{2} = \sqrt{\frac{(s-b)(s-c)}{bc}}$$

Shew that

$$\cot \frac{B}{2} + \cot \frac{C}{2} = \frac{2a}{b+c-a}$$

8. An object 6 feet high, placed on the top of a tower, subtends an angle D at a place whose horizontal distance from the foot of the tower is 100 feet θ . If $\tan D = \frac{3}{80}$ shew that the height of the tower is 173 feet nearly.

9. If two straight lines be parallel and one of them be at right angles to a plane, the other also shall be at right angles to the same plane.

Point out three planes in the figures for this proposition intersecting in the same line and their inclinations to each other.

10. Draw a straight line perpendicular to a given plane from a given point without it.

11. Every solid angle is contained by plane angles which are together less than four right angles.

N. B.—Prove this for the case in which the solid angle is contained by three plane angles.

Matriculation Class.

September 1879.

GENERAL ENGLISH.

3 hours.

Examiner—Rev. H. Gulliford.

- I. (a) Paraphrase—
He showed a tent
A stone-shot off: we entered in, and there
Among piled arms and rough accoutrements,
Pitiful sight, wrapped in a soldier's cloak,
Like some sweet sculpture draped from head to foot,
And pushed by rude hands from its pedestal,
All her fair length upon the ground she lay;
And at her head a follower of the camp,
A charr'd and wrinkled piece of womanhood,
Sat watching like a watcher by the dead.
- (b) Expand the metaphor in the ninth line into a simile.
- II. (a) Define—Prose, Poetry, Nominative Absolute, Adverbial Accusative, Nominative of Address.
- (b) Give examples of the last three.
- III. (a) Give the plurals of—ellipsis, seraph, ox, goose, index, staff.
- (b) Give the masculine forms of—duck, slut, czarina, spinner, witch, abbess.
- (c) Write the present and past tenses of which the following are the past participles—cleft, hanged, laid, flow'd, lain, cleaved, flown, set, pent, laden.
- (d) Given the positive and comparative forms of—utmost, next, last, first, holiest, farthest.
- IV. Parse fully—
To reign is worth ambition.
A greater instance of a man's being a blockhead I do not know.

- V. Correct the following errors—

I asked whither he was going to, and he told to Bangalore.

He objected his son going to school.

I need not tell you on that point.

Men generally ought to exercise of any game for their own benefit of bodily constitution.

He gave me a good advice, in addition with a few rupees.

I reached this place on last Monday and did not yet get my bandy from Shimoga.

- VI. Rewrite in the direct form, and punctuate—

The boy said he had been to Bangalore and had seen a great many sights there one of the pleasantest was the Lal Bagh which delighted him very much he also saw the Museum where there is a lot of strange things models, birds, reptiles, &c. He would go to Bangalore again if his father would give him permission and the necessary expenses.

- VII. Distinguish between—

Comprehend and apprehend.

Condemn and abuse.

Autocrat and despot.

Dislike and disgust.

I only can read it }

I can only read it }

I have lost a philosopher and friend }

I have lost a philosopher and a friend }

- VII. Analyse into clauses, giving the construction of each—

This operation of the mind is so striking a quality amongst an idolatrous people that it merits particular attention, if we are desirous to know how far the spirit of fanaticism and superstition can mislead men; especially when it is nourished by vanity and self-love, or the wish to be distinguished and to acquire a name.

- VIII. (a) Change the voices of the verbs in italics—

Having crossed the bridge, they *attacked* the enemy.

There is no one but *hopes* for success.

You are *expected* to come at once.

(b) Illustrate in appropriate complex sentences the use of the following words and phrases—once for all, at once; invalid, invalid; and the idiomatic use of—let be, let drive, let out, to make a point, to strain a point.

- IX. Rewrite according to the directions given—

Just as I left the school, the rain began to fall.

Use *no sooner* for *just as*.

I have not read the book since last January.

Replace *since* by *ago*.

The paper was too difficult for me to attempt it.

Use (1) *so* and (2) *such* instead of *too*.

Men are not respected, if they are not upright and kind.

Introduce the subordinate clause by *only when*.

X. Give the three meanings of *port* according to the three different derivations of the word—the meanings of *seaste* as a noun, adjective, and verb—the meanings of *customs* and *numbers* different from the singular.

XI. Write a short essay, not exceeding a page and a half, on the benefits of physical exercise.

THE PLANETS.

THE starry heavens at the present time present us with a more than usual interest. Four out of the seven primary planets, and perhaps the four most interesting, may be seen simultaneously, daily pursuing their unerring path among the heavenly constellations, namely Mars, Jupiter, Saturn and Neptune; the last named, it is true, requiring the aid of a telescope.

On one of these splendid November evenings, if you turn your back towards the ruddy streaks of the west just after sunset, you will perceive, at the opposite point of the horizon, a fiery red star, which you might easily mistake for one of those balloons the natives occasionally send aloft at this season of the year. An early riser, looking almost in the same direction, a little before sunrise, would find, instead of that reddest of all stars, the whitest and brightest of all, Venus, which has now become the morning star, and will continue so until mid-February.

But let us go back to our evening sky. That bright white star, inferior only to Venus in whiteness and brightness, which you perceive southward, towering on high in the spangled heavens, is the majestic Jupiter. Between the god of thunder and the god of war, about midway, slowly moves pale old Saturn, of a lead-white hue. These two last planets, chiefly Jupiter, are now fast receding from us, leaving us, however, as a consolation the promise of visiting us again next year, when Saturn will come nearer to our globe by about 4,710,400 miles, and Jupiter by some 18,599,640; the perihelion of the latter nearly coinciding with its opposition. As for Neptune, between Saturn and Mars, at about one-third of the interval between the two, counted from the latter, he is absolutely invisible to the naked eye, being of the eighth magnitude, whereas only the six first magnitudes are discernible without the aid of any instrument.

A very ordinary telescope it is true would enable you to catch a glimpse of this far removed god of the deep, provided you know exactly his whereabouts. For only powerful instruments such as that of St. Xavier's Observatory will invest him with an appreciable disc and thus make him discernible from the sea of stars of nearly the same magnitude and appearance among which he is now swimming.

The chief interest attaching to this last planet arises from its forming the known boundary of our solar system, of "that mighty confederation of revolving orbs" which, whilst they acknowledge in the most specific manner a mutual dependence, are all controlled by the predominating influence of the sun. Then again its enormous distance of 3,000,000,000 miles, from which it sends back to us the light of the sun, enfeebled though it be by its dispersion over this vast distance to one-thousandth part of the intensity it pours on the earth. Last, and most of all, the mode of its discovery in 1846,

undoubtedly the most remarkable event in the history of astronomical science,—an event without a parallel, and rising in grandeur pre-eminently above all other efforts of human genius ever put forth in the study of the physical universe. Jupiter, the most bulky of all the planets, being about 1,300 times the size of our earthly globe, is moreover remarkable for its flattened shape, its bands, and its retinue of four satellites or moons, whose various phases and ever-changing configurations are by themselves a whole world of wonders. These satellites, at least two of them, under exceptional circumstances and by exceptional individuals, have occasionally and very rarely been described by the naked eye. But a good opera glass will show them to any moderately good sight.

Not so with the eight satellites of Saturn. The three smaller ones are even so faint that they are often resorted to by astronomers as tests of the illuminating power of their telescopes. Happily Saturn's rings can be far easier seen, and form a spectacle altogether unique* among so many splendid and sublime sights. The aspect of these rings constantly varies, and is now passing through one of its most beautiful phases.

Lastly Mars, besides its reddish tint, which among the Ancients gave it the name "incandescent," in Sanscrit, *angaraka*, "burning coal," and many other remarkable points, which we cannot here even as much as mention, has of late awakened new interest by its two recently discovered satellites, one of which offers this most remarkable and only known exception, that it revolves round its primary in less time than this takes to rotate round its own axis. On this very day, November 12th, Mars passes through its opposition; and then it is nearer to us than when in conjunction, by the entire diameter of the earth's orbit or some 184,000,000 of miles. Yet it was closer still on the 4th instant by some 50,000 miles. This is owing to the great eccentricity and the relative orientation of its orbits.

The least possible distance between the earth and any of the superior planets would take place when an opposition occurs at the time the earth is furthest from the sun, or in aphelion, and the planet nearest to the sun, or in perihelion, and be moreover at one of its nodes, or points of intersection of its orbit with that of the earth. Such were to a considerable extent the relative positions of Mars and the earth in 1875, when it came nearer to us by about 453,000 miles than it ever has done since, or will do until 1890—and approximately every 15 years. When nearest to the earth, its apparent diameter is about seven times, and consequently its disc about forty-nine times greater than when remotest.

A. DE PENARANDA, S. J.

—I. E. Correspondence.]

* A French astronomer thinks he has discovered quite lately (last August) something analogous round the Jovian world. But this requires confirmation. We strongly suspect there is some optical delusion. The exceptional and rare proximity of the planet, next October, will afford a good opportunity to verify the alleged fact.

NATURAL SCIENCE IN ELEMENTARY SCHOOLS.

At the Meeting of the British Association lately held at Sheffield, the question of the value of Science teaching in Elementary Schools was very fully discussed. We take from an English contemporary the substance of the chief speeches made on the occasion:—

Dr. Gladstone said: In elementary schools a knowledge of the facts of nature is generally given in two very different ways. In the infant department there usually linger some remnants of that instruction by object lessons which was considered a valuable part of education before the Revised Code of 1861. In the higher standards of the boys' and girls' departments certain sciences may be taught as "specific subjects," and receive encouragement by a Government grant. The London School Board has all along desired that this knowledge of nature should not be confined to the least and most advanced scholars, but should be extended throughout the whole course of a child's school life. It covers the walls of its schools with natural history pictures and other diagrams, it gives a preference to teachers holding science certificates, it publishes full instructions to the teachers in regard to object lessons, and it provides a box of simple apparatus, and loan collections illustrative of various manufactures, animal physiology, and mechanics. On May 7th it unanimously passed a resolution that, "in the opinion of this Board, it would be expedient to include the elements of natural science amongst the recognised subjects of class examination, under Article 19. c. 1, of the Education Code," and on June 27th a deputation of the Board presented a memorial to that effect to the Lord President of the Council. At the present time, out of 1,074 male and 1,790 female teachers, 888 males and 442 females hold advanced science certificates, varying in number from 1 to 23. Object lessons may be assumed to be given in all the infant departments, and are regularly reported on by the inspectors of the Board. Advanced object lessons, generally on natural history, are taught in many of the boys' and girls' departments, and there is little doubt that they will soon become much more general and systematic. Out of 248 boys', 218 girls', and 46 mixed schools, more than half include in their course of instruction scientific specific subjects, which are thus distributed:—Mechanics—boys' school, 1; animal physiology—boys' school, 99, girls' schools, 13; physical geography—boys' schools, 68, girls' schools, 5; botany—boys' schools, 4, girls' school, 1; domestic economy—girls' schools, 131. The cost of books and apparatus for the instruction in natural knowledge during the past twelvemonth was:—Object teaching, diagrams, &c., £587; natural sciences, £117; domestic economy (exclusive of cookery centres), £130; total, £834. That amount forms a very small item in the £23,000, which was the expenditure of the year on books and teaching apparatus for the 205,010 children usually on the rolls, and was, in fact, rather less than one penny per child per annum. There are other ways in which the Board works in the same direction; such as the placing of popular books on science in the school libraries and the co-operation with the National Health Society in respect of the prizes in physiology which are offered to girls. The Board are of opinion that during an important part of a child's life he should be taught a certain amount of elementary science, in order that the other subjects in which he receives instruction may thus, as it were, be bright-

ened up, and that he may be initiated into those higher studies which he may in after-life find himself in a position to prosecute. To secure that end the Board endeavour to obtain for their schools the services of teachers who know something about natural science. The Board can introduce such teachings into Standards I., II., and III., but they get no encouragement from the Government in that respect, for there is no grant from Imperial taxation for the purpose.

Mr. J. F. Moss, clerk of the Sheffield School Board, next read a paper on the same subject. Mr. Moss strongly insisted on the necessity, if this country was to hold her own in the competition with other nations, of having a supply of well-instructed teachers who should devote themselves to a special range of subjects. He did not mean, he said, to contend that science teaching should be left exclusively in the hands of specialists in the strict sense of the term, and no doubt from among the regular teachers of elementary schools would come forward many who had already qualified themselves for the work, and who might, with great advantage, be appointed to give instruction in the direction to which their own inclinations had led them; but the instruction should be given in such a way as not to interfere with the ordinary work of the elementary schools. If science teaching was to be worth anything at all, it should be sound and intelligent, and the very best men should be selected for the work. But it seemed difficult, if not impossible, to introduce any great amount of science teaching in the separate elementary schools without overstraining, unless the ordinary branches were, to some extent, neglected; and he therefore advocated the establishment of centres at which this class of work could be done by selected teachers and under far more favourable conditions than at present existed. Teachers should be employed to take special groups of subjects, and concentrate their work, as was done in the higher schools of Germany and Switzerland, and there should be scholarships and exhibitions to enable naturally-gifted but poor children to avail themselves of this superior instruction. Branches of science more immediately bearing upon the industries of each district should have special prominence given to them; so as to aid in the training of our intelligent artisans, foremen, and managers, instead of depending so largely for the supply of educated men upon other countries, where greater attention had been given to technical education, with such important results. The results of such a system would be beneficial in their influence on the ordinary elementary schools, if the subject were rightly taken up; but care should be taken that, while offering a means of stimulating exertion by healthy competition for places in the higher school, no discouragement should be interposed in the way of ordinary school-work which must not on any account be undervalued.

Mr. E. M. Hance, (Clerk to the Liverpool School Board), sent a paper describing the experiment now being made in the Liverpool Board Schools in the direction of elementary science instruction. The subjects introduced were mechanics for boys, and domestic economy for girls. At present there were 2,700 children, and would shortly be 3,000, under instruction, and the cost to the Board was about £100 for the apparatus, and £170 a year salary for the instructor and his assistants. This amount was decreased one-half by the grant from Government, and the other half was borne by each

school in equal proportions. The experiment had so far been very successful, and was exceedingly popular with the children, although some of the mothers complained that it made the girls too curious.

Mr. F. Wilson, (London), opened the discussion, observing that what they required was the introduction of the science of perception.

Dr. Wormell said it was probably easier to devise a satisfactory method for securing science and technical teaching in the primary schools than in others. The Education Act had brought order and thoroughness into the primary education, but chaos still reigned in the school system, if it could be called a system, higher than the elementary. Here there is no order, no co-ordination of classes of schools, but there is competition where there should be division of labour. Scientific studies have a beneficial influence on all other branches of education, and in all schools should be carried on continuously with other studies from the infant school to the highest classes. Our teachers must therefore know how to teach the elements of science. The science teaching in the training colleges had hitherto been irregular and spasmodic, being to a great extent marked by the features which characterise everything directed by the Science and Art Department. The teaching of science in these colleges should be made systematic, and besides there should be a special training college in which the art of teaching should be considered in its application to science. There were 1,600 young men entering the training colleges every year, and at least 100 of these would do better as teachers of science than of other subjects. Scientific education ought to find its way into all schools from the earliest stages to the most advanced. The kindergarten system was a fair beginning, but it was too restrictive. Observation and experiment were the means by which truth had to be discovered, and when science was taught simultaneously with other subjects they would find that the intelligence of the pupils was heightened, and that their skill in manipulation, and ability to use their hands, would increase no slight point when it was remembered that the manufacturing population were educated in these schools. Workshops in connection with some of the schools would be very useful, for there the boys could carry on the work after school hours, without diminishing the time devoted to other instruction. It would, in his opinion, help such bodies as the London School Board, who were anxious for this scientific teaching, if the British Association had a permanent committee to consider the question and give assistance if required.

The Rev. A. Harland, (Harefield Vicarage), spoke of the great difficulties which stood in the way of teaching natural science in country schools, and the desirability of inspectors of schools themselves having more scientific knowledge, for he regretted to say that the inspector of the school with which he was connected had requested that the pupils should for the future drop the subject of botany in which they were being instructed, and should confine themselves to the three R's. It would be advisable, he thought, that in connection with the Government day-schools in villages a higher description of schools should be established, in which instruction in science might be more specially given to those children who were in a better position of life than those of mere labourers.

Miss Becker, (Manchester School Board), after remarking that the

question of giving children scientific teaching was only valuable as to the help it would give them in making their way through the world, said she was sorry the science of mechanics was confined to the boys' school, because any girl or woman who had to do household work was painfully conscious that she had frequently to move weights, and if she understood the principles of mechanical science it would be far less laborious and less painful—in fact the principle of the lever was of the utmost consequence in domestic economy. The scrubbing of a floor, and the carrying of a coal-box were mechanical operations which were much better done on scientific principles. Animal physiology had a very close relation to the infant's organisation in its most tender stages, and in the interests of the babies she did think it most important that the common elementary principles of physiology should be known to their mothers. If the kitchen clock stopped, the housewife would never think of beating it for stopping, or for not going right, yet the mechanism of the child's body was infinitely more delicate than a clock's, and some mothers had no scruples about beating their children because they did not like to go to school, perhaps inflicting upon them punishment that might be very injurious in after life. Physical geography and botany were exceedingly interesting subjects in themselves, but they had no direct bearing on the common life, and she was inclined to think these studies might give place to other branches. She sometimes appeared as a champion for the rights of women, but here she should like to say a word on behalf of the boys. They ought in her opinion, to have equal rights with the girls as to the knowledge of domestic economy. They ought to know something about the preparation of food, so that they could tell when their wives served up a good dinner. Law and custom made a man master of his own house, and a Sheffield manufacturer would say that a master ought to have a theoretical knowledge, at all events of the business carried on in his works; therefore she held that the husband, being the master of the house, ought to be acquainted theoretically with the mode of doing the work in that house so that he could help his wife, if not manually, with sympathetic counsel, if things did not go right. Then he would have a better idea of the amount of money the household expenses required, and as the husband held the purse, that was a matter of great importance. In one of the papers read it had been suggested that one of the great difficulties in the way of science teaching was the limited amount of time that could be devoted to it in ordinary schools, and the establishment of scientific centres was advocated, but she thought that if they were really to do any good they must take the teaching to the children, and not the children to the teaching. It would be easy enough to devote less time to some subjects already taught. Grammar was a perfectly useless study in elementary schools, for the distinctions of grammarians were but arbitrary distinctions without any scientific basis. A certain amount of arithmetic was necessary for common life, but there were some extremely abstruse arithmetical problems that might very well give way to more attractive subjects. In girls' schools there was too much time devoted to the actual practice of needlework, and she thought it would be wiser to give one hour's instruction in needlework at school, and leave the actual practice for home itself. Every child, if properly taught, ought to be able to read

perfectly at seven years of age, and, by having good historical works, they could learn history, and at the same time practice the art of mechanical reading, so that by the use of one good book the child would get some real connected knowledge. She hoped the deliberations of the section would have some practical result in improving the scientific teaching in our schools.

Professor Silvanus Thompson (Clifton) said there should be more community of idea between the lower and the higher scientific training. Miss Becker had affirmed that children seven years old ought to be able to read perfectly if they were scientifically taught, but they were not scientifically taught, nor did he think the difficulty would be removed until they had done away with the abominable irregularities of the detestable English spelling, and reformed the table book. The system of certificates of the Science and Art Department was as hollow and unsatisfactory as it could be. He referred to the beneficial results of the kindergarten training in Paris, and protested against the action of the London School Board in issuing certain instructions, in which it was stated that the scholars might use a poker as a hammer. A great advocate of object teaching, he felt that in the name of order he must protest against teaching children the use of articles in this way.

The Chairman, in reply to Professor Thompson, who asked if the kindergarten system had been introduced in London, said it was very successfully taught by the British and Foreign School Society at their training college.

The Rev. W. Delaney (St. Stanislaus College, Tallamore) said he should like to change the idea that science was merely the handmaid of education, for he believed it was really the best educational weapon, and as a school-master he valued almost infinitesimally the knowledge that boys and girls, and even university men, carried with them into life. What they learnt they learnt as men, and at school or college they merely learnt how to learn, improving their reason so as to make it available for the purposes of life. Education hitherto had gone too much in grooves, and what they required was a great improvement in scientific teaching, especially in intermediate schools, where it was in a deplorable state. He found that boys who could learn nothing learnt science easily, and that when they had learnt science they could learn other things easily. There was an absolute inutility and absurdity in teaching grammar, in which boys were taught to know the unknown by the unknown; and he found, moreover, that whilst Latin and Greek were well known in scientific schools, scholars simply studying the classics often failed in that special study, whereas those who studied science as well as classics passed often at the head of the list.

Mr. F. G. Landon (Greenwich), spoke upon the importance of obtaining skilled teachers, and suggested that pupil teachers should only work half-time.

Mr. McClelland (London) also remarked upon the necessity of instructing the teachers before teaching the scholars.

Captain Verney, R.N. (Bangor), asked if it was desirable that the Government should be called upon to pay for this scientific teaching? The teaching was intended, so far as he could gather, for the elevation of the clodhopper; now he was a sailor, and he had a fine promising lad who took after his father. If his boy wished to

be a photographer, or to learn the violin why should not his boy be taught at the expense of the Government? Yet Hodge, who paid very little taxation, would get his boy educated for nothing, whilst his son—a very fine, promising boy, worthy half-a-dozen of Hodge's sons—would have to pay for his own education, or rather his father would for him. Was this fair. Miss Becker had spoken about the danger of beating children. He was not going to defend the beating of naughty children, but he must say he was surprised to hear the section applaud Miss Becker's remarks on that point, especially as one of the earliest things he could remember was the following piece of poetry, which had originated either in Yorkshire or Derbyshire:—

"Solomon said in accents mild,
Spare the rod and spoil the child,
Be he boy, or be she maid,
Whip 'em and wallop 'em, Solomon said."

Mr. J. Angell (Manchester) remarked that if science was to be of any value whatever, if it was to be character-forming, the scholars ought to have one hour's lesson every week.

Mr. Thos. Abbot (Sheffield) combated the idea that at the present time science teaching in training colleges was spasmodic. In this district science teaching would not succeed, because the inspector could not examine the pupils. That was the root of the evil. Teachers were now able to teach scientific subjects, and if the road was only clear they would give such teaching.

Mrs. Amelia Lewis denied that education of children could be carried on in the future without science. Scientific education meant "bread and butter" for the people of this country, and if it was not made the foreigner would overcome the Englishman in the imaginative branches of industry. The English workman was suffering from the coarseness of his habits of life.

The President (Mr. Mundella) in summing up the discussion, said that of all the speakers Captain Verney was the only one who had called in question whether the son of Hodge should be taught science at the expense of the State. In that question they went back to the first question, whether teaching of any sort should be given to Hodge. It was much cheaper to educate than to neglect him. He believed that science teaching tended to redeem school life from its drudgery and monotony. In the science schools abroad the interest manifested by the children in a proper object lesson, and the facility with which they acquired knowledge had very much struck him. The step which, above all others, was the most necessary in education was to awaken the interest of the children in the subject taught. The children would be taught to think for themselves. Therefore, he had always supported science teaching in schools, not only for its great utility, but from a belief that if science teaching was coupled with the ordinary literary teaching of schools, a knowledge of the literary subjects would be more easily acquired. It did not surprise him to hear that there was a good deal in our national education system that needed reform. They had just heard from a successful and accomplished teacher in this town that science could not be taught, because the inspectors themselves discouraged the teaching of it. Young gentlemen fresh from the Universities—some of them very accomplished—were made the in-

spectors of the whole elementary schools in the country, by a system of patronage and not of selection. They were very highly paid, and they were appointed inspectors because perhaps their fathers or near relatives had rendered a service to some particular political party, whichever it might be. But that was altogether a wrong state of matters with reference to education. Referring to the Rev. Mr. Harland's statement about his work in his own parish, Mr. Mundella remarked that they all knew what the clergy had done and sacrificed in the cause of education, and that they had been called on to do a great deal more than their share. He hoped that Mr. Harland would not be discouraged, even although the inspector could not examine the children. Botany was one of the subjects in the Code, and if the inspector could not put questions upon it he thought that Mr. Harland had a right to claim that every one of his pupils should pass. But in London he was now constantly hearing a cry as to whether we are not over-educating the people. Although all present might acquiesce to-day in this discussion, throughout society the cry was, "We are over-educating our people." The real truth was, that people had yet to learn to begin to educate children. They were all very proud of what had been done by the Education Act of 1870, and he should be the last man to undervalue that Act. But as for having an educational system he declared they had none. To begin with, they should have a Minister of Education who would deal with education solely, and who would know something about his business. Education ought not to be mixed up in the Education Department with vaccination and cattle plague, and other things. It seemed that all the heterogeneous things there was no room for in other departments had been sent to the Education Department. Enough had been said that morning to make them feel uncomfortable about the inspectors, but the training colleges were improving every year. Still, the proper provision for training schoolmasters had not been made. A great deal more was done elsewhere, and a great deal more might be done at home without largely increasing the expenditure, which would give a thoroughly good class of trained teachers. They wanted to see—as in Germany—education reduced to a science with a name, a chair of pedagogy, and a minister of education. It was extravagant to say that, but he did not stand so much chance of being laughed at now as ten or twelve years ago. The English people were beginning to think that it was much cheaper and more humane to train the working classes for the duties of after-life than to leave them to wander away into all kinds of excesses, and to allow them to remain in the ignorant and almost brutal condition that too large a portion of them were in. He not only supported science teaching in schools, but he wanted to see it carried to a higher state than the mere teaching of it in schools. Should the British Association visit this town some twenty years hence they might reasonably expect to find "home-bred" scientific men who would appreciate more highly the Association's labours.

GIVE THE TEACHER HIS DUE.

A FRIEND of mine, a worthy and able teacher, the late Thomas Hall, formed a voluntary Chemistry Class at the City of London School, which has since been incorporated into the school work. He had a promising pupil, Perkins by name, I think, whose father one day said to him, "Mr. Hall, I don't think Chemistry will ever be of any use to my son, I fancy he had better discontinue the study," or words to that effect. My friend was far-sighted, and urged, and persuaded, and succeeded in keeping the boy in the class. As I have been informed, Perkins became a great chemist, fixed the mauve colour, and—made a fortune. I have never been informed (though it may be the fact nevertheless) that any portion of that fortune was shared with the man without whose foresight and intentional development of the child, and education, let us remember, of the father, that fortune would not have been made. When the child grows up, there is a convenient forgetfulness of what he owes the Teacher, he grows truly out of remembrance; it is so easy and so natural to attribute his success to his own talent, and his industry, and perseverance,—even his mother believes it. Neither the parent nor the pupil have yet reached the spirit of the lion in the fable—

"Et quæ debetur pars tuæ modestie
Audacter tolle."

We have been shame-faced long enough, and perhaps justly, but let us cease to be pedagogues or boy-slaves, and tutors or boy-keepers; let us exercise a skilful craft, and demand, and be determined to have, our just and fair share of the reward that comes, and comes alone, from the skilled exercise of our craft. But Teaching is inferior to Pleading! The intelligence that frames the Law is inferior to the exposition of the product; the intelligence that prevents disease is inferior to that which cures it; the intelligence that expands the human mind is inferior to that which for the most part, crushes it! A profession, now a noble one, but which not long ago was barbarous in more senses than one, takes precedence of Education, and the Teacher even yet is the lackey of the Parson! When the law becomes intelligible, and men intelligent, and lawyers are raised to a better world, Education will still be needed, for the child will still go on growing; the Educator shall outlive the Lawyer, for like the grave-digger, he shall last till doomsday. After all, why should the Solicitor be so much better paid than the Teacher? Is it because he is more intelligent? I think it is. If you have a little property left you and get him to settle it for you, you will understand what I mean. If we could gracefully hand over the skin and teeth of the child to the parent after our little bill was paid, we could arrange the costs more to our own satisfaction. I fear the Law would, however, pronounce that a one-sided development. The Barrister too has the advantage over the Teacher. If a Schoolmaster makes a point against the Parent, who pays the cost? A Barrister, who makes a point with the jury, (it is nice to have your jury in one box), enjoys his dinner all the more by knowing that he does not pay the cost, but makes a hundred or two, as well as his point; it gives flavour to his dessert.

As a Teacher, I have a profound respect for the Doctor, the Advocate, and the Parson; but I know I can make all three, and shall

outlive at least two; and though I bow to each, I will bend to neither.

To ask what Education can do is to ask what is the Educator's work, and what shall be his position. Knowledge is power, and this knowledge should give us courage on the one hand, and humility on the other. When the patient knows what the Physician can do for him, he will not pay for what he can't do; as it is, he pays for his own ignorance, and folly, and fears—forces which not less than reverence have raised Cathedrals. When the Parent knows what the Teacher can do for him, he will pay for that; now he pays for his ignorance—and not adequately, or the Teacher would be rich. The Parent pays, however, heavier for education than he thinks, only it does not go into the Teacher's pocket; where it does go it is not necessary too curiously to enquire, but certainly the Doctor, the Soldier, the Judge, the Counsel, the Policeman, the Gaoler, the Teacher-Parson, the Keeper, and the Hangman share the Teacher's pay—and rightly, too, for they share his work.—*C. H. Lake, B.A.*

TRAINING TEACHERS AT CAMBRIDGE.

THE Teacher's Training Syndicate of the University of Cambridge have lost no time in preparing their scheme of examination, which was issued early last month. It appears to us to be, on the whole, an adequate scheme, worthy of the importance of the subject. Probably, in the course of working the scheme, new developments and better methods of treatment will suggest themselves, but, for the present, it certainly seems as if some one, at least, had brought very careful and intelligent consideration to bear upon the subject. The Theory, the History, and the Practice of Education form the threefold division of the examination. Under the head of Theory will be treated the scientific basis of the art of education, the characteristics of childhood and youth, the order of development and laws of growth and operation of mental faculties, natural order of the acquisition of knowledge, development of the will, formation of habits and of character, sympathy and its effects—in fact, a large part of mental and moral science. The Theory of Education, will also be held to include the elements of the Art of Education, the training of the senses, the memory, the imagination and the taste, the powers of judging and reasoning, training of the desires and the will, discipline and authority, emulation, its use and abuse—rewards and punishments. All this, it will be seen, is eminently practical and to the point. We come next to the second head—the General History of Education since the Revival of Learning. Why, we would ask, only since then? Surely the methods of the middle ages, with their disputes and maintenance of theses, their scholastic subtleties and their limited reading, are worthy of attention. And were there not great teachers in Athens whose ways and works might reward the student? However, it seems good to the University to acquire a general knowledge of all modern systems of education. Well; that is in itself, as the Americans say, a large order. We trust that the views of such educational reformers as Ascham, Milton, and Comenius will receive attention, as well as Locke, whose work has been selected for the next examination. Michel de Montaigne, too, has said his word on the subject, and Rousseau must not

be forgotten. This part of the examination ought, indeed, to prove eminently interesting. The third and last head refers to the Practice of Education, which is divided into the order and correlation of studies, oral teaching and exposition, the right use of text-books and note-books, the art of examining and questioning, and the best methods of teaching the various subjects which are included in the curriculum of an ordinary school, together with the structure, formation, and fitting of school rooms, books and apparatus, visible and tangible illustrations, classification, distribution of time, registration of attendance and progress, and hygiene, with special reference to the material arrangements of the school and the conditions of healthy study. The fee for the examination is fixed at £2 10s. Now, if the candidate successfully passes this ordeal, he receives a certificate of knowledge *so far*. For this is not enough. We know how Dominic Sampson received an excellent theological training, and yet was never able to preach. Once certified, theorists will have to get, in addition, a certificate of practical efficiency. It is not altogether clear how this is to be rewarded. The Syndicate propose an examination of the class taught by the candidate, an inspection of his class while he is at work, questions put privately, and a report of the Head. But who is to examine? Who is to put the questions? What sort of a report is expected? These points are left, for the present, unanswered; probably, they cannot yet be answered. The Syndicate will look round, through the eyes of its Secretary, Mr. Oscar Browning. They will have an opportunity of watching the work of the College of Preceptors, and other institutions; and they will not be above taking a hint from the Training Colleges.

However such difficulties as these may be cleared up, we have the important point that the University of Cambridge recognises the necessity of training the highest teachers as well as the lowest. It is nothing less, coupled with that Registration which we look to see, than the establishment of another learned profession. What Law, Medicine, and Theology have always been, Teaching will, before long, become—a recognised, carefully trained, learned profession, showing how best to perform one of the noblest as well as the most important functions in civilization, that of educating children till they learn how to go on educating themselves, till the last sunset of their lives.—*Educational Times.*

* THE TEACHING OF ENGLISH LITERATURE IN SCHOOLS.

I SOMETIMES amuse myself by trying to analyse my dreams—to pick out the little bits of coloured glass, which in the kaleidoscope of sleep are transformed into such methodically mad visions. Will this grave and learned body pardon my levity if I tell them a dream I had, and the stuff it was made of? I had been giving, as usual, a lesson in Shakspeare, and after that I had heard a class translate from the Gorgias of Plato (it was the passage where the irrepressible Polus is silenced by Socrates). On coming home from school, I found your Secretary's letter, reminding me of my engagement to lecture on the teaching of English Literature. My thoughts went

By F. Storr, Esq., B.A.

back to the lesson of the afternoon, and I took down my "Morley" from the shelf, and, as I turned over page after page, I reflected somewhat sadly what a fraction of English literature I knew myself—what a fraction of that fraction I had been able to impart. To solace myself, I took to bed with me, as is my wont, one of my favourite authors; it was Heine's "Harzreise," and I had read as far as the dream of the Gottingen professor, who wanders in a garden where the flower-beds are sown thick with quotations, from which the professor is busy selecting choice specimens and replanting them in his own flower-bed, while above his bald head the nightingales sing their sweetest songs. Then there came a blank, and I have a dim recollection of a book falling; after that (how long I cannot tell) I was hurrying along Guildford Street, and was just opposite the Foundling, when from out the gateway a man met me, whose face and figure I seemed to know. The broad, wrinkled forehead, the bushy eyebrows, the upturned nose and prominent nostrils, could belong to no one but the son of Sophroniscus. I gave him a familiar nod and walked on, for I was behind my time, when he called me by my name and I was compelled to turn back. Taking me by the hand, he asked me reproachfully whither I was hurrying so fast, and whether I had not a moment to spare for an old friend. I told him I was going to give a lecture to the College of Preceptors, and was already late. "At least you have time to tell me the subject," he said. I told him, and I knew as I told him that I was lost. Step by step I was led into a discussion which seemed to me interminable. In vain I struggled to escape, he held me spell-bound like the wedding guest. I have only a confused recollection of an infinite series of inductions, in which blocks and razors, sunbeams and cucumbers, cobblers and lasts, eggs and grandmothers, formed successive steps; but before I awoke from my nightmare, I remember clearly that he had made me agree to four propositions—1. That I knew no English Literature myself; 2. That I knew still less how to teach it; 3. That English Literature (like virtue) was not possible to be taught; 4. That I was an impudent fellow, and no better than a sophist, in professing to teach teachers the art of teaching what I was ignorant of myself.

Gentlemen, I have told my dream, "which was not all a dream," or at least issued from the gate of horn. I have come here to-night, like Chaucer's poor scholar, glad to learn no less than to teach, not to deliver an address but to assist at a symposium—a picnic to which each guest contributes his *spavok*, though on me has devolved the honourable and onerous duty of saying grace. You must already be taking me for a Scotch minister, and without more ado we will to supper with what appetite we have.

English Literature is such a wide subject, that, as in an Homeric feast, where a whole ox is served up, one is at a loss how to tackle it, and where to make a beginning. I will try to circumscribe and define the subject. Accepting for the nonce the established method of studying English Literature in schools, I propose to discuss how an English author can be read with most profit, how such a lesson may be made at once to convey the greatest amount of solid information, and (what is more important) to develop and stimulate a boy's faculties, and serve as a true intellectual gymnastic.

That is the main question I propose to discuss. But, before embarking on it, I would wish to moot another point, and learn from you whether you consider that English Literature has won its proper share in our school curriculum; and if not, why not; and what you consider the best way to promote the study. I will give you my own experience, premising that it lies within the somewhat limited range of public schools. I hope to hear from some present to-night, who can speak with authority, what is the practice of middle class schools in this matter. It cannot be worse than that of the public schools; and I imagine, as far as time is concerned, it must be better, though the reports of the Oxford and Cambridge Local Examination Board are hardly encouraging.*

I will not waste your time by insisting on the advantages of Literature, or re-opening the well-worn debate between the respective merits of a literary and scientific training.

All schoolmasters are agreed that some Literature should be taught; and, if we except a few of the old Shrewsbury type, all would allow that English Literature is worthy to take its place in the school curriculum beside that of Greece and Rome. In theory they would allow it, but how does their practice agree? From all I can gather, the youngest in this case fares the worst, and Benjamin's mess is a Barmecide feast. Some years ago, I applied to friends at all the chief public schools for statistics of the number of hours per week devoted to English teaching. I wish I could give you the results of my enquiries in a tabular form, but I found that the teaching was so irregular, and the amount of time varied so much with each form, that this is impossible. I think, however, that the answer of one of my correspondents will convey to you a fair impression of the opinion and the practice of head-masters in this respect:—"We all want to teach English, but cannot find the time. Please show us how. This is the knot of the question." I will try presently to untie (some will say, to cut) the knot; but first I would call your attention to a Public School Time-table drawn up by Sir J. Lubbock in the *Contemporary Review* of January 1876. The time-table represents, it is true, an ideal, not an actual, distribution of hours; but for that very reason it is the more valuable, as containing the views of our principal head-masters on the relative importance of subjects. Is it credible that in this table there is no heading for English Literature or English? Seeing that two at least of the schools included (Rugby and the City of London) do, as a fact, teach English, and teach it systematically, I infer that it must be included under History and Geography. But, whatever may be the explanation, the fact remains the same. There is as yet no distinct recognition of English as a set subject in our public schools. And not only is our practice lamentably defective (this much most would admit), but we are also compelled from these tables

* For instance, in the last Oxford report I read: "To the majority of the candidates the work of preparation had obviously been uncongenial drudgery. Many had apparently been encouraged to learn certain notes by heart, but proved unequal to the effort, and reproduced them in ludicrously mangled forms. It was clear that in many instances oral explanations either had been entirely omitted, or had been irrelevant or confusing."

to infer that, as late as two years ago, the theory of head-masters, was still behind the age; and our English reformers, Messrs. Abbott and Seeley, Meiklejohn, Skeat, Quick, and Hales, have still a large field for their missionary labours.

The reason why this new subject has gained so little ground, and is still ignored in our upper schools, or taught only by fits and starts, is not far to seek. The educational *renaissance*, which we have witnessed in the last twenty years, has brought with it many new gifts, but its work is only half-accomplished. Science, Modern Languages, and the Mother Tongue have been superadded to the old *quadrivium*, but little has been done to modify the old methods or economize time. Hence there has been a natural reaction; and schoolmasters not unjustly complain that, while the hours of teaching are shortened, the number of subjects to be taught has doubled; and that amid this multiplicity of subjects a boy's powers are frittered away, and thoroughness of knowledge and scholarly exactitude are shipwrecked. The root of the matter, as my correspondent remarked is how to find time; and unless I can convince you that other subjects are bound to make way for English, I am free to admit that the reactionists are in the right, and that English is *de trop*. Our educators, it seems to me, move in a vicious circle; and no one class has the courage to strike out a straight path, regardless whether others follow or not. The Universities say, we must examine, and assign scholarships for the subjects taught in schools; the public schools say, we must stick to the old routine or we shall not gain scholarships and the preparatory schools follow suit.

(To be continued).

APPOINTMENTS.

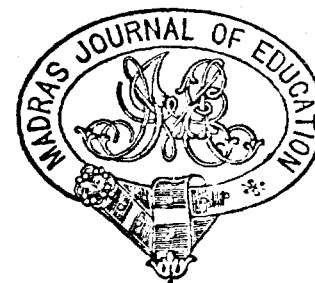
Appointments made by the Director of Public Instruction, between the 16th October and 15th November 1879.

Mr. C. W. Burroughs, B.A., LL.B., Head Master, High School, Chittoor to be Head Master, High School, Cuddapah, without prejudice to his appointment as acting Head Master, Bellary College.

Mr. T. B. Scott, B.A., Head Master, substantive *pro tem.*, High School Cuddapah, to be Head Master, Cuddalore College, substantive *pro tem.*

Mr. N. Raghunatha Charriar, B.A., Head Master, substantive *pro tem.*, Cuddalore College, to be Head Master, High School, Chittoor, substantive *pro tem.*

Mr. J. M. Hensman, B.A., Acting Head Master, High School, Chittoor, to be Acting Head Master High School, Cuddapah.



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Subscribers are reminded that the subscription for 1880 at the advance rate is now due.

THE MONTH.

THE Matriculation, the First Arts and the Middle School Examinations have taken place since the issue of our last number.

In the F. A. Examination the papers seem to have been on the whole very fair indeed. The paper on Physiology has come in for a little criticism, and we publish below a few remarks on it by an experienced European teacher, but we still think the paper one in which a well prepared candidate could easily do himself justice.

In the Matriculation Examination of 1878, the rock on which so many vessels were wrecked was English. This time, if the universally expressed fear is not without foundation, the failures will be in the subjects which go together under General Knowledge; the Physics, Physical Geography and Indian History papers being all considered by the majority of the candidates as very difficult. Elsewhere we publish a letter by the Head-master of a large School on the subject of the Indian History paper. In the Physical Geography paper, the language of one or more of the questions was beyond the comprehension of most of the candidates.

The Matriculation Geometry paper is rather long for two hours: 6 propositions and 4 deductions, on the whole 10 questions. Many candidates had scarcely time to write the 6 propositions; besides the enunciations of the deductions are long and obscure; some minutes are necessary to make out the meaning and draw the figures. One cannot be astonished therefore if the deductions have been left untouched by the majority of the candidates.

In the Algebra paper, a quadratic appears in one of the questions, and as the Matriculation course does not extend so far, exception may be taken to this question, but many of the candidates, as the factors were very obvious, would doubtless be able to answer it.

In the Middle School Examination, the questions were very easy, as it was necessary they should be on this the first occasion when Candidates have had so little time for preparation. We were, however, sorry to observe several very bad misprints, one in the Algebra paper especially we fear must have troubled a great many candidates. The passage set for translation from a Tamil into English is we think a little too difficult for an elementary Examination.

We have several times called attention to the defective arrangements for the accommodation of Candidates for Examination in the Mofussil. In Madras, with each candidate seated at a separate desk at a fair distance from his neighbour, the facilities for copying are reduced to a minimum, but that it is very different in up-country stations the following extract from the *Western Star* will help to show:—

"In the recent University Examinations held at Kumbakonam, 7 candidates were turned out of the examination hall for copying. There were according to a correspondent over 500 candidates and the room could scarcely accommodate 300 students. T. Gopaul Rao, B.A., Acting Principal of the Kumbakonam College, has acquitted himself very honourably in turning out these candidates."

We beg leave again to draw the attention of the Authorities to this matter. Some very valuable and practical suggestions as to the prevention of this evil were made by a Correspondent in the May number of this Journal for 1877. The Correspondent, we are free to state, is the Head Master of a large Government School in the Mofussil, and writes with a full knowledge of the subject.

A TEACHER writes to us and makes the following remarks on the F. A. Physiology paper recently set:—

"The F. A. Physiology paper at the recent examination seems rather open to objection. Passing over the 1st question which is somewhat vague, I come to the 2nd in which the candidates are asked to 'state the normal quantity (of urine) passed in 24 hours by an adult.' It is for the second time in 3 years that this question has appeared in the F. A. papers, and it is not evident what the answer is expected to be. Every one knows that the quantity varies according to the climate, habits and diet of a person. An answer is given, it is true, in Huxley's Physiology, but it is applicable to Europe, and a Madras Candidate who would give 50 oz. as the normal quantity would commit a mistake.

In the 5th question, the examiner supposes that our F. A. candidates have learnt Chemistry, but he ought to know that this is not the case; can therefore a candidate be justly rejected, because he does not know the meaning of H_2O ?

But the 7th question is still more objectionable—In what manner would ligation of the common choledic duct effect (sic) the process of digestion?

The word choledic is not to be found in ordinary dictionaries; it is no doubt in medical books. The F. A. candidates however do not learn medicine, but Huxley's Physiology. Choledic duct seems to be what Huxley calls hepatic duct; this meaning an intelligent candidate might have conjectured, but for the unjustifiable misprint of effect for affect which makes nonsense of a question otherwise easy.

We learn that a new College is to be opened on the 12th of January at Mangalore, of which the Rev. Jos. A. Willy, of the Society of Jesus, has been nominated as the Superior.

The College is under the patronage and title of St. Aloysius. The studies and the management of the College will be in the hands of the Fathers of the Society of Jesus.

The course of studies will comprise the following subjects:

- (a) Christian doctrine, for the Catholic pupils.
- (b) Languages: English, Latin, Canarese.
- (c) Mathematics.
- (d) History and Geography.
- (e) Natural Sciences.
- (f) Writing.

The programme of studies will be that usually carried out in a College, ranging from the Lower Fourth Class to the University Entrance and F.A. Examinations. A B.A. course also will be added whenever such higher studies shall be called for by a sufficient number of candidates.

The following classes only will be opened in January.

- (a) The Lower Fourth.
- (b) The Upper Fourth.
- (c) The Fifth.

The Latin studies will commence in 1880, and beginning with the Lower Fourth, will be continued in subsequent years in the next following Classes. Besides Catholic boys, others of all creeds may be admitted on satisfactory evidence as to their moral character

and respectability being furnished to the Superior of the College. Non-Catholic pupils are exempted from obligatory study of the Catholic religion, and from attendance at the religious services.

The fees for attendance are as follows :

(a) Lower Fourth Class.....	Rs. 1	8	0	} per mensem.
(b) Upper Fourth "	" 2	0	0	
(c) Fifth "	" 2	0	0	

All Fees are to be paid in advance, and, subsequently to the opening of the College, not later than the 10th of each month. Books and stationery will not be provided by the College. The pupils will be responsible to the Superior for their conduct both at the College and at home. The Catholic boys will do so likewise for their religious duties.

The Headmaster of the Madras Azam having asked for instructions as to the form of certificate to be given of having passed one of the Primary School Examinations, as it seems desirable that there should be uniformity observed, the following forms have been sanctioned :—

UPPER PRIMARY SCHOOL EXAMINATION.

A.B. a pupil of the _____ class of the _____ School, having been examined at the _____ School, _____ on the December 1879, is declared to have passed the Upper Primary School examination in the following branches.

- A. Reading and writing (Here enter first language.)
- B. Arithmetic.
- C. Geography.
- D. Poetry and Grammar (Here enter first language.)
- E. (Here enter second language.)
- F. History (Here enter India or England.)
- G. Hygiene.
- H. Agriculture.

Enter the two optional branches brought up.

School
Date

Headmaster or Headmistress

LOWER PRIMARY SCHOOL EXAMINATION.

A.B. a pupil of the _____ class of the _____ School, having been examined at the _____ School, _____ on the December 1879, is declared to have passed the Lower Primary School examination. He (or she) brought up _____ as his (or her) Vernacular language.

School
Date

Headmaster or Headmistress

MOREHEAD TRANSLATION PRIZE:—The subject of the Morehead Translation prize this year is "Macaulay's Essay on Warren Hastings." This prize has been founded in the Presidency College in honor of the late Mr. Morehead, who, as senior member of council, acted as Governor of this presidency on two occasions.

WESLEYAN MISSION SCHOOL, NEGAPATAM:—The Wesleyan Mission has a High School at Negapatam. The annual meeting for the distribution of prizes to the pupils of the school was held on the 23rd ultimo under the presidency of Mr. W. P. Austin, c.s., Sub-Collector of Tanjore. The school has an attendance of 233, though the number on the roll in 1877 was 303. Measures have been taken by the mission agents to erect a new High School house at a cost of Rs. 12,000. Of this sum the Madras Government have liberally made a grant of Rs. 5,000; the Wesleyan Mission in England made a grant of Rs. 4,000, and the balance has been obtained from the friends of the mission in different parts of the presidency.

EDUCATION has already made considerable progress in Kattywar and some other of the Gujarat States, and according to an official report issued by the Bombay Government, shows signs of revival in the Deccan, where its progress was temporarily checked as in the adjacent British territory by the late famine. The total expenditure on this object for the year was £49,536, of which £17,684 were from funds administered by Government, and the remainder on institutions merely under inspection. The number of primary schools supported is 1,950, and of High Schools or others teaching up to the Matriculation standard of the Bombay University 6. There were 52,689 pupils on the rolls at the end of the year, or 3,588 less than at the corresponding period of 1877-78.

CORRESPONDENCE.

The Matriculation History Paper.

TO THE EDITOR OF THE MADRAS JOURNAL OF EDUCATION.

SIR,—Since the Matriculation Examination took place, I have been trying in my leisure hours, to find answers to the questions given in the Indian History paper.

But although I have diligently used the books in my possession, I cannot compile a set of answers that would get full marks. There are a few questions that, so far as I can find, cannot be answered by my authorities. There are questions I, (1) and (2); III, (3); IX, (3). It is possible the required information may be within my reach, but I cannot put my finger on it at present. My authorities are Pope's History of India, Garrett's History of India, Hunter's History of India, Morris' History of India, and Macmillan's Compendium; and with the exception of the first, these are the books in use in the majority of our High Schools. The result of my labour has been as follows;—with the exception of six, all of the forty-six questions can be answered out of Pope's History; twenty-seven of the forty-six, out of Macmillan's Compendium; twenty-five, out of Garrett's work; and eighteen of the forty-six out of Morris' History; Hunter supplies the answer to one question that is not answered by any of the others. Pope answers five questions, and Macmillan one that the others are silent about, and Morris alone gives the exact information asked for by one question; the others deal with it in a general manner.

This is a general analysis of the results obtained; but if we deal with particulars, we find that the answers to questions IV (1) and

XI (2) and (4) can only be satisfactorily given from Pope's History. No students of the other books would know that Baji Rao who died in 1740, was such an important man, and they would require to take the very deepest interest in the study of Indian History to group together the persons, &c., described on page 168 of Pope's History, for an ordinary student of this book would be very apt to pass over the interesting, and as it seems, important information, on that page, as it is in small type that is rather trying to weak eyes to read. Then question XI (1) can only be answered from Pope's History, and (3) from Pope and Macmillan, though only fully from Pope, while question IV (1) is answered differently by the various writers and Dr. Pope is alone in some of his particulars. Questions VI (1), VII, (4), VIII (1), IX (3) and XI (4), are on what may be termed *Comparative History*, and are *ambiguous*. An invasion of Tartars, or Afghans, or Chinese would be a *similar* thing to the invasion of the Moors in the VIII century, but a reader of Morris would not learn that the Arabs invaded Sind in 711. Then were the "contemporaries" asked for in VII (4) living in the North or South of India, in India or Spain or some other country? In the table given on pages 47-50 of Pope's History, there is a column of contemporary events given, and in it appear the names of Charlemagne, Edgar, Rieuzi, &c., &c., and although the table ends at the year 1520, yet a student might reasonably suppose he was asked to name three similar men who lived in countries outside of India in 1720. Question VIII (1) can only be answered from a foot-note in small type on page 346 of Pope's History. Contests between rivals, as asked for in IX (3), was the normal state of things in India at that time, and for a long period before and after. As has been stated before, the answer to XI (4) is given on page 168 of Pope's History, but the men whose names are given there were not the only four persons who were in the prime of their vigour in 1740.

But is the principle on which these questions are based a sound one for a paper like this? Are students and teachers to spend their time in studying the History of the World, or in keeping in their minds the disconnected events of Indian History arranged in parallel lines, because they took place in the same year, in order that satisfactory results may be obtained at this examination? If so, two years instead of one must be given to the study of Matriculation subjects. The teachers of History know that all the time that can be devoted to it by the boys of this class is required to impress on their minds, the *important facts* with their bearing on each other. There is not time for the study of European History, and an intelligent teacher will abstain from telling his students that Charlemagne and Rienzi, &c., lived contemporaneously with some Hindoo sovereign when he has not time to tell who these men were and why their names are historical landmarks. There is too much cramming required as it is, and teachers should not be compelled to practice more of it, and in such a bald form as this would be. But if again we look at the paper as a whole, and judge of its merits by the historical knowledge elicited by it from the candidates we shall see its weakest point. The amount of this knowledge is very small. The only fair questions are IV, (1) & (2); VII (1) & (2); IX (1) & (2) and X. The others are about historical trifles that should never have appeared together in a University paper, but yet as they form

the bulk of the paper, many whose knowledge of the important facts of history is full will probably fail to pass this year. This is a serious matter, and looking at the questions set this year and the various sources from which the answers must be got, it is evident that in the opinion of the Examiners in Indian History, every boy, in the Matriculation Class who earnestly desires to pass the examination in History next year and the year following should carefully master all the books I have mentioned, small type and large, the important facts and the most unimportant facts any of the authors has deemed it well to put into his work, and if he does not do this, he deserves to be plucked.

We may ask then is this the opinion of the Syndicate of the University, and of the members of the Senate who may reasonably expect to be yet on the Syndicate? The Director of Public Instruction has laid down in his instructions for High Class Government Institutions that Morris' History is to be studied, and I have been informed that this is the book read in the Matriculation Class of the Presidency College. Col. Macdonald and Mr. Thompson, must know the particulars of the standard required by the University, and they must assuredly give those whose education they control every lawful facility to meet its demands. We are therefore led to the conclusion that the examiners have demanded this year much more than they had a right to do. The three examiners must share the blame, if there is blame to be attached to any one, because they all saw the paper before it was printed, were consulted about it, and had power to alter it. Efficient steps should therefore be taken by the Syndicate to prevent a recurrence of this. It is an easy matter to set a paper like this, and it is still easier to write a cipher opposite to the names of those who have failed to answer the questions, as a paper like this makes the work of the examiners light, but it is not so easy for the boys who have worked hard all the year, when they find that they have failed, to bear it with equanimity from the consciousness that the fault was not theirs but the examiners'. The standard in this and the other subjects should be definitely laid down, by the University Authorities, and examiners should be compelled to keep below its highest point:

A TEACHER.

EXAMINATIONS FOR THE CIVIL SERVICE OF INDIA.

THE following are the Regulations for the Open Competition of June and July 1880. The regulations are liable to be altered in future years:—

1. On June 15, 1880, and following days, an examination, open to all qualified persons, being natural-born subjects of Her Majesty, will be held in London. Not fewer than candidates will be selected, if so many shall be found duly qualified; viz., for the Presidency of Bengal [for the Upper, and for the Lower Provinces], for that of Madras, and for that of Bombay (a).
2. Any person desirous of competing at this examination must produce to the Civil Service Commissioners, before April 1, 1880, evidence showing:—
 - (i.) That he is a natural-born subject of Her Majesty.

- (ii.) That his age will be above seventeen years on June 1, 1880, and under nineteen years on January 1, 1880 (*b*).
[*N. B.*—In the case of Natives of India this must be certified by the Government of India, or of the Presidency or Province in which the candidate may have resided.]
- (iii.) That he has no disease, constitutional affection, or bodily infirmity unfitting him, or likely to unfit him, for the Civil Service of India (*c*).
- (iv.) That he is of good moral character (*c*).

He must also pay such fee as the Secretary of State for India may prescribe (*d*).

3. Should the evidence upon the above points be *prima facie* satisfactory to the Civil Service Commissioners, the candidate will, upon payment of the prescribed fee, be admitted to the examination. The Commissioners may, however, in their discretion, at any time prior to the grant of the certificate of qualification hereinafter referred to, institute such further inquiries as they may deem necessary; and if the result of such inquiries in the case of any candidate should be unsatisfactory to them in any of the above respects, he will be ineligible for admission to the Civil Service of India, and if already selected will be removed from the position of a probationer.

4. The examination will take place only in the following branches of knowledge.

	Marks.
(e) English Composition	300
(f) History of England, including a period selected by the candidate	300
(f) English Literature, including books selected by the candidate	300
Greek	600
Latin	800
French	500
German	500
Italian	400
(e) (g) Mathematics (pure and mixed)	1,000
Natural Science; that is, the elements of any two of the following sciences, <i>viz.</i> :—Chemistry, 500; Electricity and Magnetism, 300; Experimental Laws of Heat and Light, 300; Mechanical Philosophy, with outlines of Astronomy, 300.	
Logic	300
Elements of Political Economy	300
(h) Sanserit	500
(h) Arabic	500

Candidates are at liberty to name, before April 1, 1880, any or all of these branches of knowledge. No subjects are obligatory (*i*).

(a) The number to be selected will be announced hereafter. Notice of the days and place of examination will be sent to each candidate about the end of May.

(b) At subsequent competitions candidates will be required to be above 17 and under 19 on June 1, of the year in which the competition is held.

(c) Evidence of health and character must bear date not earlier than March 1, 1880.

(d) The fee will be £5 payable by means of a special stamp, according to instructions which will be communicated to candidates.

(e) Marks assigned in English Composition and Mathematics will be subject to no deduction.

(f) A considerable portion of the marks for English History and Literature will be allotted to the work selected by the candidate. In awarding marks for this, regard will be had partly to the extent and importance of the periods or books selected, but chiefly to the thoroughness with which they have been studied.

(g) The examination will range from Arithmetic, Algebra, and Elementary Geometry up to the elements of the differential and integral calculus, including the lower portions of applied Mathematics.

(h) The standard of marking in Sanserit and Arabic will be determined with reference to a high degree of proficiency, such as may be expected to be reached by a native of good education.

(i) Applications for leave to alter or to add to the list of subjects named will not be entertained unless received on or before May 15, 1880.

5. The merit of the persons examined will be estimated by marks; and the number set opposite to each branch in the preceding Regulation denotes the greatest number of marks that can be obtained in respect of it.

6. The marks assigned to candidates in each branch will be subject to such deduction as the Civil Service Commissioners may deem necessary, in order to secure that "a candidate be allowed no credit at all for taking up a subject in which he is a mere smatterer" (*c*).

7. The examination will be conducted on paper and *vis à vis*, as may be deemed necessary.

8. The marks obtained by each candidate, in respect of each of the subjects in which he shall have been examined, will be added up, and the names of the several candidates who shall have obtained, after the deduction above-mentioned, a greater number of marks than any of the remaining candidates, will be set forth in order of merit, and such candidates shall be deemed to be selected candidates for the Civil Service of India, provided they appear to be in other respects duly qualified. Should any of the selected candidates become disqualified, the Secretary of State for India will determine whether the vacancy thus created shall be filled up or not. In the former case the candidate next in order of merit, and, in other respects duly qualified, shall be deemed to be a selected candidate. A selected candidate, declining to accept the appointment which may be offered to him, will be disqualified for any subsequent competition.

9. Selected candidates, before proceeding to India, will be on probation for two years, during which time they will be examined periodically, with a view of testing their progress in the following subjects:—*

* Full instructions as to the course of study to be pursued will be issued to the successful candidates as soon as possible after the result of the open competition is declared.

	Marks.
1. Law	1250
2. Classical Languages of India—Sanskrit ...	500
Arabic	400
Persian	400
3. Vernacular Languages of India (each) ...	400
4. The History and Geography of India ...	350
5. Political Economy	350

In these examinations, as in the open competition, the merit of the candidates examined will be estimated by marks, and the number set opposite to each subject denotes the greatest number of marks that can be obtained in respect of it at any one examination. The examination will be conducted on paper and *vice versa*, as may be deemed necessary. The last of these examinations will be held at the close of the second year of probation, and will be called the "Final Examination," at which it will be decided whether a selected candidate is qualified for the Civil Service of India. At this examination candidates will be permitted to take up any one of the following branches of Natural Science—*viz.*, Botany, Geology, Zoology—for which 350 marks will be allowed.

10. Any candidate who, at any of the periodical examinations, shall appear to have wilfully neglected his studies, or to be physically incapacitated for pursuing the prescribed course of training, will be liable to have his name removed from the list of selected candidates.

11. The selected candidates who at the final examination shall be found to have a competent knowledge of the subjects specified in regulation 9, and who shall have satisfied the Civil Service Commissioners of their eligibility in respect of nationality, age, health, and character, shall be certified by the said Commissioners to be entitled to be appointed to the Civil Service of India, provided they shall comply with the regulations in force, at the time, for that service.

12. Applications from persons desirous to be admitted as candidates are to be addressed to the "Secretary to the Civil Service Commissioners, London, S. W." from whom the proper form for the purpose may be obtained.

September, 1879.

The Civil Service Commissioners are authorised by the Secretary of State for India in Council to make the following announcements:—

(1). Selected candidates will be permitted to choose,* according to the order in which they stand in the list resulting from the open competition, as long as a choice remains, the Presidency (and in Bengal the division of the Presidency) to which they shall be appointed; but this choice will be subject to a different arrangement, should the Secretary of State, or the Government of India, deem it necessary.

(2). The probationers, having passed the necessary examinations, will be required to report themselves to their Government in India not later than the close of December 1883.

* This choice must be exercised immediately after the result of the open competition is announced, on such day as may be fixed by the Civil Service Commissioners.

(3). The seniority in the Civil Service of India of the selected candidates shall be determined according to the order in which they stand on the list resulting from the final examination.

(4). An allowance of £150 a year will be given during each of the two years of their probation to all candidates who pass their probation at one of the Universities or Colleges which have been approved by the Secretary of State, *viz.*, the Universities of Oxford, Cambridge, Glasgow, Edinburgh, St. Andrew's, and Aberdeen, Trinity College, Dublin, University College, London, and King's College, London, provided such candidates shall have passed the required examinations to the satisfaction of the Civil Service Commissioners, and shall have complied with such rules as may be laid down for the guidance of selected candidates.

(5). All selected candidates will be required, after having passed the second periodical examination, to attend at the India Office for the purpose of entering into an agreement binding themselves, amongst other things, to refund, in certain cases, the amount of their allowance in the event of their failing to proceed to India. A surety will be required.

(6). After passing the final examination each candidate will be required to attend again at the India Office, with the view of entering into covenants. The stamps payable on these documents amount to £1.

(7). Candidates rejected at the final examination of 1882 will in no case be allowed to present themselves for re-examination.

*** The Civil Service Commissioners have been requested to inform candidates for the Indian Civil Service that "in the event of their being appointed to the service, they will not be admitted to the existing Civil Funds, but that they will be required, as a condition of their appointment, to subscribe to a new fund which is about to be established by the Secretary of State for India in Council for the grant of pensions to the families of future members of the Indian Civil Service."

LORD LYTTON'S ADDRESS AT THE MAYO COLLEGE.

THE Viceroy attended the distribution of prizes at the Mayo College, Ajmere, on the 2th instant, and addressed the students as follows:—

"Young Gentlemen, Students of the Mayo College.—It is now, I think, three years since I had the pleasure of presiding at the first Council of this College. That council was held in the month of January 1877, at the city of Delhi, where the Princes of Rajpootana had then assembled to do honour to the proclamation of the Imperial Title of our Gracious Sovereign. Their friendly presence on that occasion inspired in me the wish to visit this city, the old capital of their fathers, and this college, the new school-ground of their sons. That wish, long cherished, is at last fulfilled, and it is with cordial satisfaction that I find myself to-day in a position to distribute to you, young gentlemen, those prizes which attest how worthily and well the fresh vigour of the young Rajpoot blood is already justifying the enlightened liberality of the old Rajpoot houses. To you, the students of the Mayo College, I need not, I am sure, recall the princely generosity with which the great ruling houses of Rajpootana

responded to the wise proposal of my lamented predecessor, Lord Mayo, by the endowment of this college for the education of their sons and the sons of their Thakoor. But when I was admiring, a few days ago, that fine statue of Lord Mayo, which has already rendered his image familiar to you all, and which will render it, I hope familiar to many generations yet unborn of a youth as hopeful and as happy as your own, after our friend Mr. Brassington has completed, for its reception and for yours, that beautiful building on which he is still engaged—I say that when I was admiring Mr. Noble's excellent statue of Lord Mayo, the sight of it suggested to me a reflection which specially appeals, I think, to you whom I am now addressing. This college, young gentlemen, is not only the result of munificent donations from those who are near and dear to you by kindred and clanship, and for whose sakes you would naturally wish it all the success so largely depending on your own endeavours, it is also the embodiment of one of the worthiest conceptions of one of India's worthiest Viceroys, and to you, the students of this college, to the industry of your efforts here, to the purity and nobleness of your lives hereafter, that great dead statesman has virtually confided to some extent the daily care of the noble name associated with this Mayo College. In your keeping is the honoured memory of the dead; in your young hands the practical power to fulfil or disappoint that high hope with which you yourselves are honoured by the living. Well, Lord Mayo's name is associated with many excellent institutions throughout India, but none of them as regards those special objects merits more than this one the support of the enlightened men of all races and all places. * * * The object of the college, as I understand it, is not merely an intellectual, it is also a social, one. Nor has it merely a local, it has also an imperial, function to perform. How shall I explain that function? An illustration of it occurs to me, which will, I think, enable you to appreciate the importance. I attach to it better than any attempt I could now make to define it more precisely. Some of you, perhaps, have studied music, but all of you have, at any rate, often listened to music: and all of you will, I think, agree with me that the enjoyment or discomfort with which we listen to the playing of a musical band depends not so much on the separate sound of any particular instrument, or on the adequacy with which the sound of one instrument responds to the sound to, and blends with the sound of, another, thus giving to the associated sounds of all that general congruity of effect which we call *tone*; and we say that the one of such a band is good or bad, according as it is harsh or sweet, full or meagre, harmonious or discordant. Well, now, look around you, amongst your companions, your elders, your juniors, and you will find, I think, that this indescribable but inestimable quality of *tone* everywhere claims and finds in all the daily performances of human life a function no less important, indeed more important than that which is assigned to it in the instrumental performance of musical conceptions. Nay, its function in human life is higher and more far-reaching, because human life is the continuous performance of a divine conception. It is *tone* that determines the general effect of the beauty or ugliness of personal character, social intercourse, and national life. Think, for a moment of any one of your personal acquaintances whom you love and esteem or of any other, if such a one there be (I hope not), whom you dislike

and despise; and you will find that your feelings towards him are influenced not so much by any particular words or deeds of his, as by what you call the *tone* of his character; that is to say, the general impression made upon your sentiment by his habitual manner and conduct. Of one you say that his *tone* is that of a high-bred, generous, and considerate gentleman, and you love, like, and esteem him accordingly; of another that is *tone* his low-bred, mean, and selfish, and accordingly you mistrust his character and shun his companionship. But now carry your thoughts only one step further and you will perceive that the same experience applies to those great groups of individuals, which, when united by a common interest, constitute the classes of the society. You say of one class of a country that it is high, and of another that it is low; and you feel that the distinction between them is justified, not because the higher class has more land and more money, or even more ancestors, than the other, but because (largely no doubt in consequence of those inherited advantages) it has a higher *tone*; that is to say, a more elevated standard of life, loftier aims, larger views, manlier habits, and manners more refined. But the quality I have called *tone* is the effect of harmony, and harmony is the result not of isolated, but associated effort, and the higher *tone* of the higher classes is formed by their early association with those influences which create men's tastes and habits. Therefore it is, young gentlemen, that I ascribe such social value and imperial importance to an institution which like, this Mayo College, has for its object and tendency to associate in youth with all such elevating influences the dominant races and superior classes of native India, those races and classes on whose *tone* the social harmony of the whole empire is so largely dependent, by giving them that community of interest and tendency to the higher activities of mind and body which are best acquired in early life from a common educational system carried out at a common seat of education. There are, I think, many points of resemblance between the great Rajpoot clans and the great English houses founded by our northern ancestors. Both of them owe to the same characteristics the positions they have made and still maintain for themselves in the political hierarchy of an ancient race. Those characteristics, are energy, fearlessness, the love of healthful exercise, an instinctive scorn of aptitude for active life, and instinctive scorn of all unmanly ease. No race, no class, can long maintain its social and moral ascendancy if it degenerates in physical vigour. And it is perhaps, the special merit of our English system of education that it aims at training, developing, and strengthening not only the mind, but also the body. This idea was well expressed long ago by Colonel Walker in an excellent and most suggestive report which may have influenced Lord Mayo when he founded the present college. In that very sensible report Colonel Walker pointed out that what was then most needed for the education of India's young rulers and nobles was an Indian Eton. Well, young gentlemen, that need is now supplied. Ajmere is India's Eton, and you are India's Eton boys.

I have lately had the pleasure of visiting one of your old school-fellows, my young friend, the Maharajah of Ulwar, who is an excellent specimen of an Indian Eton boy; manly, high-spirited, gentle and brave. His Highness, however, is still of that age when the

manly amusements are naturally more attractive than the manly business of life. As he grows older, he will, I trust, devote to the serious duties of his administration that skill and energy which have already gone to make him a first-rate shot, a first-rate horseman, and a first-rate whip. To this institution, meanwhile, His Highness does credit by the manly character he has taken from it, and honour by the princely gift he has given to it. But do not suppose, my young friends, that because I commend to your adoption English habits of thought and action, I should think the better of any one of you, if, on leaving this college he left behind him his national respect for the elders of his race, his personal attachment to the companions of his childhood or his social sympathy with any honest class of his countrymen who have not enjoyed all the educational advantages here opened to yourselves. No. It is a dirty bird that fouls its own nest. For my part, I despise any man who affects to despise his own country. And I should consider that your education here will indeed have been in vain if it has not trained you, not only to higher sympathies with your English teachers, but also to warmer affection for your own countrymen, who will look up to you so long as you do not look down upon them. Nor would I wish you to suppose, from the stress I have laid upon the value of physical training, that I do not attach equal importance to intellectual culture.

TEACHING OF ENGLISH LITERATURE IN SCHOOLS.

(Concluded from Page 528).

As English Literature, in some form or other—it may be “Tom Thumb” or “Line upon Line”—must form the first stage of a child’s education, unless indeed, like Russian children, they come to learn a foreign tongue before their own. I will begin at the beginning and open fire on the preparatory schools. I was lately asking one of the best and most advanced of our preparatory masters whether he taught English. “I only wish I could” was his reply; “but without Greek and Latin verses it is impossible for a boy to take a high place at Eton or Harrow, and you don’t know what it means to teach a boy, who comes to you barely knowing how to read, four or five new subjects in two or three years.” So long as parents are what they are, so long as their highest ambition, no matter whether they be noblemen or roturiers, is that their child should gain a scholarship;* and so long as our public schools indulge in the pernicious game of brag, and try which can attract the most youthful talent by holding out scholarships for prodigies in knickerbockers,—it is hardly to be expected that preparatory schoolmasters, whose bread-and-butter depends on attracting parents, will resist the temptation of playing Sir Pandarus to the public schools. But what shall we say of the public schools? They surely are strong enough and independent enough to pursue their own line disregarding University scholarships, and even if need be, University class lists. Our entrance examination ought to consist mainly of English. Add

* A preparatory schoolmaster said to me the other day, “I am having a letter lithographed in answer to parents enquiring whether their sons have any chance of a scholarship.”

Arithmetic, and the rudiments of French and Latin, and you have all that ought to be required of a boy of twelve.*

From the known to the unknown, from the simple to the complex, from familiar facts to easy generalization—synthesis first and analysis afterwards,—this is the only sure path in all sciences, and therefore in scientific education. In teaching English, you have certain materials to work upon. A child can talk, even if his vocabulary be confined to the two hundred words of the Dorsetshire labourer. He can form sentences simple and compound, and “knows the difference ’twixt I and me.”

The first lessons in English Literature are learnt from our nurse or at our mother’s knee. If I had any voice in choosing a nurse for my children, I should lay the greatest stress on her power of story-telling. All who have read Scott’s life (and most of us have renewed our acquaintance with that most delightful of biographies in Mr. Hutton’s admirable abridgment) will remember the part his nurse played in determining the bent of his genius. In the nursery and in the kindergarten (that blessed invention of Fröbel for prolonging the heaven that is about us in our infancy) we follow the method of nature. With school teaching the unnatural method begins. From the old familiar faces of Jack the Giant-killer, and the Ugly Duckling, the child is banished to a *terra incognita*,—a barbarous land, full of gorgons and hydras and chimeras dire, of imparisyllabic nouns and *verba irregularia*, of enthetic attributes and prolative infinitives. Listen to the pathetic wail of a child:—

“But, madame, the irregular verbs, *verba irregularia*, they distinguish themselves from the regular verbs, *verbis regularibus*, in this—they are accompanied in the learning with a greater number of floggings, for they are horribly hard. In the gloomy cloisters of the Franciscan Convent close to the school-room, there used to hang a crucifix of green wood, and on it a desolate figure, which even now haunts me in my dreams, and looks down on me with fixed bleeding eyes. Before this figure I used to stand and pray, ‘O thou poor once persecuted God, do help me, if possible, to keep the irregular verbs in my head.’”

The child is no other than Heine, *das Weltkind*, who with all his worldliness preserved, in spite of Latin grammar and *verba irregularia*, of buffets at school and worse buffetings out of school, something of the innocent brightness of a new-born day,—the most brilliant *littérateur* of the century, who, like Scott, like Byron, like Sir H. Davy, like Lamartine, fed his genius from self-provided stores, and owed little or nothing to “that asinine feast of sow-thistles and brambles which is (still as in Milton’s day) commonly set before our youth as all the food and entertainment their tenderest and most docile age.”

“But, my good Sir,” some modern Orbilius will exclaim, “you surely mean, sooner or later, to wean the child. You can’t intend to nourish a youth sublime on fairy-tales minus the science.” Certainly not, but I would have no violent break. Instead of crushing his imagination, I would develop it; and, by its help, wake and stimulate his other powers. To Jack the Giant-killer should succeed Robinson Crusoe (the only book which Jean-Jacques allows in a boy’s

* The Head Master’s Conference of 1876 was almost unanimous in condemning the early introduction of Science.

library); to Robinson Crusoe, the Pilgrim's Progress or the Vicar of Wakefield; then Kingsley's Greek Heroes, or Lamb's Tales from Shakespeare; then Coleridge's Ancient Mariner or Selections from Plutarch's Lives, and so on. And when the time came for the child to learn a foreign language—not before ten at the earliest, if I had my way—I would tinge the abstruse cup of grammar with the honey of romance and anecdote. For the dry military despatches of Cæsar, or the dreary marches and counter-marches of the Anabasis (I am speaking from a child's point of view), I would substitute such books as Bennett's Easy Latin Stories, or Phillpotts's Stories from Herodotus. Language, I freely admit, is a study well worth pursuing for its own sake, but there is no reason why at any stage of the process we should divorce the instrument of thought from the thought itself,—not see the wood for the trees, and *propter verborum perdere causas*. Ancient literature is like a casket of rare coins kept under lock and key, and we schoolmasters too often waste the best years of school life in teaching the elements of the locksmith's trade. Most boys, when they leave school, are still fumbling at the wards; few attain even to a sight of the coins, and fewer still can read their image and superscription. Of the riches that lie at their feet, "the heaps of living gold that daily grow," they have been told nothing, and value it no more than the children of Eldorado in the story value the golden-nuggets in the street. "Classics were the reveillé of the 16th century, they are like to prove the nightmare of the 19th."*

But here I can imagine some modern Demetrius haranguing his workmen of like occupation and saying:—This fellow is introducing a pestilent heresy. Not only does he speak lightly of the great Mumbo Jumbo of Classics, whom all England and every public school worshippeth, but our craft is in danger to be set at naught. If the Vicar of Wakefield and Robinson Crusoe are to form a boy's principal study, the schoolmaster's occupation is gone. *Amo* we know, and *verba* we know, but what are these?

A transitional time must bear hardly on the professorial class. It calls for rare moral as well as mental qualities for a man who, half his life, has taught that the sun goes round the earth, to begin to teach that the earth goes round the sun. A fellow feeling, and a sense of my own infirmities, make me sympathize with the worthy guild of idol-makers. I too have had to burn the gods I was taught to adore exclusively. Yet our case is not so desperate as our friend would make it out, and I hope there is no occasion for us to commit the happy despatch. Even with such a simple book as Goldsmith's Vicar of Wakefield there is plenty of teaching to be done. True, it cannot be purely mechanical teaching, as a lesson in Cæsar or Xenophon too often is. The master must have prepared his lesson, and must have his wits about him. I undertake to say that any one who gives the experiment a fair trial will find that his great difficulty, is, not to find enough to do, but to get through the lesson of half-a-dozen pages in the hour. But this topic has been so exhaustively handled in an excellent lecture of Dr. Abbott,† that I need not go over the ground again. I will only add one or two hints that I have picked up in the course of teaching:—1. At the end

of each lesson give the class a clear outline of what you expect them to prepare for the next lesson. 2. In teaching grammar, drop accident, but emphasize logic. The following question was put the other day to a fourth form:—"If you eat too much pudding at dinner, and are sick, what is the cause, and what the consequence?" Out of thirty, two gave a correct answer. The first thing a child learns in grammar should be subject and predicate. 3. Half the lesson should be given with books shut. By judicious questioning, you will be able to keep up the thread of the story, and extract from the form a continuous narrative. In this way you will impart the most useful of all arts, the art of getting up a subject, and cultivate the most useful of all faculties, a pictorial or real, as distinguished from a verbal memory. 4. Set as an exercise, to reproduce on paper—first, the substance of a paragraph or chapter; secondly, as far as possible, the exact words of any striking passage; thirdly, to write something, for which you furnish the materials, in the style of the original. This is the only satisfactory way of practising boys in English composition. Essays proper, those bricks without straw, have, by common consent, been abandoned.

I have, I fear, taken up too much of your time in discussing the deficiencies of preparatory schools and the elementary stages of English teaching. My excuse for so doing must be my desire to lay the axe at the root of the evil, and my conviction that the first steps are the hardest. If my own experience has not been singularly unfortunate, it is a fact that the boys who enter our public schools know no English. They can say their Latin and Greek declensions; they know by heart a certain number of syntax rules in Latin, which they cannot construe, much less understand; some of them can compose Latin verses, but they cannot write a simple English sentence, and they have never so much as heard of De Foe, or Goldsmith, or Scott. And when they enter school their case is not much better. The time given to English literature varies, I believe, from an hour a week to nothing. In German schools six to eight hours are given to the mother tongue, and that is none too much.

Passing over the intermediate stages, I propose to devote the time that remains to the consideration of a lesson in English literature with the highest form.

I feel, however, considerable diffidence, not from want of definite views (whether right or wrong), but from the difficulty of enunciating these views definitely. On consideration, it occurred to me that I could best express myself by giving an outline of such a lesson. Please remember that this is not the *tridaktis* of a Gorgias or a Protagoras, but a model lesson. I am a pupil in a training school, and you are the principal and fellow-students taking notes and picking holes. I will select a very short passage, and one which all know by heart—Ariel's song in the "Tempest."

"Come unto these yellow sands,
And then take hands:
Courtsied when you have, and kiss'd
The wild waves whist,
Foot it feathery here and there;
And, sweet sprites the burthen bear.

Burthen. Hark, hark! Bow, wow.
Ari. The watch-dogs bark.
Burthen. Bow-wow.

* E. E. B.'s Table-Talk, unedited.

† Lectures on Education, delivered before the College of Preceptors, pp. 41, 42.

Ari. Hark, hark ! I hear
The strain of strutting chanticleer
Cry, Cock-a-diddle-dow.
Full fathom five thy father lies ;
Of his bones are coral made ;
Those are pearls that were his eyes :
Nothing of him that doth fade,
But doth suffer a sea-change
Into something rich and strange.
Sea-nymphs hourly ring his knell :
[Burthen. Ding-dong.

Ari. Hark ! now I hear them,—Ding-dong, bell."

But one word of apology before I begin. I am aware there is nothing new in the attempt, and that I am treading in the steps of Professor Hales, whose treatment of "Rosabelle" leaves, in one way, nothing to be desired. As I read his lesson I stood aghast as at a conjuror with an inexhaustible bottle or producing miles of riband from his mouth. But in one point he seems to me to fail. He does not indicate the true proportion and subordination of parts. Such a lesson would swamp an ordinary fifth form boy, and, I fear, make him exclaim with Barham, in the Ingoldsby Legends,—

"Non redolet sed olet quæ Rosabella fuit."

It has the cardinal fault that it smells too much of the lamp. I am reminded of the criticism I once heard a celebrated master pass on the lecture of an accomplished physiologist—"After hearing him I wanted to know nothing more about the eye."

To begin : First, I would make a clearance of the grammar and philology and word meanings. "Nothing of him that doth fade but doth suffer a sea-change."—Here "but" = *quin* (i. e., relative-negative) will require explanation. To refer to Abbott for ellipsis of "there is" is superfluous.

Such compounds as *sea-change*, *sea-nymph* are sure to have occurred so often as to need no emphasizing.
fathom.—The two classes of words with plural the same as singular might be noticed.

"ring his knell."—"The curfew tolls the knell of parting day" is worth quoting as a stock line boys ought to know, and because the construction is disputed.

"kissed the wild waves whist" remains, the only difficulty of construction. Boys ought to have learnt from their notes Milton's

"The waves with wonder whist
Smoothly the waters kissed."

Does this throw any light on the construction ? Has Milton borrowed from Shakespeare ? Resist the tempting discourses on Milton's appreciation of Shakespeare.

So much for the grammar. Next the philology.

Whist.—Boys will see of themselves that this an onomatopœia. The piece is so rich in these that it is quite worth while making it a text for a short disquisition. *Bow-wow*, *ding-dong*, *cock-a-diddle-dow*, *whist*.—We have not to travel outside the poem for types. *Whist*, too, is an instance how language solves the seemingly impossible problem of expressing negative ideas, and a reference to "Cavendish" is not inappropriate.

Burthen. "Wolves do howl and barke,
And seem to bear a bourdon to their plaint."

Faally, *sprite*, *courtsey*, *chanticleer*.—All these are worth dwelling on because the facts of their history are within a boy's range, and each of them is interesting. On *courtsey*, for instance, see H. Spencer's essay on manners and fashions.

Strain is doubtful, and *coral*, *knell*, *pearl*, *fathom* are barren.

These are necessary elements in an English lesson, but I should confine them within the smallest possible compass, or, if possible, get them over in a preliminary lesson, so as not to blunt a boy's appetite, or divert his attention from what is the real lesson. The first thing is to show him the connexion of the song with the rest of the play. It is necessary for the plot that Ferdinand should believe his father to be dead.—Why ? The answer to this question will show how far the class have grasped the story. One of the main difficulties in reading a play with boys, is to make them see that "all are but parts of one stupendous whole." In a Greek play, where the amount read is about a fifth, and the textual difficulties are tenfold, this is next to impossible. Even with a play of Shakspeare it is hard enough, and with a junior class I would begin by making them read the play in Lamb's "Tales from Shakspeare."

Secondly, I would try and show them that the song is in character with the speaker. They will already have learnt something of Ariel,—the most delicate creation of Shakspeare's genius—the spirit unchartered as the air which he impersonates, soulless like the Undine whose story he may have heard from his sisters—his service punctual and willing, differing no less from the hated drudgery of Caliban than from the labour of love of Ferdinand and Miranda. What point in his character does the song bring out ? It ought not to want much prompting to make an intelligent boy see the elemental impassiveness, the absence of human feeling, in Ariel's song. Contrast the Ariel in Shelley's "To a lady with a guitar." It is a ditty, not a dirge. Compare the song of Guiderius and Arrivagus in *Cymbeline*. The motive of both is similar, but with one striking difference.

Lastly, there remains the higher criticism of the lyric, which I would only attempt with an advanced form. The poem is not only part of a drama, but a lyric—a picture complete in itself, and coloured by a single sentiment.

What is the picture ? A calm sea with crystalline depths, half revealing forests of sea-weed, and with star-strown bottom. Some one in the class will have read Kingsley's "Glaucus," or Gosse's "A Year at the Shore," or bathed off Tintagel, or (excuse the bathos) seen the Westminster or Brighton Aquarium.

What is there modern in the picture ? Can you think of any parallel in Greek poetry ? Some will have read Theocritus, and remember Galatea, "the maid more fickle and light than thistle-down, careless of her lover, and cruel as the sea."

What is the difference ? A few leading questions ought to bring out the contrast between the definite conceptions, the predominance of the human element in the mythology of the Greeks, and the infinite passion, the mystery, the vague spirituality, of the moderns.

What is the dominant sentiment, the motive of the poem ?—A death by drowning.

Has Shakspeare treated the same theme elsewhere in the play ? Alonzo thinks of his son as "bedded in ooze," and wishes that he may "lie mudded with him."—Account for the difference of tone.

Quote a similar picture from another of Shakspeare's plays. Many will have read Clarence's dream, and some will remember the "ten thousand men that fishes gnawed upon." Mr. Phillpotts here has pointed the contrast; I should have preferred a suggestion. With a picked class I might pursue the subject further, and show how Shakspeare generally viewed death, quote Claudio's "to lie in cold obstruction and to rot," the grave-digger scene in Hamlet, "our life is rounded with a sleep," or the closer parallel of the dirge in *Cymbeline*.

Lastly, how have other poets treated the same subject? Lessing's "Wie die Alten den Tod gebildet," Shelley's "Adonais," and "Lines written in dejection near Naples," Wordsworth's "A slumber did my spirit seal," Milton's "Lycidas," and Tennyson's "In Memoriam" would supply topics enough. And lastly: I would make them learn Webster's "Call for the Robin Redbreast and the Wren," with Charles Lamb's criticism—"As that is of the water watery, so this is of the earth earthy. Both have that intensity of feeling which seems to resolve itself into the element which it contemplates."*

If such a lesson as I have roughly sketched could be worked out in detail, if such criticism could be evolved from boys and not dictated to them, most would allow that a more valuable result had been attained, and that at less cost, than even the power to turn the lyric into Greek anapaests, or to construe a chorus of the Agamemnon.

But, it will be said, you aim at impossibilities; you presuppose a knowledge of English Literature, taste, judgment, and critical power, which no boy possesses. First, I would answer, that the lesson is not a fancy sketch, but was given to a sixth form of average ability. Secondly, the want of knowledge, which I freely admit, may be remedied to a great extent by good notes, or, still better, by hints given beforehand by the master. At the end of each lesson, a class should be told what will be expected of them next time. Let references be given them let their attention be called beforehand to points which are not obvious and we shall hear no more of the difficulty of exacting an English lesson, or the want of definite work to be done out of school.

I have only touched on one side of English teaching, and neglected what many would consider weightier matters. An essay of Bacon or Macaulay would of course require very different treatment, and would bring out their reasoning faculties far better than a lesson in Shakspeare. I have shown elsewhere how I think this can best be done.

I fear you will think me very pugnacious; but, before I conclude, I feel compelled to break a lance with my friend Professor Meiklejohn, in an admirable lecture delivered before this College, in 1868, on "What is, and what may be meant by, teaching English." Mr. Meiklejohn quotes a ludicrous specimen of the *caput mortuum* to which Ariel's Song is reduced in a popular book on English Composition, and proceeds from this text to decry "the vile art of paraphrasing." Of course, no sensible teacher would think of setting for a paraphrase a lyric like this, where the beauty consists mainly in the exquisite form and melody. Nor am I careful to defend this,

* Cuttings have been taken from several flower-beds—J. A. Symonds's "Studies of the Greek poets," and Dowden's "Mind and Art of Shakspeare."

or any other book, on English Composition. But I must protest against his indiscriminate onslaught on what I regard as the backbone of an English lesson. I have found by experience that a paraphrase of such a passage as Shakspeare's "If it were done, when 'tis done," &c., or Tennyson's "So careful of the type," or Bacon's "Essay on Studies," is sure to bring to the top the more thoughtful boys, and prove to the dullest what they would not otherwise credit, that they do not understand one little word of their author. Mr. Meiklejohn would, I think, allow that two-thirds of a *ricci voce* lesson with an author whose language, grammar, and modes of thought are as difficult as Shakspeare's, must consist in a damnable iteration of paraphrase, paraphrase, paraphrase; and I do not see why the same lesson on paper is any more objectionable, while it is certainly more searching. When Mr. Meiklejohn further asserts that this dissecting process must destroy every germ of good taste, and kill all sense of poetry in a boy, I can only say that I have not found it so, either in my own experience, or that of my pupils. The passages of English poetry that have clung most closely to my memory, and that haunt me like a familiar tune, are those that I had to turn into Latin and Greek verse; and this I reckon the chief, if not the only, gain from more wasted hours than I care to think of. True, the analytic process cannot go on simultaneously with the meditative or appreciative; true, we need a wise passivity to enjoy a work of art; true, "we murder to dissect." But after a time we feel all the more intensely the beauty of the living whole. "The glory dies not, and the grief is past." A rose smells as sweet, nay sweeter, to a Linnaeus than to a village school girl.

I wished to have said a word or two on Histories of English Literature. Speaking as a schoolmaster, they are, in my eyes, an abomination,—one and all of them, from Professor Morley's learned Sketch to Mr. Brooke's tasteful Primer. I am heartily sick of such questions as, "Name the first English tragedy, comedy, and newspaper;" "Name the authors of the 'Purple Island,' 'Mortemeradios,' and the 'Anatomy of Melancholy.'" What is a boy the better for having such facts stuck in his brain like pins in a cushion? What does it profit him to know that Donne is sententious, Browne profound but paradoxical, Cowley Pindaric but metaphysical? It is true that we must be prepared, on my plan, for abysses of ignorance. I was told by my Form this morning, that Dryden was the author of "Paradise Lost," and that the "Apocalypse" was a modern French novel: but this sort of ignorance is to be cast out not by text-books of English Literature, but by raising the general level of culture.

I had also meant to have touched on editions of English School Classics, to have besought Mr. M. Arnold, when next he condescends to edit for us a School Classic, to write a hundred notes as good as the one note on "Little Dicky" (a feeble spark to guide a boy through six of Johnson's Lives); and, in particular, to have joined issue with Mr. Aldis Wright, and pleaded the cause of "aesthetic notes," or, as I should prefer to call them, notes on the matter and manner, as opposed to notes on the words. But I am warned by the "World" of this morning, where I see two Principals of Colleges gibbeted for having written school books "Vous êtes orfèvre, M. Josso." I forbear.

To recapitulate, and keep the discussion (which I have delayed too long) to the point, I will lay down four main theses:—

1. English Literature, as a subject of school teaching, should consist in the perusal of a few of the chief works of a few of our chief classics. Selections may be admitted sparingly. Histories of Literature should be tabooed.

2. English ought to form the main subject in preparatory schools.

3. In the lower forms of higher schools, not less than six hours a week ought to be devoted to English.

4. To provide the necessary time for English, Latin should be begun later, and Greek later still,—not before 14, or, I should prefer 16.

Such is the programme I propose, — a programme which, if carried out, would, I verily believe, work a revolution in education, and turn our “stocks and stabs,” our “un-idea’d” athletes, and our Jingoes of the Music Halls, into educated gentlemen and good citizens, trained in the school of Milton and of Mill. But I fear that I shall seem to many nothing but a dreamer of dreams.

HOW TO WRITE ENGLISH.

(Continued from page 478.)

PLAINNESS and natural simplicity are essential to effective style. Lord Macaulay, in his later writings, has departed sadly from this canon. We find him often studying effect, not merely in the arrangement of his narrative and its colouring, but in the collocation or repetition of words, and especially in the abrupt brevity of some sentences, and the rhetorical elongation of others. At the same time he is one of the very best artificial writers who ever lived. His great art consists in painting incidents. He fascinates the reader by using the smallest facts familiar to every day life, and engrafting them with wonderful effect into his story. Like Sir Archibald Alison, he is diffuse to an excess; but whereas one is simply prolix, the other infuses power and beauty into every sentence he writes.

These are reasons for cultivating the invaluable power of condensation. Very few ever attain it. The charm of dwelling on one's own ideas is too great to allow a wise curtailment of words. Lord Macaulay, however, as regards style, is one of the most accurate writers and is certainly one of the safest models. Nevertheless he sometimes sins in verbal redundancies. Here is an instance, and there are many others: “Madame de Maintenon had,” he says, “a tact which surpassed the tact of her sex so much as the tact of her sex surpasses the tact of ours.” Better thus—“A tact which surpassed that of her sex as much as female tact surpasses ours:” or, “as much as the tact of women surpasses that of men.” Again, he speaks of “a colony as more important indeed than Massachusetts, Virginia, or Jamaica; but, like Massachusetts, Virginia, or Jamaica dependent on the mother country.” Instead of this ill-sounding repetition of the names of these States, why did he not write, “but, like them, dependent on the mother country.” Macaulay seems sometimes to think it an evil to use a pronoun. Now it is the exact purpose of a pronoun to enable one to avoid this awkward repetition of nouns. But these are only occasional blemishes to which my attention has been called by a writer in *Fraser's Magazine*, who writes two long essays on “Literary Style,” criticising

other people's blunders with little mercy, and committing them himself with great liberality. He says of a popular novelist—

“But we willingly admit that, in point of simplicity and ease of style, there is in his last two works a great improvement. That of his former novels is too stilted and high flown, and the author, haunted with the idea of the necessity of keeping up the dignity of his subject, adopted a phraseology,” &c.

“That” must have an antecedent. What is it? According to all rule it is “improvement” which is nonsense. Is it then the “simplicity and ease of style” which this critic would decry as “too stilted and high flown?” Scarcely. What he really does mean is, that the style of the former novels was so. But he has entirely failed to express it, and has written nonsense instead. “Haunted with” is incorrect; it should be “haunted by.” Repulsive awkwardnesses of expression occur in many parts of these ill-written essays. Here is one out of many. “He is certainly one of the least squeamish writers who ever employed the pen of religious controversy.” In the first place no one can be correctly said to *employ* his own pen; we *use* what is our own, and employ that which is another's. “To employ oneself” is little better than a vulgarity. But to say that a writer “employs the pen of religious controversy” is worthy only of the servant's hall; and is an instructive specimen of that slip-slop style and silly finery, against which I would especially caution all boys and girls. All that is really expressed might have been as usual better said by shortening the sentences and using two words instead of nine; I mean by inserting the word “polemical” before the word “writers” and leaving out all that follow. “Polemical” means what the writer intended by the incorrect term of “religious controversy.” Controversy is not religious in any sense of the word, nor do these two words express that the controversy* is about religion; indeed some controversies about religion are irreligious. These however are minor errors when compared to such sentences as these. “We should not have noticed it at all, *but* for the reason we have already given—*because* we believe it to be,” &c. This use of the word “but” instead of “except” is scarcely admissible, and derives sanction from few good English writers; and then almost invariably when it commences a sentence thus:—“But for your known courage I should,” &c. The misuse, however, of “because” is a positive blunder. The writer means “*namely that* we believe,” &c. If the reader thinks otherwise let him apply the best test to a sentence of doubtful propriety, namely that of denuding it of all redundant words. The sentence in question will then read thus—“We should not notice it but for the reason *because*,” &c. A beautiful model certainly for a grammatical critic who in the next page beseeches us not to pollute the pure well of English undefiled, and deals forth charges *ad libitum* of “vulgarity,” “conceit,” “farrago of nonsense,” and “faults against grammar, taste and propriety.” It would be as well moreover that a gentleman who affords more than one proof that he has yet to learn that “not” and “nor” are negatives

* This writer's idea of a controversialist is a strange one. He thinks Father Newman is *unequalled* in point of style as a controversialist, because his manner is lively, although in the next sentence he pronounces him to be weak in argument; prodigious in assumption, and transparent in sophistry!

and together make an affirmative, should profit by his own "words of advice and warning :"—

"The first object of every author ought to be to write correctly; the second, to write naturally and unaffectedly; and the third, to write gracefully and attractively."

These are excellent rules. We will take leave to add a fourth :— Until you can do this don't write at all; at least not as a censor of other people's style.

I have noticed these two essays because they enable me to warn young writers against being induced to suppose that what they read in the most esteemed periodical literature (in which *Fraser's Magazine* justly ranks) is necessarily a good model. No periodical can maintain a high standard in all its articles. It is difficult for the best of them to maintain a staff of contributors all of whom are above mediocrity. A very bad style of writing will frequently be found in the most eminent of our reviews, and oftener still in magazines. No editor can always steer clear of those mishaps.

A very excellent book on the subject I am discussing has just been sent to me, entitled "Modern English Literature, its blemishes and defects, by Henry H. Breen, Esq.,"* It is a most important aid to the correction of popular vices in style and grammar. This book, if it be widely circulated and well studied, will do even more than Dean Trench's books to raise both the standard and appreciation of what English is; and how we should write and speak it.

Mr. Breen divides his book into Errors of Composition, Blunders Mannerism, Criticism, Plagiarism, &c. Under each of these heads he has collected numerous examples of faults, great and small, which will be of infinite value to the public at large: for I cordially agree with the author that "the most striking characteristic of English literature in the nineteenth century is the loose and ungrammatical diction which disfigures every species of prose composition." * *

We have a hundred Alisons for one Macaulay. Nay, I believe it could be shown that in proportion as the English language has been improved, the art of composition has been neglected.

The best writers are seldom free from faults, and scarcely any are always grammatical. Hence the necessity of such papers as these. Many will doubt the correctness of so dark a picture and grave a charge against the English literature of these times. Mr. Breen's book shall help us to substantiate it. Here are ample specimens and proofs :—

BAD GRAMMAR.

• *Macaulay*.—"The poetry and eloquence of the Augustan age was assiduously studied," &c.

Sydney Smith.—"An officer on European and on Indian service, are in very different situations."

Gibson.—"The use of fraud and perfidy, of cruelty and injustice, were often subservient," &c. "The pronunciation of the two vowels have been," &c.

Deqil Trench.—"Sir Thomas More so writes it, although not many so late as him :—*id est*, "so late as him wrote it!"

Alison.—"Often Caulincourt or Duroc were up with him, hard at work," &c.

* Longman's p. 397, 8vo. 1853.

Junius.—"Neither Charles nor his brother were qualified," &c.

DeIsraeli the elder.—"No one can have lost their character," &c.

Sir E. Lytton, Bulwer.—"The literature of France, Germany and England are at least as necessary for a man." Literature should have been plural.

Blair.—"How far each of the three epic poets have distinguished themselves."

BAD ENGLISH; OR NONSENSE.

Alison.—"We know to what causes our past reverses have been owing, and we will have ourselves to blame if," &c.

Mr. Breen himself!—"There is nothing that demonstrates the prevalence of ungrammatical diction so much as the occurrence of it in our critics, grammarians, and compilers of dictionaries: as when we meet with a writer professedly descanting upon rules of grammar, and violating those rules in the very comments he makes upon them."

Mr. Breen fell into this mishap by expressing the same thing twice over in the same sentence. If we cut off the whole of the last half, beginning "as when we," &c., the first becomes a good and complete sentence: or if we substitute "writers" for the useless words "as when we meet with a writer," the sentence becomes good English. The *meeting* with the writer is quite irrelevant to the subject. This is not his only mistake by any means. In page 14 he strays entirely from his subject, which is about singulars and plurals, —launches into a digression, in which he censures the idolatry of authorities, —and then suddenly reverts to "this error," of which the antecedent is the said idolatry, and not the grammatical blunder he meant to revert to. No writer ever gave better illustrations of his own just comment on the "little attention that is paid to perspicuity; in other words, to the relation in which the different members of a sentence should stand towards each other."

MORE BLUNDERS IN GREAT WRITERS.

Sydney Smith.—"It is to this last new feature in the supposed Game Laws, to which we intend to confine," &c. To, to which!

Southey.—"Let me see who do I know among them?"

This is among the most frequent and most vulgar blunders made, viz., the use of the nominative instead of the objective case of the pronoun "who" "Who did you see?" is very common, but equally wrong.

Hallam.—"In the latter also religious and grammatical learning go hand in hand."

Macaulay.—"The blessings which political and intellectual freedom have brought in their train."

Latham correctly says—"The logical and historical analysis of a language generally in some degree coincides."

Hallam and Macaulay seem to forget that two adjectives never make a singular noun plural. Mr. Breen, however, truly remarks that the sense is nevertheless sacrificed, for a single thing cannot properly be said to coincide. The sentence should be expressed thus—"The logical and historical analysis coincide."

Shoals of writers get into scrapes through an awkward habit of beginning their sentences at the wrong end, or in the middle, or any where but at the right place. Here is an example from Blair

—“*They* are the ardent sentiments of honour, and *that only* can kindle the fire of genius.” In the first place he uses the plural, “*they are*,” instead of the singular “*it is*,” and “*only*” for “*alone*.” But why not begin with the sentiments, with which he is about to speak? What is the good of “*they are*,” or “*it is*?” Why not simply say—“The ardent sentiments of honour, &c., can alone kindle,” &c. It is much simpler, more expressive, and, like most simple things, more elegant. *Simpler munditiis* is a good motto for young writers: it is strangely ignored by old writers.

*The wrong preposition obtains so constantly, that with some writers it is only by a rare accident that they use the right one. Here are plenty of examples:—

Carlyle.—“We should draw quite a different conclusion *to* Paul’s” (To *for from*. We agree *with*, object *to*, but differ *from*).

Franklin.—“The favourable reception of their writings *with* the public,” instead of *by* the public.

Channing.—“To ingraft himself *for* an old imperial tree.” (We ingraft *on* not *to* a tree.)

Lindley Murray.—“We shall enumerate the principal features of speech, and give *them* some explanation.” (This is not all what he intends to do. He is not going to explain anything to the features of speech, as he calls them: but to give his readers some explanation of them: but he expresses the former and not the latter object, by that which he has so carelessly written.)

**Alison*, who affords endless examples of every kind of blunder that can be perpetrated, writes thus:—“Of various natural and acquired excellence, it is hard to say whether the British or French soldiers were the most admirable.” (For *of read for*.) But this sentence is altogether bad, and affords another example of one turned upside down. Is not this shorter, and better? “It is hard to say whether French or British soldiers excelled the most, either in natural or acquired qualities.”

“Neither” is to be followed by “nor,” yet many writers forget it.

Southey.—“Neither by them *or* me.”

“But” and “that” are each great stumbling-blocks.

Southey.—“There can be no question *but* that both the language and the characters must be Hebrew.” “But” and “both” are each redundant. But is also incorrect; nevertheless Dean Trench says—“He never doubts *but* he knows.” Now what does “but” mean in these sentences? Can the writer, who put it in, tell us? “There can be no question that the language,” &c., is surely enough to express what Southey meant to say; and the conjunction “and” expresses all that “both” expresses. The use of “but” is a pure impertinence in each of these sentences. We may just as well insert “peradventure;” indeed it would have more meaning.

(i) METHOD—GENERAL.—Time four hours.

Normal Schools Examination.—December 1879.

Examiner.—Mr. J. T. Fowler.

[TO CANDIDATES:—Write only on one side of your paper. On each of your answer-papers write your name clearly, number your answers, and stitch or pin your papers in order.]

I. Taking the accompanying as the register of attendance of a class for a month with these explanations, *viz.*, That a blank = present; s = sick; a = absent without leave; l = absent with leave; And observing that, in the upper and lower lines opposite each boy’s name, are marked morning and afternoon attendance respectively; Give

1st. The average attendance for each week.

2nd. The average attendance for the month.

3rd. The average percentage of absentees during the month.

II. It is a difficult thing, and requires much contrivance to sustain the attention of a class and prevent waste of time in an easy reading lesson. How do you, in your daily teaching, endeavour to get over this difficulty.—Children who read fluently in a book with which they are familiar, often fail when a strange book is put into their hands. Discuss the reasons for such failure, and suggest remedies.

III. Write carefully three lines, as copy for a boy, in large, round and small hand. Describe what you regard as good hand-writing. What method is to be adopted for the correction of mistakes? How would you prevent children from imitating their own imperfect copies, and what mechanical assistance (if any) would you allow them in fixing the slope and height of their letters? Distinguish between “teaching children to write,” and “setting them a copy.” Give directions as to a pupil for addressing an envelope, with specimens in English and your Vernacular.

IV. With the more advanced pupils of a school, abstracts of lessons, paraphrases, &c., are useful exercises. When would you have these done; when and how should the papers be corrected, and what should be done with them afterwards?

V. Describe how Geography should be taught, shewing,

First. How the subject may best be begun with little boys.

Second. What order (that is, what countries, or parts of the subject) should be taken after a class has been introduced to it.

Third. The order in which the Geography of a particular country should be treated.

Fourth. The manner of conducting an ordinary lesson.

VI. What advantages are likely to result, (a) To a Head-master, (b) To an assistant, from a fortnightly consultation of all the masters on the preceding fortnight’s work of each class and of the whole school?

VII. What lessons are best taken at the beginning of the school hours, and what lessons may be taken last with least danger of producing weariness? Give your reasons clearly and succinctly. In drawing up a time-table, what considerations should be attended to in determining the length of time that children should give to particular subjects? Will the same arrangements be good for the

younger as well as for the elder ones? What are the consequences of too lengthened occupation on one subject?

VIII. What are the best means of preventing copying in school; and of securing the thorough doing of home lessons by children?

IX. Explain what is meant by 'Simultaneous' and what by 'individual' answers. What are the advantages and what the disadvantages of each?

X. A writer on *Method*, addressing a teacher says:—"Teaching should be the object of your constant meditations. It should engage your thoughts by night and day; and it should regulate, to a very large extent, your private studies; it should be the end of your labours." Give an exposition of this passage.

XI. The prime moral requirement in a teacher is "honesty." State fully what the word "honesty" here includes. What temptations to dishonesty must a teacher guard against? Shew how injurious a want of honesty in a master is (1), to his pupils, (2) to himself.

(ii) METHOD—FOWLER'S DISCIPLINE AND INSTRUCTION.

Time—Two hours and a half.

[To CANDIDATES:—Write only on one side of your paper. On each of your answer-papers write your name clearly, number your answers, and stitch or pin your papers in order.]

I. Give those qualifications which go to make a good teacher. [Not to exceed one page of ordinary writing.]

II. State clearly the meaning that you attach to each of the following, with illustrations where necessary:—

- (a) "Let every master be what he is, and become what he can."
- (b) "Real language questions."
- (c) "Skill to show and convince of an error so as to make the correction impressive."
- (d) "The experience of one man's life cannot furnish examples and precedents for the events of one man's life."

III. The writer of a quotation in your text-book says:—"Were the method thus described, generally applied with skill, as I have seen it applied by a few, the pupil would no longer be a machine, nor teaching a drudgery." Give as fully as you are able the description here referred to.

IV. Reproduce the "Directions for conducting a lesson" and remark on them.

V. Give some remarks on the necessity for and the advantages of Regularity and Punctuality in school attendance. [Note that the rules for securing them are not asked for.]

VI. Give in full, but without remarks, the "Form for criticizing a lesson."

VIII. Give twelve of the principal "general principles of teaching," and remark on not more than four, selecting those that seem to you of the greatest importance.

UNIVERSITY OF MADRAS.

Matriculation Examination—1879.

Monday, 15th December, 10 A.M., 1 P.M.

Examiners. { E. P. Metcalfe, M.A.
Rev. D. G. Clarke, M.A.
J. T. Margoschis, F.R.G.S.

GENERAL ENGLISH.

The Answers to Parts, I, II, and III, must be written in separate books.

Part I.

I. State the rules regulating:—

- (a.) The orthography of 'curable,' 'chargeable'; 'permitted,' 'limited.'
 - (b.) The accentuation of 'attribute,' 'frequent.'
 - (c.) The formation of the possessive singular, and the nominative plural of compounds like man-of-war; the nominative plural of Frenchman, German; and the comparative of 'gay' and of 'dry.'
- II. (a.) Distinguish between an abstract and a concrete noun. Form abstract nouns from 'poor,' 'young,' 'punctual,' 'deficient.'
- (b.) How are the Reflexive pronouns formed for the first, second, and third persons?
- (c.) Whether is it right to say, "Alexander was a most able general," or "Alexander was an ablest general?" Give reasons for your answer.

- III. (a.) How are the terms 'strong' and 'weak' applied to the inflection of verbs? Give examples.
- (b.) Give the past indefinite and the past participle of forsake, beseech, tread, smite.
- (c.) Write down the second person singular present indicative active, and the first person singular future indicative active of the verb 'to love' expressed interrogatively in the negative.

- IV. (a.) Change the verbs in the following sentence into the passive voice:—
"They put a wrong interpretation upon the passage which alluded to that matter."
- (b.) Which of the two following sentences is correct, and why?
- i. Many were the candidates plucked in the examination.
 - ii. Many were the candidates failed in the examination.

Make the required correction in the faulty sentence.

Part II.

- V. (a.) In what respects does the relative pronoun agree, and in what does it not agree with its antecedent?
- (b.) Illustrate the above rule by showing the difference in meaning between the following pairs of sentences:—

- 1° The officers had arrested a suspected person, whom the Judge knew nothing of.

2° Art thou a man who $\left. \begin{array}{l} \text{would} \\ \text{wouldst} \end{array} \right\}$ do this?

(c.) When are 'what' and 'that' admissible as relatives?

VI. Explain the use of the Subjunctive mood.

Fill up the blanks in the following with the proper parts of the auxiliary verbs;—

- (a.) If the wind—cold (as you say) I—shut the door.
- (b.) If the wind—cold (which is doubtful) I—shut the door.
- (c.) If the wind—cold (which I am sure *is* not the case) I—shut the door.
- (d.) If the wind—cold (which I am sure *was* not the case) I—shut the door.

VII. Express the following sentences, using the negative form, but preserving the exact meaning of the original in each case:—

- (a.) He came as soon as he was called.
- (b.) He was more to blame than any one.
- (c.) Sita was the most beautiful of all.

VIII. Relate the following conversation in the indirect form:—

"Indeed, son," replied the mother, seriously, "I cannot help telling you that you have quite forgotten yourself. Besides, if you really mean to put this resolution of yours in execution, I do not see whom you can get to venture to propose it for you." "You yourself," replied he immediately. "I go to the Sultan!" answered his mother, amazed. "I shall take care how I meddle in such an affair. Why, who are you, son," continued she, "that you can have the assurance to think of your Sultan's daughter?"

Part III.

IX. State and illustrate the meaning of the following classical prefixes:

- (a.) auto — tele — pre — super — and give the force of the suffixes in the words—fatalist, verbose, purify, sensitive.
- (b.) Introduce into sentences with their appropriate prepositions—To side—to care—to take care—to inform.

X. (a.) What is the function of the predicate in a sentence?

Show by examples how it may be enlarged.

- (b.) Classify the subordinate sentences in the following stanza, and state clearly the grammatical relations subsisting between them:—

Go, lovely rose!

.. Tell her, that wastes her time, and me,

That now she knows,

When I resemble her to thee,

How sweet and fair she seems to be.

XI. Write a description (not exceeding a page) of one of the following scenes:

A village on fire.

A cyclone.

An inundation.

Monday, 15th December, 2—5 P.M.

ENGLISH TEXT.

Examiners. $\left\{ \begin{array}{l} \text{T. Gopal Rau, B.A.} \\ \text{Rev. G. Patterson.} \\ \text{G. Bickle, Esq.} \end{array} \right.$

The Answers to Parts I, II, and III must be written in separate books.

Part I.

I. Express in your own words the meaning of the following passages:

- (1) But me, scarce hoping to attain that rest,
Always from port withheld, always distressed—
Me howling winds drive devious, tempest tost,
Sails ripped, seams opening wide, and compass lost,
And day by day some current's thwarting force
Sets me more distant from a prosperous course.
- (2) Nor zeal for God, nor love for man,
Gives mortal monuments a date
Beyond the power of Time and Fate.
The towers must share the builder's doom;
Ruin is theirs, and his a tomb:
But better boon benignant Heaven
To Faith and Charity has given,
And bids the Christian hope sublime
Transcend the bounds of Fate and Time.

II. (a) In what connection does each of the following extracts occur?

- (1) Thus many a sad to-morrow came and went.
- (2) By heaven, he shakes as much
As partridge in the falcon's clutch.
- (3) Short be the shrift and sure the cord.

(b) State what is meant by the following expressions:

- (1) Thy vesture's tissued flowers, (2) Storied lattices,
- (3) The death-wind, (4) The sordid board, (5)
Vintage music, (6) Chivalry's emblazoned hues.

III. (a) What kind of sentence, according to its mode of expression, is each of the following? Express them in the assertive form:

- (1) Oh that those lips had language!
- (2) Thou art his son?
- (3) Say, wast thou conscious of the tears I shed?

(b) State what part of speech each of the words italicized is, and give its construction:

Thy maidens, *grieved themselves* at my concern,
Oft *gave* me promise of thy quick return.
His only child should rest his *pledge*.
Fool *that* I was!
There stood the block displayed, and there
The headsman grim his *hatchet* bare.

IV. Explain the allusions in the following extracts:

- (1) O'Neale
Has drawn for tyranny his steel.
- (2) The pageant of the Leaf and Flower.
- (3) O'er Hexham's altar hung my glove.

Part II.

V. Relate briefly the various means by which Pedro tried to get a living, with the result in each case.

- VI. (a) "Wisdom I think it still," said Francisco.
"And your father?" asked Pedro.
"And my father," said Francisco.

Express the last two quotations as complete sentences.

- (b) Recast the following sentences so as to convert *liked* into its noun form; *implicit* into its adverbial form; and *successfully* into its adjectival form:

- (1) Every day he *liked* him better and better.
- (2) The village of Resina did not give them *implicit* faith.
- (3) He was secretly persuaded that if he had cheated *successfully*, he should have been happy.

VII. (a) Substitute such words in the following sentences as give the force of *for*:

- (1) I have this day agreed *for* a house in Naples.
- (2) A miller affirmed that his mill had stopped *for* want of water.
- (3) I should take you *for* an Englishman.

- (b) Introduce the following verbs into sentences of your own formation, followed by their appropriate prepositions: *impose*, *deal*, *acquaint*, *appeal*.

VIII. (a) Correct any errors you may perceive in the following sentences:

- (1) I'll come to your village if it was ten miles off.
- (2) I know him from a child.
- (3) An Englishman never forgets a good turn, be it from a countryman or foreigner.

- (b) Give the meanings of the words and phrases italicized below:

- (1) He desired him to try if he could *make any hand of it*.
- (2) I am *well* with my father at home.
- (3) Remember what I said to you when we were alone *just now*.
- (4) The Improvisatore was as good as his word.

Part III.

IX. Write short notes on the following: Count Eustace of Boulogne, Lord Mowbray, The Constitutions of Clarendon, and Jocen.

X. (a) State the effect, not the meaning, of the words italicized:

- (1) It was *too* true that he could care for nothing more upon this earth.
- (2) The clergy sometimes suffered, and heavily *too*, from pillage.

- (3) The people of England suffered more in those dread nineteen years, than at any former period *even* of their suffering history.
- (4) Flambard, whom the late king had made Bishop of Durham, *of all things in the world*.

- (b) Give the meaning of the following expressions:

- (1) Hot speed, (2) Small ceremony, (3) A great train, (4) Nothing came of it, (5) Fond of knocking men about, (6) There was little to choose between the Priests and the Red King.

XI. (a) Expand the following italicized phrases into clauses:

- (1) Many of the barons considered it degrading *to be ruled by a woman*.
- (2) The Pope, *to his honour*, supported him.
- (3) The trained English followers of these Knights were so superior in all the discipline of battle to the Irish, that they beat them *against immense superiority of numbers*.

- (b) Write the following sentence so as to make *her brother Robert* the nominative of the principal sentence: The people of London revolted; and in alliance with the troops of Stephen, besieged the Queen at Winchester, where they took *her brother Robert* prisoner, whom, as her best soldier and chief general she was glad to exchange for Stephen himself, who thus regained his liberty.

XII. (a) Give Saxon equivalents of the following words: *mortal*, *mercenary*, *martial*, *solitary*, *domestic*, *gradually*.

- (b) Give equivalents derived from Latin, of the following words: *news*, *strength* (of mind), *a sight*, *brotherly*, *died*, *enough*.

Tuesday, 16th December, 10 A.M.—1 P.M.

TAMIL: GRAMMAR, &c.

Examiners { J. M. Velu Pillai.
S. Seshayya, B.A.

(The Answers to Parts I and II must be written in separate books.)

Part I.

All candidates (except Europeans and Eurasians, who may answer in English) must give their answers in the language of the question paper.

I. கவிநீக்கு காண்டத்தைச் சுருக்கி ஒரு பக்கத்திற்கு மேற்படாமலெழுத.

II. கவிதொடர்காண்டம், கவிநீங்குகாண்டம் இவற்றைக்கு ஞாந்தவாதமாய் (allegorical) எண்ணி, அவற்றின் பொருளை என்ன?

III. நளசரித்திரத்தைப் படிப்பதும் கேட்பதும் சுகிருதமென்று சமஸ்கிருதவாஸிரியர் கூறினதற்கு நியாயமென்ன?

IV. அடியில்வரும்செய்யுட்களுக்குப்பொழிப்புரையெழுத :—

- (a) எஞ்ஞலத்தாயார் மடந்தையா துன்னார் யாதுன்பேர்
நெக்குருகி நீயழுதற்கென்னியித்தம்—மைக்குழலாய்,
கட்டுரைத்துக் காணென்றான் சார்வண்டு காந்தாரம்,
விட்டுரைக்குந் தார்வணிகர் வேந்து.
- (b) ஒண்டொடிதன்னை யுறக்கத்தே நீத்ததுவும்,
பண்டை விதியின் பயனேகாண்—தண்டரனப்
பூத்தாம வெண்குடையான்பொன்மகளைவெவ்வனத்தே
நீத்தானென்றையுரேனீ.
- (c) உத்தமரின் மந்திரனை யொப்பா ரொருவரினை
இத்தவத்தென்றிமையோரெம்மருக்கும்—கைத்தலத்
தேமாரிபெய்யுந் திருமலர்த்தார் வேந்தன்மேற் [தில்
பூமாரிபெய்தார் புகழ்ந்து.

(1) குலத்தாய், குழலாய், ஒண்டொடி இவையென்னசொல்?
இவற்றுக்கு முடிபென்ன?

(2) உறக்கம், நீத்தது, ஐயுறேல் இவற்றுக்குப் பகுபத விலக்
கணம் கூறுக.

V. (a) வெறித்தவிள மான்காண் * *
* * *

விலக்கினங்களில் மாணையும் மயிலையும் பார்த்துத் தம
யுந்தி புலம்பியதேன்?

(b) வண்டமிழ்வாணர்ப் பிழைத்தவாங்குடி * *
* * *

இந்தச்செய்யுளில் சலிக்குடைய யாதுவழக்கம் குறிப்பி
க்கப்பட்டது?

(c) கீழே வரையப்பட்டிருக்கிற இங்கிலிஷ்வாசகத்தின் கரு
த்தடங்கிய செய்யுளை நனவென்பாவின்னிறெடுத்தெழுத.

What was the shield
That wise Minerva wore, unconquered virgin,
Wherewith she freezed her foes to congealed stone,
But frigid looks of chaste austerity?

(d) இரண்டாம் சுவயம்வரம் நடக்கப்போகிறதென்று நான்
கேள்விப்பட்டபொழுது அவன் மனத லுண்டான சங்கை யென்
ன? இதைக்குறிக்கும் வெண்பாவை யெழுதும்.

(e) நானுடைய குமாரன் சிறுகுழந்தையானாலும் அவனிடத்
தில் இயற்கையாய் ராஜ்ஜயமுனதென்பதை நூலாசிரியர் எங்
னம் குறிப்பிட்டிருக்கிறார்?

(f) வித்துவானுக்கும் வித்தத்துக்கும் (செல்வம்) வெகுதூரம்
என்னும் பழமொழியின் கருத்தை யெந்த வெண்பாவில் புகழே
ந்தி காட்டியிருக்கிறார்?

VI. நவ்வொடுகரவுமமை நிகழ்பல்லவும்

* * *

இச்சூத்திரத்தைப் பூர்ணமாயெழுதி, இதில் வரும் கூறு
களில் நான்குக்கு உதாரணம் நனவென்பாவின்னிறு எழுதி, இவ்
ற்றின் காலம், எண், இடம் இவற்றைக்குறிக்க.

Part II.

VII. அடியில்வரும் செய்யுட்களுக்குப் பொழிப்புரை யெ
ழுத :—

- (a) இனிதன்பா நென்பா னுயிர்கொல்லா துண்பான்
முனிதக்கானென்பான் முகனொழிந்து வாழ்வான்
தனியனெனப்படுவான் செய்தனற்றில்லான்
இனியனெனப்படுவான் யார்யார்க்கேயானும்
முனியா வொழுக்கத்தவன்.

- (b) கள்ளாமைவேண்டும் கடியவருதவால்
தள்ளாமைவேண்டுந் தகுதியுடையன
நள்ளாமைவேண்டுந் சிறியாரோடியார்மட்டும்
கொள்ளாமைவேண்டும் பகை.

(1) இனிது, தனியன், முனியா, கடிய இப்பதங்களுக்கு இ
லக்கணம் கூறுக.

VIII. கீழே யெழுதப்பட்டிருக்கிற குறள்களின் பொருளட
ங்கிய செய்யுட்களை நான்மணிக்கடிகையின்னிறெடுத்தெழுத.

- (a) கல்லாதவரு நனிகல்லர் கற்றார்முன்
சொல்லாதிருக்கப்பெறின்.
- (b) தன்னுயிர் நீப்பிலும் செய்யற்கதான்பிறிது
இன்னுயிர் நீக்கும் வினை.

IX. (a) மனிதர்க்கியற்கையாகிய எந்த மனோபாவங்களை
நூலாசிரியர் ராவிலஸ்வின்னிடத்தில் விளக்கியிருக்கிறார்?

(b) ராவிலஸ் கதையைப் படிப்பதினால் நாம் அடையக்கூ
டிய அறிவென்ன?

(c) கவிஞர் அறியவேண்டிய விஷயங்கள் யாவையென்றும்
காவியங்களுடைய முக்கிய விலக்கணங்கள் யாவையென்றும் இ
ம்லாக் சொல்லுகிறார்?

6. ఒక్కచందురుండ యుదయింపఁగొంగెడు
సంబురాకి యిది పురావస్తుము
దనుజపతిముఖేందు దశకస్పర్ధిసబ్బ
కున్నెయనఁగవీట నులివుమిగిలే.

7. a. బంధుసమితిఁగరము ప్రీతివరకాకులకు సరచేతులొక్క
నునికి యొక్కడ సీత్రారదనజుదాకికొమ్మై వచ్చు టెక్కడ.

b. భూప్రపంచమునకెల్ల నగ్నిమప్రాథవంబు
పడసిజయలక్ష్మీసరచేతఁ బట్టి నాడు.

IV. Render into idiomatic English :—

1. పిలికి చెల్లటము - ఎలాకకుడ్రాణవంకటము.
2. ధైర్యవ సర్వార్థసాధకమ్.
3. ఆత్మచ్ఛాయః పశనశేతుః.
4. ఇంటగెలిచి రచ్చగైవపలెను.

Wednesday, 17th December, 2 to 3.30 P.M.

ALGEBRA.

Examiner.—Rev. W. Leeming, M.A.

I. Simplify :—

$$\frac{(a+b)^2}{(x-a)(x+a+b)} - \frac{a+2b+x}{2(x-a)} + \frac{(a+b)x}{x^2+bx-a^2-ab} + \frac{1}{2}$$

II. Transform

$$(x^2 + y^2 + z^2 + 2xy)^2$$

into the sum of two perfect squares.

III. Is

$$(a+b+c) \{ a^2 - (b+c)a + (b+c)^2 \} - 3bc(b+c) \\ = (a+b+c) \{ b^2 - (a+c)b + (a+c)^2 \} - 3ac(a+c)$$

an Equation or an Identity ?

IV. Solve the equations

$$(1.) \frac{x+7}{4} + \frac{2x-4}{7} = \frac{3x-12}{5} + 3.$$

$$(2.) x^2 + 3x - 10 = ax^2 + bx^2 + cx^2 + 5(a+b+c)x.$$

$$(3.) \begin{cases} ax + by + cz = a + b \\ bx + cy + az = b + c \\ cx + ay + bz = c + a \end{cases}$$

V. Three equal vessels A, B, C, are placed one above another, A being the highest. A is full, B half full, C empty. In the bottom of A is a hole which would empty it in 16 min., and in the bottom of B one which would empty it in 4 min. How long will it be before C is full ?

SOLUTIONS TO THE MATRICULATION ALGEBRA 1879.

(For Questions see page 566.)

$$\begin{aligned} (I.) & \frac{(a+b)^2}{(x-a)(x+a+b)} - \frac{a+2b+x}{2(x-a)} + \frac{(a+b)x}{x^2+bx-a^2-ab} + \frac{1}{2} \\ &= \frac{(a+b)^2}{(x-a)(x+a+b)} - \frac{(x-a)+2(a+b)}{2(x-a)} + \frac{(a+b)x}{(x^2-a^2)+b(x-a)} + \frac{1}{2} \\ &= \frac{(a+b)^2}{(x-a)(x+a+b)} - \frac{x-a}{2(x-a)} - \frac{2(a+b)}{2(x-a)} + \frac{(a+b)x}{(x-a)(x+a+b)} + \frac{1}{2} \\ &= \frac{(a+b)^2}{(x-a)(x+a+b)} - \frac{1}{2} - \frac{a+b}{x-a} + \frac{(a+b)x}{(x-a)(x+a+b)} + \frac{1}{2} \\ &= \frac{a+b}{(x-a)(x+a+b)} \left\{ (a+b) + x \right\} - \frac{a+b}{x-a} \\ &= \frac{(a+b)(x+a+b)}{(x-a)(x+a+b)} - \frac{a+b}{x-a} \\ &= \frac{a+b}{x-a} - \frac{a+b}{x-a} = 0. \text{ Ans.} \end{aligned}$$

Or thus :—

$$\begin{aligned} \text{The given Expression} &= \frac{(a+b)^2}{(x-a)(x+a+b)} + \frac{(a+b)x}{(x-a)(x+a+b)} \\ &\quad + \frac{1}{2} - \frac{a+2b+x}{2(x-a)} \\ &= \frac{a+b}{(x-a)(x+a+b)} \left\{ (a+b) + x \right\} + \frac{1}{2} \left\{ 1 - \frac{a+2b+x}{x-a} \right\} \\ &= \frac{(a+b)(x+a+b)}{(x-a)(x+a+b)} + \frac{1}{2} \times \frac{-2(a+b)}{x-a} \\ &= \frac{a+b}{x-a} - \frac{a+b}{x-a} = 0. \text{ as before.} \end{aligned}$$

II. Transform

$$(x^2 + y^2 + z^2 + 2xy)^2$$

into the sum of two perfect squares.

$$\begin{aligned} & (x^2 + y^2 + z^2 + 2xy)^2 \\ &= \{ (x^2 + 2xy + y^2) + z^2 \}^2 \\ &= \{ (x+y)^2 + z^2 \}^2 \end{aligned}$$

$$= \{ (x+y)^2 + z^2 + 2z^2(x+y)^2 \}$$

Add and Subtract $2z^2(x+y)^2$

$$\{ (x+y)^2 - 2z^2(x+y)^2 + z^2 \} + 4z^2(x+y)^2$$

$= \{ (x+y)^2 - z^2 \}^2 + \{ 2z(x+y) \}^2$ which is the sum of two perfect squares.

$$\text{III. } (a+b+c) \{ a^2 - (b+c)a + (b+c)^2 \} - 3bc(b+c)$$

Add and Subtract $3a(b+c)$

$$= (a+b+c) \{ a^2 + 2a(b+c) + (b+c)^2 - 3a(b+c) \} - 3bc(b+c)$$

$$= (a+b+c) \{ (a+b+c)^2 - 3a(b+c) \} - 3bc(b+c)$$

Add and Subtract $3bc$

$$= (a+b+c) \{ (a+b+c)^2 - 3b(a+c) - 3c(a-b) \} - 3bc(b+c)$$

$$= (a+b+c) \{ (a+b+c)^2 - 3b(a+c) - 3c(a-b) - 3bc(b+c) \}$$

$$= (a+b+c) \{ (a+c)^2 + 2b(a+c) + b^2 - 3b(a+c) - 3c(a-b) - 3bc(b+c) \}$$

$$= (a+b+c) \{ (a+c)^2 - b(a+c) + b^2 \} - 3ac(b+c) + 3bc(b+c) - 3ac(a-b) - 3bc(b+c)$$

$$= (a+b+c) \{ b^2 - (a+c)b + (a+c)^2 \} - 3ac(b+c) - 3ac(a-b)$$

$$= (a+b+c) \{ b^2 - (a+c)b + (a+c)^2 \} - 3ac(a+c)$$

$\therefore$ The Given Expression is an Identity.

$$\text{IV. (1). } \frac{x+7}{4} + \frac{2x-4}{7} = \frac{3x-12}{5} + 3.$$

By division and transposition,

$$\frac{3x}{5} - \frac{x}{4} - \frac{2x}{7} = \frac{7}{4} - \frac{4}{7} + \frac{12}{5} - 3.$$

Multiplying both sides by 140, the L. C. M. of 4, 5, & 7,

$$84x - 35x - 40x = 245 - 80 + 336 - 420.$$

$$9x = 81$$

$$\therefore x = \frac{81}{9} = 9 \text{ Ans.}$$

$$(2.) x^2 + 3x - 10 = ax^2 + bx^2 + 5(a+b+c)x$$

$$x(x+5) - 2(x+5) = x^2(a+b+c) + 5x(a+b+c)$$

$$(x+5)(x-2) = (x^2 + 5x)(a+b+c)$$

$$= x(x+5)(a+b+c)$$

$$\therefore x(x+5)(a+b+c) - (x+5)(x-2) = 0$$

$$(x+5) \{ x(a+b+c) - (x-2) \} = 0$$

$$\therefore x+5=0 \text{ (i)}$$

$$\text{or } x(a+b+c) - x + 2 = 0 \text{ (ii)}$$

$$2 \text{ From (i) } x = -5.$$

$$\text{(ii) } x - x(a+b+c) = 2.$$

$$\therefore x(1-a-b-c) = 2.$$

$$\therefore x = \frac{2}{1-a-b-c}$$

$$\frac{1}{2} + \frac{x}{16} - \frac{x}{8} \text{ denotes what remains in B.}$$

C has $\frac{x}{8}$ and is now full.

The whole quantity of liquid that was at first in A and B was $1\frac{1}{2}$ times the contents of A, and since C is now full which is equal in size to A,

the quantity now in C is twice the remaining quantity in A and B.

$$\therefore 2 \left\{ \left(1 - \frac{x}{16} \right) + \left(\frac{1}{2} + \frac{x}{16} - \frac{x}{8} \right) \right\} = \frac{x}{8}$$

$$\therefore 2 \left\{ \frac{3}{2} - \frac{x}{8} \right\} = \frac{x}{8}$$

$$3 - \frac{x}{4} = \frac{x}{8}$$

$$\therefore 24 - 2x = x$$

$$3x = 24$$

$$\therefore x = \frac{24}{3} = 8.$$

$$\therefore \text{the time required} = 8 \text{ Ans.}$$

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$\therefore 1 - \frac{x}{16}$ denotes what now remains in A.

Again in 1', $\frac{1}{4}$ of what is in B flows into C, and since B is only half-full,

In 1', $\frac{1}{4} \times \frac{1}{2}$ or $\frac{1}{8}$ th of B flows into C

$\therefore \frac{x}{16}, \frac{x}{8}, \dots$

The two values of its contents to B which supplies $\frac{x}{8}$ to C are $1 - a - b - c$

$$(3.) \quad ax + by + cz = a + b. \quad (i)$$

$$bx + cy + az = b + c. \quad (ii)$$

$$cx + ay + bz = c + a. \quad (iii)$$

Adding the three together and resolving the sum into factors

We obtain $(x + y + z)(a + b + c) = 2(a + b + c) \dots$

$$\therefore x + y + z = 2. \quad (a)$$

Multiplying both sides of (a) by a , and subtracting (i) from the result,

$$y(a - b) + z(a - c) = a - b \dots (b)$$

Similarly, multiplying (a) by b and subtracting (ii) from the result,

$$y(b - c) - z(a - b) = b - c \dots (c)$$

Multiplying (b) by $b - c$, and (c) by $a - b$, and subtracting (c) from (b),

$$z(a - c)(b - c) + z(a - b)^2 = 0$$

$$\therefore z \{ (a - c)(b - c) + (a - b)^2 \} = 0$$

$$\therefore z = 0$$

Substituting the value of z in (b),

$$y(a - b) = a - b$$

$$\therefore y = 1.$$

From (a) $x + y + z = 2$

$$\text{and } \therefore y = 1, z = 0,$$

$$x = 1.$$

$$\therefore \left. \begin{array}{l} x = 1 \\ y = 1 \\ z = 0 \end{array} \right\} \text{Ans.}$$

V. Let x = the No. of minutes it will take before C will be full.
By the question

In 1', $\frac{1}{16}$ th of the contents of A flows into B,

$\therefore \frac{x}{16}$ th

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