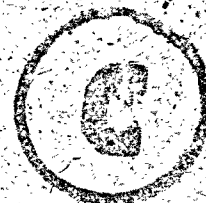


The Medas chest
called Mason
vff. 11/

1890-91

V3. Pp 481-720



TL
T45, E4, m21mc
m91.3 m82
168290

Vol. III (481)
291

THE
MADRAS CHRISTIAN COLLEGE
MAGAZINE.

JANUARY, 1891.

JACOB AND ESAU.

"AND the boys grew; and Esau was a cunning hunter, a man of the field, and Jacob was a plain man dwelling in tents." In this manner, passing over the boyhood and youth, the historian introduces us to two men with tastes and habits already formed. But if he does not give us the story of these early years, he adds a note that may tell much of their untold tale, and which, at all events, by forecast prepares us for the events that made their quiet life a sudden tragedy. Isaac, he says, loved Esau, but Jacob was his mother's favourite. Isaac, already falling into the feebleness of age, has nothing striking about him in these later years. He is merely a quiet, home-loving, strife-hating man, in easy circumstances, taking kindly to the mild dignity of being head of his house, and appreciating with quiet satisfaction the hundred little attentions which it is the privilege of age to expect. It may be that his closeness to his father dwarfs him, and that it is the shadow of Abraham's great personality upon him that makes him lack distinction. But however that may be it disappoints us, after the expectations of his early years, to find their sequel so colourless. Of one thing, however, about himself he has a firm persuasion. His father, who had gone, had left him a legacy of no common kind—and he in his turn was to bequeath it to his son—and in the future from his stock would rise a mighty people in whom all the families of the earth would be blessed. So ran the promise, and Isaac felt himself in some peculiar way connected with the purposes of God. Rebekah, his wife, shares the feeling with him, and both look with no common interest upon the children that are born to them. To the mother a perplexing intimation is made, however. Two nations, she is told, are to spring from her, and the elder is to serve the

younger. The children are born, but her joy is chastened by a grave sense of the prophecy thus overhanging them. The common anxiety of motherhood over the future of the young life as yet so unconscious of itself is accentuated to her beyond the common degree. How will the strange forecast fulfil itself? How will it all end? It is not difficult to imagine how she would turn the problem in her mind, nor how the fixed hope she would begin to cherish regarding the younger boy would soon weave round him an interest in him she would not feel for his brother.

Meanwhile the boys grew. The one became a man of the field and the other a plain man dwelling in tents. The one, full of vigour delighting in the open, never so happy as when the chase was hottest and when he could feel himself strong and victorious. The other, of quite another make. He had little sympathy with all this rude health of his brother,—given to thoughtful, quiet ways rather than so open, however, but more constant. Altogether, a deeper if a less attractive nature. And Isaac takes to the free bounding huntsman more than to his more sedate brother. It may be that a vague feeling of an injustice to Esau in Jacob's better destiny may have drawn out the old man's sympathy to his injured elder son, though it is easy to see how Esau's more frank and generous ways would touch the pride of a fond parent, while the sober, almost stealthy habits of the less robust Jacob would not attract him. Besides, Jacob was given to tricks at times; and altogether he was too thoughtful for a man of simple mind like Isaac to feel quite at home with him. In Esau on the other hand the father saw the embodiment of that manly strength and skill which to his own weakness appeared a most admired possession. And with all his faults and the lamentable gaps in his character Esau had qualities which are always attractive. Not that they interest us either deeply or long but if we tire of them soon, we turn from them not because they repel us so much as that their power to hold us is readily exhausted. For, after all, Esau, and such as he, was only half a man, and his strength was in the less important half. He is the father of the modern athlete and of all who give themselves up to the cultivation of muscle, and to excel in feats of strength and daring, and who forget that man is more than a brute animal with a body to be developed. He seems to have taken his lead from his uncle Ishmael, the roving Arab chief, whom the Scripture calls "a wild man" (lit. a wild ass of a man.) And the time at length comes when the poor stuff of which the man in him was made shows itself. On

day, the story goes, he comes home from the chase, weary to death. Jacob happens to be occupied—such was the simple mode of these days—in cooking pottage of lentils, a common enough dish, the flavour of which, however, makes the hungry hunter desperate. He almost rushes at it. "Let me eat," he cries out,— "let me eat, I pray, that red, that red thing, for I am tired." His vehemence does not give him time to name the dish. He calls it "that red thing," and he feels he will die if he does not get it.

It would have been but brotherly if Jacob had given it to him. And what a sequel of misery would have been spared them both if he had! But Jacob had other views of the situation than to make it the occasion for a brotherly kindness. He was a man of business first, and a brother or ought else afterwards. The whole scene sets off with painful distinctness the shallow, uncontrolled nature of the one against the other's self restraint, and deeper, more calculating nature—the man of passion, against the man of patience. Jacob knew his man. Such a chance for a bold stroke was too tempting to be let pass. "Sell me this day thy birthright," he says. What is a birthright to a man dying of hunger? Esau will part with it without a thought; but Jacob is too cautious to drive a slovenly bargain. He must have it clenched with a solemn oath, which Esau gives readily enough. And after that he gave him food.

If we could look at the transaction as merely a commercial affair, there would not be much to say about it. Each was doing exactly what he wished to do. Every one surely knows the value to himself of what he has; and business is but the name we give to the bartering of one thing for another which we wish to possess. He is the best business man who gets most for least. It is true that questions of considerable interest might be raised in connection with the affair looked at as a mere matter of business. It might be asked, for example, how far a man is justified in trading on the ignorance of others. But we do not need to raise such questions, because our judgment on the transaction is not that the bargain was dishonest, but that, apart from the question of the honesty or otherwise of the bargain, there should have been no bargain driving at all.

Jacob knew perfectly that he was urging the sale of what he should never have sought to buy; and he knew, moreover, that it was no justification of his conduct that at the time in the eyes of Esau the mess of pottage was none too dear at the price he so recklessly paid for it.

168290

"Thus Esau despised his birthright" is the brief comment on the transaction. And it suggests a direction to our thoughts in connection with it more profitable than any attempt would be to hold the balance between the two brothers and decide whether the craft and greed of Jacob was more wicked than the dense animalism of Esau, or which of them most deserves our censure for what was the shame of both. The opinion is sometimes expressed that Esau was an injured man, that Jacob, who was by no means an admirable character, was indeed in many respects a man to be despised not only gets the good things but is the favourite in the story and is held up to praise while his less fortunate brother is discounted. Our sympathies, it is urged, are quite as often with the one it put aside and against the one it seems to favour, so that our sense of the fairness of things is disturbed. And this feeling, it is added, is only strengthened as we follow the course of the story and find that a few years later the calculating man again outwits his simpler brother and steals a march on his aged father.

The story of the venison does not need to be retold. What an accomplished, determined cheat Jacob has grown in the meanwhile, his hand subdued to what it had been working in. His early efforts were the work of an amateur; here is the skill of a proficient in the art. He hesitates at nothing, playing first on his father's blindness, then on his piety. "How is it thou hast found it so quickly?" asked the trembling father. "Because the Lord, thy God, brought it to me," is the ready answer of Jacob, nothing daunted to take the sacred name for such unhallowed use. "If I had been Jacob," says Luther, "I'd have dropped the dish;"—and so says every honest heart. It is a true indignation and a wholesome scorn that rises up within us against such unrelieved deceit. And it is a right impulse that is called out by the bitter cry of Esau when he found he had been trapped and the blessing snatched from him for ever. How then, it is asked, when our sympathies are thus so much against the favourite in the story, is our sense of fairness to submit without demur to the ousting of his not less deserving but more simple brother? It is not, of course, urged that the historian is partial in the telling of the story. The cold impartiality of it is acknowledged. The objection is deeper. It is against the story itself, which, it is contended, puts the crown on a career of lying and deceit and leaves with us a lingering suspicion. It is however only a superficial reading of the story that gives rise to such questioning. It is a tangled story,

but with a little patience its meaning may be discovered. The point of it is missed if it is read as a tale of how cleverness outwits simplicity or if it is looked on as putting in the least degree a premium on sharp practice. The elder brother is undoubtedly superseded by his younger brother who deceives him, but it is vital to the moral of the story to remember that from the beginning the younger is marked out as the heir, and that on whatever ground it may have been the preference was made, the birthright was Jacob's and his actual gaining of it was not in any way connected with the shameless tricks he used to snatch it before the time. Even had it originally been Esau's, it is doubtful if it would have remained his after the marriages he contracted to the grief of Isaac and Rebekah, and further, if we consider the matter closely it will be seen that Esau and not Jacob was after all the real supplanter. If we would grasp the meaning of the story, however, and learn its lesson, we must bring it into its connection with the larger history of which it is but a part. It is in the light thus reflected on it that most of the problems it raises are to be solved. That larger history is the history of the Hebrew nation—a nation, which, in Abraham, had been called to perform a conspicuous part in the history of the world, the part, namely of becoming the instrument by which God was to make known his ways to mankind, and so of becoming a light to lighten the Gentiles. No one will contend that Jacob was worthy of the honourable niche in that plan for which prophecy marked him out. It is doubtful if it was not till after many years that the significance of the part he had been called to play dawned on him. But will any contend that of the two sons of Isaac he was not more fit?

The story, I have said, suggests a direction for our thoughts in connection with the selling of the birthright. There we have on the one hand impetuous uncontrolled appetite, and on the other dark stealthy craft. But beyond all this does not the scene open to our view a difference in the stuff of which the two men are made? Probably neither of them had any distinct notion of what the birthright implied. Only it is to be observed that to Jacob there was a vision of something connected somehow with possession of it, of something to be realised not at present but at some future time. His ideas of what it might be were doubtless vague enough, and probably they did not rise higher than the hope of earthly good. Still, he had the persuasion that a gift from God was connected with the birthright. To Esau there was no feeling of this. "Behold

I am at the point of death; and what profit shall this birthright do to me?" That expresses his feeling. The visible, the present was the world he lived in. He did not care to trouble himself with anything beyond that. So he is rightly called in Scripture "a profane person," a man of common, superficial mind, wanting in seriousness and with little sense of the solemnity of life—one who does not learn the worth of things till he has toyed them away beyond the hope of recall, and who will not feel the reality of life till the wreck he makes of it teaches him the lesson all too late.

Esau, therefore, rightly falls out of the history, to become that which, if he did not himself choose it, he was by nature and training most fitted to enjoy—the chief of a roving tribe—living by the sword, in wild uncontrolled freedom. And he makes room for one, who, though he was by no means without blemish and defect had that in him on which the discipline of life could work until he became in some measure at least worthy of the part which in God's providence he had been called to perform.

Jacob's was no model life. It was far from being that. But broken and imperfect as it was, is not the lesson of it the one which on a larger scale is seen so distinctly in the history of Israel and on a still larger scale in the history of great movements in the race? It is by humble, human instruments—often weak enough and far from perfect—that God chooses to carry forward His purposes in the world. And perhaps the most sacred use to us of these biographies in Genesis is in the way in which they show how human life with all its bundle of contradictions is thus connected with the purposes of God and how in the "common task" man may be fulfilling, though he may not perceive it or may see it but dimly, the work of God.

But the question still remains,—What of all the deceit that marks the life of this chosen man and has made his name a by-word? That remains, it is true, place it in what light we may, an ugly record against him, not in the least relieved but rather aggravated by the fact that what he was scheming for was his by right. It may have been to his thinking that the promise was too long deferred, or his father's open partiality to Esau may have tempted him to fear that it was in great danger of passing him by altogether, and led him to put in his hand to shape events to right issues. Impatience and want of faith, however, are no excuse, but rather an aggravation of his other wickedness. But does he pass without scathe? Let those after years of sorrow, of exile, and of sore

bereavement tell. That hurried flight, when the fear of Esau, and the terrors, may we not think? of a guilty mind drove him from home, what was it but the first step in that life-long discipline through which he was made to pass and by which he was taught that a crooked way is a hard way, that whatsoever a man sows that shall he also reap, that the law of life is irreversible so that with what measure we mete it is meted out to us again?

He is cheated by his uncle—deceived in his wife—in the land of strangers his heart is consumed by a weary longing for home—he has to bow before the brother he outstripped and beg his forgiveness. Then his daughter's shame and the waywardness of his sons increase the bitterness of his days. Who does not feel the pity of it as he thinks of him in these closing years, an old man, broken by the discipline of life, bereft of his darling child, and plagued beyond measure by those still left to him, feeling that the days of the years of his pilgrimage had been full of evil? How different it might have been, but for his own crooked ways. How little had he accomplished by all his scheming!

Still, with all their burden of sorrow these were years of growth to Jacob. For he was not "a profane person as Esau," he could take on the discipline of life. And so it was, that with the trouble, came to him also vision of God, which lighted the darkness of the tribulation and gave it meaning and use. At the beginning came a promise—"I will be with thee," and at the end, a gift, a new name. For trial had done its perfect work and he was now a new man—no longer to be called Jacob, the supplanter, but Israel, because as a Prince he had prevailed with God.

J. COLVILLE PEATTIE.

THE SOCIAL AND ETHICAL INFLUENCE OF THE SPIRIT OF RATIONALISM.

SOME eight hundred years ago there was living the famous Moorish philosopher Algazzili. Whilst Europe generally was sunk in intellectual darkness the Moors in Spain were in the enjoyment of a state of civilization and culture both creditable and wonderful. In science both in its theoretical aspects and in its manifold applications to the service of man, in architecture and in the many contrivances for making life more comfortable, they were many hundred years in advance of the rest of the world. The same was

true, also, of philosophical investigation, and in Algazzili we see the cardinal characteristics of the intellectual world of to-day. He tells us that his one great aim in life was to discover the truth of things. Finding that the knowledge of the senses was misleading, that things appeared to be often what they were not, he came to the conclusion that confidence could alone be placed in the human reason. He felt some natural apprehension, however, lest, just as reason stepped in to correct the impressions of the senses, some still higher and wiser judge should step in to correct the conclusions of reason. This is an apprehension which men have generally lost sight of, and the time has now come that among many of the ablest men of the day, the human reason has been set up as the one criterion of the truth of things. It is this spirit which I wish to speak of now. I propose to trace briefly its influence on history, and finally to do my utmost to show that beneficial as its influence has been in the past there are strong reasons for fearing that it has gone too far. Whilst I would have my readers recognise the greatness of the human reason I would at the same time strive to impress upon them the fact that there are limits even to its power.

The important influence which reason has exerted on our social relations is known to all students of history. I cannot here trace the origin of our civil institutions, but a few remarks regarding some of them will not be out of place. The word 'King' may be derived, as Carlyle tells us, from 'Kön-ning', and may have been applied to the 'canning man', or the man that could do all things best. An 'earl' may have originally been one of the older men, and so one of the wiser ones, a 'duke' one who from bravery and brute force had been chosen to lead a savage horde to victory; but we can only carry our minds back now to the time when these titles had their present signification, although the possessors of them had powers which fortunately in the present day do not pertain to them. What powers were those? We speak of the good old days, but those who do not possess noble blood in their veins are decidedly better off to-day, whilst I doubt if those who can trace their pedigree back to some illustrious ancestor would not prefer to live in the present prosaic nineteenth century when life and property are safe than in the days when might was the only means of securing right. It may help us to feel a certain satisfaction with our present state if we recall to our minds the conditions of our country in the past. And first as to dress. The differences between persons of different rank were in these

days most distinct. Not only was it because the people of one class were from their wealth able to clothe themselves more luxuriously than their poorer neighbours, but the laws of the land ordered in plain language the kind of apparel which each person should wear. The material of which the clothes were made, their trimming and their ornamentation, were all as much a matter of legislation as the laws for preventing crime and for securing justice. This was, however, a minor detail, but the laws which affected the person and the property of the individual were of more serious import. In England the gulf between the nobility and the commons was never so impassable as elsewhere. Even the possession of Royal blood did not altogether prevent intermarriage, and the higher classes were constantly recruited from the lower. Slavery, however, existed in very early days, though its rigour was softened by the influence of the Christian Church, and finally abolished owing to the same influence. Gradually slavery in its crudest form was incorporated into feudalism which, though it contained many objectionable features, was probably the only form of government possible at the time. The whole system centred in the monarch, who was regarded as the owner of the whole land. To the nobles were allotted certain portions of the country, in return for which they were held responsible for the performance of specified duties. They in their turn gave out tracts of land to others lower in the social scale, who were expected to afford to them in return some such compensation as they rendered to the king. Thus the system went on till it reached the lowest serf. In a primitive form of civilization such a system gave to the poor a security of person and property which otherwise would have been impossible. Instead of being exposed to oppression and wrong generally they had in their lord one who would defend them and who regarded injury done to them as injury done to himself. There was only one person who had the power of might over them and he was the person who was at the same time their defender.

In England the feudal system began to disappear with the battle of Crecy, when the English yeomen with their bows proved themselves equal in prowess to the French knights, and it had entirely disappeared by the sixteenth century. But on the continent of Europe it was only finally banished by the victories of Napoleon Bonaparte. One might draw a vivid picture of the oppression and wrong which accompanied the system in England, but such a picture would be altogether thrown into

the shade by the condition of continental nations. I will take the case of France, and merely, in its case, refer to a few of the more striking incidents in its history. It is said that there existed an ancient law which seriously limited the powers of the nobility. A noble returning from the chase was prohibited from bathing his feet in the blood and bowels of more than two serfs killed for that purpose. The existence of such a law is mythical, but the very fact that any one could have believed it ever to have been in force shows to what a state of barbarism the feudal system of France had degenerated. The mere relation of facts of the truth of which we have absolute evidence is, however, more than sufficient for our purpose. The most grievous of all the abuses of the feudal system in France was that the revenue was raised solely from those of ignoble birth, whilst the nobility were entirely free from taxation. In reading the history of France I think we too often forget this fact. We think of the victories won under its kings and imagine they cast a halo of glory round those who were responsible for them. The court of Louis XIV. of France was one of the most magnificent the world has ever seen. He himself was regarded as the most perfect of gentlemen. "No sovereign," says Macaulay, "has ever represented the majesty of a great state with more dignity and grace." During his reign France was the leading continental nation, and its troops were generally victorious. What did the magnificent court and the brilliant victories mean? They meant that the poor tillers of the soil were on the verge of starvation. While out hunting one day another Louis met a tattered peasant with a coffin. "For whom?" he asked. "For a poor slave your majesty." "What did he die of?" his majesty enquired. "Of hunger;" and the first gentleman of Europe galloped away on his charger. This state of things was not new, as in the beginning of the sixteenth century Machiavelli took note of the general poverty in his review of the state of France. He says that "the scarcity of money among the people was so great that it was with difficulty they were able to raise so much as would pay the impositions of their lords;" and observes that the tradesmen and mechanics had been so curbed and cowed by the nobles that they were unfit to be soldiers. Under Louis XV., however, the oppression seems to have been still worse. Sir William Temple writes during the latter portion of this king's reign: "The French peasantry are wholly dispirited by labour and want;" whilst Burton observes that, travelling to Paris there was opportunity enough to observe

248

what prodigious state of poverty the ambition of a tyrant can reduce an opulent and fertile country to. There were all the indications of an overwhelming calamity. The fields were uncultivated, the houses dropping to decay. It is said also in a tract published at the time that the poor people were compelled to sell their beds, pots, kettles, and all their necessary household goods to content the unmerciful collectors of the king's taxes. It is difficult to realize that such a state of things could ever have existed, and still more when we remember that side by side with this most abject poverty there was a luxuriousness and magnificence of living which has perhaps never been equalled. The other social disadvantages of the peasantry sink into insignificance in comparison with this one great wrong. It was indeed ordered that no one not of noble descent should dare to keep a dove-cote. Moreover, it was practically impossible for the poor to obtain the few rights to which they were entitled in the so-called 'courts of justice'. Commissions for officers in the army were reserved exclusively for persons of gentle blood; whilst for all positions of honour and emolument in the church the peasant was regarded as unfit in a way that was unknown in England. Such was the state of things in France, a state of things which remained in existence till the French Revolution startled the world with crimes equalled only by the crimes inflicted on the peasantry during the centuries which preceded it.

In England, with the disappearance of the feudal system, there came the recognition of the theoretical equality of all men in the eye of the law. Whilst the body and the life of the French peasant were entirely at the disposal of his master, the English peasantry had in the Magna Charta a security from arrest of person or seizure of property. Moreover, in the levying of the taxes the wealthy and noble had to pay their portion as much as the labourer. The latter did, indeed, suffer great disadvantages in comparison with his wealthy neighbours, but these were more an accident of his position than a distinction made by the law. Before I refer to these disadvantages and trace the influence which the spirit of rationalism has had in removing them I would draw attention to the social inequalities among the natives of India, as sanctioned by the Institutes of Manu. These are said to have had their origin in the ninth century before Christ, and the directions which they give for the treatment of Sudras are worthy of some notice. They are doubtless well known to many of my readers, but perhaps not to all. They ordained that if a Sudra presumed to occupy the same

scat as his superiors he was "to be banished with a mark on his hinder parts," or to suffer a painful and ignominious punishment. If he spoke to them with contempt his mouth was to be burned; if he molested a Brahman, he was to be put to death. Perhaps more cruel and abominable was another law which directed that, if a Sudra, moved by a craving for knowledge, had the audacity to listen to the words of the sacred books, heated oil should be poured into his ears; and arzeez and wax should be melted together and the orifice of his ears stopped therewith. If what he had heard had been committed to memory then he was to be killed. If the poor Sudra himself was murdered the penalty paid by the guilty party was the same as for killing a dog, a cat, or a crow. Such were the disadvantages under which the former inhabitants of this land laboured; and, when we remember what a large proportion of the Hindu population the Sudras form and always did form, we may well feel astonished that they submitted to such a barbarous code. At the same time great credit is due to the Brahman compilers for the way in which they not only reduced the Sudras to submission, but for so many centuries retained their supremacy. Crito once expressed to Socrates a fear lest the people should display their passion in some outrageous way and do a great injury to the state. There is a vast amount of wisdom in the answer of Socrates: "I wish, Crito, that the people were able to do the greatest of injuries: were it so they would likewise be capable of doing the greatest good." The Sudras had been so reduced to submission that they were unable to resist the tyranny of their superiors, but the French people in the dreadful time of the Revolution rose in a mass and trampled under foot the nobles and the king. They were guilty, indeed, of the greatest of crimes, but the very capacity they exhibited in committing them showed their capacity for better deeds. The answer of Socrates has been completely fulfilled in their case, for, instead of the abject poverty that prevailed in the reigns of Louis XIV. and Louis XV. we see to-day prosperity and wealth.

It may perhaps be thought that the abolition of some of the abuses which pressed so heavily on the poorer classes has been brought about simply by brute force. The characteristics which man has in common with the animal creation have certainly been very prominent in the struggle; but it seems to me that perhaps the most important factor in this triumph of liberty has been a general appeal to the human reason. The spirit of rationalism

played an important part in stirring up men's minds to the struggle; and, when the democracy had gained the victory the same influence came in and triumphed *partially* over the triumphant. Three hundred years before Christ a work was written, which although the conditions of life have entirely altered, still remains of considerable value in considering the basis of government. Whilst the political theories of Plato were of too ideal a character to have been of practical value, we have in the *Politics* of Aristotle a treatise which takes note of the different capacities and conditions of men and which has for its object not so much to extol the excellence of any special form of government, as to make whatever government does exist capable of maintaining its position and of promoting the general good. Aristotle lays down as a fundamental axiom that the state has been founded that we might live, and afterwards continued, that we might live happily. Happiness, however, according to him, is impossible without virtue. The aims of good government cannot, moreover, be obtained without observing carefully the individual capacities of each member of the state. Some are born to command and some to obey. Whilst great oppression can only endanger the existence of the state, yet, since there is this natural difference between men, it is for the good of the state that those whose capacities are as inferior to the more capable as the body is to the soul, should, willing or unwilling, be compelled to perform the menial and servile duties. The supreme power should be in the hands of those who are possessed of the greatest intellectual power and virtue. Whether the state be governed by a monarchy, an aristocracy, or by the people generally, such ought to be the case. There are just two other features of the *Politics* to which I wish to call attention. One is a detail of home policy, the other of foreign policy and both are equally wise. In Book VI., Chapter 4, Aristotle says: "On no account permit any one to possess more than a certain quantity of land," whilst in Book VII., Chapter 15, he affirms that "reason indeed concurs with experience in showing that all the attention which the legislator pays to the business of war should have for its object rest and peace." When we remember how great the authority of Aristotle was down to the time of the seventeenth century and that an abject obedience was paid to him, we may with safety affirm that the *Politics* must have had some considerable influence on educated men's opinions. Some wonder may indeed be felt that it did not have more. In spite of the many commentaries and treatises under which the

true Aristotle was hidden, there was recognised, here and there in the cloister, and also, but more seldom, amongst statesmen, the truth that the great end of government and that the whole purpose of its existence is not that the king, not that the nobles, not even that only the people, but that all might live and live happily.

In the early portion of the sixteenth century two other treatises on government were written, one from an ideal standpoint and the other from an extremely matter of fact point of view. As the author of *The Prince* Machiavelli has acquired the reputation of being one of the most unscrupulous politicians the world has ever known. By Shakespeare he is described as "the murderous Machiavel," and his name has generally become synonymous with everything that is base and crafty. Much as we may object to some of the conclusions arrived at by him, such a reputation is unjust and undeserved. The man who could be happy and content on his little farm, rising before day-break to wander about with his Dante or Ovid under his arm, watching the wood-cutter chopping down his trees, or playing at harmless games with the innkeeper or the butcher, could not have been the monster he has usually been supposed to be. His crime, and it was a crime the world could not forgive, was that he had the courage to proclaim the principles which actually guided his contemporaries, and on which some of the most successful statesmen have acted. "His offence," says Mr. Draper, "consists not in inventing, but in divulging them." In Buckle's *History of Civilization* (Vol I., p. 458) Burke is praised because he recognised that the aim of the legislator should be, not truth but expediency. *The Prince* of Machiavelli is a logical conclusion from such an axiom, and its author deserves no more blame for writing it in the sixteenth century than Mr. Buckle does for his work in the nineteenth. Machiavelli's firm belief that all men are directed by selfishness in their actions was afterwards maintained by Hobbes in England in the seventeenth century and in still bolder language by the philosopher Helvetius in France in the eighteenth; whilst to-day it is the basis of the ethical portion of the philosophy of every materialist. If selfishness is the one cause of our deeds, be they good or ill, and if expediency ought to be the one guide of the statesman, then Machiavelli would appear to have been unfortunate enough to have been born three hundred years too soon; and, if he had been living to-day, instead of being held up as an incarnation of evil, he would be regarded as a liberal-

248
minded and intelligent writer. On the ethical side of this question I shall have something to say later on, but a brief resumé of a policy founded by an extremely able man in the sixteenth century on two such principles may be interesting, and also perhaps give an insight into their tendency. The aim of a government, he says, should in the first place be permanence; and in securing this the most useful factor is fear, being far more effective than love. In France, where so much of Machiavelli's life was spent, he observed that no one was more loved than Savonarola; and yet all his plans were frustrated and he himself was lost because he was without the means of causing fear. Machiavelli notes that the prophets in the Old Testament who wore arms, succeeded better in the work of reformation than those who did not. In causing fear it is necessary occasionally to be guilty of cruelty, and a wise ruler ought not to hesitate in such a matter. It is in fact more merciful not to hesitate. If cruelties become expedient they should be committed thoroughly; but, unless under exceptional circumstances, only once, and they should never be repeated. The ruler will necessarily have certain objects in view, and these, he should remember, can be attained only in three ways, viz., by force, by law, or by craft. Whichever way is the most expedient should be practised. Whereas princes who have been "superstitiously exact" have failed to obtain their wishes, wiser ones "by cunning and subtlety" have circumvented and overcome their enemies." Everything in Machiavelli's policy depends on whether it is expedient or not and he thus holds that the keeping of one's word, and virtue generally, should be observed or neglected just as the case may be. Finally he urges the Prince to trust not in providence but in himself.

Whilst Machiavelli was thus striving to convert Lorenzo de Medici into a successful tyrant there lived in England a very different kind of man—a man who, possessed of ideas three hundred years in advance of his time, was thinking of the happy state of things which existed in the kingdom of 'Nowhere'. Of the many men who cast about the Renaissance a halo of glory, there is no one whom it is possible to regard with more affectionate reverence than Sir Thomas More. In England those who were affected by the 'new learning' generally devoted their efforts towards raising the spiritual condition of the Church; but the mind of Sir Thomas More was of a more comprehensive nature, and the freedom of thought which he had attained in religious matters he was enabled to apply to the existing state of society. The condition

that then existed may be summed up in his own words as "a conspiracy of the rich against the poor. The rich devise every means by which they may, in the first place, secure to themselves what they have amassed by wrong, and then take to their own use and profit at the lowest possible price the work and labour of the poor. And so soon as the rich decide on adopting these devices then they become law." The fate of a poor man "was so wretched that even a beast's life seems enviable" in comparison. In the kingdom of 'Nowhere' they had attained to a better state of affairs. There the legislature recognised that its one duty was the welfare of all classes. Whilst drones did not exist and work was compulsory on all, the wealth of the community was held in common. The great aim of many of the working men of England of to-day had also been attained, for the hours of labour were limited to nine, so that in the spare time the intellect might be cultivated, whilst the education of the young was universal. While More was willing to die rather than deny his faith, religious toleration was a feature of his Utopian kingdom. In other details he was still further in advance of his age, and to some extent even of ours. He was one of the first who recognised the vast importance of the physical surroundings of the people, and the great influence they have on the general morality. In the suppression of crime he urged that the greatest efforts should be spent not in punishing it but in preventing it, and that to allow children to be uneducated and to grow up under circumstances which thoroughly corrupted their moral nature, really tended towards producing a large and increasing criminal class.

This appeal to the human reason which was thus instituted so many hundred years before Christ, and re-opened by Machiavelli and More in the sixteenth century, has been continued down to our own time, and has brought about a general improvement in the social condition of the poorer classes. It would be a mistake to trace this amelioration solely to the influence of the human reason; nevertheless, its influence has been probably the most important factor in bringing it about. Its power has probably been most effectual where other objects were principally in view, and, in this respect, the radical changes which have taken place in the conception of what constitutes wealth is a striking example of what I mean. Whilst the noble efforts which from the days of the Stuarts have been made to obtain the legal recognition of the right of every tax-payer, however low in the social scale, to have a voice

in the government of the country, have procured a theoretical equality of all, this change in the conception of the nature of wealth has brought about a change of policy, which has opened a door of prosperity to classes who before had little chance of rising in the social scale. According to the old ideas which were prevalent in England and in every continental nation, wealth was regarded as synonymous with money. It is an idea which is still held by many who are only partially educated, and possibly some of my readers do not recognise that, apart from the domestic uses to which the metal used as money can be put, money has no intrinsic value. Governments in the past failed to recognise this; and doing so, naturally used all the efforts they were capable of to prevent gold and silver from leaving the countries over which they held jurisdiction, and did their utmost to procure the importation of the greatest quantity possible from abroad. In England by a law of Henry VIII. all exportation of precious metals was strictly forbidden, and the restriction remained in force till 1663 when it was repealed, principally in the interests of the East India Company. A simple illustration of the evil of such a policy can be seen in the history of Spain, which from the possession of her conquests in South America, was enabled to import the precious metals in great abundance. The result on the material prosperity of the individual Spaniards was hardly what its rulers expected; for it was found that the necessities of life had gone up in price proportionately to the excess of the amount of gold and silver in circulation. The world had not then grasped the truth that if everybody's income were doubled nobody would be better off. In England the change of policy was brought about by the publication in 1776 of Adam Smith's *Wealth of Nations*. The appearance of this work was of the greatest importance to England, for it was at this time that the manufactures of England came into great prominence owing to the development of steam power by Watt and the creation of the iron trade by the invention of a mode of smelting iron by coal, whilst the spinning and weaving trades received a great stimulus through the genius of Hargreaves and Arkwright. England had thus now and vast sources of wealth opened up which for their development required an entirely new home and foreign policy. Smith in his work had expounded the true nature of wealth, and also the duty of the state in aiding its production. That duty consisted principally in leaving it alone and in not attempting to force it into artificial channels by legal

restrictions, or by limiting intercourse with foreign countries. As an undergraduate at Cambridge the younger Pitt had read the *Wealth of Nations*, and, in 1783, when he became First Lord of the Treasury, he at once began to put its doctrines into force. The custom duties on foreign goods were lowered; whilst in 1787 a treaty of commerce was made with France which completely abolished the old restrictions on trade between the two countries, and which opened a new field for English manufactures. Two years before, Pitt had introduced another bill into the House of Commons which deserves special mention at this time. The great poverty of Ireland then made the condition of that country a matter of considerable anxiety. In order to better its condition Pitt introduced a bill by which all the heavy duties on its manufactures and its export trade with England were abolished.

From this time England became the most important manufacturing country in the world, and the appeal to the human reason which had brought about the abolition of the old financial policy caused also the repeal of many laws which affected the social state of the manual or rather muscular working classes. Amongst them we may mention the abolition of the corn laws by which the heavy duty on the most important necessity of life was removed, and the repeal of the laws which prohibited the combination of working men in trades-unions. The same appeal also carried the passing of the Public Elementary Education Bill, the Act which made it compulsory for employers to pay their work people in the current money of the land instead of in tokens, and the many Acts of Parliament by which the safety and health of the poorer classes are protected. Much more might be said on this subject. It would be possible to trace in many other ways how both directly and indirectly the spirit of rationalism has benefited those who only by the sweat of their brow can eat bread. The noble feelings of men often aided reason in her work. Some filled with a passionate love for mankind like John Howard, Mr. Fry, Charles Kingsley, and the great Lord Shaftesbury of our day have, actuated simply by philanthropy, spent all their energies in an attempt to alleviate the lot of those suffering some great social wrong. All honour to men who have thus nobly striven in the cause of right, yet great and successful as their work has been, history would seem to show that rationalism has played a more important part than they have. There would indeed be an unbearable dreariness and coldness about the world if this were the only motive power in men's actions; but, if

the lessons of the past are to be of any use to us whatever, its influence in the promotion of civilization must be recognised. When we think of the greatness of its achievements, when we remember the thousands of new worlds it has opened to our eyes, when day by day we see some of the mighty forces of nature working under its control in obedience to the will of man, we may well hesitate before we join in tracing its origin back to some unconscious germ. To God the giver of all good gifts we rather in humility and faith attribute this great and noble faculty of the human mind.

If in its social aspect, as affecting the prosperity of the individual, the spirit of rationalism has been for good, in its ethical aspect the contrary would seem to be the case. To me the reason of this seems simply to be that, what is called rationalism in this case, has ceased to be an appeal to the human reason. Instead of appealing to that reason which Coleridge calls "the power of universal and necessary convictions; the source and substance of truths above sense, having thorough evidence in themselves," a system of moral philosophy has been constructed on physical laws. At the outset I will venture to express the opinion, rash as such an opinion may appear to be, that such a mode of proceeding has the tendency to produce as satisfactory a result as an attempt to erect a chimney by the laws of moral philosophy would have. To give an idea of how purely materialistic morality has become in the eyes of the new school, it will perhaps be well if I sketch briefly the history of what may be called the ethics of materialism. It is impossible for me now to do this in anything but a very imperfect manner; while to make a brief summary that would contain all the points of importance and none of a more trivial character, would require greater ability and knowledge than I possess. The one great characteristic of materialistic ethics is a general denial of any absolute reality of virtue. The system agrees with the teaching of Epicurus when he says that virtue can have no value in itself. We have already noticed Machiavelli's estimate of humanity as being actuated simply by self-interest; and it is this self-interest which is now offered us as the basis of morality. It is a curious fact that the first great teacher of this new moral philosophy should have been brought suddenly into existence by the very means which he lays down as the motive power in all actions. In the year 1588 the great Armada set out from Spain with the object of conquering England. The feeling of alarm which prevailed in England was very general, and, so great was it in Westport, a village of Wilt-

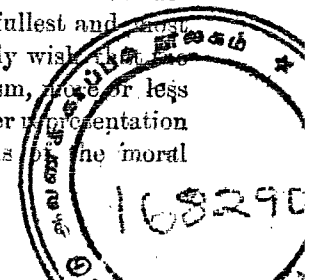
shire, that the vicar's wife gave premature birth to her second son Thomas Hobbes, who some sixty-three years afterwards published his *Leviathan*. In this work Hobbes clearly expressed his belief that man is moved purely by selfish impulses, and that the ideas of 'right' and 'wrong' take their strength from the fear of the consequences involved. Nine years later Locke published his *Essay on the Human Understanding*, in which he denied the existence of any innate ideas, giving sensation and reflection as the sole source of knowledge. Both Hobbes and Locke were well known in France; and, before the breaking out of the great French Revolution there arose a school of writers whom they had considerably influenced. Thirty years after the death of Hobbes, La Mettrie was born. He went still further in the degradation of man. "The existence of anything spiritual he said was a delusion, and the term 'soul' was merely another name for fibres of the brain; whilst the great end of man was physical enjoyment. Seven years after the death of La Mettrie Helvetius, a better known man, published his essay on human nature, *D l'esprit*. Helvetius had been the Farmer General of the taxes, and in such a post he had had many opportunities of observing humanity. I have already referred to the cruel way in which the taxes were levied in France, by which the people were obliged to sell their pots, kettles, and even their beds, to satisfy the demands of the tax collectors. The part taken by Helvetius in this work naturally gave him a low idea of the human race. It is said that he himself was sternly opposed to the exactions of his subordinates, but, instead of thinking of the good nature and benevolence which were his own well known characteristics, he came to the lamentable conclusion, already arrived at by Hobbes, that selfishness and selfishness alone, is the one secret of our deeds. The superiority of man over other animals, he says, is one simply of external form, whilst the internal powers are the same. Memory and judgment are nothing more than physical sensations, and all our ideas of right and wrong are simply impressions of the gross amount of physical enjoyment to which they give rise. It was in this way that the sense of justice first arose. To love what is good for the sake of goodness, is as impossible as to love what is bad for the sake of evil. The mother who weeps for the loss of her child is solely actuated by selfishness; whilst the noblest virtues and the meanest vices must be traced to the same ignoble source. Twelve years later there was published the notorious *Système de la Nature* which, besides being purely atheistic in its teaching, included all the materialistic conclusions

of former writers. The author of it is unknown; but so great was its circulation amongst all classes that Voltaire tells us that it was read by scientists, the uneducated, and women. The freedom of the will, and the existence of the soul, except as a mere function of the body in it are denied, whilst it insists that morality to be practical must be founded on self love. Sad was it for France that at the most critical period of her history such ideas should have been prevalent, and the influence they had in shaping after events was most disastrous. Whereas in England in the struggle for liberty, religion controlled and directed its course, in France the two were entirely divorced. The result was the Revolution with all its horrors, which went on and on, till, as the last sign of impiety, the nation gathered together in a Christian Church to do homage to a fallen woman.

Religion, blushing, veils her sacred fires,
And unawares, morality expires;
Nor public flame, nor private, dares to shine,
Nor human spark is left, nor glimpe divine.

In England at the present moment, although there are no signs of such a serious character as those which preceded the French Revolution, there are some which should make us think seriously. The struggle between capital and labour is becoming more and more severe, and will, I fear, end in no good for either. In a recent book the present state of society is likened to a coach going along a heavy road, pulled along by the thousands who faint under the labour, whilst the few ride in comfort and ease. Imperfect and misleading as such a simile is, it is becoming more generally the idea of a certain class. Other serious signs there are which are worthy of notice; and, as the ethical views which I have described to you had a most serious effect on the course of the French Revolution, it behoves us to-day to clearly understand the various views which are influencing men. Such knowledge will not perhaps help to raise our spirits, but it may stir us up to do our little in the struggle for the victory of what is true and eternal.

Mr. Lecky in his *History of Rationalism* describes the modern school as "never failing to exercise a powerful intellectual attraction, pursuing a continued progress towards the fullest and most transcendent knowledge of the Deity." I sincerely wish the latter part of the paragraph were true. Materialism, more or less disguised, but yet in reality pure materialism, is a truer representation of the case. In the same place Mr. Lecky speaks of the moral



faculty of man being the present arbiter of faith. I wish that also were true. "Morality expires," says the poet, I have just quoted, and it seems sadly like it when, instead of the dictates of the human conscience, physical laws are offered as a substitute to guide us to what is pure and noble. What is pure and noble? I forgot, for such things have ceased to exist. No longer do the new school believe in the spiritual, no longer are we told to do what is right apart from its consequences: and, instead of the ideal character to which every true man has tried to make his life conform, there is offered us as the new basis of morality what Mr. Lilly in his last book calls "inbred selfishness, plus the fear of the police constable." Such a statement requires evidence to support it, and I now proceed to justify the correctness of Mr. Lilly's estimate, making use of some of the evidence which he has placed at our disposal, without further acknowledgment. The first great distinction between the ethics of materialism and the ethics of true rationalism is the question of the freedom of the will. This is a matter of the utmost importance, for on it hangs the truth of moral responsibility and the justice of our present laws for the suppression of vice. It may be said at once that materialism denies that freedom. Our so-called free will, it says, is altogether an illusion. It is merely the result of all the various material influences which have affected, not only the individual, but his ancestors during countless former generations. Whilst with the aid of the valuable investigations of Professor Ferrier it is able to state with truth that some of the nerves of our body act without any direction from the brain but automatically, and that each bodily action can be produced, by applying an electric current (that is, a physical influence) to the individual nerve centres, it goes on accumulating facts, ignoring the existence of anything which cannot be submitted to the tests of physical analysis, until it arrives at the deplorable conclusion that our actions are merely the result of internal laws and external agencies. The expressions of belief in such a theory are various in their character—from the crude statement of the uneducated working man to the philosophical exposition of Mr. Herbert Spencer. The following may suffice for our purpose. Mr. Huxley although he denies that he is a materialist urges "the banishment from all regions of human thought of what we call spirit and spontaneity," explaining the word 'spontaneity' as 'uncaused action', whilst in his *Lay Sermons* he says that "speech gesture and every other form of human action are in

the long run resolvable into muscular contraction." Mr. Leslie Stephen states his belief that "pain and pleasure are the determining causes of action . . . the sole and ultimate causes," whilst Mr. John Morley says that "the doctrine that the will is free is virtually unmeaning." Mr. Herbert Spencer as the acknowledged philosopher of materialism is, of course, of the same opinion, and in his *Principles of Psychology* we find the following sentence: "Memory, Reason, and Feeling, simultaneously arise as the automatic actions become more complex, infrequent, and hesitating, and Will, arising at the same time, is necessitated by the same conditions." The freedom of the will being denied, and its action depending solely on physical laws, there is thus left no place for a belief in conscience and a truly moral nature in man. Its existence, Mr. Leslie Stephen states with the dogmatic assumption of one who has all the truth on his side, "is part of an obsolete form of speculation;" a statement, I may remark, which it is easier to make than to prove. Our ideas of right and wrong are simply the generalization of the experience of centuries as to the particular amount of pleasure and pain resulting from particular actions. "Conduct," says Mr. Herbert Spencer, "is considered by us as good or bad according as its aggregate results, to self or others, are pleasurable or painful." It might seem at first as if what brought others happiness or pain acted as a motive or preventive power respectively in our actions. Such an idea is too noble for pure materialism, and so Mr. Spencer goes on to say: "To the effects of punishment inflicted by law and public opinion on conduct of certain kinds, Dr. Bain ascribes the feeling of moral obligation. And I agree with him to the extent of thinking that by them is generated the sense of compulsion which the consciousness of duty includes." Our sense of 'right' is thus the inherited consciousness of the amount of pleasure resulting from certain actions and our sense of 'wrong' the knowledge of the natural or civil penalties attaching to others. What are the two fundamental principles of the new moral philosophy but, as Mr. Lilly says, "inbred selfishness plus the fear of the police constable"? It simply comes to this that 'right' is what pays and 'wrong' is what does not pay? Just as expediency instead of truth has been asserted to be the true object of the statesman, so now in our every day life, expediency, materialism declares, should be the one controller of our actions. The preachers of this new gospel are altogether better than their creed. In morality and kindheartedness, Mr. Spencer

and Professor Huxley probably stand as high as most men.* They possibly would be the last persons to act on this lamentable doctrine of expediency, but, the fact that the belief in such a principle of action is accepted by many who lack the high moral qualities of their teachers implies an element of danger not only to the state but also to every bond of moral and social life. Those who are familiar at all with particular features of political and industrial organization, who are able to understand the tendency which certain theories as to the position of woman have, and who observe how the ideal seems no longer a characteristic of every day life, cannot but feel a considerable amount of anxiety concerning the future. The anxiety which is felt in England may also with reason be felt in India. Here where education was trusted to do so much in raising the moral and intellectual condition of the people and has done so little, the well wishers of the Indian people may well have the same feeling. Education may justly be regarded as a failure in the case of those whose only idea in acquiring knowledge is to get into government employment, whilst the adoption of a barren materialism hardly compensates for the loss of an imperfect but still religious faith.

In conclusion, I wish to indicate what I believe to be the true basis of morality, of the ethics of true rationalism, the maintenance of which as a living factor in the minds of all, will help, I verily believe, to bring order out of chaos. That basis is not in physical laws, but in that which is higher. Its origin is not in the atoms of matter but in those universal and necessary convictions which are the gift of every one who is born into the world. Those convictions are incapable of demonstration but are yet so firmly held that the failure to recognise the first of them is usually regarded as a sign of mental incapacity. Of beliefs which are thus incapable of proof none is more striking than that of our individual personality. The man who should deny it we should regard as mad, and our assertion, "I know I am myself and nobody else," we regard as a sufficient proof. It would be impossible to find any one not possessed of this first universal conviction,—a conviction, as I have said, impossible of demonstration. Whilst this idea of personality is universal there is a feature which accompanies it, which is also as universal, and that is the feeling of moral obligation. The ideas of what is right and what is wrong are not the same indeed, in the mind of an idol-worshipping savage as they are in the mind of an enlightened philanthropist; yet, as strongly as the philantthro-

pist feels that there are some things he 'ought' to do and some things which he 'ought' not to do, so strongly does the untutored savage have the sense of an 'ought' in his mind. The feeling of necessity is the same, the only difference is in its application. It is this sense of our own individuality, it is this feeling of moral obligation which marks us out from the world of matter, which distinguishes us from the vegetable and animal creation and declares us to be men. Take away all sense of moral obligation and the man becomes an 'animal', take away all sense of individuality and he becomes a 'thing'. With this sense of our own personality, we each have the universal conviction of the freedom of our will. Just as Dr. Johnson answered the denial of some one as to the existence of matter by kicking a stone, so in our own minds we assert the freedom of our will, by doing what we wish. Particular tendencies we know we have, inherited tastes may also be ours, but never can we justify a bad action by the excuse of a denial of our freedom. Otherwise the language of ordinary life would be unmeaning. There is this moral necessity in our minds, and by what is it expressed but by the word 'ought'? Whilst we know of the existence of this moral necessity, we know also of mathematical necessity, but in this case to use the word 'ought' would be absurd. To say that two and two ought to equal four is nonsense. The things are equal, and there is no 'ought' in the case. It is not in their power to equal anything else. To say that a man 'ought' to do what is right implies that, whilst the laws of right and wrong are as eternal as the laws of mathematics, he has it in his own power either to do the right or refrain from doing it. Duty is thus the recognition of something which is ethically necessary, and morality consists in deliberate self-submission to that necessity.

On the belief of the existence of personality, moral obligation, and the freedom of the will, true moral philosophy is founded. Humble as the foundations are the edifice arises higher and higher, firmly and securely erected, till at last it does arrive "at the fullest and most transcendent knowledge of the Deity." Whereas materialism would lead us to something very different—to atheism, or to a blank and dreary belief in an unknowable, impersonal, and indifferent supreme power, our higher reason guides us to the fact of our Father in heaven, whose loving care is over all His works. Our better nature, whether we are Christians or not, would reject selfishness, expediency, or an inherited consciousness of the

results of actions, as a moral guide, to affirm that in the injunction: "to love the Lord our God with all our heart and with all our soul and with all our strength, and with all our mind and our neighbour as ourselves," we have the noblest and truest ethical law.

W. L. PRITCHATT-SHAW.

NATHANIEL HAWTHORNE AND HIS WRITINGS: A STUDY:—II.

HAVING in the previous part of this paper given a sketch of the character of Hawthorne and the circumstances of his life, I now proceed to a somewhat detailed consideration of his writings. And first I shall deal with the subject matter of his novels and tales. In his *Études et Portraits Contemporains* M. Paul Bourget has dwelt on the literary asceticism practised by Gustave Flaubert in writing on subjects he might have the least liking to. In this misplaced aim of art, in this impersonality sought after by Flaubert, the critic traces the pessimism of the writer. Hawthorne, *le Romancier pessimiste*, as Emile Montégut has styled him, has nothing of this error of Flaubert. He always took for his subjects what he was most conversant with, what he had most sedulously prepared. A study of his Note-Books, English and American, is very instructive, and reveals to us the methodic way in which he gathered hints for future elaboration. The Note-Books may be fitly likened to the garden of Adonis of Spenser—

"the first seminary
Of all things that are born to live and die
According to their kinds."

I shall illustrate my position by quoting some of these hints and showing how they were utilized. On p. 136 of the American Note-Books i. is a hint as to the influence of a peculiar mind in close proximity with another, and driving the latter to insanity, a hint made use of by Hawthorne in developing the relation between Arthur Dimmesdale and Roger Chillingworth. On p. 139 Hawthorne speaks of the situation of a man in the midst of a crowd, yet as completely in the power of another, life and all, as if the two were in the deepest solitude. Readers of *Transformation* will recall the incident of Miriam's kneeling to her unknown persecutor near a

fountain in one of the most crowded parts of Rome, an incident witnessed by Kenyon from Hilda's Tower.

The whole story of *The Scarlet Letter* is developed from this sentence in one of the *Twice-Told Tales*—Endicott and the Red-crop: "There was a young woman with no mean share of beauty whose doom it was to wear the letter A, on the breast of her gown in the eyes of all the world and her own children. Sporting with her own infamy the lost and despised creature had embroidered the fatal token in scarlet cloth with golden thread and nicest art of needle-work; so that the capital A might have been thought to mean Admirable or anything other than Adulteress." As Mrs. Browning is for catching

"Upon the burning lava of a song
The full-veined, heaving double-breasted age,"

Hawthorne desires to base his stories on facts within his personal knowledge. As instances we may point out *Transformation*, *Septimus Felton*, and *Dr. Grimshawe's Secret*, in which he utilizes his experiences in England and Italy. He has made literary capital out of his Custom-house experiences in Salem in the Preface to *The Scarlet Letter*, a preface which reminds us strongly of 'The South-sea House' of Elia. In *The House of Seven Gables*, the family history of the Hawthornes supplies the basis of the plot.

Thus much for the material of Hawthorne's stories. Next, as to the tone, the colour imparted to these stories in treatment. The preference which Hawthorne shows for the morbid analysis of character, for unmasking the subtle disguises of sin, is an inheritance from his Puritan ancestors. To this diseased tendency of the Puritan mind is attributed the straight-laced morality marring according to M. Taine all the beauty of English art. Matthew Arnold is disposed to be equally severe on the influence of the Puritan spirit on the English character. "The English nation in the seventeenth century," he says, "entered the prison of Puritanism and had the key turned upon its spirit for two hundred years." If this was its effect in England, what was its effect in the United States? In New England in the early part of the present century it was held to be wrong for a widow to mix much in society, and the mother of Hawthorne, as already mentioned, led a strictly secluded life for forty years. This ever brooding sense of sin and its consequences sitting on the consciences of so many, making the earth appear a tomb,—this sense of sin, Hawthorne by an exquisite process transmutes into the very substance of the imagination, and makes

it evaporate in the light of artistic production. He describes in what light he would be regarded by his Puritan ancestors. "Who is he?" murmurs one grey shadow to the other. 'A writer of story books.' What kind of business in life, what manner of glory in God or being serviceable to mankind in his day and generation may that be? Why, the degenerate fellow might as well have been fiddler!" How much more indignant would their frown be if they could have understood that he converted the very principle of their own being into the toy of his imagination.

We have next to examine the plot-construction of Hawthorne's novels. In them more than in the novels of other great writers the interest centres in the plot. The novels of Hawthorne have not that magnitude, that diversity of interests that attract us to George Eliot or Thackeray. The canvas on which he paints is very limited. He does not care to give the story so much as to give the ideal situation. Mr. Caxton (senior) says at the end of *My Novel*: "A novelist should be a comfortable, garrulous, communicative gossiping fortune-teller, not a grim, laconic, oracular sybil." Hawthorne is nothing if he is not laconic and oracular in the matter of plot. In illustration of the fact I shall refer only to the hazy indefiniteness in which he leaves the fate of Miriam and Donatello, and to the careless way in which he leaves the imagination of the reader to fill in the chief points of the story in *The Blithedale Romance*. The most satisfactory of his novels in this respect is *The Scarlet Letter*. There the story has a beginning, a middle and an end. What forms the central essence of *The Blithedale Romance* (or indeed of any other novels of his) may be contained in one of his Tales. What fascinates the poet is the effect which a moral aberration like adultery would produce upon the guilty pair, the child of their sin and shame, and the wronged husband. It is the light, vivid as of hell-flame which Hawthorne by his spiritual intuition is able to throw on the thoughts and the new relations of these which forms the strong point of the novel. This pertinacious grasp of one ideal situation is of the essence of a lyric conception; and is far from being the evidence of dramatic strength.

In *The House of Seven Gables* Hawthorne traces the effects of the sin of grasping propensities of a founder of a family on his remotest descendants; in *The Blithedale Romance*, the effects of a powerful remorseless egotism which would fulfil its own purposes by overriding the most sacred instincts of humanity; and in *Transformation* the development of the intellect and the moral nature in

a happy contented animal nature consequent upon the commission of a great sin. The last is the only novel in which the part of culminating passion in the story is embodied in the course of the narration. The account of the rapture of the guilty pair—Miriam and Donatello—recalls forcibly the similar scene between Othello and Desdemona in *Pippa Passes*. Thus in none of Hawthorne's novels would it appear that many threads of interest contribute to the complication of the plot in the unravelling of which consists the denouement.

Of the characters in these novels, it might, perhaps, with truth be said, that there are none. Even of Shakespeare's heroes and heroines, when the critics talk of them as being distinct individuals, as differing from one another as much as men and women in actual life, we are to understand them in Pickwickian sense. The *tout ensemble* of effects which a character in real life produces cannot from the very nature of the case be produced within the narrow limits of a drama. The novel, which is the modern representative of the Elizabethan drama, is better adapted for finished studies of character. There is in the novel much more room for by-play and comment than there is in the drama. Yet Hawthorne has not availed himself of his opportunities for making elaborate studies of character.

Not that he was not equal to such attempts. With what careless mastery for example, has he introduced to us the old custom-house officers. The characters are of course sketchy, but the sketches are full of promise. Hawthorne's predilections were in another direction—in the dissection of motives, and in the probing of the feelings. It is this 'soulful' or 'metaphysical' quality which distinguishes him among novelists. The majority of his characters may be described as embodiments of one dominating passion, as personifications of certain vices or virtues. Roger Chillingworth is vindictive hatred, Arthur Dimmesdale is repentance gnawing its heart out in secret, Hollingsworth is egotism venting itself in a philanthropic form, Coverdale is mild scepticism, and Hilda is angelic purity.

Zenobia among his female characters makes the nearest approach to a concrete personality. Her magnificent womanliness is the first striking feature about her.

"She was dressed as simply as possible," says Miles Coverdale, "in an American print, but with a silken kerchief between which and her gown there was one glimpse of a white shoulder. Her hair which was dark, glossy,

and of singular appearance was put up rather soberly and primly, without curls or other ornament, except a single flower. It was an exotic of rare beauty as fresh as if the hothouse gardener had just clipped it from the stem. . . . So brilliant, so rare, so costly as it must have been, and yet enduring only for a day, it was more indicative of the pride and pomp which had a luxuriant growth in Zenobia's character than if a great diamond had sparkled among her hair. Her hand though very soft was larger than most women would like to have, or than they could afford to have, though not a whit too large in proportion with the spacious plan of Zenobia's entire development. It did one good to see a fine intellect so fitly cased. She was an admirable figure of a woman on the hither verge of her richest maturity with a combination of features which it is safe to call remarkably beautiful even if some fastidious persons might pronounce them a little deficient in softness and delicacy. . . . Preferable—by way of variety at least—was Zenobia's bloom, health, and vigour, which she possessed in such overflow that a man might well have fallen in love with her for their sake only."

I have quoted this description of Zenobia's person at length because Hester Prynne in *The Scarlet Letter* and Miriam in *Transformation* had also something of the spacious plan of Zenobia's development.

Zenobia had a noble courage, conscious of no harm, and scorned the petty restraints which take the life and colour out of other women's conversation. On Miles Coverdale remarking (*apropos* of the gross earthly necessities which they couldn't ignore in their new society) that in Eden Eve had no dinnerpot, and no clothes to mend, and no washing day, she replied, "I am afraid we shall find some difficulty in adopting the paradisaical system for at least a month to come. Look at the snow drift sweeping past the window. Shall I run out and pluck you some roses? No, no, Mr. Coverdale the only flower hereabouts is the flower in my hair which I got out of a green-house this morning. As for the garb of Eden," added she shivering playfully, "I shall not assume it till after May-day."

This freedom from convention strikes Coverdale as not exactly maiden-like. Zenobia's broad laugh, the mellow tones of her voice, her unconstrained and inevitable manifestation was, he suspects, that of a woman to whom wedlock had thrown wide the gates of mystery. The thought pertinaciously returned to him: "Zenobia is a wife,—Zenobia has lived and loved! There is no folded petal, no latent dewdrop in this perfectly developed rose." Keryon in *Transformation* has similar suspicions about Miriam.

Zenobia holds strong views about women's rights. Talking of the division of labour in their Pantisocracy at Blithedale, she says, "We of the softer sex will take the domestic and indoor part of

the business as a matter of course. By and by perhaps when our individual adaptations begin to develop themselves it may be that some of us who wear the petticoat will go afield and leave the weaker brethren to take our places in the kitchen." All her strong views on this question give way, however, when she comes under the powerful sway of a nature stronger than her own. Her first meeting with Hollingsworth shadows forth the ascendancy he was to exercise over her. "What does the girl mean?" cried Zenobia on seeing Priscilla admiringly gaze at her. "What does the girl mean? Is she crazy? Has she no tongue?" Hollingsworth who had introduced Priscilla to the society stepped forward. "No wonder, if the poor child's tongue is frozen in her mouth," said he; and he positively frowned at Zenobia. "The very heart will be frozen in her bosom, unless you women can warm it among you, with the warmth that ought to be in your own." Zenobia with such reputation for haughtiness—absolutely changed colour and seemed mortified and confused. "You do not quite do me justice, Mr. Hollingsworth," said she most humbly. "I am willing to be kind to the poor girl. Is she a protégée of yours? What can I do for her?"

Again, when Zenobia perceives that Priscilla has begun to love Hollingsworth, and is afraid that he might reciprocate the sentiment, and when the visit of Professor Westervelt, exercising as mysterious a power over Zenobia's fate as the Capucin friar over Miriam,—when that visit has destroyed the balance of her mind, she is more than usually vehement on woman's cause. Miles Coverdale comments on her zeal as follows: "What amused and puzzled me was the fact that women however intellectually superior so seldom disquiet themselves about the rights or wrongs of their sex, unless their individual affections chance to live in idleness or to be ill at ease. They are not natural reformers, but become such by the pressure of exceptional misfortune. I could measure Zenobia's inward trouble by the animosity with which she now took up the general quarrel of woman against man."

All this vehemence of Zenobia disappears when Hollingsworth thus forcibly states his own conception of woman's position:—

"Woman is the most admirable handiwork of God in her place and character. Her place is at man's side. Her office is that of the sympathiser; the unreserved, unquestioning believer, the recognition withheld in every other manner but given in pity through woman's heart, lest man should utterly lose faith in himself, the echo of God's own voice. 'It is well done.' All the

separate action of woman is, and ever has been, and always shall be false, foolish, vain, destructive of her own best and holiest qualities, void of every good effect, and productive of intolerable mischiefs. Man is a wretch without woman, and woman a monster and, thank heaven, an almost impossible and hitherto imaginary monster—without man as her acknowledged principal! As true as I had once a mother whom I loved, were there any possible prospect of woman's taking the social stand which some of them, poor, miserable abortive creatures, who only dream of such things because they have missed woman's peculiar happiness, or because nature made them really neither man nor woman, if there were a chance of their attaining the end which these petticoated monstrosities have in view, I would call upon my sex to use its physical force, that unmistakable evidence of sovereignty, to scourge them back within their proper bounds. But it will not be needful. The heart of true womanhood knows where its true sphere is, and never seeks to stray beyond it."

"Well be it so" is all that Zenobia says to this so selfish doctrine. "I at last have deep cause to think you right. Let man be manly and god-like, and woman is only too ready to become to him what you say."

This Hollingsworth who exercises so fatal an influence, as it turns out, on Zenobia, has the greatest individuality among the male characters. Zenobia gives this impression of him from attending a lecture of his:—

"What a voice he has! and what a man he is! yet not so much an intellectual man, I should say, as a great heart; at least he moved me more deeply than I think myself capable of being moved, except by the stroke of a true strong heart against my own. It is a pity he should have devoted his glorious powers to such a grimy, unbeautiful, and positively hopeless object as this reformation of criminals, about which he makes himself and his wretchedly small audiences miserable. . . . Do you suppose he will be content to spend his life or even a few months of it, among tolerably virtuous and comfortable individuals like ourselves?"

"Upon my word, I doubt it," said Coverdale. "If we wish to keep him with us, we must systematically commit at least one crime a piece. Mere peccadilloes will not satisfy him."

When he joined the society of Blithedale, "he was about thirty years old, but looked several years older, with his great shaggy head, his heavy brow, his dark complexion, his abundant beard, and the rude strength with which his features seemed to have been hammered out of iron, rather than chiselled or moulded out of any finer or softer material. His figure was not tall, but massive and brawny, well befitting his original occupation, that of a blacksmith. As for mere external polish or mere courtesy of manner, he never possessed more than a tolerably educated bear; although in his

tender moods, there was a tenderness in his voice, eyes, mouth, in his gesture and in every indescribable manifestation which few men could resist and no woman." He had an absorbing philanthropic hobby. He came to Blithedale actuated by no real sympathy with the feelings and hopes of the knot of dreamers, but because they had estranged themselves, as he had, from the world. The warm tide of his native benevolence he directed exclusively in a single channel. He had nothing to spare for other manifestations of love to man or for individual attachments unless they could minister in some way to his ends. Had his education been more liberal, he would have escaped this danger. What education he had was from this identical pursuit. He knew absolutely nothing except in this single direction. "I have hammered thought out of iron," he says of himself, "after heating the iron in my heart! It matters little what my outward toil may be. Were I a slave at the bottom of a mine, I should keep the same purpose, the same faith in its ultimate accomplishment." This immitigable tenacity of purpose starves his other powers. When Miles Coverdale does not fall in with his views, he casts off his friendship with him. "Be with me or be against me," says this prototype of a reformer, "there is no third choice in the matter." He has no conscience. He is ready to sacrifice Priscilla who loves him, and whom in his heart of hearts he loves, to suit the purpose of Zenobia, when to further his scheme, he wants her fortune. When in the denouement, Zenobia charges him with his masqueradings, his disguises, his self-deceptions, with his treacherous scheme against a purer and a higher life, Hollingsworth's faith in himself is shaken and he leans for support on the affections of Priscilla. And the final scene between Coverdale and Hollingsworth is extremely touching. "I have come," said Miles Coverdale mischievously, "to view your grand edifice for the reformation of criminals. Is it finished yet?" "No," replies Hollingsworth, "nor begun. A very small one answers all my purposes." "Up to this moment how many criminals have you reformed?" "No, not one," said Hollingsworth with his eyes fixed upon the ground. "Ever since we parted, I have been busy with a single murderer" (meaning himself as having caused Zenobia's death).

I cannot even refer to any more of Hawthorne's characters, and indeed this paper has already run to such length that what I have to tell of Hawthorne's imagination, humour, and style must be told in the briefest compass. That Hawthorne had very high imaginative

powers, no reader of his novels will doubt. In illustration I shall only refer to the scene when Dimmesdale is impelled to go in the dark night and stand on the scaffold where Hester Prynne had stood and done penance, to the chapters analysing the character of Clifford Pyncheon, to the description of Hepzibah Pyncheon, full of humour and pathos, and to the scene of crime and the ecstatic wandering of the guilty pair in *Transformation*. M. Montégut shows that some of the ethical teachings of Emerson have taken shape in the mind of Hawthorne as tales. This concreting of the abstract is of the very essence of imagination. The peculiarity of our author's imagination has been expressed by the epithet 'moon-shiny'. He has himself described the effect produced by moonlight falling in a familiar room, the spiritualization it effects in the most prosaic article such as a table, a work-basket, &c. In addition to this feature, he has the other distinctive quality of exploring the secret crypts of emotions, of being possessed by a haunting care for moral problems.

Hawthorne's humour is as unmistakable and as delightful as Elia's. Both have the same pensive delicacy, the same interweaving of pathos and humour, the same shy, unobtrusive charm. But there is a difference. It needs a consummate book-taster like Sainte-Beuve, however, to bring out the difference, and I shall not attempt the task. But I certainly cannot agree with M. Montégut who would make out that Hawthorne was a pessimist and the least amiable of authors.

I had marked out many extracts to illustrate the humour of Hawthorne. As they happen to be long, I shall content myself with two very brief passages from his Note-Books. In the absence of his wife he had to wash the dishes, on which he remarks: "The washing of dishes does seem to be the most absurd and unsatisfactory business I ever undertook. If when once washed they would remain clean for ever and ever (which they ought in all reason to do considering how much trouble it is) there would be less occasion to grumble; but no sooner is it done than it requires to be done again." Again, having on one occasion been asked to dine out he said: "I went to George Hillard's office, and he spoke with unmitigable resolution of the necessity of my going to dine with Longfellow; but I have an almost miraculous power of escaping from necessities of the kind. *Destiny itself has often been worsted in the attempt to get me to dinner.*"

What I have yet to say of his humour may be best given in the words of Whipple:—

"In ease, grace, delicate sharpness of satire, in a delicacy of touch which surpasses the delicacy of Addison, in a subtlety of insight which often reaches further than the subtlety of Steele, the humour of Hawthorne presents traits so fine as to be almost too excellent for popularity, as to every one who has attempted their criticism, they are too refined for statement. The brilliant atoms flit, hover, and glance before our minds, but the remote sources of their ethereal light lie beyond our analysis.

'And no speed of ours avails
To hunt upon their shining tails.' "

Whatever differences of opinion may exist as to Hawthorne's powers otherwise, there can be none as to the merits of his style. It is the finest, the purest, the most winning of American styles. It has the spontaneity, the lightness, the ease, the picturesqueness which one fancies as characterising the conversations in the best Parisian salons; and the subtlety, the *bonhomie*, the playful fantasy characteristic of the writer. From a style which does not differ from slow-flowing, ingenious, delightful talk, marked by none of its vulgarity, he rises easily to one treating matters of the most unfamiliar import, to that of a confirmed *habitué* of a region of moral mysteries. The range of his style is rather narrow—yet it is as equal to the description in *The Night Sketches* as to the scathing satire of Judge Pyncheon, as equal to the discourse of *A Bill from the Town Pump*, as to the narration of the minister's vigil in *The Scarlet Letter*, as equal to the introductory sketch of *The Wonder-Book*, as to the scene of Donatello's crime. He preserves throughout a perfect limpidity. The thought is never for a moment obscured by words.

It is on account of these qualities of Hawthorne, his high imaginative powers, his subtle, winsome humour, his sweet, clear, and graceful style, that I have sought to make him better known to my countrymen. Of the literature which they read in their hours of relaxation I very much fear the greater part is not of the first, or the second, or even of the third order. The novels which find most favour in this country are generally more calculated to induce intellectual and moral prostration than to agreeably engage the mind of the reader, restore the tone of a system overworked, and to make men fitter for the duties of life. If by these remarks of mine any readers of this magazine shall be led to turn their attention to a higher and healthier class of literature I shall feel satisfied.

K. B. RAMANATHAN.

NOTES ON THE STUDY OF TAMIL WORDS.

THE article on the study of Tamil words by the Rev. G. M. Cobban is so important and interesting that I venture to add a few remarks, not so much for the purpose of criticizing the argument on the whole as with a view to explain and enforce the special pleas urged by Mr. Cobban on behalf of Tamil philology. I agree with Mr. Cobban that if the Tamil language is to be intelligently studied, the system of pundit-teaching must be abolished. The average pundit knows a great deal of Tamil poetry, which he can repeat by heart, but he possesses little or no critical knowledge. He does not care to advance an inch beyond what his pundit has taught him, and thus the traditional method of centuries of stagnant rote learning is allowed to injure the mental development of students in our colleges and schools. The consequence is that a Tamil B. A. who can fairly construe and explain a passage from Spenser or Shakespeare can with the greatest difficulty read correctly—and is utterly unable to construe—a stanza from Kamban or a couplet from the *Kural*. The pundit, besides, has no influence over his pupils. He and the European professor are to the student the opposite poles of education—the former representing a system of thought and learning as much to be despised as that represented by the latter is to be admired and followed. Graduates who evince a taste for the study of Tamil must be encouraged to take the place of pundits. With a little preparation they would be able to teach even college classes, and eventually make Tamil literature their special study. In their hands, the Tamil text-book would assume its rightful position in the estimation of students. But it presently seems that European principals and their advisers are so much at the mercy of pundits that no encouragement is given to the few efforts put forth to improve the modern system of Tamil teaching. The pundit has his own way in his little world, and no stranger dare enter therein. No new work can be published that is not at once condemned by the pundits and its general adoption vetoed by them as not being in perfect accordance with the traditional treatises. European principals who welcome with pleasure every intelligent effort to promote western studies do quite the reverse where Tamil is concerned—for the simple reason that not knowing the language themselves, they are obliged to fall back on the advice of these Tamil oracles. With such conservative opposition on the one hand and the absence of a reading public on

the other, earnest students of Tamil literature receive little encouragement to publish anything calculated to give a new turn, if not altogether a new lease of life, to Tamil study. Dr. Bower told me that he had always been out of pocket on account of his Tamil publications. Eleven years ago I published a *Tamil Grammar*, which Dr. Pope thought highly of, and a year before this, an *English Translation of the Nannūl*, which received the commendation of such a scholar as Bishop Caldwell, but both these books lie rotting on my shelves, except when a European student calls for a copy. Dr. Pope's catechisms of Tamil grammar have kept their market well, as they are faithful reproductions of Native grammars; but his other 'works' have not commanded the sale they deserve.

The absence of enterprising publishing firms, so far as vernacular books are concerned, has also to be noted in this connection. Those already in existence (and they may be counted on the fingers), are, more or less, mercantile agencies, without any desire for the development of Tamil, or the encouragement of original publications. They confine their enterprise to the publishing of books which are religious or popular or prescribed as text-books in schools and colleges. Where then is the inducement for students of Tamil to publish the results of years of critical study or careful inquiry? For this money is required. And money is not very plentiful among the graduates of our university. Occasional articles in this magazine, however, afford evidence of the fact that researches in epigraphy, philology, and ethnology are being assiduously made, and that even poetry and the drama are not altogether neglected.

Mr. Cobban complains that the masses of the Tamil people "do not know the meaning of the words they use." True; but what about the masses of Englishmen? Do they know the meaning of 'husband', 'wife', 'sister', 'horse', 'beef', and a host of similar words? Even in England, philology is a science of recent origin. When I was a little boy English graduates knew more of Latin and Greek than of the rules of English grammar, and far more of classical derivation than of Anglo-Saxon roots. The craze in India now is all for English, as it was some time ago for Latin in England. There must be a reaction. When the Tamil mind is quickened and its critical faculty developed, and the inner eye opened to see things to which it has hitherto been blind, attention will no doubt be paid to the cultivation of the mother tongue, so that each in his turn will appear, the poet, and the dramatist, the novelist, and the philologist. A radical change in the present system of Tamil

teaching cannot but hasten a new era in the history of Tamil study.

I now proceed to answer a charge made by Mr. Cobban against Dr. Bower and myself regarding the translation of an important word in Sutra 62 of the *Nānnul*. This word is *idu-kurī*. It is used in juxtaposition with another important word, *kārana-k-kurī*. The latter means literally 'reason-names', and the former 'given-names'. More fully, they signify 'names given with a reason' and 'names given without a reason'. I have rendered *idukurī*, by the word 'arbitrary', and *kārana-k-kurī* by the word 'appellative', and so have Drs. Bower and Pope. When Pavananti divided 'names' into 'arbitrary' and 'appellative', he had in his mind 'names' which could be explained and 'names' which could not be explained. To argue that this was not his meaning, because a few apparently primitive words can be analysed and accounted for, such as *nilam*, *kutirai*, *nādu*, &c., is simply to sin against the whole vocabulary of Tamil. Can Mr. Cobban reason away the roots of *nilam*, *kutirai*, and *nādu*? Why does *nil* signify 'to stand', *kuti* 'to leap', and *nadu* 'to plant'? Or how can he analyse such 'names' as *nir* (water), *āl* (man), *āṇ* (male), *kā* (king), *kan* (eye)? These are the *idu-kurī*, 'arbitrary names', and not those which Mr. Cobban has analysed. The origin of language, as of music, necessarily involves an onomatopoeic process; and bearing this fact in mind, one must be prepared to find in any language scores of words which baffle all attempts at analysis.

Pavananti Mr. Cobban further asserts, speaks of 'letters', not 'nouns', in this Sutra, which is found in the Chapter on Orthography. In this particular Mr. Cobban has altogether erred. He has been led away by the idea that in a chapter on 'letters', there should be no reference to 'words'. But if he refers to Pavananti's preface to the *Nānnul*, Sutra 14 of *Sirappuppāyiram*, he will find that the grammarian has provided for this apparent irregularity. While about to treat of the names of 'letters', he introduces (according to the Sutra quoted above) a general rule regarding the classification of *all names*. And to this rule he returns in the chapter on 'nouns'. (Vide 'Nouns', Sutra 18.) From this it is evident that the commentator, far from being 'bewildered by the word *pēr* (name), well knew what he was about when he explained the Sutra in the way he did. The blundering must be laid at the door of Pavananti's English critic rather than of that of his faithful commentator.

In the specimen groups of Tamil synonyms, which is after all Mr. Cobban's most powerful 'Plea for the Study of Tamil Words', he has drawn a delightful picture of the workings of the Tamil mind in primitive times. Tamil scholars are more or less familiar with the oft quoted word picture by Bishop Caldwell of the social condition of primitive Dravidians previous to the advent of Sanskrit. By a careful analysis of pure Tamil words, Mr. Cobban has succeeded in tracing the delicate lines along which the Tamil mind has moved from one idea to another, from the objective to the subjective, from facts to figures. In studies like these, there is often a tendency for the imagination to outrun the reason; and Mr. Cobban has, now and then, fallen into this very natural error. For example, he derives, *nenju* from *neku*; *puḷkalam* from *puḷ* and *kalam*; *udal* from *udu*, &c. We have of course no Grimm's law for the interchange of Tamil letters. But by what possible means *neku* becomes *nenju*, I cannot understand. *Nenju* originally meant the 'throat', 'chest', and it was figuratively applied to the 'soul', though the primary use is still very common. Again, *puḷ + kalam = pur-kalam*, not *puḷ-kalam*. Mr. Cobban could not have written *puḷ*, since he makes it mean 'mean', whereas *puḷ* denotes a 'bird'. Further, Mr. Cobban spells *nāy* (dog), and *ay* (to live), with an *i* at the end of each, thus, *nāyi* and *nyi*. This is very surprising to me, though the *i* has in each case to be accounted for. I point out these small slips because accuracy is an essential quality in philological research.

There is another temptation which the Tamil philologist should guard himself against. It is the careless mingling of words in popular use with those coined by the poet to suit the purpose of rhyme or embellishment. The Tamil poet has thus made his language particularly rich in synonyms. The word *kaḷ* (toddy) has no less than 83 distinct synonyms; *śol* (word) has 37; *talaivan* (husband) has 29; *manudan* (man) has 18. But most of these have been struck off at the poet's mint, and no more reflect the people's mind and mode of thought than any number of technical terms can reveal English ways of thinking. The words used by the people can alone truly reflect the thoughts thought by the people. But the groups selected by Mr. Cobban contain a goodly number of such words; and it is also quite possible that many such coined compounds may be poetic renderings of Sanskrit originals. Likewise, foreign words cannot, any more than foreign costumes, reveal the mental and moral characteristics of a nation. Many such terms have crept into Mr. Cobban's groups, notwithstanding the great care

with which he has evidently prepared them. For example, *aṇḍam* (circle), *uruvam* (form)—the Tamil form of the Sanskrit *rupa*, *kūṭṭan* (life—properly 'Siva', the dancer), are all Sanskrit words.

Some of the derivations are rather fanciful. The sky is rendered by *kāyam*, which is derived from *kāy*, to be hot, whereas the correct word is *ākāyam*. *Vindu* is analysed into *vin* (sky) and *tu* (to eat)! *Yākkei* (body) is derived from *āḱku* (to make); whereas the correct root is *yā*, to bind, to fasten, the body being 'something fastened together'. From the same root *yā* is derived *yāppu*, (prosody). *Pukalal*, Mr. Cobban traces to *pēṇal*. This is quite incorrect. The two words, like their roots, are quite distinct. *Pukalal*, from *pukal* is 'to speak', while *pēṇal*, from *pēṇ* is 'to protect'. It is a far cry from the one to the other.

In spite of these mistakes—which by the way are unavoidable in an intricate subject like Tamil philology handled by a foreign student—I believe that Mr. Cobban has given a fresh impetus to the study of Tamil, and he has certainly laid under deep obligations all lovers of the Tamil language. To the diligent student of the 'southern tongue' *par excellence* there can be no more pleasant and useful work than the pioneer process of discussing the derivations of individual words and weighing, and, it may be, revealing too, the full import of their roots.

One more remark and I have done. The theory, that *Tamil* may be derived from *ten-mōri*, the 'southern dialect', with a statement of which Mr. Cobban opens his article, is no new one. It is Dr. Pope's favourite theory. This writer stated it in his lecture at Oxford and subsequently published it in the *Indian Magazine* in 1888. (See the volume for this year.) The derivation of the word *Tamiṇ* (not *Tamil* as is supposed by foreign scholars, the *l* having been substituted for *ṛ* in accordance with the English habit of anglicizing native names (e.g., *Pulicat* for *Paravērkādu*), is still a matter of mystery. I am inclined to think that the Aryans, possibly Agastiyar himself, who was the first to reduce the Tamil language to a grammatical system, must have conferred the name on the sweet-sounding language of the Dravidians. A careful examination of Sanskrit roots allied to the stems *tam*, *tami*, &c., might afford a clue to the real origin of this interesting name.

JOHN LAZARUS.

A PLEA FOR THE STUDY OF TAMIL WORDS.—II.

For the profitable study of Tamil words, European methods must be adopted and used. These are scientific, and more thorough and exact than the methods hitherto current in India. First of all, the European doctrine concerning roots must be accepted, which is that all roots are monosyllabic. Polysyllabic Tamil words are made up of two or more roots joined together. The particles, which play an important part in the Dravidian tongues, will probably, when better understood, be all resolved into roots. Roots have been classified as primary, secondary, and tertiary; primary, consisting of a single vowel; a vowel and a consonant; or a consonant and a vowel, as *ā*, *ar*, *tā*; secondary, consisting of a consonant, a vowel and a consonant, as *sol*; tertiary, consisting of two consonants, a vowel and a consonant; or two consonants, a vowel, and two consonants. Tertiary roots are not found in Tamil. The *Nannul* definition of a root comes so near to the European notion that it should not be difficult for Tamil students to apply the European method. Sutra 134 says, "That which is indivisible in a word is its root." "Precisely so," says the European, "therefore in order to get at that indivisible and permanent element which is the root, we must strike off final letters from Tamil words like *nada*, *āru*, *padi*, *vali*, which will leave to us *nad*, *ār*, *pad*, and *val* as roots; and similarly, from words like *ilangu*, *kurappu*, *timiru*, *mularu*, we must strike off the particles, which will leave to us *il*, *kur*, *tim*, and *mal* as roots." The student will find on further examination that the endings thus omitted, which are used as particles, really are, or contain other roots also. If he will thus experiment on a few Tamil words, the confusion of Tamil dictionaries will become apparent, and a multitude of words will be traceable to their true source, and acquire meanings often new, and always more exact than those which are current. The study of Tamil roots in this way will do much to secure for the language a new precision, and will aid in correcting the loose and inexact thinking of our time, as will nothing else. The Indian ideals and methods of linguistic study have had a long trial; and have borne no fruit, nor been characterised by any improvement; while in Europe, in this and other studies, the ideals have been steadily advancing and the methods of study becoming more and more perfect. These ideals and methods differ widely in India and England, and they cannot be amalgamated. Men may, from sheer inability to do more,

follow in part both methods, but if they do, they will find themselves often in dilemmas, and will obtain results which are of little value. The student must choose ideals and methods which are rigid and unprogressive, that is, those of India, or he must choose those which are ever advancing, that is, those of Europe. The attempt to hold on to both, is like trying to keep one foot on the ship and the other in the sea.

It is much to be regretted that though we profess in the other sciences to educate India according to western ideals, and by western methods, these have not yet been applied to the science of language. In this matter our educational departments have not been consistent, and Governments and University Syndicates have not bestirred themselves. I have no wish to write reproachfully of their inconsistency and inaction, for the application of western methods to the science of language is not an easy task, and there has been an abundance of other work, both important and pressing. But this work must also be done. It will necessitate the preparation of grammars and lexicons according to European methods, and this is a considerable undertaking; it will necessitate also the special training of men as teachers who shall be familiar with the methods of the West. It is a large undertaking, but it would make our Indian vernaculars live again, and prepare a way for the new thought of our time to go among the masses of the people. Were Hindus and Musulmans full of public spirit, they could easily provide the funds necessary for the accomplishment of such a work. But the first thing to be obtained is the sympathy of our Educational Department with such an undertaking. If this be secured, everything else would be comparatively easy. For the sake of South India, I trust our excellent Director of Public Instruction may see his way to move in this matter.

By the courtesy of the editor, I have been permitted to see a criticism by Mr. Lazarus, of my former article entitled 'A Plea for the Study of Tamil Words'; and before adducing further illustrations in continuation of that article, the criticism referred to may be briefly noticed. The first point has reference to the teaching of the *Nannul*, (the orthodox Tamil Grammar), concerning the giving of names. My critic asserts that "Pavananti divided names into 'arbitrary' and 'appellative'." My statement was that "there is nothing in the *Nannul* to warrant such an assumption. Pavananti uses no word which can be translated 'arbitrary'." To that statement I adhere. The question is one of fact. Pavananti has

or has not used such a word. My critic now admits that the word which he translates 'arbitrary' literally means 'given', and with the dictionary in his hand he could not do otherwise. Even our school boys know that 'arbitrary' and 'given' do not mean the same thing: why then does Mr. Lazarus use these words as if they were equivalent in meaning? He should know that an act so unwarranted is unseemly and unscholarly. Since he has admitted that the term *idukuri* literally means only 'given-names', by substituting for this the term 'arbitrary', he has been guilty of an arbitrary proceeding. He has misrepresented Pavananti. As a translator he has been unfaithful, and the only excuse he offers for his mistranslation is that it is not original. This habit of slavishly following others even at the expense of correctness, and in defiance of the lexicon, is a Hindu weakness which Mr. Lazarus should have outgrown. Moreover, a sense of the fitness of things should have prevented him from writing—"When Pavananti divided names into 'arbitrary', &c.," immediately after he had acknowledged that this word was a mistranslation, and had failed to find in the *Nannul* any word which could be translated 'arbitrary'.

This admission that his rendering of this important term is a mistranslation, is sufficient to secure its condemnation. But the rendering of *idukuri* and *kārana pēr* by the terms 'arbitrary' and 'appellative' must also be rejected for another reason. These terms are not mutually exclusive. They overlap each other and constitute what in logic we call a 'cross division'. Because they are illogical, they are inadmissible. Any one can see that arbitrary names may be appellative, and that appellative names may be arbitrary; hence the division is not a division.

When Mr. Lazarus informs us what Pavananti 'had in his mind,' I cannot follow him. The question before us is what is in Pavananti's book. I affirmed that Sutra 62 has reference to the names of *letters*, and in this, my critic says, I have "altogether erred." He even professes to know "the idea" by which I have been "led away." In this however, he is mistaken.

This second point, like the first, is in reality a question of fact, and should be easily settled. Pavananti has written a chapter on 'Letters'. Sutras 56 to 127 inclusive, make up this chapter. Either these Sutras refer to letters, or they do not. It is a question of fact.

In Sutra 56, Pavananti says, "Worshipping the four-faced Supreme One who dwells in the cool shade of the flowery *Asoka*, I shall treat fully of letters." In Sutra 57, he says, "These twelve

particulars have to be considered in connection with letters; viz., (1) number; (2) name; (3) order; (4) origin; (5) form; (6) quantity; (7) initials; (8) finals; (9) medials; (10) substitutes; also (11) words; and (12) combinations." In this Sutra, the enumerating particle *enrā* comes at the end of the first ten particulars, and separates them from the last two; hence the treatment of words and combinations is relegated, and properly so, to succeeding chapters. The Sutras 58-127 may therefore be expected to refer to the first ten particulars connected with letters, mentioned in Sutra 57. Do they, or do they not? This is the question. I have affirmed that they do, and that Pavananti has not swerved from his purpose; my critic affirms that they do not, and therefore, by implication, that Pavananti has broken off abruptly from what he set out to do. It will be admitted that Pavananti affirms these ten particulars to belong to letters; that letters are of a certain number, designated by certain names, standing in a certain order, originating in a certain way, &c. Thus far all will agree. We read the Sutras and find that by the end of Sutra 61, he has told us all about the number of letters. Number 1 particular is finished, and next comes No. 2, viz., the 'names' of letters. We read Sutra 62, and find the word 'name'—name of what? Of letters, according to Pavananti's programme, and according to the expectation of every logical mind. But my critic following in the rear of the noble army of Hindu pundits who, he tells us, possess "little or no critical knowledge," says this Sutra refers to words. Now the Sutras which immediately follow, nine or ten in number, all refer to the names of letters, for this Sutra is one of a series, and Mr. Lazarus asks us to believe that this one of the series relates to words, and refers us to the preface to the *Nannul*. He might as well have referred us to the *Boushyat Purana*. The Sutra in the preface contains the thirty-two rules of criticism, and has probably suffered more indignities than any other Tamil Sutra. Why should Mr. Lazarus add one more? I conclude that he appeals to the eleventh rule, which speaks of using words with a double meaning. Again following the Hindu pundits, he assumes a connection between this rule and Sutra 62 which he cannot prove. But let that pass. His argument is now complete, and consists as follows, viz.:—(1) He assumes that Sutra 62 refers only to words. (2) He finds that words may be used with a double meaning. (3) He assumes that in a grammatical Sutra, Pavananti was guilty of a juggle, that he said one thing and meant another. This 'double meaning' trick is

neither exegesis nor criticism. It is the Hindu method of hocus-pocus. If Mr. Lazarus and scholars of his way of thinking, still insisting on the 'double meaning' artifice, had said that the Sutra refers to letters first, but also to words, there would have been less reason for contention. But they deny that *idu* and *kārana* are applied to letters. In order to symmetrical treatment these terms, first used as names of letters, are also in the section on words, repeated with the necessary additions. The same divisions, so far as was practicable, appear to be aimed at in these Sutras both for letters and words. And just as Sutra 58 indicates briefly by a two-fold division the number of the letters, so Sutra 62, contains a two-fold division of the names of letters, beneath which division the expanded details of the subsequent Sutras loyally group themselves. It was the study of the Sutras following Sutra 62 which made me understand it, and compelled me to reject as a blunder the explanation of the Hindu commentator.

Since I wrote the article referred to by Mr. Lazarus, I have examined the *Tonnul Vīlakkam* of Beshi, and find that his lynx eye detected the commentator's blunder. Any regret which I may feel at having been so long ago anticipated in this matter is more than compensated by my being able to quote the Tamil master in support of the view which I advanced, viz., that Sutra 62 refers exclusively to the names of letters, the names of words being treated in other Sutras.

The commonplace remark that we are unable to explain why a certain root has a peculiar meaning, is simply an admission that the study of language is incomplete, that the comparative study of the languages of the world must be carried far beyond its present halting place. Analysis cannot stop at what we call roots, it must go on to letters, individual letters. Hence the unexplored area of linguistic study is still immense. The theory of 'arbitrary' names is impossible to a modern student of language; it is born not of knowledge but of ignorance. It is easy to say off-hand, as Mr. Lazarus appears to do, that the giving of many names, and the formation of a great part of human language, was due to caprice or whim, that it was divorced from intelligence and unregulated by law. Were there none who affirmed the Rosetta stone symbols to have had such an origin? Yet they are now an intelligent and intelligible record. And every student of language knows that if there be one fact which has become supremely emphasized by the

progress of linguistic study, it is this: that in language, everything is and must be according to reason, that since language is intelligent, and the fruit of intelligence, and not in part, but as a whole, no other conclusion is tenable by thoughtful men. Therefore instead of charging the first givers of names with not knowing what they did, and thus affirming their ignorance, it would have been more wise as well as modest in Mr. Lazarus to have admitted his own.

I have said that the analysis of language must extend even to letters. In the Tamil language the letter $\text{ṛ}=\text{r}$ appears, and also in Malayalam. It is peculiar to these two languages. Anxious to know whether any particular thought was associated with this letter, I copied from the Tamil dictionary and subjected to careful analysis all words in which it is to be found. The conclusion to which these words have forced me is that the makers of the Tamil language have used this letter with a definite purpose, and to denote a particular kind of thought. My Malayalam dictionary is not a good one, but so far as I have been able in that language also to examine words which contain the letter $\text{ṛ}=\text{r}$ the same conclusion is reached, and these two languages agree in this particular. It would be tedious to reproduce here the details of my analysis, but I append a brief list of words, starting from the beginning of the lexicon.

ar-al, molten fire.	ir-am, molten gold.
ar-aku, beauty.	ir-ci, to rub. [ants.
ar-anam, a corpse.	ir-eipu, avoiding hard conson-
ar-ivi, a river mouth.	ir-u, to pull down.
ar-uku, rottenness.	ir-ippu, degradation.
ar-uppu, boiled rice.	ur-akku, to mash.
ar-uvam, muddy ground.	ur-appu, to mix altogether.
ar-u, to weep.	ur-u, to plough.
ar-am, a deep hollow.	ur-ali, to be spoiled.
ar-i, circle, a revolving thing.	ur-al, what is decayed.
ar-u, to be depressed. [postor.	ur-i, the flux of the Yuga.
ar-iyam, lit. a deep fellow, an im-	er-itu, to inscribe.
ar-var, lit. deep and full men.	er-er, diminished, poor persons.
ir-i, to descend.	er-ic, to cease, perish.
ir-icha, to lower.	er-uku, to flow, go.
ir-ukku, to slip, fall.	er-nkku, to drip.

In these roots *ar*, *ir*, *ur*, *er*, and *or*, the letter *r* is connected with different vowels which modify more or less its meaning, yet it will

not be difficult for readers to find running through all these words a thread of intelligent purpose and unity of thought, nor will it require any special power of generalisation to discover this unity. A want of consistency, disturbance of condition, or lack of ideal condition, manifest in excess or defect, softness, fluidity or depression—thought of this kind runs through the whole. Notice the word *aru*, to cry, which shows a melted or disturbed mind, a relaxed condition; *araku*, beauty, that soft condition which precedes the hardness of maturity; *ar-uku*, rottenness, that soft condition which succeeds the hardness of maturity; *ar-ukku*, in which the thought of *ar-uku* is carried still further; or *kur-i*, below the ordinary level; *sar-i*, loss of form; *tar*, lowness; *nir-al*, that which is unsubstantial; *pir-i*, to flow forth; *mar-ei*, rain; and *var-i*, to flow down. These and many more words, showing an intelligent use of one particular letter (I do not say only of one) make it impossible to think that their structure and use as names was unintelligent, as Mr. Lazarus would have us believe. He seems to attach considerable importance to the onomatopoeic process, which he gravely assures us "is necessary" to the origin of language. Is this because of its scant intelligence, and seeming kinship with arbitrariness? Two years ago Max Müller informed us that this process, which he calls the 'pooh-pooh' theory, is not now held in its crude form by any scholar.*

To my critic's notes on my derivations of some words, I need add but a line or two. Such as they are I am thankful for them, though they show that he has not made a study of the subject, else he would never have said that *andam*, a circle, *uruvam*, form, and *kuttan*, a dancer, are Sanskrit words. The omission of *puku* is a copyist's error. My critic is also mistaken concerning *kāyam* and *ākāyam*. These are not one, but two words, and are distinguished from each other in the *Nighandu*, and in Tamil literature.† The true form of the latter is *ākāśa*, (Sanskrit), which appears changed into *ākāyam*. The root of *kāyam* is also found in the Canarese, Telugu, and Malayalam languages. It would be tedious to my readers to refer here to each detail in the notes of my critic, and possibly unprofitable also. My former paper was written for popular use, and on this account I left untouched a multitude of details important to the linguistic student, and necessary for a more exact knowledge of words referred to.

Somehow or other, the rising generation must be stirred to cast

* Vide Gifford Lectures, 1888, p. 363.

† E.g., Vide Vallalar Shastras.

aside unreasoning conservatism, and superficiality in study. The last Sutra of the *Nannul* well deserves to be remembered by all graduates as an aid to this. It runs thus, "To reject the old and accept the new is not a fault; it is the law of time."

I close this paper with a few more illustrations of ancient thought as revealed in Tamil words, asking my readers again to bear in mind that all the words adduced are not equally ancient. My last paper closed with Thinking. From thinking we pass to Thought, which is described as *sūṭal*, an encircling, from *sūṭ*, to surround; as *nattiyam*, the thing which had been sought, from *nād-u*, to seek; as *eṇṇam*, a thought, literally that which is reckoned or summed up, from *eṇ*, to count. It is also *karuttu*, a judgment or estimate, from *kar-u-tu*, to purpose, *kar-u*, judgment; and it is *nineivu*, a reflection, from *nin-ei*, to think.

That process which we call Remembering, is described by the following words: *ūkam*, clear discernment, from *ūk-i*; *valittal*, stimulation, from *val-i*, to be excited; *munṇal*, a confronting, from *mun* before; *uḷḷutal*, a minding or remembering, from *uḷ*, to think; *nunāl*, careful thinking, from *un*, to think, hence also *unnippu*, exact discernment.

Fear and its indications are described in an interesting series of words. It is *kavalei*, anxiety, from *kav-al*, to be anxious; *veruvu*, *veruppu*, *veri*, words which are closely related, and which all contain the idea of losing one's self, from *veruvu* = *ver-u-vu*, fright, also *ver-u-lu*, to be confused, with which may be compared, *veru*, empty, and *vēru*, other. *Veri* is applied also to drunkenness, as indicating the senseless behaviour of the man who is 'not himself'. Again it is *sur*, literally a whirling; *veḍi*, a shock, as a clap of thunder, from *veḍ-i* to explode; *panippu*, literally, coldness, from *pan-i*, to shiver; *adappu*, suppression, that is, disappearance of one's self (root *-ad*), very similar to which is *uḷku*, *uḷ-ku*, going within, that is, shrinking into one's self. This word is used in the *Kural* in the sense of reference. *Pirappu*, a birth, is also a synonym for fear, and has probably crept into use with the foreign doctrine of births. The signs of fear are said to be running, shrieking, trembling, calling out, &c.

What is the Tamil view of Sin? It is amply set forth in a variety of names. It is distinguished as defect or shortcoming, *kurei*, to diminish, from *kur*; as a blemish *āsu*, *māsu*; as dust, e.g., on a white garment, *tukal*; as rust, or a spot, *karei*; as unsightly, *tōm*, redness, *karil*, blackness, *kar-u*, black. It is also a miss, or failure,

tap-pu, to miss the mark. It is spoken of as a slip, *tavaṇu*; as blame, guilt, *paṇi*; as separation, *aril*, from *ar-i*, to separate; as the bitter thing, *kāsu*, from *kas-a* to be bitter; as the crooked thing, *vasei*, lit. to bend; as the despised thing, *ēsu*; the contemptible thing, *navei*; and the rejected thing, *karippu*, from *kar-i* to reject.

No one will venture to affirm that the men who put these words into the Tamil language possessed a defective moral vision, or that on the great question of wrong-doing, they held uncertain views. In these degenerate days we hear of 'fate', 'destiny', 'the hand-writing on the head'—*talei viti*, *talei eruttu*, but such words were not reckoned by the makers of the language as synonyms for sin, nor as any extenuation of human guilt. It should be mentioned also that we find *may* and *pirei* among the synonyms for sin. To what roots are these to be traced? *Pirei* is derived from the root *pir*, to issue, to squeeze out. The development of the root *pir* is interesting. It becomes the verb *pirei*, to live, to survive disaster, and the verb *pirei*, to fail, to do wrong, also *piri*, toddy and *pirakkadei*, a backyard. Let us see how these various words have all come from this root.

Starting with *pir*, to issue, how do we get to *pirei*, to live? *Pirei* as a noun means that which has issued, and life is that which issues, according to our English phrase also 'he died without issue', i.e., offspring. All life begins with birth, and all birth is a coming forth, an 'issuing'. So also the man who survives disaster, 'issues' from it, comes out of it. Hence *pirei-kāyam*, a wound which is not mortal, i.e., a wound which one will survive or issue alive from. How then do we reach *pirei*, to do wrong, *pirei*, a fault? Keeping to the root meaning, *pirei* is that which issues, and speech and action are the issues, the outflow of the man, and because the Tamils saw that this outflow was all imperfect and sinful, the word for it came to be used as a synonym for sin, thus *pireikkiratu*, 'issuing', means being and doing wrong. How *piri* came to mean toddy, is easily seen, for toddy is the 'issue', the outflow of the palm tree. But how did *pirakkadei* come to signify the space behind the house? That is the place of 'issue' or outgoing to which the dwellers in the house may go without let or hindrance. These words illustrate how Tamil words have come from roots, and how they are connected with them, and when thus linked to the root they become of real interest to the student.

May is also found among the words for sin; what is its root? Do *may*, body, and *may*, sin come from the same root? No.

May, *may-akkam*, *may-angu*, *may-al*, all spring from one root, viz., *may*, which means bewilderment, loss of sense. Such is substantially the Tamil account of sin with which it is interesting to compare the thought of the Semitic races.

Plutarch tells us that Alexander the Great when invading India asked a Gymnosophist, "Which was stronger, life, or death?" The wise man made answer, "Life, which can bear such ills." In every language, words which denote pain and suffering are numerous, and to this the Tamil language is no exception. The words which denote sorrow and trouble form a long list. One of the most common of these is *varuttam*, want, suffering, for which the root *var*, appears to suffice, which means to dry, shrink, and also gives to us *varumei*, poverty, and *var-u*, empty. As the words show, trouble is manifold; *uyavu*, existence, from *uy-i*, to exist, affirms life itself to be a trouble; *anukkam* is the moaning of one in pain, from *an-ungu*, to suffer pain; *kavar-si* is anxiety, from *kav-al* to be anxious; *kasivu*, bitterness, from *kas*, to be bitter; *nosivu*, frailty, from *nosi*, to be slender; *ayarvu*, faintness, from *ay-ar*, to swoon; *samarthal*, shame, from *sam-ar*, to be ashamed; *nô*, pain; *arungul*, lamentation, from *ar-u*, to weep.

Here are some of the words for Sorrow, selected from upwards of forty. It is *allal*, want, privation, from *al-a*, to be distressed. Thus the *Kural*, XXV., 5, *allal aruḷ ālvārkillai*, 'there is no want to gracious men.' Similar to this is the thought which lies in *sellal*, that which is gone, indicating grief over what has vanished. In the word *kūr*, to be sharp, the sharpness of sorrow finds expression, and *punkaṇ*, sorrow, is literally sore-eyed, with weeping.

What is the Tamil conception of Death? It is *tuṇṣal*, sleep; *mālal*, a perishing, from *maḷ-u*; *viḷivu*, extinction, even to nothingness, from *viḷ-i* (cf. *viḷavu*); *muṇṣal*, being worn out, from *mū*, to grow old, *muṇṣu*, to die; *mudital*, the ending; *tuvanaḷ*, the filling up of the allotted time of life, from *tuv-anru*, to be full. It is also *māyṭal* the vanishing, from *māy-i*; *illenal*, literally 'saying he is not'; *taputal*, failing, from *tap-u*, to perish, with which is connected *tappu*, to fail.

Let us pass next to the Home and ask what ideas of home were possessed by the ancient Tamils. Home was only 'a place to creep into', for the earliest home appears to have been a hole or cave. Hence among names for home we find *pāri*, a cave, a place hollowed out; *pukkil*, a dwelling, but literally a place crept into, from *puk-u*, to enter, and *il*, a place. So the *Kural*, XXXIV., 10—

Now souls in bodies sheltered are,
Is there to them no home afar?

Again, the home was a place to sit in, *irukkei*, from *ir-u*, to sit, *kei*, place. Something like orderliness begins to appear in the name *vaippu*, an arranged place, from *vai*; and at first sight, in *padi* also, but this word conveys to us the idea of a low place entered by stooping, as is seen from the words connected with the root *pad*. The highest ideas of home appear in the words *vidu*, which means liberation, from the root *vid*, to leave, hence also *vidal*, a fault, literally that which does not leave us, and *vārkei*, the happy place, from *vār*, to prosper, or roam as in freedom, and *kei*, place. According to these highest thoughts, the Tamil home should be the place where some of life's burdens are laid down, and where men find happiness and freedom.

Coming to the inmates of the home we find for Woman a variety of words. She is *sirumi*, the little one, a term of endearment, from *sir*, little. If her beauty be thought of, she is *kārikei*, the black one, for to the ancient Tamils blackness was also the perfection of beauty. Their ideal appears now to have undergone a change. In proof of this, witness the plentiful use of saffron for smearing their bodies and faces, by Tamil women of our time. Witness also the joy given to Tamil parents on the birth of a child by the assurance from the Hindu midwife that the child is perfectly 'fair'. Woman is also the good one, *nallāl*, from *nal*, good, *al*, few, termination. She is the wearer of curled hair, *surikuḷal*, from *suri*, a curl, *kuḷal*, a bending, or twisting, hence hair, that which is bent or twisted. She is also *aṇangu*, the desired one, from *aṇangu*, to desire.

The Wife is first of all the *illāl*, the house woman; she is also *il*, the home. Again she is designated *manai-āṭṭi*, the house manager, from *man-ei*, house, and *āṭṭe* (*āṭ*), the director. She is also *vārkei* *tunei*, the aid to prosperity, and *urimei* (*ur*), the possession of the husband. This last word leads us naturally to the subject of marriage among the Tamils. It need hardly be said that the eight kinds of marriage now spoken of in the Tamil country are an Aryan novelty. The most ancient form of marriage among the Tamils was by capture, as the records show, viz., *sirei pidittal*, seizure of a captive, and *kui paṇṇal*, tying the hands of a captive. The captive was to be the wife. In the expression *peṇ kollutal*, we meet with a different and more advanced view, viz., marriage by purchase, which is the method now in vogue. Marriage was anciently asso-

ciated with drum beating and festivity, and was an object of desire, as words show.

The Husband is the *taleiran*, the head of the house, from *talei*, head, root *tal*. This root is better studied in Telugu than in Tamil, being more prolific in words in that language. The husband is also *kālalan*, the lover or loved one; also *tuneyan*, the helper; *uriyōn*, the possessor, i.e., possessing the wife; he is also *koruman*, the fat or prosperous man, from the root, *kor*; *vallavan*, the strong one, from the root, *val*; and much beside.

What were the Tamil thoughts concerning Children? The word for child now in common use is *pillai*, but this word is not found in classical writers. It refers to the mode of birth, viz., by parturition, and comes from the root *pil*, to cleave or separate. The child is called *tōral*, from *tōru*, to appear; also *mūlei*, a germ, or sprout. Again he is *sei*, beauty, and *eccham*, that which survives, from *eñju*, to remain. Viewed in relation to his parents, he is *poru*, wealth; *kāl*, a prop; and *vay*, a way. Some of these will recall to readers the lines concerning children in the *Kural*, Chapter VII.

3. 'Wealth'; fathers do their children call,
For by their deeds doth fortune fall.
4. Than nectar rice is sweeter made,
In which the children's hands have played.
5. Only to touch them, joy imparts,
Their speech makes music in men's hearts.
6. 'Sweet is the lute,' those men may preach,
Who have not heard their children's speech.
7. In learning first, his son to see,
This is the sire's anxiety:
8. And fathers all delight to claim,
Sons' knowledge puts their own to shame.

G. MACKENZIE COBBAN.

THE NEW YEAR.

Would'st thou that the years as they pass good fruit should leave behind,

Then these two verses of the ancients bear heedfully eye in mind:—

'The thing that the heart has fashioned be sure that the hand bear through,'

'The thing that this day calls for take care that this day shall do.'

Forget these reds and the years will no shred of blessing bring,
But sorrow, nought but sorrow, and shame for the garnering;
And the years speed swiftly onward, and their tale will soon be spent,

But the spirit that hath ruled them with thy lasting being blest.
To look back when life's day has ended and to see, from beyond the gloom,

That to fail and to fail for ever must in all things be thy doom
Because, in these years of learning, thou hast hoped, and wished, and thought,

But hast never done the deed and the fight hast never fought,
Because, in these years of testing, with each returning sun
Thy word has been still 'to-morrow', but the thing has remained undone,

While those vanquished oft are victorious, those once weak strong in bliss,

Thyself an eternal failure, oh where can be loss like this?

1891.

L. L.

LITERARY NOTICES.

The Roman and the Teuton. A Series of Lectures delivered before the University of Cambridge. By Charles Kingsley, M.A. New Edition, with Preface, by Professor Max Müller. London: Macmillan and Co., 1889.

THE issue of a cheap edition of *The Roman and the Teuton* makes it desirable that we should present our readers with something more than a mere formal notice of this fascinating and instructive book. As its title indicates, it consists of a series of lectures delivered by Kingsley as Professor of Modern History in the University of Cambridge. The lectures were more largely attended than almost any other lectures at Cambridge, and they stirred up more than ordinary interest among the undergraduates. They were severely criticised on their publication, and Kingsley himself did not republish them, but few, we presume would maintain that the publishers have not been well-advised in deciding to include them in their collected edition of Kingsley's works, and in the new and cheaper edition now being published. For the interest which they at first aroused appears to be unabated.

It is not difficult to see why this should be so. It may be that the lectures to a certain extent merited some of the censure that was passed upon them. From a literary point of view they are often far from per-

fect, though we think there are many instances in which the oft-recurring abrupt, disjointed, and unfinished sentences serve their purpose as well as, or perhaps better than, sentences of highly finished structure would do. They are many of them pregnant with meaning, and they are well fitted to arrest the reader's attention so that he may comprehend it fully. Again, these lectures were not delivered by Kingsley with the object of teaching his hearers history. They were originally intended to teach men how to teach themselves history. They are not a history of the period with which they deal, for they do not profess to supply a continuous record or a systematic exposition of the way in which new nations and new forces arose out of the union of the untamed energy of Central and Northern Europe with the effete civilisation of the Roman Empire. In the words of Professor M. Müller, who writes a preface to the lectures, history was but Kingsley's text: his chief aim was that of the teacher and preacher, and as an eloquent interpreter of the purposes of history before an audience of young men to whom history is but too often a mere succession of events to be learnt by heart and to be ready against periodical examinations, he achieved what he wished to achieve.

And the lectures are eminently fitted to achieve that object still. They are, as we have said, not a history of the period with which they deal, yet we can easily imagine that many a student of the history of that period will rise from their perusal with a clearer conception of the movement of history and of the way in which the purposes of Providence were accomplished during that eventful time than he would gain from the carefully prepared volumes of many a painstaking and scientifically exact historian. But, what is perhaps more valuable than that, they will provide the student with that general plan or outline of the history of the period, which, as has been recently pointed out by a well-known contributor to this magazine, is absolutely essential to a thorough and correct understanding of the minute details. And not only this: they are sure to induce many a reader, as they induced many an undergraduate at Cambridge, to seek for further information than they profess to supply. Just as the general conception of the barbarian invasion figured in the invasion of the Troll-garden by the forest children is fitted at once to give direction to the reader's thoughts and to interest him in the fuller yet general picture which is sketched in the first half-dozen lectures, so these lectures are themselves fitted to direct and interest the student in the investigation of more minute details.

If it be asked wherein lies the interest of these lectures of which we have been saying so much, we should answer, in the faithful adherence of Kingsley to the methods which he commended to his hearers. He fills the mind with live human figures: men of like passions with ourselves, and shows us how each lived and worked in the time and the place in which God put him. He brings the dead to life again and lets

them teach us to see with their eyes, to feel with their hearts, and thus to understand, as we could in no other way understand, something of their times and circumstances. He is full of that large-hearted humanity which sympathizes with all noble, generous, earnest thought and endeavour, in whatsoever shape they may have appeared; of that charity which, without weakly or lazily confounding the eternal laws of right and wrong, can make allowances for human frailty, can separate the good from the evil in men and in theories, can understand and forgive, because it loves. If proof of this be needed it will be found in abundance in the lecture entitled 'The Monk a Civilizer'. In that most fascinating lecture Kingsley, in illustration of the fact that through the monasteries the masses first began to have a history, refers to the work which Wesley and Whitfield and the leaders of the methodist movement of the last century did for the English masses, and in so doing reads a lesson which India sorely needs to learn. He says:—

"The preachers may have mixed up words with their message with which we disagree, have appealed to low hopes and fears which we should be ashamed to bring into our calculations;—so did the monks: but they got their work done somehow; and let us thank them, and the old methodists, and any man who will tell men in whatever clumsy and rough fashion, that they are not things, and pieces of a mass, but persons, with an everlasting duty, an everlasting right and wrong, an everlasting God in whose presence they stand, and who will judge them according to their works. True, that is not all that men need to learn. After they are taught, each apart, that he is a man, they must be taught, how to be an united people: but the individual teaching must come first; and before we hastily blame the individualizing tendencies of the old Evangelical movement, or that of the middle-age monks, let us remember, that if they had not laid the foundation, others could not build thereon."

One of the best lectures in the book is an introductory one on 'The Limits of exact Science as applied to History'. In this Kingsley combats the idea, which had begun to appear a quarter of a century ago and which is now so prevalent, that the region of history is dominated by a progress as invariable and by laws as unerring in their operation as is the region of physical science. He was prepared to accept all that inductive science can teach us: in fact he considered it his duty to accept and hold this. He says:—

"It will be sacred in our eyes. All light which science, political, economic, physiological, or other, can throw upon the past, will be welcomed by us, as coming from the Author of all light. To ignore it, even to receive it suspiciously and grudgingly, we shall feel to be a sin against Him. We shall dread no 'inroads of materialism'; because we shall be standing upon that spiritual ground which underlies—ay, causes—the material. All discoveries of science, whether political or economic, whether laws of health or laws of climate, will be accepted trustfully and cheerfully. And when we meet with

such startling speculations as those on the influence of climate, soil, scenery on national character, which have lately excited so much controversy, we shall welcome them at first sight, just because they give us hope of order where we had seen only disorder, law where we fancied chance: we shall verify them patiently; correct them if they need correction; and if proven, believe that they have worked, and still work, *οὐκ ἄνευ Θεοῦ*, as factors in the great method of Him who has appointed to all nations their times, and the bounds of their habitation, if haply they might feel after Him, and find Him: though He be not far from any one of them; for in Him we live; and move, and have our being, and are the offspring of God Himself."

But that the order and the progress of human history could be similar to those which govern irrational beings and could be described by metaphors drawn from physical science Kingsley could not admit. If there be in human history an order, a progress, they must be moral, he said—fit for the guidance of moral beings, limited by the obedience which these moral beings pay to what they know. Such an order, such a progress, we might hope to find in history.

"We shall find, as I believe, in all the ages, God educating man; protecting him till he can go alone, furnishing him with the primary necessities, teaching him, guiding him, inspiring him, as we should do to our children; bearing with him, and forgiving him too, again and again, as we should do: but teaching him withal (as we shall do if we be wise) in great part by his own experience, making him test for himself, even by failure and pain, the truth of the laws which have been given him; discover for himself, as much as possible, fresh laws, or fresh applications of laws; and exercising his will and faculties, by trusting him to himself wherever he can be trusted without his final destruction. This is my conception of history, especially of Modern History—of history since the Revelation of our Lord Jesus Christ. I express myself feebly enough, I know. And even could I express what I mean perfectly, it would still be but a partial analogy, not to be pushed into details. As I said just now, were the true law of human progress revealed to us to-morrow, we could not understand it."

From Strength to Strength. Three Sermons on Stages in a Consecrated Life. London: Macmillan and Co., 1890.

This little volume is a memorial to Bishop Lightfoot. It consists of three sermons preached at wide intervals by Bishop Westcott in connection with important incidents in the life of his illustrious predecessor in the See of Durham. The brief prefatory note indicates the link of connection, and conveys a general idea of the teaching of the sermons.

"Probably it has never fallen to the lot of anyone to endeavour to give expression under the most solemn circumstances to thoughts suggested by three great crises in the life of a friend, for death is for the Christian a crisis in life. As each occasion came I sought to say what the occasion itself told us through him whom we loved, of the office with which he was charged, of

the society which he served, of the character by which the servant of God is enabled to do his work; and in each region the description of the Christian life and the Christian faith seemed to find a fresh fulfilment: From strength to strength."

The three occasions alluded to were the Consecration of Dr. Lightfoot to the See of Durham in 1879, the Consecration of the Church of St. Ignatius the Martyr, Sunderland, in July, 1889, and the death of Dr. Lightfoot, in December, 1889. The main idea, as indicated in the titles of the sermons, 'From Strength to Strength', 'From Weakness to Strength', 'From Strength to the Rest of God', is that of progress in the Divine life. "It is not true of men, and it is not true of humanity, that their sad journey is ever further from the East." Throughout the sermons runs a strong manly Christian optimism. Dr. Westcott sees illustrations of this truth alike in the history of the See of Durham since the days of Aidan and Oswald, and in the personal life of its latest Bishop. The last sermon, since it sums up the outstanding features of the character of Dr. Lightfoot is more than the others a memorial one. Dr. Lightfoot's life was a manifestation of strength. "He was strong by singleness of aim, by resolution, by judgment, by enthusiasm, by sympathy, by devotion. In old days it was strength to be with him; and for the future it will be strength to remember him." Dr. Lightfoot left his impress so deeply on the Church of England and far beyond it, that none will feel these words too strong; and many, particularly those who were privileged with his friendship, will be glad to have in this form these sermons from the lips of one who loved and understood him so well.

We have received from Mr. H. S. Hall of Clifton College a copy of the new edition of Euclid by himself and Mr. F. H. Stevens. It differs from the first edition chiefly in that it contains Book XI. with additional theorems and examples on solid geometry. We have much pleasure in commending the completed work to the attention of students, both on account of the brevity and clearness with which the text is stated and because of the number and importance of the additional theorems and examples given at the end of each book. The diagrams accompanying the definitions of Book XI. are specially worthy of commendation. We may note that Books I.—IV. are published in separate form, and may be obtained either in cloth, price 3s., or in paper covers, price 2s. 6d. For use in high schools there is no better edition of Euclid than this by Messrs. Hall and Stevens.

BESIDES *The Roman and the Teuton*, which we notice this month, we have received from Messrs. Macmillan and Co. five volumes of Kingsley's Essays, scientific, literary and historical. As specimens of the sixpenny edition of Kingsley's novels we have before us *Westward Ho!* *Yeast*, and

Alton Locke. Of these we need only say that considering the way in which they are printed they are marvels of cheapness. Of the uniform edition of Miss Yonge's novels and tales we have received *Scenes and Characters, Chantry House, A Modern Telemachus, Bye-Words, and Beechcroft at Rockstone.* We are also in receipt of some volumes of Macmillan's Colonial Library, chief among which is Wallace's *Darwinism.* A review of this work will be found in our issue of April last. The other volumes we hope to notice at an early date. We also hope to notice briefly some volumes of Macmillan's English classics for Indian students.

As a gift book or as a school prize we can think of no more suitable volume than *The English Illustrated Magazine* for 1889-90. The letter-press deals with topics the most diverse, and the same may be said of the many beautiful illustrations which accompany it. History, fiction, poetry, and music are all represented, and descriptions and illustrations of natural scenery are, as they have hitherto been, a prominent feature of the volume. The descriptive articles and the articles dealing with English industries and amusements make *The English Illustrated Magazine* a most suitable volume to put into the hands of Indian boys and girls, most of whom probably form very imperfect ideas of life in England from the references to it which occur in their schoolbooks. Messrs. Macmillan and Co. deserve great praise for their efforts to make this magazine in every way worthy of the high place which it holds among illustrated periodicals.

An Elementary History of British India. By Edward Sell, B.D., and John T. Lawrence, M.A. Madras: S. P. C. K. Press. Price 4 as.

WE welcome this addition to our school books. The authors have no desire that it should take the place of any book now in use; but they think there is need for an introduction to the history of India of a more elementary nature than is to be found in any book now in existence. Such an introduction they intend this little work to be; and, in schools where sensible methods of teaching history prevail, it is certain to be so employed. Of course no method of teaching history is altogether free from difficulty. It is, however, clear enough that the portions of it first taught, should have some living connection with the things which the learners see going on around them day by day. To commence by describing a state of matters which has entirely passed away is to run the greatest possible risk of converting all lessons on history into mere unintelligent exercises of the memory. This is particularly the case with those who have naturally so little taste for history, and so little sense of its importance, as the Hindu inhabitants of India. To let them see from the outset how

270

the arrangements for government which are now in operation came first into existence, is the only hope of making Hindu pupils practically feel that the records of past ages tell the thoughts and deeds of men "of like passions with ourselves," and have an important meaning and lesson for those who are playing their parts in the present world.

It is on this principle that the authors of the brief sketch before us proceed. They do not wish that the knowledge of the history of India possessed even by the ordinary school boy, should be confined to the events which made India a part of the British Empire. But they rightly judge that acquaintance with the events which have shaped the present framework of Indian government is a necessary preliminary to any real understanding of the earlier events which, more deeply no doubt but also less obviously, have formed the social arrangements and the character of the Indian races.

The work taken in hand by the authors has on the whole been well performed. There is, indeed, no room for originality in telling a tale that has been told so often; and to give a perfect, or even a satisfactory, outline of the history of British India in the compass of forty small pages, is practically impossible. Any one who tries to do this necessarily lays himself open to unfavourable, and not groundless, criticism on all sides. Yet the aim of the book restricts its size. In fact its forty pages make it too long rather than too short for the purpose in view. But with all drawbacks, both avoidable and unavoidable, the authors must be held to have been more than tolerably successful. The events they have made prominent are well selected, and the language they have used is appropriate and fairly simple. Of course, if the little book is really to serve its end, it will have to be translated into the vernacular languages. But in its present form it is well fitted for English-speaking pupils, and also well fitted for translation.

Some points are more correctly stated in this than in most school histories of India. For instance, due prominence is given to the fact that Fort St. George is the germ of the British Indian Empire, and that of this Empire the Southern Presidency is the premier province: a fact too commonly forgotten, and, apparently, nowhere forgotten more completely than in Madras itself.

In a few points, errors of some importance may be noted. For example, even in the briefest sketch, it is far from sufficiently accurate to sum up the events, so disgraceful to British honour, which led to the war with Mir Kasim, in words like these:—"He levied taxes on English merchandise passing through his territories. This was resisted and war was declared." So too, the language used in describing Haidar Ali's great invasion of the Karnatic leaves the very incorrect impression that the whole of this Second War with Mysore lasted only eighteen months. Again, at page 33, a battle of *Mali* is mentioned, of which no one has

ever heard before. This last seems indeed to be a mere printer's error for *Miani*,—vulgarly *Meeanee*,—but it is an error which ought not to have passed unnoticed.

The little volume contains three maps, which, though small and somewhat rough in execution, are very serviceable.

NOTES AND EXTRACTS.

At the present time the attention of those who interest themselves in social reform is being chiefly directed to matters connected with the marriage customs of this country and especially to the question of raising the age of consent. A great deal has been written recently both in favour of reform and against it, and meetings have been held in many places, at which resolutions have been passed, both in approval of legislation and in condemnation of it. But so far as we have been able to learn, the opposition to the raising of the age of consent by state legislation, predicted by many, has not very clearly nor very persistently declared itself. At the same time there are many among the more thoughtful of the community who have expressed themselves in opposition to legislation, and there can be no doubt that many more, who do not care to make their opinions public, entertain the feeling that legislation is inadvisable. The misgivings of the latter and, to a less extent, the opposition of the former, are worthy of consideration. In both cases approval of a policy of inaction as regards legislation springs chiefly from two causes.

In the first place it is maintained that if the proposed legislation is effected, the difficulties of enforcing the law will be so great that the result will be more harm than good. Either the law must be so hedged in by restrictions that it will remain practically inoperative, or if it is not so hedged in the way will be opened to admit a flood of evils which do not now exist. Wickedly disposed people will take advantage of the law to render miserable the lives of those against whom they bear a spite, and especially the police will use it as an engine of oppression. Now it cannot be denied that the evils here indicated are both evils which will have to be guarded against, and that therefore the good that is to accompany legislation will not be free from evil; but where do we find an institution that is productive of absolutely unalloyed good? Those whose opposition to legislation, whether active or passive, springs from the cause now indicated, may rest assured that a Government which in another Department will not move so fast as the advocates of political reform desire, for the simple reason that it has not at present the means of enforcing a more stringent law, will take care that when it comes to

legislate on such a delicate and difficult matter as the age of consent, means shall be provided by which the law may be enforced with as little hardship as possible to all concerned.

But there is another, and, we believe, more widely prevailing reason why many are publicly, and many more passively, opposed to legislation. It is said that law will not make the people good, and that in the present case we should leave it to the advance of education to bring about the needed reforms. Now whether this argument is worthless or valid depends altogether on the person who brings it forward. It may be advanced simply as a cloak to indifference or even opposition by those who at heart do not sympathize with reform and who are themselves making no effort to advance its cause. But the argument may be advanced, and is advanced, we have reason to believe, by a much more worthy class of people. There are among our educated men not a few who have so profited from the instruction they have received that they not only seek to shape their own lives according to higher ideals than those amid which they have been brought up, but even use their endeavours in a quiet but persistent manner to influence those of their own circle to follow their example. And in many cases, we are glad to think, their efforts are crowned with success. These men, therefore, looking back and noting the changes that have been effected in their own family during their own life time, and perhaps mainly as a result of their own influence, view with distrust the efficacy of a method of advancing reform which is not for a moment to be compared with that which they have to their credit employed. Many of them, too, have read history to some purpose, and they have a dread of the results of what, it appears to them, would be a discontinuity in the development of Indian Society. They forget that the recent history of India is, to a large extent, a succession of discontinuities.

To those who are in their own way quietly seeking to advance the cause of reform all honour should be gladly accorded. But when they maintain that nothing more is needed than the continued operation of the methods which they themselves have been following, they should remember that the evils which it is sought to remedy by legislation are both widely spread and serious, and that they themselves are as yet a mere fraction of the population of India, so that their influence is after all comparatively isolated. Might is of course not right nor need it be the cause of right, but might may be on the side of right and with profit to both. It is for this reason that we think that much good would result from judicious legislation at the present stage of social progress in India.

There is one other point connected with what we have been saying on which we desire to make a few remarks. No one, we suppose, will affirm that either in religious and social or in political matters are the press and the platform to be taken as trustworthy sources of information regard-

ing the opinion of the masses of the people of India: but, it may be asked, how far are they trustworthy sources of information regarding the opinion of the educated classes? In the case of social reform, for instance, how far can we gather from the utterances of educated men in the public press and on public platforms what is the actual stage of progress reached? This is a question to which it is of the utmost importance that a correct answer should be given, but we, at least, are not prepared to undertake the task. We may, however, express our belief that while on the side of reform much is said that must be taken at considerable discount, there is a great deal that needs to be taken into account of which nothing is said. In this the Government and the people as well will find the justification of the introduction and the continuation of a policy which cannot be said to have been traditional in India.

We were unable last month to notice the admirable address delivered before the Public Health Society of Madras by Surgeon-Major W. G. King, but it is not now too late to direct the attention of our readers to some of the subjects dealt with in that address. After referring to the circumstances under which the Society had come into existence Dr. King went on to say that it was usual for a person who had to deliver an inaugural address to a Health Society to lay before his audience a history of hygiene, and to point to the triumphs which this science had achieved throughout the civilised world. It seemed to him, however, that it would serve the purpose of the Society better if he directed the attention of its members forwards rather than backwards, taking for granted that those who had joined the Society sufficiently recognised the utility of hygiene, and suggesting directions in which the Society could especially prove its usefulness.

Dr. King first criticised the statement sometimes made that since there is a Sanitary Department in this country there can be no need for a Health Society. At the present moment, he said, those who talk of the existence of such a Department would have difficulty in showing where it is to be found. There is practically no such Department in this Presidency. There are, it is true, a Sanitary Commissioner and a Sanitary Engineer, as well as District Medical and Sanitary Officers, but here, said Dr. King, the organisation practically stops. A certain amount of influence is exercised upon local bodies by these officers, but the advice tendered cannot be enforced, from the absence of requisite laws and staffs. The establishment and equipment of an efficient Sanitary Department, however, is, in Dr. King's opinion, only a question of time and the continuation of the interest which the Government has hitherto shown in the Sanitary development of the Presidency.

But supposing such a Department were now in existence, would that fact do away with the necessity for a Health Society? Dr. King thinks

not. Whilst it would be the business of the Government Department to labour in producing elaborate schemes for water-supply, drainage, conservancy, and the structure of dwellings and towns, it would be the duty of the Health Society to aid in combating disease, the result of individual ignorance or apathy. To this end means must be devised by which a knowledge of hygiene shall be brought home to the people as a mass. And to ensure this the Society must not be satisfied with possessing local members; it must invite non-resident members to join. Thus would it be able to exert an influence on the sanitary education of the people in the mofussil. Here Dr. King thought it necessary to add a word of warning. The kind of education referred to is not so urgently required, he said, with the male part of the population as with the female. His experience as a physician and a sanitarian has taught him that the educated man is powerless to effect the slightest sanitary improvement if opposed by his female relatives. He thinks that those who, from the small results that follow the acquisition of a sanitary education, conclude that natives do not at least believe in hygiene, by no means state the truth. They do believe in it, he thinks, yet the mass of them believe in it no farther than to grant that in theory it is irreplicable but in practice inapplicable. Such, too, would appear to be the nature of the belief in hygiene entertained by many of the educated men who compose our Local Bodies and Municipal Councils.

A problem for the Health Society of Madras to solve, then, Dr. King said, would be to convert this theoretical belief in hygiene entertained by large numbers of educated men into conviction deep enough to cause its tenets to be observed in daily life. And obviously the mother-in-law must be dealt with first. The Society should press upon Government and Local Bodies the importance of advancing female education and the study of hygiene in a simple form in all schools, by offering special encouragement in the form of grants of money for proved efficiency. It should enlist the services of ladies, and organise sanitary guilds, which would probably have little difficulty in securing the services of District Medical Officers to aid them in their good work. These officers would find no difficulty in giving practical demonstrations of facts; by a series of simple experiments as to the purity of air and water, to prove to the average mind that there is truth in sanitation. In the case of the uneducated, Dr. King thinks that when they see the results of sanitary efforts they will understand their efficacy and not wish to forego the benefit to be derived from them.

But how are the educated members of Local Bodies to be induced to put into effect theories which most of them know well? How is it that with a knowledge of hygiene they fail to grasp their duty as to disseminating its advantages? Because, Dr. King thinks, the vast majority of them have not had that practical education which would enable them to

understand what it is proposed to effect by any given sanitary scheme. He believes that if they could see the apparatus and have demonstrated to them the methods which would subserve sanitary designs, they would be able to fill in the missing links in the chain of reasoning by which their duty as to practice may be deduced from the theoretical knowledge which they even now possess. And to show that he is not simply drawing on his imagination in this matter he appeals to facts that have often occurred in his own experience.

With those who, whenever a sanitary proposal of importance is made, would seek to maintain that the country is not ripe for such measures, however advisable they may be in the abstract, Dr. King has no sympathy. The ideas of such, he said, are formed from an erroneous interpretation of that apathy to sanitation which has been alluded to, and the policy that receives most adherents is unfortunately that which would wait till the country becomes more enlightened.

"When," asked Dr. King, "will this happen? So far as abstract education is concerned, we have advanced far enough for all reasonable purposes. There are very few fathers of families whose income is of an average of twenty rupees per month, who have not taken the trouble to obtain for their children not only a vernacular, but an English education. Further, a vernacular education is obtainable in almost every village in the country, and is freely sought. To what avenge do these cautious reformers look? Are we to wait, or at least advance but slowly, till the whole of the population become possessed of a classical education? Again, it is objected that to secure sanitation laws must be framed, which it would be difficult to enforce without complicated and expensive organisations, and which might clash with the peculiar sentiments of the people of the country. The latter objection may be disposed of at once, by stating that the whole system of caste is dominated by valuable rules that are those of hygiene of the present day, and that nothing could be done by a hygienist that could offend these susceptibilities."

As to difficulties of enforcing law, Dr. King practically expressed it as his conviction that they are imaginary.

He therefore proceeded to point out that a complete change of our policy is necessary. We must no longer wait till a further theoretical knowledge of the science of hygiene is spread as a result of the progress of general education. We must no longer satisfy ourselves that our duty is done whenever we realise that there exists apathy or opposition: we must see to it that the benefit of arrangements suggested is brought home to those for whom they are intended, by showing them the results of accomplished works. The Sanitary Department of Government should be so strengthened that it may no longer have to wait till Local Bodies ask for sanitary schemes, but be in a position to point out where they are requisite and not only suggest but also supervise their execution. In this way practical education of the best type would be

forthcoming: sanitary works would be seen, and sanitation would be appreciated. To the Health Society would remain the important function of aiding this practical education by exercising influence through its mofussil guilds, and by the giving of lectures, illustrated by diagrams and models, and where possible, by original apparatus. It should also direct its efforts to the founding of a Museum of Hygiene where practical sanitation could be made plain to the people, and for this purpose it might look to Government for financial assistance. The Sanitary Department under Government would always occupy the responsible position of a regular army, but the existence of the Health Society as a volunteer force would be none the less necessary.

Having thus sketched the functions of a Health Society in Madras, Dr. King went on to call the attention of his hearers to a class of sanitary subjects which urgently require attention. He referred to the crusade against the killing of cattle which is carried on by certain Hindus. He pointed out the inconsistent and somewhat intolerant nature of the arguments put forward by Sriman Swami, and how with all their pretended veneration for the cow, many Hindus treat their cattle in a manner that is little short of absolute cruelty. He further warned his hearers how inattention to the sanitary wants and comforts of the cow might result in the death of the owner and of many others besides.

Finally, after directing the attention of the charitable and the philanthropic to the great field which lay open to them in the improvement of the sanitary condition of the dwellings of the poor, Dr. King thus concluded:—

"It is often said that Europeans have little in common with Natives, and Natives of various races with each other; the reason being that the sentiments held are rarely in exact accord. Thus, we have seen a class of persons who call themselves Theosophists attempt to unite the sympathies of these incongruous elements, by forming a system of religion which professes to select all that is good in each, and ignore all that is superfluous, as void of meaning. The system is artificial, and dabbles with mere theories, founded on the acceptance of the sense of words that have, in reality, no meaning; and the scheme must, therefore, fail to be anything but a passing event in the history of efforts to attain this end. But all will admit that if a bond be made, which is so perfect that every religion shall recognise it as a radical part of its tenets, the problem must be finally solved. Sanitation devotes itself not to the encouragement of cogitations on the sublimity of self, but to the best practical means of doing our fellow-creatures good, and of securing to them that priceless blessing of health, without which the life the Creator has bestowed upon us is but a burden that we long to cast from us. Sanitation is a practical and practicable form of philanthropy; and thus it is that our society of Christians, Mahomedans, Hindus, Theosophists, and what not, can meet united by one common bond of sympathy, to discuss without acrimony

mony and without partisanship, measures which shall secure to this country blessings, before which those vauntingly offered by political Congresses—the offspring of misdirected energy—are as dust."

In the sixth of his series of open letters Mr. Holdsworth touches on a subject that doubtless exercises the minds of many of the most thoughtful of our educated men—the connection between Christianity and civilization. Though it is a fact that every nation that has in any way identified itself with Christianity is rising both in material and in moral good, and while no non-Christian nation can be said to be rising that is not in contact with Christian nations, there are probably many young men who, like some, with whom Mr. Holdsworth has conversed on this topic, would deny that there is any connection at all between Christianity and civilization. They would seek to account for the civilization of certain nations in other ways, and to point out instances in which they imagine that Christianity has checked and retarded civilization. They would affirm, for instance, that the pre-eminence of western nations is due to the advance of science. In this, as Mr. Holdsworth points out, they would seem to make the mistake of supposing that civilization refers to such things as the invention of intricate machines or the manufacture of smokeless powder rather than to the improvement of social and moral relations through the operation of those great principles of individual freedom and individual responsibility which have been in operation since the beginning of history. Our civilization of the present day is in fact only the latest product of a process that was going on long before the modern development of science began—a process which may be traced in every age of the world's history. Seeing that this process was in operation long before Christ appeared, it is somewhat incorrect, as Mr. Holdsworth points out, to say that Christianity is the *cause* of civilization. What, then, is the connection between the two. Mr. Holdsworth thinks it lies in the fact that Christianity recognises the moral and providential government of nations and individuals by God, and removes the obstacles which man's ignorance, waywardness, and selfishness would place in the way of the advancement of the race. And to make his meaning clear he adduces the following illustration from the conditions of present day life in India.

"All intelligent Hindus," he says, "recognise the immense advantages that would accrue to their country if their young men could avail themselves of the culture and training to be found in European Universities; if their capitalists could visit the markets, and their artisans the industrial centres of the nations that now take the leading position in the world. But every movement that they make in this direction is forbidden alike by their sacred writings and by their priests, and if they cross the black water, they do so at the risk of social and religious ostracism. Now Christianity places no such obstacle in the way, raises no such bar to a nation's progress. Perhaps

no country presents so many obstacles to the improvement of these social and moral relations as do the countries of Asia, but it is certain that if Christianity were generally accepted by them, these obstacles would disappear in the very day of its acceptance. Surely this free scope which Christianity offers to civilization is seen even in its earliest history. At the beginning of the Christian era the progress, of which we have spoken, seems almost to have spent itself; in every nation of which we have any records universal and hopeless decay had set in; suddenly we detect a new element of restoration and in every department of human excellence we note a certain amount of advance which is maintained through all the many blemishes and defects of one age and another until we find it still vital and energetic in our own. This revival was coeval, coextensive, and continuous with Christianity. Those forms of civilization which have been independent of Christianity have flourished for a time and have then decayed: the civilization which began with Christianity has hitherto shown no symptoms of decay, but rather of increasing vitality as men have seen in clearer light the meaning of Christ's life and teaching, and in spite of the many faults that disfigure modern life there is to be found in all Christian nations to-day a purer public opinion and more earnest effort to help the weak and unfortunate."

Mr. Holdsworth has a word for those who allow themselves to think that where the teaching of Christ has been set at naught they find proof that his teaching was evil. The argument of such he likens to that of a man who would assert that the presence of thieves in a country shows the evil of the laws which they break in stealing. In conclusion, Mr. Holdsworth notes the fact that though the air is full of reform, just now the reformers are slow to recognise the power of Christ to aid them in their work. In some respects the position of our educated men in regard to social and religious matters is very similar to the position ascribed to them by Dr. King in regard to matters concerning their physical health.

DURING a recent visit to Mangalore Dr. Miller was waited upon by some old students of the College and presented with the address which we publish below. The presentation of an address is such a common occurrence in India as ordinarily to demand at most a passing notice, but the nature of the address presented by the old students of the College resident in Mangalore makes it worthy of a place in the magazine. The address will be read with interest by old students in other places and by all who take any concern in the working of the College. It shows that the aims of the College are being to some extent realised in those whom it sends forth, that its influence for good does not cease when its *alumni* have ceased to be under the direct instruction of its professors, and that it is creating new bonds of union among men, which are certain to contribute much to the stability of progress in India. With these remarks we quote the address.

"We, your old students of South Canara, beg with respectful love to bid you a most hearty welcome into our midst and to express our delight at

seeing you once more with us in the flesh—we say 'in the flesh', because we know that your spirit is always with your old boys and that you are speaking to us every month through your excellent College Magazine.

It is a matter of pride to us to have sat at the feet of the greatest Educationist of South India. In your long career of uniformly increasing success and brilliancy you have sent out thousands of educated youths from your College, and the influence radiating from it has already spread more or less over every part of our Presidency. The important and valuable services rendered by you to the cause of education in South India have made your name familiar to every individual taking an interest in the subject. They have been recognised and rewarded as well by the University that trained you to the work of life, as by the Government of the country which has been the scene of your splendid labours.

The people of South Canara are thankful to you and your College Council for the District Scholarship which enables our students to join your B.A. Class.

It is generally believed—and probably not altogether without reason—that in this reign of King Cram, schools and colleges are so many shops where intellectual wares are sold for the money paid, and that schoolmasters exercise little influence through precept and less through example upon the hearts and characters of their students. But you, Sir, and your College are among the brightest and noblest exceptions to the rule. For you and the Professors of the Christian College strive not merely to inoculate your pupils with a few scientific or philosophical facts and theories, but you lead young men to think about truths towards which all sciences and philosophies, if rightly understood, really converge, and without which these would be but dead, if beautiful and curious, structures from which the vivifying soul had fled. You not only expound to your students the beauties of Shakespeare and the wisdom of Bacon, but drawing your inspiration from your unapproached and irreproachable Master, you breathe into your pupils ideas which cannot but tend to bring out and develop the latent beauties of their moral nature. You may indeed have sometimes to work upon metals of the baser and refractory sort, and the stamp which you impress may in some cases wear away in its currency through our work-a-day world. But we believe the majority of your students carry with them throughout life with reverential affection a more or less vivid recollection of your ennobling example and of the principles and truths taught by you with your living voice within the walls of the College.

In order partly to strengthen the bond which unites us all to one another, on the one hand, and to our *alma mater*, on the other, and partly to foster a spirit of research and inquiry, religious as well as secular, we have formed here an Association of the old students of the Christian College. At one of its meetings every year a Missionary is to be invited to give an address on a subject of religious interest, and the other meetings are to be devoted chiefly to work of a secular nature. We hope, Sir, that you will kindly allow us to give your name to the Society.

May the Almighty, who guides the progress of the world, preserve you long and bless the noble work in which you are engaged!"

COLLEGE NOTES.

Most old students must have heard ere now, through the ordinary sources of information, of the return to Madras of Mr. Vengal Venugopaul Chettiyar, B. A., as a member of the Indian Civil Service. Soon after graduating in 1886, Mr. Venugopaul went to England and, in 1888, took a high place among the successful candidates at the Civil Service Competition. After the usual two years of study, which he spent mostly in Cambridge, Mr. Venugopaul took all but the foremost place at the final examination of the successful competitors of 1888; and we have now the pleasure of seeing him again amongst us.

There are of course not many of his acquaintances, and, I suppose, none of his actual classfellows, attending College now. Some, however, who were junior members of the Debating Society when he was among its senior members; and one or two also, who for one cause or other left off and again resumed their course of study, are still students of the College and were ready to welcome him when he visited it. Outside, among the students of law, and among those who, as junior teachers or otherwise, have fairly entered on the work of life, there are many who still keep up a close connection with the College and who have been in a position to receive him as a personal friend. I have been glad to hear of various meetings and receptions, of a more or less formal character, at which the ties of friendships formed at College, somewhat loosened as they have been by Mr. Venugopaul's four years' absence, have again been drawn close.

I feel somewhat tempted, when dealing with this subject, to say a little on the whole large question of Indian students going to Britain in order to compete for the Civil Service, or with other similar intentions. The subject is one of great, and also of growing, importance. It is time that those who wish to take far-reaching views of what is needed for the welfare of India, and especially for the welfare of the foremost among her aspiring youth, should begin to formulate their opinions on it, and to make them, as far as may be, operative. Writing, however, as I am, amidst the glens and jungles of the Western Ghats, I am more disposed to enjoy the beauties of nature and the pleasures of unaccustomed rest than to put into definite shape views which I have not thought out perfectly myself, and which, even after they have been thought out, will leave a false impression if they are not stated with great care, and with many explanations, limitations, and provisos of various kinds:—views, too, which, like many of my views, will not be popular at first sight with a large number of those immediately concerned. Perhaps some other opportunity may arise for my taking up a subject which it is better not to discuss unless it be discussed tolerably exhaustively.

For the present, it is enough that, in behalf of the College, and, I think I may add, in behalf of all its alumni, scattered everywhere throughout Southern India, I should join with his friends in the Presidency Town in welcoming back to India one who has already done honour alike to his College and his University, and who will, I trust, by a high-toned unselfish career in the distinguished position he has won, do greater honour to them both than success, however remarkable, at examinations can, in the very nature of the case, secure.

WILLIAM MILLER.

Sampaji, Coorg,
December 27, 1890.

SCIENTIFIC AND LITERARY JOTTINGS.

THE rainfall in Madras last year amounted to only 27.99 inches against an average for the last 78 years of 49.53 inches, though curiously enough the number of days on which rain fell was the same as the average, viz., 83. During these seventy-eight years the rainfall has been less than that for 1890 in only five years. In 1823 the fall was 26.6 inches; in 1832, 18.45—the minimum on record; in 1860, 27.64; in 1867, 24.37; and in 1876, 21.60. The year 1823 was a year of famine in Madras; 1833 was the year of the great Guntur famine, when it was estimated that 200,000 people died out of a population of 500,000; and the great famine of 1876-78 is too recent to call for any special mention. We do not wish to suggest that a famine is actually imminent, for the rainfall at a single station cannot be taken as an indication of the general rainfall of the Presidency. As a matter of fact the serious deficiency is at present confined to a comparatively narrow strip of country extending through parts of Nellore, North and South Arcot, Chingleput, Tanjore, and Tinnevely, and to part of the West Coast. In these areas the tanks that are filled from rivers contain a considerable supply of water, but the other tanks are mostly dry, and over a large area the dry crops are an almost complete failure. There can be little hope of any important rainfall during the next three or four months, and even were rain to fall now it would be too late for much of the crop. Still if the south-west monsoon brings a fair quantity of rain the scarcity will not develop into a famine, but a failure in that monsoon would lead to most serious consequences.

THE number of hours of bright sunshine in Madras during December was 262 out of a possible of 350 hours, that is, 75 per cent. of the time that the sun was above the horizon. On only four days was there less than 7 hours of sunshine, while on 20 days it was 9 hours or upwards.

The average percentages for other Indian stations for December are as follows:—Lahore 77, Dehra 63, Allahabad 82, Calcutta 78, Jeypore 83.

THE election of Sir William Thomson as president of the Royal Society in succession to Sir George Stokes will be heartily approved of by all scientific men. Amongst those who have shown how to apply to practical purposes the most recondite discoveries in physical science Sir William stands pre-eminent. His instruments for measuring electrical quantities made ocean telegraphy possible, while it is hardly too much to say that his compass and sounding machine have revolutionized navigation. He has left his mark on almost every branch of physics, and in electricity especially he has shown the extraordinary fertility of his genius and his almost intuitive insight into the mysteries of nature. The President of the Royal Society has many duties to perform, some scientific, others social, and in all of these Sir William Thomson will fully maintain the honour of his position.

THE last duty performed by the retiring President was the distribution of the medals awarded by the Society. The Copley Medal was given to Prof. Simon Newcomb for his contributions to the science of gravitational astronomy, and the Rumford Medal to Prof. Hertz for his work on electro-magnetic radiation. The two Royal Medals were awarded to Dr. David Ferrier and Dr. John Hopkinson—to the former for his researches on the localisation of cerebral functions and to the latter for his researches in magnetism and electricity. The Davy Medal was awarded to Prof. Emil Fischer for his discoveries in organic chemistry and especially for his researches on the carbohydrates. The Darwin Medal, which this year is awarded for the first time, has been appropriately given to Mr. Alfred Russel Wallace for his independent origination of the theory of the origin of species by natural selection.

WHILE the world is still ringing with the news of Dr. Koch's cure for tuberculosis there comes from the same laboratory the announcement of a scarcely less important discovery, namely that of a cure for tetanus and diphtheria. The main feature of this discovery, which has been made by Behring and Kitasato, is their proof that the blood of an animal that has been rendered immune against diphtheria possesses the remarkable power of destroying the poison formed by the microbe of this disease. Work leading up to this discovery has been done by a number of bacteriologists, but Behring and Kitasato have brought forward a new theory of the nature of acquired immunity which is strongly supported by their experiments. It is thus stated:—"The immunity of rabbits and mice against tetanus depends on the power possessed by the fluid part of their blood of rendering harmless the poisonous substances pro-

duced by the tetanus bacilli." The experiments so far have only been carried out on rabbits and mice, but there seems no reason to doubt that the same methods can be applied to the cure of these diseases in man.

ALL known methods of preparing artificial light are extremely uneconomical. The rays that can affect the eye vary in length from about 300 to 700 millionths of a millimetre, but in radiation from a lamp of any kind there is along with this useful radiation a large amount of radiation that cannot affect the eye, but can be detected by its heating effect or by its chemical action. For instance in an Argand burner no less than 99 per cent. of the radiation is wasted in the form of heat. In the case of "sunlight" it is the same, but in this case there is not necessarily any loss, since the sun's radiation has to do many things besides supplying light. In the case of "artificial lighting" the accompanying heating effect is usually a distinct disadvantage. What is desired is some method of setting up vibrations with a frequency of from 400 to 700 million per second, unaccompanied by any others. The discharge of leyden jars of a size comparable with atoms would give rise to such vibrations, but it need hardly be said that that method has not yet been rendered practical. These remarks have been suggested by the recent investigations made by Messrs. S. P. Langley and F. W. Very into the radiation from the luminous body of the Cuban firefly (*Pyrophorus noctilucus*). This firefly is a particularly brilliant one, and yet the luminous radiation is not accompanied by any measurable amount of heat. Those who are acquainted with Mr. Langley's previous work on radiation will have no hesitation in accepting this very striking result—a result which should act as a strong stimulus to physiologists to investigate the source of the light.

THERE has recently been an extraordinary rise in the market value of platinum, and at present its price is practically equal to that of gold. Eighteen months ago platinum could be bought for 30 shillings an oz., six months ago the price was under £3, and now it is £4. The chief cause of the rise in price is said to be the increased cost of production in the Ural mountains. Formerly much gold was obtained along with the platinum, and this enabled the latter metal to be sold at a comparatively low price, but the gold, it is said, is now becoming scarce. Another cause of the increased price is doubtless to be found in the large demand for platinum for the manufacture of incandescent lamps. In these the current is led through the glass to the carbon filament by short platinum wires, because, platinum having nearly the same coefficient of expansion as glass, a wire of platinum which has been passed through a hot piece of glass does not break away when the glass cools. The amount used in each lamp is small, but the number of lamps now manufactured

is enormous. On the other hand less platinum than formerly is used in the manufacture of sulphuric acid, and it is not improbable that the present high price will bring into the market a large quantity of old platinum and so prevent any further rise in price.

LOCKYER's meteoric hypothesis is largely based on the supposed coincidence of the chief bright line in the spectrum of nebulae with the extreme line in the fluting of magnesium. This coincidence is denied by Huggins, and his evidence might be considered sufficient to decide the question were it not that the difference between the two lines in question, if any, is so small that it can be detected only under very favourable conditions. The 'Publications of the Astronomical Society of the Pacific' contain a record of some very important work on the spectra of nebulae by Mr. James Keeler. Using the great telescope of the Lick Observatory and a Rowland's grating with 14,438 lines to the inch he was able, by taking the spectrum of the 4th order, to get a dispersion equivalent to that of twenty-four prisms of 60°. His conclusions are in perfect accord with those of Dr. Huggins. The nebular line appeared perfectly sharp and showed no tendency to assume the aspect of a remnant of fluting under any circumstances of observation. Neither did the nebular line and the magnesium line coincide in position. The mean value found for the wave length of the nebular line was 5005.68 tenth-metres while that of the magnesium fluting is 5006.36. In the brightest nebula examined the wave length was 5006.13—a very close approach to the magnesium line. These observations, made with the most powerful appliances and by a skilled observer, would be conclusive evidence of non-coincidence were it not that the divergence could be accounted for by a motion of the nebulae relative to the earth. A motion of the sun in space of 36 miles per second would be sufficient to give perfect coincidence. The question of coincidence must then remain undecided till the question of motion has been settled either by study of the hydrogen line or by examining the spectra of nebulae in other parts of the heavens where the solar motion would affect them in the opposite direction.

MR. JOHN J. PLUMMER writing to *Nature* points out an interesting relation between the distance of a star reckoned in 'light-years' and its distance on a chart drawn to scale. If the scale of the chart be such that the mean distance of the sun from the earth is one inch then the distance of any star in inches will be the number of years that light takes to travel from it to the earth.

THE last report of the State Engineer presented to the State Commissioners on the Niagara Falls gives the following particulars regarding the

recession of the Falls since they were first accurately surveyed in 1742. The total mean recession of the Canadian, or Horse-Shoe Fall, is 104 feet 6 inches, and the maximum at one point 270 feet. The mean recession of the American Falls is only 30 feet 6 inches. The length of the crest has increased from 2,260 to 3,010 feet by the washing away of the embankment. The total area of recession of the American Falls is 32,900 square feet, and that of the Horse-Shoe Falls 275,400 feet.

A SUBJECT which is creating a good deal of interest at present in astronomical circles is the apparent change of latitude of several well known observatories at which special observations for latitude are systematically made. Thus, after all corrections have been made, it is found that the latitudes of Berlin, Potsdam, and Prague indicate a diminution of about 0".5 from August 1889 to February 1890. The observations made at Berlin from April 15 to August 30 last year show an increase of 0".4 and indicate a yearly period. The Greenwich observations indicate a variation of nearly 1", while those at Pulkowa do not seem to show any periodic variation. The cause of the variation has not been definitely ascertained. It may be due to changes in refraction or to actual transference of water from one hemisphere to the other.

MESSRS. LONGMANS AND CO. have in the press *The Letters and Correspondence of John Henry Newman during his Life in the English Church*, with a brief Autobiographical Memoir. The letters have been arranged and edited at Cardinal Newman's request by the editor of the letters of the late Professor J. B. Mozley, D.D.

PART VI. of *Epigraphia Indica*, which was issued in November, contains several Sanskrit and Prakrit inscriptions, edited, with translations and critical notes, by Dr. Hultzsch and Professors Bühler and Kielhorn. A facsimile of two pages by H. Cousens, Esq., accompanies one of the inscriptions—the Śūnak Grant of the Chalukya king, Karna I. In his introductory remarks on the Vādnagar Prasasti of the reign of Kumārāpāla, Dr. Bühler pays a high tribute to the antiquarian zeal of a native of India, Vajeshankar G. Ojha, Esq., of Bhāunagar, to whom he was indebted for a paper impression of the inscription and also a valuable transcript.

In a recent number of the magazine we published a short notice of Part V. of *Longmans' Handbook of English Literature*, which completes the work by tracing the progress of our literature up to the present time.

The *Handbook* has now been published in a single volume, the size of which is very convenient and the price moderate. We have already noticed the work at length, so that it is unnecessary for us now to do more than commend it to such as are desirous of obtaining a simple and interesting account of the more prominent features of the history and progress of English literature.

A NEW edition of Mr. Ruskin's poems is to be published at an early date. The present edition will contain a large number of hitherto unpublished poems. They will be arranged in chronological order, with dates and autobiographical notes, and will be published in two volumes, with twenty-five plates from drawings by Mr. Ruskin never before published.

DR. MARCUS DOBS in a highly favourable review of the Rev. G. A. Smith's second volume on Isaiah says, "Even when he crosses swords with his teacher, Professor Davidson, he proves his familiarity with his weapon and all its passes. That criticism so keen and so well-principled should co-exist with a historical sense so fully developed as Mr. Smith's is perhaps not so wonderful as that both these high and useful faculties should seem not to overwhelm and smother but rather to stimulate and find opportunity for the faculty of dramatic presentation, for the magical (though not always strictly accurate) English style, and above all for the singular spiritual insight which this volume exhibits."

It has become difficult in recent years to write a Life of Christ in any sense original; yet if we are to trust Mr. Ronald Bayne, a reviewer of theological literature, this has been accomplished by the Rev. Henry Latham in his recent volume *Pastor Pastorum*. "We risk the pronouncement," says Mr. Bayne, "that Mr. Latham has produced a Life of Christ as original as anything that has appeared since *Ecce Homo*, and yet eminently sane and judicious." As the name indicates, it is a 'Training of the Twelve', and if *Pastor Pastorum* should turn out as fruitful as Dr. Bruce's work it will prove a valuable addition to theological literature.

ARCHDEACON FARRAR, who in the early stage of his literary career wrote at least three novels *Eric*, *Julian Home*, and *St. Winifred's*, has returned to his first love. He is about to publish through Messrs. Longmans, a novel, in two volumes, about early Christianity, under the title of *Darkness and Dawn*.

DR. MARTINEAU is going to reprint his miscellaneous essays under the

title of *Essays, Reviews, and Addresses*. They will be published in four volumes uniform with the second edition of his *Types of Ethical Theory*.

MR. ELLIOT STOCK announces for immediate publication a symposium upon the future life contributed by well-known writers, under the title of *Our Dead: Where are They?*

IN reviewing *The World's Desire*, by Mr. Rider-Haggard and Mr. Lang, Mr. Barrow Allen, after detecting the different 'hands', like an Old Testament German critic, implores Mr. Lang "not to enter again into a partnership where the tail so decidedly wags the dog, as it does in the present instance."

THE literary squabble which has been going on for some time between Messrs. Harper and Co., New York, and Mr. Rudyard Kipling still continues. Mr. Kipling's language has not been of the mildest, and it must be admitted that to the uninterested outsider, it appears not undeserved. Messrs. Besant, Black, and Hardy have now come to the rescue of the publishers, but in the nature of the case, all they prove or can prove, is that in their dealings with Messrs. Harper & Co., they have always found them honourable publishers.

Five Years with the Congo Cannibals, another volume that has its origin in Mr. Stanley's expeditions, has just been published. It is written and illustrated by Mr. Herbert Ward, one of the survivors of Mr. Stanley's ill-fated rear-guard. It gives a description of the domestic and daily life of the savages of the interior of Western Equatorial Africa.

LOVERS of the quaint Samuel Pepys will find in recent numbers of the *Academy* a series of letters written by him to Charlett, the Master of University, and to Thomas Tunner, the antiquary, afterwards Bishop of St. Asaph.

RECENT PERIODICAL LITERATURE.

'MR. STANLEY and the Rear Column' is the subject of the first article in the *Contemporary Review* for December. It is unsigned, and one ever turns with interest to such presumably inspired articles. It is disappointing. It does very little to

clear off the mists that hang around the whole question of the Rear Column. The drift of it is this. "Possibly the half has not been told, and therefore we are not in a position to pronounce a verdict on all concerned." One sentence deserves to be

emphasised. "We do well to hang our heads at the thought that such deeds should have been done by Englishmen; but we may find some consolation in the fact that it is because of their very unwontedness in the records of modern British enterprise that all the world is ringing with them." And, we may add, it is well, too, to remember that during all these years of labour in the interior no breath of suspicion has ever dimmed the name of the missionaries. All testimony is unanimous as to their genuine devoted lives.

Mr. Francis Peek contributes a sympathetic criticism of *In Darkest England and the Way Out*. Mr. Peek is already so well known as the author of *Social Wreckage* and other works, that his criticism on any scheme connected with the social questions of the day will be listened to. In the main he writes strongly in favour of General Booth's plan. "In its essential parts it is grand in its conception, and is practicable in its proposals. It is well worthy of the warmest support of every one who recognises the terrible and now hopeless condition in which the lowest classes exist in this rich city." It is however not beyond criticism, but the vulnerable parts of the scheme are not essential to it and may be modified as matters progress. The first criticism is the total inadequacy of the amount asked for.—£100,000 down and £30,000 a year. Again General Booth's scheme meets the case of a hungry out-of-work, it meets the case of a single man or woman, but what if the hungry out-of-work has a wife and five or six children, as will most probably be the case? Further, suppose large numbers were to seek General Booth's shelters, the simple industries he names, such as chopping wood, making mats, sewing sacks, &c., would glut the market with the goods produced and this would drive an equal number of men and women employed in such industries into the ranks of the unemployed. Another objection is an error common among philanthropists, viz., that of making the condition of the fallen more desirable than that of those who have not yielded to temptation. It

puts a premium on vice. Notwithstanding such objections it is worth noting that Mr. Peek gives a warm support to the scheme, perhaps all the more valuable that it is tempered by calm judgment and common sense.

'The Two Religions' is an article in which Miss Frances Power Cobbe seeks to prove that all religions are morally of two orders—the worship of Power and the worship of Goodness. This will be granted by many who occupy a very different position from that of the writer. There is much too in the article that deserves careful reading however much we may differ from her underlying assumption as to the position of Christianity among the religions of the world.

"Be it here noted that a man may call God 'good', and may even think He is good, and yet may not worship Him at all on that account. There are millions to whom religion, even the Christian religion, still presents itself simply as a 'Way of Salvation', a method of obtaining from God bodily health and prosperity in this world, and eternal felicity in the next. However they might repudiate the charge of being mere Power-worshippers, it is the fact that God can send them health and wealth, or can destroy body and soul in hell, that alone arouses their devotion. It is not that He is just, good, holy beyond man's loftiest conception. They resemble the sons of a good father who have no sympathy with him, no genuine love for him, but who fawn on him and visit him often, to obtain money and to secure their future inheritance."

This of course is not new, but it is true, and, though happily it grows less true every day the habit of mind thus described is still so common that every attempt to counteract it, even from the present source, should be welcomed.

One of the most interesting articles is by Mr. Adolphe Smith on 'A Russian State Trial'. It constitutes one more of the many indictments against the gross folly of the Russian Government. Three years have passed since Lopatine and other prominent Nihilists were tried and convicted, but it is only recently that the details have emerged from secrecy. The proceedings were strictly secret; but one or two of the most trusted friends of the

Government were in sympathy with the prisoners. These in time succeeded in giving an account of the trial and securing a copy of the records of the court. This was smuggled out of the country, and is now in safe hiding, and the writer of the article was privileged to look over the documents and take notes of the most interesting points. For the details readers must turn to the article itself, but as regards the general aspects of the trial, it is difficult to avoid the feeling that it was a mockery. Lopatine, before the sentence was given, said,

"We are kept in prison, we are judged in prison, and our last word spoken will be heard by no one. But do not begrudge me in this solemn moment, the right to tell you a few wholesome truths. You are not legal judges, you represent in too interested a manner my adversaries, and cannot impartially examine whether I have committed any fault. I believe, and this enables me to endure so calmly all the misfortunes crowding upon me, that above both you and me there is a Supreme Judge who will decide between us. History will ultimately say who was in the right, so I will not take the trouble to justify myself before you."

Lopatine and his friends were condemned to death, but afterwards had their sentence commuted to perpetual confinement in the prison of Schlissenbourg.

Mr. Sayce supplements an article which he wrote four years ago on the archaeological discoveries just made in Arabia. The present gives little that is new: it is intended to show how far continued study has corroborated, how far disproved the results then proclaimed.

The other subjects treated in this number are 'Alexander Vinet', a long and thoughtful discussion by M. Gabriel Monod; 'On some Economic Aspects of Women's Suffrage', by Mr. L. B. Haldane, M. P.; 'State Socialism and Popular Right', by Mr. John Rae; 'Lavoisier', by Prof. T. E. Thorpe; and 'Imperial and Local Taxation', by Mr. Thomas H. Farrer, Bart.

In the *Fortnightly* the opening article is entitled 'Mr. Stanley's Rear-guard', and is contributed by Mr. Joseph Troup, one of Major Bartlett's subordinates at Yambuya. Mr.

Troup has published an account of the fortunes of the ill-fated rear-guard. This paper deals only with one point. He tries to show that Mr. Stanley failed to make proper provision for the contingent he left behind, and that no shortcomings of dead or surviving officers can with justice be fastened upon as in any sensible degree producing the catastrophe.

Captain Pembroke Marshall writes on Child Life Insurance, replying to the sensational article by the Rev. Benjamin Waugh, which appeared in a recent number of the *Contemporary*. He charges Mr. Waugh with making wild assertions without proof and in the face of facts, and denies that this system of insurance has produced a great increase of infant mortality. Dr. Koch's consumption cure is discussed by Dr. Berdoe. Commander Cameron furnishes a graphic picture of the late Sir Richard Burton. Mr. W. H. Huribert reveals a serious state of things in French politics. The conduct of elections is said by him to be corrupt in the last degree; so much, so that an opposition candidate, even if elected, has frequently little chance of taking his seat. Ways and means are applied to have the election declared invalid and secure, by manipulation of the electoral roll, the return of the candidate friendly to the ministry.

Two contributions of a more purely literary character are studies of Prosper, Merimée and Descartes, by Mr. Walter Pater, and Mr. W. L. Courtney, respectively. Madame Darmesteter also writes an interesting account of 'Rural Life in France in the Fourteenth Century'. The late financial crisis in London is dealt with more or less directly in two papers, and Mr. Meredith's novel, which presents a somewhat extreme example of the author's mannerisms, is continued.

THE House of Commons is well represented in the pages of the *Nineteenth Century* this month, for no fewer than five Members of Parliament have contributed articles to the current number. In the first and last articles the body to which they belong is somewhat severely criticised by Mr. Cham-

berlain and Lord Grey respectively, who look, however, at the shortcomings of the House of Commons from somewhat different points of view. Mr. Chamberlain's article is called 'Shall we Americanise our Institutions?' and it is a plea for introducing into the procedure of the Lower House something like the summary measures that are taken in the American House of Representatives for the suppression of discussion. His views about the obstruction and the rights of minorities are perhaps somewhat different from what they were in the days of Lord Beaconsfield's Government, but he feels strongly now at least that "it is useless for the people to express their wishes and to return representatives charged to give effect to them if all the efforts of their representatives can be successfully paralysed by a determined and factious opposition." Lord Grey in the concluding part of his article, 'In Peril from Parliament', practically agrees with Mr. Chamberlain in holding that the House of Commons is not of much use now as a deliberative assembly. He would however probably have little sympathy with Mr. Chamberlain's proposed changes in procedure which would tend to make it still more of a mere machine for the registration of votes than it is at present. What changes he himself would propose for the improvement of Parliament he does not mention. His article is the lament of a Whig in whose eyes the British constitution as nearly as possible reached perfection when the Reform Bill of 1832 was passed.

Cardinal Manning, Dr. Hermann Adler, and Mr. H. P. Hughes support the appeal made by Mr. Gladstone to the British public in his review of Mr. Carnegie's pamphlet last month. Their three sermons are grouped together under the title 'Irresponsible Wealth'. This is a phrase drawn from Mr. Gladstone's article, and it is thus defined by Cardinal Manning. "It means the wealth which no law reaches, which the owner does not spend, which is withdrawn from all public cognisance, and is laid up in secret," and of this wealth Mr. Gladstone has told us that Great Britain

possesses year by year six or seven hundred millions. The object of the Cardinal's article is to impress upon men that "the owner of wealth is responsible, absolutely and always. He may bury his talent in the earth, or in the consols, but he will have to give account to the uttermost farthing." He admits that "there is an immense energy of charity in the population of England. But it is confined to a comparatively small number. The subscription lists of our manifold charities show us the same names over and over again, and show also the conspicuous absence of a multitude of names representing a fabulous amount of 'irresponsible wealth'; and, finally, an army of humble and unknown names, on whom the great burden, and the greater blessing, of charity is resting." The social problem weighs heavily upon Cardinal Manning, and in the conclusion of his article he points out where alone the true solution is to be found.

"Nothing can mitigate our social evils but a spontaneous return to the highest counsels of natural and Christian self-sacrifice; in this the people believe, but in nothing else. Neither legislation nor political economy will bring capital and labour to mutual confidence. . . . The sincerity of self-sacrifice wins and changes the hearts of men, and the personal sympathy of men and of women who will go into the midst of those who hunger by day, and shiver by night on the stone benches of the Thames Embankment, is irresistible. This is no new doctrine. It was taught by the life of Him who came to sorrow and to suffer among men. When men see this truth, this Divine vision of a blissful life of love to God and man, no wealth is irresponsible. All things are a trust, not ours but His, with a reckoning near at hand."

The short article by Dr. Adler, the chief Rabbi, is mainly occupied with pointing out that Mr. Gladstone and Mr. Carnegie are enforcing an old lesson under a new name, for the plan suggested is one that is inculcated again and again in the Old Testament. It is interesting to notice that Dr. Adler wishes all success to General Booth in the striking scheme he has proposed.

Mr. Hughes takes a different line

in his contribution to the discussion. He thinks Mr. Gladstone lets Mr. Carnegie off too easily, and proceeds to make an onslaught upon the social system which permits the existence of such persons as millionaires. Since there are such beings it is well that they should employ their money in some such useful way as Mr. Carnegie suggests, but "in no sense whatever is a Pennsylvanian millionaire iron-master a natural, and therefore an inevitable, product."

Mr. Carnegie and his benefactions seem to have an irritating effect upon the extreme social reformers, for Mr. Cunningham Graham in his article on 'Idealism and the Masses', cannot resist the temptation to indulge in a sneer at him as "a man who on the surplus value of the workers of Ohio gives a free library to Dunfermline." Mr. Cunningham Graham is well known as a somewhat vehement socialistic Member of Parliament, and his article affords abundant evidence of the intense antipathy he feels towards the middle classes. He denies that their ideals are high, and regards the ideas of Liberals and Conservatives as equally narrow. In his eyes Mr. Morley and Mr. Gladstone are no better than Lord Beaconsfield. The working classes on the other hand, he maintains, have a noble ideal, an ideal none the less noble because it is material. It is, he asserts, nothing less than the "emancipation of those who live by wages." "This feeling," he adds, "permeates the masses of all countries; this I believe to be a common feeling in the masses."

Mr. Gladstone is the cause of another article in this number. Professor Huxley returns to his favourite subject, and in an article on 'The Keepers of the Herd of Swine' discusses the question whether the Gadarenes were Jews or Gentiles. Mr. Gladstone in his recent work on 'The Impregnable Rock of Holy Scripture' has proved to his own satisfaction that the Gadarenes were Jews, though most likely he is wrong. The point is unimportant, as Professor Huxley himself admits, but the opportunity was too good a one to be lost, and the Professor has set himself to dissect Mr. Gladstone's argument in the

most artistic manner. In his attempt to parry Mr. Gladstone's attack upon himself he is not so successful. In reading this article one feels that it is the ex-Premier and not the Gadarene story that is the real object of attack, and that Professor Huxley would not have taken the trouble to write it had it not been that he thought he saw an opportunity of showing that the methods of which Mr. Gladstone makes use as a biblical critic are similar to those he employs as a politician.

In 'Constantinople Revisited' the Right Hon. G. Shaw Lefevre, M. P. gives his impressions of the present state of Turkey, and 'Adalet' in an article on 'Life in the Harem' gives some interesting information about the life of that country. Mr. Shaw Lefevre reports that many changes have taken place in Turkey of late years, and the same fact may be gathered from the other article referred to. Many of these changes are for the better, but "the real defects of the Turkish Government appear to be the same as ever, namely, not so much the laws themselves as the administration of them or the want of administration, the excessive centralisation, the want of honest and capable governors, the corruption which infects all official classes, the want of money to supply the wants of the central Government and the Sultan, the need of security for life and property."

Mr. Louis J. Jennings, M. P., in his article on 'The Trade League against England', vigorously attacks the present economic policy of Great Britain, and strongly recommends the imposition of import duties. 'Give back the Elgin Marbles', by Mr. Frederic Harrison, is a plea for the restoration of these famous sculptures to their ancient place on the Acropolis. The air of London, he maintains, is slowly destroying them and Athens is now a great international art school, fully as central for Europe as the British Museum is. The other articles in this number are 'Birds', by Sir Herbert Maxwell, Bart, M. P.; 'Women as Public Servants'; and reviews of 'Noticeable Books', by several well-known men.

THE MADRAS CHRISTIAN COLLEGE MAGAZINE.

FEBRUARY, 1891.

AUTHORITY IN RELIGION.*

He taught them as one having authority and not as the Scribes.—*Matthew*, vii. 29.

A prophet mighty in deed and word before God and all the people.—*Luke*, xxiv. 19.

Never man spake like this man.—*John*, vii. 46.

We live in an age of criticism. During the last fifty or sixty years no department of human activity or thought has escaped the searching examination of a spirit which it never altogether dormant sprang into new life in the first half of this century. The principles of science, of politics, society, art, literature, and religion have all been subjected to an unsparing and anxious, if at times captious, investigation. It is sometimes affirmed, and there is ground for the affirmation, that in the West we are emerging from the stage of criticism and are entering upon an era of re-construction. However this may be, there can be no doubt that, whatever be the leading general characteristic of an age, wherever there is mental activity the individual passes through a period in which his critical faculty predominates. For very apparent reasons early manhood is the time of life when this is specially the case. The results arrived at then by the individual continue usually throughout the greater part of life to be regarded by him as final, and the principles he has formulated largely determine his conduct. No class of topics is more eagerly canvassed by young men than those affecting conduct, and no formative force receives more attention of one kind or another at their hands than religion.

* A sermon preached in the Esplanade Church, Madras, on the 24th August, 1890. This sermon deals mainly with the form of authority in our Lord's teaching, and this only as far as seemed suitable to the purpose of the pulpit. A further question is suggested which may be dealt with on some future occasion.

Now, however much the critical spirit may predominate, there is in the mental constitution of most men a strong demand for authoritative guidance in matters of religion. With some of course this demand is so imperative that it represses any attempt at inquiry as to the grounds of authority; while with others it comes to be felt only when the results of their critical method are found to be insufficient. When these latter at last find satisfaction, it is not unfair to say that the pursuit of their method has given them an authoritative guide. When we get face to face with what can afford effective guidance, it is seen at once that it is somehow fitted to the deep inward requirement. The period, however, during which the mind is in a state of flux is for many a very trying time. They feel as if they had been dropped into deep waters, where they lose sight of familiar landmarks, where the billows go over their heads and blot out the mysterious infinity of the calm blue sky. It seems rough treatment to be cast into the sea, when one has never learnt to swim, with an imperious necessity laid upon one to choose between sinking and swimming.

Let me suppose the case of a young man who has spent his youth in some quiet place, remote from the great surging stream of the world's activity. Under the care of godly parents his mind has never been disturbed by any of the questions that agitate men. His faith is simple and has never received any rude shock from those whose opinion or position he had any regard for. When, however, he comes forth into the world, he begins to hear opinions and views, which, it may be, he has hitherto associated with the enemies of his faith, expressed by those whom he cannot so regard and whose words he is willing to respect. He may find that without any conscious intention on his part, perhaps almost against his will, he is becoming entangled in a current of thought the exact drift of which he cannot divine and where it may carry him he does not know. He is leaving the old familiar moorings; he is swinging out into the stream, which he feels holds him every moment more and more at its mercy. Questions concerning the Bible, concerning God's dealings with men, assail his mind on every side. The expansion of his knowledge is itself a trouble;—the old framework will no longer hold it. Difficulties arise that cannot be got over by the old simple dicta; accommodations can no longer be made by the familiar methods. All this is what ought to happen with an intelligent youth brought up in the way I have described. But though something such as this ought to be his experience, unquestionably his position

is a trying one and not without its dangers. He may sometimes feel as if to attain certainty were an absolute impossibility, and as if the very foundations of right conduct and of religious belief were at best only a matter of opinion. Now, what such a person seeks for, or at any rate what he requires, is an authoritative guide. He will not find it in the Church, with its traditions and offices, if he would retain his intellectual consistency. From the nature of the case supposed, he no longer finds it in the Bible as a whole, for he has not mastered the method by which to sift its temporary injunctions from its eternal truths. But I say he will find the guide he needs in the Christ of the Gospels. He will find in Him one who knew life, who laid His hand on all its fierce turbulent forces and made them yield to His gentle sway. So long as we accept and live under the power of those truths on which He affords authoritative guidance, intellectual difficulties need not disquiet the heart. With patient investigation we shall arrive at a solution whereby we shall find that, if much that we hoped might prove true has to be surrendered, we have gained a profounder knowledge of God and of man's relation to Him.

The subject, then, on which I wish to speak for a little is, the authority manifested in Christ's teaching. The three texts which I have quoted give the three divisions of my subject, as I intend to contrast the authority of His teaching with that of the Scribes, with that of the Prophets, and then with that of any human teacher.

1st. The Scribes; who were they and what did they teach? The Scribes were the learned class among the Jews: they were trained lawyers and taught the people in the law of Moses and the tradition of the Elders. From the various references to them in the Gospels we gather that this class did not worthily discharge the great trust committed to them. They imposed grievous burdens on their fellows, while they exempted themselves from any share in them. They were strict formalists and loved ostentation. In their efforts to adapt the Mosaiic Law to the changing circumstances of life, and to fill up every relation of life with its requirements, they argued, they quibbled, they split hairs, they even explained away the divine law. In the twenty-third chapter of Matthew Christ unsparingly exposes the shallowness of their reasoning processes; and in His various collisions with them on the Sabbath question He showed them how by insisting on the letter of the law they had entirely crushed out its spirit. Every minute detail of life they sought to prescribe by an appeal to the precepts of the

Written or the Traditional Law. They could originate nothing but a deduction: "Moses in the law commanded us," or "It is the tradition of the Elders," had always to be their points of departure.

Christ's teaching from the outset was a marked contrast to that of the Scribes. The strict forms and usages in which the Jews walked with the constraint of a man cramped within a heavy suit of mail, Christ cast off and proceeded freely to enforce not the letter, but the spirit of the law. The silent claim of absolute authority for so doing was quite a novelty. In the Sermon on the Mount—the discourse on which the words of our first text express the popular judgment,—while He does not profess or attempt to draw out any deductions from the Mosaic Law, Christ pierces with the undimmed eye of divine intuition to the very core of that Law and pronounces those to be blessed who know the spiritual truth lying there and whose practice conforms to it.

While thus ratifying the Law and the Prophets, our Lord at the same time assumes the position of one who has authority to revise and add to them. There is a striking contrast running through a great part of the discourse. Christ places Himself over against "them of olden time," and *six* times He strikes in with the authoritative words, "But I say unto you." For the traditional law He shows no respect: He repeatedly repeals it and enjoins the direct contrary of its precepts. Thus instead of the precept, "An eye for an eye, and a tooth for a tooth," so admirably fitted to suggest revenge, His new law is, "Resist not him that is evil": instead of ratifying the command to hate thine enemy, He says, "Love your enemies, and pray for them that persecute you." Twice in reply to the same question put to Him by different persons, Christ took up a position of authority towards the law, in the one case adding to it and in the other defining it. The question asked was, "What shall I do to inherit eternal life?" On both occasions Christ referred His interrogators to the Law. In the one instance, on Christ's repeating the Commandments, the 'young man', 'a ruler', replied that he had kept them all from his youth up: but the Master unhesitatingly said:—"One thing thou lackest yet: sell all that thou hast and distribute to the poor." A strict adherence to the law, accompanied even by the worldly prosperity which among the Jews was reckoned the seal of divine favour, was thus declared to be an insecure title to the inheritance of eternal life. The other occasion referred to, when the Master defined a point of law, was in his reply to a lawyer who stood up to tempt Him. During the dis-

cussion the question was raised, "Who is my neighbour?" upon which Christ spoke the parable of the Good Samaritan, defining the term neighbour, and utterly discomfited his questioner, who doubtless had not regarded the question from that point of view before. We see, then, how the originality of Christ's teaching manifested an authority which distinguished Him from the Scribes.

2nd. Let us now look at the second division of our subject:—"Jesus of Nazareth, who was a prophet mighty in deed and word before God and all the people." Jesus of Nazareth was a prophet; but was there anything in Christ's teaching which showed that He was possessed of a higher authority than the Old Testament prophets or than John the Baptist? I am not at present concerned to inquire as to *how* God communicated His mind to the prophets—the manners were divers,—nor yet do I inquire as to the variety of His communications. It is enough for us to know that there did arise in the community of Israel men designated by a variety of names—seers, messengers of God, servants of the Lord, or prophets as we invariably call them—who were sent by God to reveal the mind and will of Jehovah on some crisis in the moral or political history of the chosen people. The prophets in delivering their message of warning, denunciation, or love made it distinctly understood that they were not self-sent, but sent by Jehovah and that the words they spoke were not *their* words but *His*. Their prophecies were constantly prefaced with the words, which were no empty formula:—"Thus saith the Lord:" "The Lord hath spoken:" or "The word of the Lord came to me."

Now, though we shall see that Christ in His teaching claimed the right to speak the mind of the Lord more fully than any previous prophet, we are not therefore to suppose that He claimed to be self-appointed to the office of prophet. The authority was a derived authority in His case too. For example, when in the synagogue of Nazareth He made known His commission, He used the words of Isaiah:—"The Spirit of the Lord is upon me, because He anointed me to preach good tidings to the poor: He hath sent me to proclaim release to the captives." On another occasion Christ said, "This is the will of Him that sent me;" and again, "The living Father sent me;" while elsewhere He says distinctly, "My teaching is not mine, but His that sent me;" and again emphatically, "I am not come of myself."

But, though Christ's authority was thus derived from the Father, He claimed to hold a commission as a prophet much higher than

all that had gone before. John Baptist was but His forerunner, yet Christ said of him that he was "more than a prophet;" and among them that are born of women there was none greater than John. Jesus of Nazareth claimed to be greater than Jonah, who carried a message from God that wrought repentance in the hearts of the men of the great city Nineveh: His wisdom was greater even than that of Solomon. Indeed Christ's teaching took a form of authority that would not have been justifiable, if He were not more than one of the messengers of the Lord who had so frequently appeared among the chosen people. While He repeatedly says, "This is the Father's will," it must strike any attentive reader of the Gospels that He frequently appeals to His personal authority in such unequivocal phrases as, "Verily, verily I say unto you," or, "Believe ME." In fact there is a sublime, a divine egotism in Christ's language.

A still higher claim Jesus of Nazareth makes to authoritative utterance. He claims to be possessed of authority to deliver the *last* word from God to the world, and to be the only one who knows the mind of the Lord. "All things," He says, "have been delivered unto me of my Father: nor doth any know the Father save the Son, and he to whomsoever the Son willeth to reveal Him." Even all judgment is given to the Son, so that He has the final destinies of all men in His hand: and it is only in harmony with this that Christ should claim for Himself such an absolute control over life as to say, "I am the bread of life;" "I am the water of life;" "I am the light of the world;" "I am the way, the truth and the life." Had there ever been a commission so absolute and so comprehensive? Can it receive any other explanation, I ask, than that given by Him who held it, "I and my Father are one"—a perfect harmony of mind and will springing from a mysterious unity?

But while Christ's utterances took thus an authoritative form, it was not outside His purpose to persuade men that He was indeed possessed of the power He claimed in words. In the discourse recorded in the fifth chapter of John we find that He appeals to the witness of the Baptist, of His own works, of the Father and of Scripture in confirmation of His lofty claim; and we can see throughout His whole teaching that He was not so dogmatic as not to take trouble to suit His teaching to the capacity of His hearers, but urged them to receive the truth He taught with the aid of illustrations from nature and every-day life.

3rd. This brings me to consider the third division of my subject,

—Christ in contrast to any human teacher:—"Never man spake like this man." There can be little doubt that it was the assumption of personal authority that led the emissaries of His enemies to pronounce this judgment on Christ's teaching; and certainly this element in it which they recognised does distinguish Christ from other masters. A teacher who seeks to be something more than a compendium of all known facts, who seeks rather to make his disciples think for themselves, appeals as little as possible to his own authority. He uses reasoning, he discloses the methods by which results are arrived at. The man who professes to instruct his disciples in the right way of life does so almost as a matter of course. He knows that when away from himself those whom he has instructed may find that the precepts for the guidance of life which he has given them have little living hold upon them when backed up merely by his authority. Accordingly we find that Socrates, the greatest pagan teacher of antiquity, sought that his personal authority, even though established by the oracle, should count for nothing at all, and that his arguments should have all the weight they deserved. In fact, as the author of *Ecce Homo* puts it, "he professed to know nothing because he wanted to exalt his method at his own expense."

Now, Christ proceeded in a manner the very reverse of this. You never find Him seeking to prove by demonstration any moral truths. He takes them for granted. But more than that, He claimed absolute knowledge on the subjects He dealt with. He knew Himself perfectly, so that He could say that He knew whence He was and whither He went. He also knew what was in man and needed not that any should tell Him. Christ perpetually and consistently exalts Himself; and unhesitatingly appeals to Himself as the final authority. His doctrine, as Newman Smyth has said, is never a question and a weary doubt: it is an uninterrupted affirmation. Thus to how many of the deepest questions of the human heart did Christ give an unwavering "Yea." Do we ask falteringly, Is there another life beyond this? He replies, "I am the Resurrection and the Life." Is God knowable? Yes, He says: "If ye had known Me, ye should have known my Father also: and from henceforth ye know Him and have seen Him." Is God thoughtful of His creatures, or is He a God that sits apart outside the world He has made? Christ answers, "Your Father knoweth what things ye have need of: and the very hairs of your head are all numbered." Is prayer a power with God? Yes: "Ask and ye shall

receive." Will justice ever be done—"justice now mocked and trodden under foot of men?" Yes, Christ replies, "Many that are first shall be last, and the last shall be first." But can sins be forgiven us? "Son," He says, "thy sins be forgiven thee."

In fact in the whole region of the spiritual world Christ assumes the position of one who had come, not so much to teach, as to reveal. Truly no man had ever so spoken as He did. The subjects on which He spoke are the highest and the most moving on which men ever speak, and Christ spoke upon them unhesitatingly, absolutely: He planted His foot firmly where another would lose himself in a quagmire of baseless speculation.

But it is not only in the region of belief that our Lord is thus authoritative; but also in the region of action. All teachers have to stop short when they have shown men what is right or what is good. They find themselves unable to make men good. But Christ's teaching was so framed as to impart to men the power to be good—to be perfect, "even as our Father in heaven is perfect." For this end Christ urged *belief in Himself*, and not in some abstract formula. Thus He was most peremptory in His demand for an absolute personal devotion to Himself, on the part of his followers. If a man would not be willing to forsake home and friends and possessions, he could be none of His. Belief in Him was the only safety for men:—"If ye believe not that I am He, ye shall die in your sins."

But without a sufficiently strong motive men will not conform themselves to that which is distasteful to them: they will not seek the end of their being as disclosed to them by Christ, unless Christ give them that which will overcome their natural love of self. This it is that He has done, however. The whole of mankind He has laid under obligations to Himself, not only by what He has revealed, but by what He has *done* for them. What He has done for men has attached them to Him with a warmth of devotion which the world has never seen entertained for any other person. In dying for them, Christ left to men a legacy of love which bends them ever to His will, a love ever quickened in the soul when a man reviews and realises what he owes his Saviour. "The love of Christ constraineth us" that we should henceforth live not unto ourselves, but unto Him that died for us and rose again. What Christ has done has put the seal of an unquestioned authority upon His words. And if amid all the unrest and perplexity of life, if in the presence of distracting problems we be willing to listen to His authoritative words and

yield ourselves to His love, we shall find that deep down in our hearts there abides a peace which the world has not given and which it cannot take away.

JAMES M. RUSSELL.

HOW THE JACOBITES CAME TO MALANKARAI.

I.

Portuguese historians divide the history of their nation's prosperity in India into three periods. The period of its infancy extends from the end of the fifteenth century, when Portuguese intercourse with India began, down to the year 1561. From that time to the year 1600, they regard as the period of its manhood or full vigour. At the last date they reckon its old age to have commenced; and it has since become so decrepit as to be only the shadow of a great name. It is the old story: prosperity begat luxury and self-indulgence, while these in their turn begat inertia and moral weakness; and, where the carcass is, there the vultures assemble. Towards the close of the sixteenth century the Dutch threw off the Spanish yoke in the Netherlands; and, the ports of the Iberian Peninsula being thenceforward closed against them, they turned their attention to the commerce of the East where they soon became formidable rivals to the Portuguese. In 1595 they captured Java, where they founded the city of Batavia, the capital of their possessions in the eastern Archipelago. This success was followed in a few years by the capture of Formosa, Amboyna, Sumatra, and several smaller islands. In the year 1603, they began trading with Ceylon and soon had a large commerce in its productions. For some years they seem to have limited themselves to these peaceful occupations, but in 1632 their ambition stretched beyond the bounds which had hitherto confined them; and, when in 1636 their designs of conquest became known to the king of Kandy, he invited them to help him to effect his deliverance from the arrogance and tyranny of the Portuguese. Accepting this invitation, the Dutch lost no time in sending a strong armament to the king's assistance; and, after a long struggle, Colombo, the capital, yielded; the power of the Portuguese in Ceylon was destroyed; and they were expelled from the island.

In 1660, four years after the capture of Colombo, they took

Negapatam from the Portuguese and made it the capital of their possessions on the Coromandel coast. They next turned their attention to the Portuguese maritime towns in Malabar, the possession of which they considered essential to the safety of their commerce. They succeeded in taking Quilon about the end of the year 1661; and, in January of the following year, they captured by assault the town of Cranganur, which was the residence of the Jesuit Archbishops, who then ruled over the Syrian Christians, in place of their own metrans.

The taking of Cranganur was soon followed by the siege of Cochin, which submitted to the Dutch in January 1663. This was the death-blow to the Portuguese power in India, whose possessions were now reduced to the city of Goa and a few places of minor importance to the north, and thus practically the whole area within which the Syrian Christians dwelt fell under the dominion of a European Protestant power.

But before this political change occurred, one of those hopeful outbursts of indignation, which serve to show what might have been, was manifested on the part of the Syrians. It was in the year 1655 that the Syrians met in thousands round 'the Coonen Cross', in a village near Cochin, and took an oath that they were done with Portuguese bishops and would never again acknowledge them*. The occasion of this demonstration was that one Atalla,† a bishop, having been sent by the Patriarch of Babylon to India and having landed at Mailapur, had been seized by the Portuguese and put on board ship to be conveyed to Goa and consigned to the Inquisition. When the Syrians became aware that the bishop intended for them was thus doomed to destruction, their indignation knew no bounds; and the numbers being so great that all could not touch the cross in taking the oath, they connected themselves with the venerable symbol by means of ropes along which

* The see of Malankazai was ruled by Roman dignitaries from the date of the Synod of Diamper 1599 till 1653, when the authority of the Jesuit Archbishops of Cranganur was overthrown. Not all the Syrians however renounced Roman jurisdiction at the latter date. They were then divided into two parties: the Puthenkeor or new community, and the Palayakeor or old community. The former became Jacobites, and the latter continued to be Romo-Syrians. The Jacobites were probably then, as they still are, in a majority of about 3 to 1.

† The name Atalla or Ahatalla is said to be equivalent to the Greek name Theodore. It has been asserted that this person bore the title of Mar Ignatius and that he was really the Jacobite Patriarch of Antioch. I am not aware on what authority this assertion rests; but for my present purpose the question is not important.

the current of 'virtue' might flow to sustain them in the brave stand which they now resolved to make for liberty.

Then and there they appointed a provisional government of the diocese, choosing Archdeacon Thomas as their bishop, and taking such further action as seemed necessary for carrying on the work of the church. It was ten years after this memorable incident that the Dutch became masters of Cochin; and, though they did nothing directly for the benefit of the Syrians, they undesignedly did them a great kindness, when, for reasons of their own, they ordered all foreign ecclesiastics of the Roman rite to leave their newly won territory. Released from the tyranny of the Portuguese priests, the Syrians might have been expected to look forward to an independent future and to solve once for all the problem of self-government. But they did not avail themselves of the splendid opportunity which Providence gave them, and from that day to this they have shown a degree of indifference on the point but too characteristic of the Oriental. Leading-strings they loved and in leading-strings they were content to go. If the supply of bishops from the Patriarch of Babylon was hopelessly cut off, they would not refuse a bishop from any other Oriental sect, and so they were fain to take the first that came their way. He happened to be a Jacobite, but such as he was they vastly preferred him to any bishop from the West.

II.

To trace the origin and progress of the Jacobites, we must go back to the days of the controversy concerning the constitution of the person of Christ in the fifth century, and especially to that phase of it which connected itself with the name of Eutyches, an Egyptian monk. The question of the period was: Are there in the one person of Christ two distinct natures, or only one? Eutyches adopted the latter alternative; but he had no clear ideas on the subject. He *felt* rather than *thought* on the subject of Christology. When pressed with the question how the two natures became one,—whether by chemical union, as in the case of gold and silver combining to form *electrum*,—he replied that the union was not of that kind, that it cannot be explained in words, that it surpasses all comprehension. After being further pressed for an answer, he ventured to say that the divine nature remains and the humanity is absorbed by it as a drop of honey is absorbed by the sea. If compelled by fact to admit that the humanity was still there, not drunk up like a drop of honey by the sea of his divinity, he refused

at all events to regard it as on a level with ordinary humanity: reverence protested against calling Christ's divine body consubstantial with the bodies of common mortals.

It would have been well had the course of events permitted such a man to pass his life in obscurity. But it was otherwise ordered. Eutyches became the representative of a theory which engaged the attention of three synods: being condemned at Constantinople 448; approved at Ephesus 449 by the Robber Synod, which was so named by reason of the violence of its proceedings; and re-condemned and finally disposed of as a heresy by the famous Ecumenical Council of Chalcedon in 451. "The policy of that council was to steer a middle course between Nestorianism and Eutychianism, the former being conceived as teaching two persons in Christ, the latter as teaching that there was not only but one person, but moreover only one nature; the one nature being predominantly divine, and, in so far as human, not like the nature of other men. Between the two extremes, so conceived, there was plenty of room for a middle course, and no very skilful pilotage was needed to keep the vessel within the limits of safe navigation. The pilot in this emergency, as is well known, was the Roman bishop Leo, whose letter to Flavian, Patriarch of Constantinople, concerning the errors of Eutyches, guided the deliberations and fixed the judgment of the Fathers assembled at Chalcedon, and thus became an epoch-making document in the history of Christology."* The decree of the Council of Chalcedon was briefly this, that in the person of Christ there are two distinct natures and one person.

But the action of the Council did by no means stay the progress of controversy. Only it would be unsuitable in this place to follow it through all its further phases. The heretics who were condemned separated into two classes and may be grouped around different centres. These groups or centres are (1) Syria, Mesopotamia, Asia Minor, Cyprus, and Palestine; (2) Armenia; (3) Egypt; (4) Abyssinia. The Armenians embraced the Eutychian view that the divinity is the sole nature in Christ, the humanity being absorbed, while the Egyptians and Abyssinians held to the doctrine, which is specially called Monophysite, that the divinity and humanity make up one compound nature in Christ.

The west Syrians, or the Syrians of Syria Proper, now no longer

* See *The Humiliation of Christ*, chapter ii., by the Rev. Professor Bruce, D.D. Edinburgh: T. and T. Clark, 1881..

Nestorian, fluctuated between the two forms of opinion; and, after at first adopting the Eutychian tenet, were drawn into that of the Monophysites chiefly by the influence of Severus, Patriarch of Antioch, who, "on the one hand rejected the extreme tenet of Eutyches, that the divinity is the sole nature in Christ, and, on the other, would not, as some of the earlier Monophysite patriarchs of Alexandria, leave the dogma of one or two natures an open question." (Neale.)

In the time of Justinian, the Monophysite party in Syria was threatened with becoming gradually extinct, owing to the deficiency of clergy, of whom the emperor had found ways and means to deprive them, when a man arose among them, who was distinguished for indefatigable zeal and who did more than any one else towards preserving and extending the Monophysite communion. This was Jacobus Zanzalus, commonly surnamed Baradaus, or the man in rags, from the circumstance that he went about in the guise of a beggar. He belonged to the monastery of Phasitla, in the district of Nisibis, and was ordained by certain imprisoned bishops to be the metropolitan of their church. Traveling hither and thither with great rapidity in the face of many dangers, he visited the Syrian and neighbouring provinces, ordained clergy for his party, and gave them a Patriarch of Antioch for their superior. By this means he called down upon himself the indignation of the orthodox clergy and the emperor, and orders were given to seize him, but his beggar's disguise secured him from capture. In this manner he continued his labours with great success for thirty-three years, until his death in 578. It was from him that the Syrian Monophysites were called Jacobites; and it was by his ordination of Sergius as successor to his master that the heretical succession was kept up.

Though the head of the Monophysite sect claims the rank and prerogatives of the Patriarch of Antioch, it is to be remembered not only that he is both a heretical and schismatical patriarch, but also that there are other three Church dignitaries who all claim the same title. These three are: first, the orthodox patriarch of Antioch, who sits on the throne of St. Peter and St. Ignatius, and who lives to-day at Damascus; second, the head of the Maronites who dwells in the monastery of Kanobeen in the district of Khesrowan in Mount Lebanon; and third, the Roman anti-patriarch who dwells at Aleppo. The Jacobite patriarchs of Antioch, being unable to reside at that city while it remained in the power of the emperors,

settled themselves at Amida (Diarbekr) on the Tigris, where they still have their head-quarters. They also pass much of their time in the monastery of St. Ananias, near Mardin. Since the end of the sixteenth century they have invariably taken the name of Ignatius.

Finding that the whole of Asia was more than the patriarch could possibly superintend, the indefatigable Zanzalus ordained Achudemes Maphrian of the East beyond Tigris. This word Maphrian signifies fruit-bearer; and the new dignity bore the same relation to the Jacobite see of Antioch that the Catholicos of Seleucia originally did to the orthodox possessors of that throne. His designation is always Bâsil and his head-quarters Mosul.

It is well nigh impossible to estimate the number of Christians subject to the Jacobite patriarch. As many as a hundred and three episcopal, and twenty metropolitan sees are reckoned as having belonged to him. But at the end of the sixteenth century there were not more than twenty of both kinds; and at a later period only five metropolitans, viz., those of Diarbekr, Mosul, Maadan, Aleppo, and Jerusalem.

The Jacobites have not been distinguished for great theologians or for great works in theology; but the Syro-Jacobite liturgies are very numerous, no fewer than forty-one being described by Neale. Gibbon finds only one name of eminence among them, and on Abulpharagius, otherwise known as Gregorius Bar Hebraeus, he has pronounced a well-deserved panegyric. He adds, however, that "the sect which was honoured by the virtues of Abulpharagius appears to sink below the level of their Nestorian brethren." "The superstition of the Jacobites," he continues, "is more abject, their fasts more rigid, their intestine divisions are more numerous, and their doctors (as far as I can measure the degrees of nonsense) are more remote from the precincts of reason."*

III.

Such then are the Jacobites; and it was one of their number, Gregorius, styled Metropolitan of Jerusalem, that the Syrians of Malabar had the pleasure of welcoming among them when their church was thought to be in a state of widowhood. It was in 1605 that Gregorius arrived, and he was cordially received by metran and people as giving encouragement to their feeble hope of regaining connection with an Oriental church. Gregorius seemed to

* *Decline and Fall*, chapter xlvii.

them to be sent by Providence in answer to their prayers. As the officiating bishop, whom we may now call Mar Thomas I., had never received the formal rite of episcopal consecration, it was deemed advisable that he should undergo this solemnity at the hands of Gregorius. For twelve years Mar Thomas I. had administered the see without imposition of hands, having received only such call and consecration as his fellow-believers could give. But now, having among them, as they believed, a duly consecrated dignitary of the Jacobite Church in high Asia, there was no longer any reason for the omission of this formality. The consecration was accordingly performed, and Gregorius seems to have exercised a sort of joint rule along with the native metran till death, in which they are said to have been divided by the space of only two days. It is by no means certain whether they or either of them had previously consecrated a successor; but it may be admitted as probable, although there is certainly no historical evidence on the point, that Mar Thomas II. was likewise consecrated by Gregorius. Meanwhile several other foreign prelates came to Malabar, but the information available concerning them is peculiarly meagre. One Mar Andrews is said to have come in 1678, but no ecclesiastical act is ascribed to him and no good service of any kind. His whole known history is summed up in the suggestive words of Paoli, *ebrius in flumen prolapsus mortuus est*. In 1685, the year to which the death of Gregorius is commonly assigned, Mar Basilus Catholica, Mar Ivanius Episcopa, two Armenian priests, and others arrived in Malabar from foreign parts; but from what parts or with what credentials history leaves us uninformed. Mar Basilus died very shortly after his arrival in the country, but Ivanius had a career before him; for Mar Thomas II., having been struck by lightning, suddenly died; and the administration of the see seems to have fallen for a time to Ivanius. *Presently he consecrated and appointed Mar Thomas III. as metran of Malankarai; but, as the latter enjoyed this dignity for only two years, he next consecrated the Anandaravan* of the deceased as Thomas IV., and, having done

* The metrans or bishops of Malabar were chosen from the Palamattam family, which, according to the Syrian legends, was selected for this distinction by St. Thomas himself. The Anandaravan was that member of this family, who, according to their laws of inheritance, was, so to speak, heir-apparent to the episcopal throne. This practice was undoubtedly very ancient, and it continued till about the middle of the first quarter of the present century, when the Palamattam family appears to have died out. The same practice is still observed by the Nestorians of Kurdistan, among whom the office of Patriarch is hereditary, not elective.

much to free the Syrian Jacobite churches from practices which had crept into them by long contact with Nestorians and Jesuits, he died in 1694 and was buried at Malanthurathu.

During the time of Mar Thomas IV., Mar Gabriel, a Nestorian bishop, came to Malabar. He is described by Paoli as an *implacabilis hostis Jacobitarum*. On account of his creed neither the metran nor his people acknowledged him, nor would they allow him to preach in their churches. Nevertheless some of the Syrian clave to him and thereby made factions; and for twenty-three years, or till his death in 1731, this man managed to retain a position and to take some part in the administration of the church. Mar Thomas IV., without consulting Mar Gabriel, consecrated his own Anandaravan with the designation of Mar Thomas V., by whom he was succeeded in 1728. In 1747 Ezekiel, a Cochin merchant, brought from Bassorah Mar Ivanius, of whom little seems to be known, except that Paoli calls him a Jew. But in consequence of his interference with images in the church, the metran and the people united in opposition to him, and "resolved that, since it was the practice for prelates, who had up to that time come from foreign parts, to be subject to the metran and archdeacon of Malayalam, a proper prelate should be got down." A letter was accordingly despatched to the Jacobite Patriarch of Antioch, who sent Basilios Catholica, Gregorius, and Ivanius, who with some others arrived at Cochin in 1751, bringing with them many copies of the Jacobite liturgy. A letter from the patriarch to Thomas V. seems to show that the latter had questioned the necessity for imposition of hands under authority from Mardin. "You wilfully contend," writes the patriarch, "that the perfection of your dignity is not needed," and he goes on to allege that Mar Thomas V.'s consecration had consisted in the placing of the episcopal mitre on his head by a priest.* Further on, the metran is exhorted to become obedient, and "got his episcopal title confirmed." Whether the patriarch's letter had the desired effect, and whether Mar Thomas V. submitted and was re-consecrated, are questions which we have not the means of satisfactorily answering; but, if he was re-consecrated, the act must have been more of the nature of extreme unction than a qualification for admission to office, for he died soon after the date of the alleged re-consecration.

In 1761 Mar Thomas V. raised his Anandaravan to the dignity of episcopa as Mar Thomas VI. and died in 1765. Though the re-consecration of the former by foreign prelates is probably apocry-

phal, yet their re-consecration of the latter seems to be an admitted act. It took place in 1770, and, strange as it may appear, this is the first and last occasion when any ordination of a metran of Malankarai took place by admitted authorization of the Jacobite Patriarch of Antioch. In the case of those that follow, no one pretends that any of them were consecrated by authority derived from the patriarch; and, as for those that precede him, we shall presently sum up our finding.

From the date of his re-consecration Mar Thomas VI. governed the diocese for upwards of thirty-seven years; and, being a man of considerable influence and administrative capacity, whom we shall meet with again in our study of the career of Dr. Claudius Buchanan, is not unfrequently referred to as Dionysius the Great. In 1796 he consecrated Matthau Ramban as Mar Thomas VII., and the latter succeeded to the administration of the see in 1808; which however he held only for one year when he died. Soon afterwards, that is in 1813 or 1815, the Palamattam family appears to have become extinct, and at all events it supplied no more bishops for the see of Malankarai.*

* I subjoin, for the sake of easy reference, a list of the native metrans of Malankarai, from the beginning of the Jacobites' régime; with this caveat, however, that the dates here given are only such approximations as can be derived from the somewhat inconsistent materials available:—

Date of accession to office.	Name of Metran.	By whom consecrated.	Date of death.	Remarks.
1653	Mar Thomas I.	Mar Gregorius (1665).	1683.	Ruled 12 years before consecration.
1685	" " II.	Unknown; perhaps Gregorius.	1686	
1686	" " III.	Mar Ivanius.	1688	
1688	" " IV.	" "	1728	
1728	" " V.	Mar Thomas IV.	1765	
1765	" " VI.	Mar Thomas V. (1761), and Foreign Prelates (1770).	1808	
1808	" " VII.	Mar Thomas VI.	1809	This metran and the next five following never directly or indirectly received consecration from the Patriarch.
1809	" " VIII.	" " VII.	1816	
1816	" " IX.	" " VIII.	1817	
1817	Mar Pulikoto Dionysius.	Philoxenos of Tholiyur.	1818	
1818	" " Punnathurai Dionysius.	" " "	1827	
1827	" " Cheppat Dionysius.	" " "	1852	
1852	" " Athanasius.	Jacobite Patriarch of Antioch (1842).	1877	First native of Malabar consecrated by the Patriarch.

It is unnecessary to pursue the detailed history of these native metrans. Enough has been said to show how loosely the whole of the ecclesiastical business was conducted; how dependent the Syrians were on the services of foreign bishops; and how dear to their heart it was to see a prelate from high Asia among them. The services of these foreign prelates were so given and received as to exhibit on both sides a ludicrous attempt to keep up a show of apostolic succession, and the way in which it was done was enough to reduce apostolic succession, in Malankarai at least, to a farce.

1. It is important to notice that most of the foreign prelates that came to Malabar were mere adventurers and not a few of them bad unscrupulous men, altogether unworthy of the position to which they aspired. Those who performed episcopal acts, as well as those who did not, have left behind them no evidence to show that they were duly accredited representatives of the Jacobite Patriarch of Antioch. When the whole case of the succession was recently sifted in the courts of Travancore, no evidence of authorization in favour of any of the bishops was forthcoming until we come down to those who re-consecrated Mar Thomas VI. Even the documents produced in their favour are not unanimously accepted by the judges of the Royal Court. Of Gregorius, who consecrated Mar Thomas I. and perhaps also Mar Thomas II.; of Ivanius who consecrated Mar Thomas III., and Mar Thomas IV., not a shred of evidence is producible to free them from the suspicion that they came on their own account and to serve ends of their own. In fact the coming of the latter prelate, with a companion who died soon after their arrival, is described by the two Hindu judges in the Royal Court as being "from foreign parts, but from what parts the histories do not clearly say, but, from the circumstances attending their reception by the people of Malabar, it is only fair to presume that they must have come" from the Jacobite Patriarch of Antioch, or under directions from that dignitary. And even if we admit the validity of the claims of the re-consecrators of Mar Thomas VI. as genuine representatives of the Jacobite Patriarch, it certainly does seem but a poor account of the state of church-order and ecclesiastical procedure in Malankarai during the first century of its connection with that see, when—from 1653, the year in which the Syrian Church asserted its independence of Rome, down to 1852, the year in which the first native of Malabar that ever received consecration direct from the hand of the Patriarch, was installed as

metran—the judges of the Royal Court of Travancore found in the mass of documents laid before them, only one which could be regarded as proof of ordination by delegation from the Patriarch. Thus the net result of two hundred years' connection with the Jacobite see of Antioch is that one metran is re-consecrated by delegation of the Patriarch and another directly by the Patriarch's own hands. All the rest were, so far as documentary or other legal evidence is concerned, without authority; and there is no proof that they were bishops at all.

2. But not to press this point, let us assume for the sake of argument—what cannot be conceded on any other ground—that all who came to Malankarai from foreign parts and performed episcopal acts in the Syrian Church, or took part in the ordination of metrans, were bishops duly authorised in that behalf by the Jacobite Patriarch of Antioch, what ecclesiastical position was acquired thereby? The answer to this question cannot be very satisfactory to those among the Syrians who try to uphold the formal continuity of apostolic succession in their church. By their acceptance of the services of those foreign prelates, they became Jacobites; they became connected, that is to say, with a heretical and schismatical church. I am not here using my own words in describing the church of the Jacobites. I am following the lead of an expert in ecclesiastical archæology, one who gave much of his life to the study of the Eastern Church in all its phases. Dr. Neale* has shown that the Jacobites, having derived their existence as a sect from Severus, the heretical and schismatical Patriarch of Antioch, were themselves both heretics and schismatics. It is a moot-point in ecclesiastical law whether schism does or does not nullify ordination and cause the church, which is the subject of it, to lose the notes of a true church. But, according to Newman, there can be no doubt about what 'the traditional view' on this subject was. In the preface to the third (1877) edition of the *Via Media*, § 32, the late Cardinal wrote:—"As regards schismatical ordination, as of the Donatists: on this occasion, Rome stood firm to her traditional view, and Augustine apparently concurred in it; but the African bishops on the whole were actuated by their sense of the necessity of taking the opposite line, and were afraid of committing themselves to the principle that heresy or

* See his *History of the Holy Eastern Church*, General Introduction, Vol. I. pp. 151-2. London: Joseph Masters, 1850.

schism nullifies ordination." So that according to this dictum, the Syrians of Malankarai by becoming Jacobites did, wittingly or otherwise, link themselves on to a church which was, on the ordinary traditional mechanical theory of apostolic succession, for which they have always been sticklers, no part of the Church Catholic and did not possess the grace of orders. That is the position from which there seems no logical escape. But let us waive the point.

3. Let us assume for the sake of argument—what cannot be conceded on any other ground—that the Syrians of Malankarai were linked on, not to the heretical schismatical church, but to the orthodox Catholic Church of Antioch, and that the contention which they sometimes erroneously make about their ancestors having come from the place where the disciples of our Lord were first called Christians, were admitted, what follows from their voluntary acceptance of this position? It follows that they have departed from the line of apostolic succession in which the church of their fathers subsisted; they have chosen to be of the Church of Antioch, and to desert the Church of Babylon; they have preferred succession from St. Peter to succession from St. Thomas. The Syrians of Malankarai would therefore do well to remember that the acceptance of Antioch means the rejection of St. Thomas. Whatever right their fathers may have had to call themselves Christians of St. Thomas—and I for one believe that, according to ecclesiastical usage they had the right—the modern Syrians have now no right, nor have they had for more than two hundred years the right to assume that designation. They have been disloyal to St. Thomas, they have thrown him overboard; and, if their own contentions and those of the Jacobite Patriarch of Antioch were admitted, they would now be Christians of St. Peter; for Antioch is St. Peter's eastern chair.

Such are the results which seem to me to follow logically from the application of that merely mechanical theory of apostolic succession which has hitherto been of so much account in the treatment of ecclesiastical questions on the part of the Syrians and those who have had the regulation of their affairs. It will be shown in a future study that the Syrians of Malankarai, by adjusting themselves to new bearings, might still take up a true and effective position as a spiritual society and hold an honoured place among the churches. It is enough here to remark that they passed from the one extreme of Nestorianism to the opposite extreme

of Monophysitism at a single bound, without a moment's thought on the question of doctrine involved. A church that sits so loose to doctrine, which is the nutriment of spiritual life and the guide of Christian practice, cannot be spiritually strong. The Syrians were exasperated by the rigid rule of the Jesuit archbishops of Cranganur and were prepared to purchase freedom from it at any price. Had they fought their battle on the basis of theological principles, or attempted to work on the lines of a rational biblical theology, the revolution we have chronicled might have been a forward movement. As it was, they only exchanged one *-ism* for another and lost their apostolic succession into the bargain.

GEORGE MILNE RAY.

THE HISTORY OF MATHEMATICS.*

To many people the very name of mathematics has an unpleasant sound, and certainly no one would contend that the science is valuable chiefly as a means of entertainment. Nevertheless I venture to think that the present sketch of the history of the science will prove interesting even to readers whose acquaintance with mathematics is slight. The book on which this sketch is based is not a scientific treatise. The object of the author is not to lay out in logical order the principles of an exact science, after the manner of Euclid, but to give a popular account of the development of mathematical ideas from the earliest times of which we have any authentic record to the present century. Now a very keen interest in a historical enquiry like this no doubt requires some acquaintance with the science itself, but if the reader has only courage to peruse a page or two of this article, he will probably find that his mathematical knowledge is quite sufficient for the purpose.

Mr. Ball has been very successful in rendering his book readable. He is neither so technical as to weary the general reader, nor so shallow that the mathematician can learn nothing from him, while his numerous anecdotes and personal gossip about the great men he introduces are always well told and interesting. There can be little doubt that a dry subject is wonderfully lighted up, and even

* For the materials of the present article I am indebted chiefly to *A Short Account of the History of Mathematics*, by W. W. Rouse Ball, M.A.

impressed upon the mind, by investing it with a human interest. It might indeed be rather undignified to crowd the pages of a college text-book with stories of the lives and sayings of discoverers, but in a work like the present they are in their proper place. Who does not remember 'Archimedes's principle' all the better for the story of the bath, and how the naked philosopher ran home through the streets shouting, "I have found it, I have found it,"—"making an exhibition of himself," as a caustic old Scotch professor used to put it? Even a half apocryphal tale like that of Newton's apple fascinates the attention, and clothes the law of gravitation with a borrowed interest.

There is another advantage of a more philosophical kind to be derived from the historical study of a science. Instead of beginning with the subject in its present advanced and comparatively finished state, the student is conveyed back to a time when men know nothing of the matter in hand, and makes acquaintance with the earliest rudimentary ideas as they first dawned on the human intellect. He traces the growth of those ideas down through the ages, sees how the first crude and inaccurate conceptions took definite shape, how each successive thinker added something to the knowledge of his predecessors, until that which was the merest blade, scarcely discernible above the surrounding earth, became a great and fruitful tree. Everyone will admit that a concrete example of the working of the great law of development affords not only much positive instruction but also a valuable mental discipline.

The history of mathematics may be divided, like that of most intellectual movements, into three periods,—ancient, mediæval, and modern. By ancient mathematics is of course meant the history of that science among the Greeks, though it is necessary to introduce the subject by some notice of Egyptian and Phœnician mathematics. The second period is mainly occupied with Arabian and Hindu mathematics. In these pages it is impossible to do more than sketch in brief outline the main features of the ancient history of the science. At some future time, perhaps, I may, with the editor's permission, return to the other two divisions.

It is a very striking fact that, though mathematics is the best type of an abstract and exact science, its first beginnings were of a very inexact nature, and arose out of the practical necessities of men. The Chinese, who are reputed to be the oldest people on the face of the earth; were formerly supposed to be well versed in

mathematics, because from time immemorial one of the State Departments was called 'The Board of Mathematics'. It would appear, however, that the sole function of this august body is now, and always has been, the preparation of a yearly almanac. A slight empirical acquaintance with the motion of the heavenly bodies, such as is possessed by all early peoples, and a knowledge of the lunar cycle sufficed for this purpose. Indeed, the chief use of the almanac was to form a basis for predictions, and doubtless it had some mysterious connection with the official announcements of the Imperial Gazette of Peking. The Chinese knew that when the sides of a triangle bear the ratio 3 : 4 : 5, the angle opposite the longest side is a right angle, and the square on that side is equal to the sum of the squares on the other two sides. On the whole their knowledge of mathematics was slight, and even had it been as extensive as that of the Greeks, the strange seclusion in which the Chinese Empire has kept itself would have effectually prevented it from taking any part in the general advancement of the science.

The Phœnicians were the merchants of the ancient world. Hence, it is not wonderful that they gave special attention to astronomy, upon which the art of navigation depends, and arithmetic, on which depends the art of buying and selling. They were, however, a very practical people. Their very name, according to Plato, was associated with the love of riches. If science was studied by them, it was only so far as it might enable them to put money into their purse. To this we may trace the contempt with which Greek writers speak of arithmetic, as if it were a petty-art fit to be practised only by merchants. The little arithmetic the Greeks know was derived from the Phœnicians.

The most authentic source of our information on Egyptian mathematics is the so-called Rhind papyrus in the British Museum. It was written by a priest called Ahmes at some time between 1700 B. C. and 1100 B. C., and is believed to be a copy of an older manuscript. From this manuscript it appears that the Egyptians were fairly well versed in arithmetic. The subject of fractions, which was a stumbling-block to most ancient people, is treated by Ahmes with considerable skill. He first reduces all his fractions to a sum of fractions with the numerator unity. Thus $\frac{2}{29}$ becomes $\frac{1}{24} + \frac{1}{58} + \frac{1}{174} + \frac{1}{232}$. This is by no means an easy task, and cannot always be done. The multiplication table was unknown. If Ahmes had to multiply a number, say a , by 13, he would first multiply by 2 and get $2a$, then multiply the result by 2 and get $4a$,

and again multiply this result by 2, getting $8a$; by adding the sum of the last two results to the original number we have $a + 4a + 8a = 13a$. Every schoolboy knows this process under the name of 'practice'. Here is a specimen of an Egyptian problem: "Heap, its seventh, its whole, it makes 19." This is equivalent to "Find a number which, when added to one-seventh of itself, makes 19." Ahmes's answer is $16 + \frac{1}{2} + \frac{1}{4}$. The Greeks never got further than Ahmes in the manipulation of fractions. The Romans reduced all fractions, except $\frac{2}{3}$ and $\frac{3}{4}$, to a sum of fractions with the denominator, 12. This, of course, could be done only approximately.

The science of geometry, as the name implies, originated in land-surveying. The periodical inundations of the Nile used to sweep away the old landmarks, and made a system of survey indispensable. The priests made a special study of the subject, perhaps because their own income depended upon the taxable land in their vicinity. We know that they were, like the Chinese, acquainted with the property of the right-angled triangle enunciated in Euclid I., 47. They were very particular about the exact position of their temples, the main line of which had to lie exactly East and West. They found that line in the following way. By watching the places of rising and setting of a particular star, and taking a place midway between them, they found the true North and South line. The professional 'rope fasteners' drove two pegs into the ground at points on this line, say 12 yards apart. Another peg was then driven into the ground at such a point that when a rope 48 yards long was stretched round the three pegs it would form a triangle whose sides were 20, 16, and 12 yards long, respectively. It is evident that the angle opposite the longest line is a right angle, and that therefore the side 16 yards long, lies due East and West. It is worthy of remark that the references to Egyptian mathematics that occur in Greek and Latin authors are corroborated by Ahmes's manuscript.

The history of Greek mathematics extends over a period of about 1,200 years, from the time of Thales, 600 B.C., to the capture of Alexandria by the Muhammadans, about 641 A.D., and can boast of a roll of world-famous names. Pythagoras, Plato, Euclid, Ptolemy, and many others, are well-known in other departments of thought besides pure mathematics. But, towering like a great mountain peak above all his neighbours, a giant amid giants, stands Archimedes. If it were required to select from the roll of fame the two greatest names in each department of human activity, one from the ancient and the other from the modern world, our mathematicians

would be Archimedes and Newton. They are first, the rest are nowhere. No other name is worthy of mention beside these two. Caesar and Napoleon among warriors, Homer and Shakespeare among poets, and Archimedes and Newton among mathematicians.

The great characteristic of Greek mathematics is the development of geometry. It is no exaggeration to say that the Greeks knew as much of pure geometry as is known at the present day. The skill with which they solved complicated geometrical problems is only equalled by the extraordinary ability they displayed in literature and philosophy. As everyone knows, who has any acquaintance with the subject, geometry is the most difficult department of mathematics, and a problem which gives way easily to the dissolving force of analysis may defy all attempts to prove it geometrically. "Geometry," said Lagrange, "is a strong bow, but it requires a Newton to use it with effect." The Greeks, however, had no other bow than geometry, and they had to make the best use of it they could. If we compare the Greek solution of any problem with the modern analytical solution of the same problem, we almost invariably find that, while the latter is the surer way of getting some time or other at the result, the geometrical method is the more simple, direct, and elegant. As an illustration of this, take the following from Professor L. Campbell's *Life of Clerk Maxwell*: "I remember one day in lecture, our lecturer had filled the black-board three times with the investigation of some hard problem in geometry of three dimensions, and was not at the end of it, when Maxwell came up with a question whether it would not come out geometrically, and shewed how with a figure, and in a few lines, there was the solution at once." It is perhaps well for us that the Greeks shewed no aptitude for algebra and arithmetic, otherwise it is possible that geometry might have remained a comparatively undeveloped science; for if they had been aware of a quicker and easier way of arriving at their results, it is not likely that they would have spent so much time and labour at geometry, and the moderns would not have returned upon those problems for the mere gratification of finding other solutions.

The earliest Greek mathematician was Thales the philosopher. He predicted an eclipse, the date of which has been calculated and found to be the 28th of May, 585 B.C. As this eclipse happened while Thales was still alive, the approximate dates of his birth and death are supposed to be 640 B.C. and 540 B.C. He does not seem to have considered commercial activity inconsistent with the character of

a philosopher, for he was distinguished by his shrewdness in business affairs. If we are to believe the stories that are told of him, he was a kind of general merchant, somewhat given to speculation, and acquainted with the mysteries of the art of 'cornering'. He studied geometry in Egypt, and made his countrymen acquainted with that science in the form of detached propositions. Referring to the corresponding propositions in Euclid we can say with certainty that he knew *Euc. I.*, 5, which he proved by superposition, *Euc. I.*, 15, *I.*, 26, and *VI.*, 4. He astonished the Egyptian King, Amasis, by shewing that the height of a pyramid might be found, by noticing the length of its shadow, and comparing it with the shadow of a stick of known length. He discovered that the angle in a semicircle is a right angle, and was so greatly delighted with his achievement that he sacrificed an ox to the immortal gods. His prediction of the eclipse shews that he studied astronomy also to some purpose. The following story is told of him. One night, while gazing intently at the stars, he fell into a ditch. "Ha," said an old woman, "how can you tell what is going on among the stars when you cannot see what is lying at your feet?" A question somewhat after the manner of Dr. Johnson's refutation of Berkeley.

The most mysterious of all ancient philosophers is Pythagoras. His dim figure looms through the mist of legend, larger than human. It is certain that he was a great traveller, and it was said long after his death that he had penetrated into the far East, even to the land of India itself. His peculiar doctrine of transmigration, and his consequent abhorrence of animal food, as well as the mystery in which he shrouded his esoteric teaching, all seemed to indicate an Eastern origin. But, as Zeller points out, the legends of his connection with the East did not arise until the Greeks had become acquainted with India through the conquest of Alexander, nearly 200 years after the death of Pythagoras; and the stories become more circumstantial as we descend the stream of time. However that may be, it is certain that he visited Egypt and Asia Minor. He lectured for some time in his native island of Samos, and succeeded in making one disciple, but ultimately settled at Croton, a Greek colony in Italy, where he gave lectures to crowded audiences of all classes of the citizens, even women breaking the custom of seclusion to hear him. He was murdered during a popular outbreak in the year 500 B.C. The Pythagorean brotherhood was a semi-religious society founded by Pythagoras. The members were bound not to reveal the secrets of their order; the use of text-books for study was prohibited; and

if any 'brother' made a discovery he was bound to attribute the fame to his master. One unfortunate fellow having boasted openly that he had added one to the number of regular solids mentioned by Pythagoras, was drowned for his pains. Notwithstanding this rigour, we are indebted to one of the members of the school for at least one of their secrets—the mystic pentagram. If the sides of a regular pentagon be produced until they meet, we get the pentagram. It will be seen that the figure is really a broken line, and may be rapidly formed, like Mahomet's signature, without raising the pencil from the paper. To illustrate one of the uses of the symbol, the following story is told. A poor Pythagorean, being on a journey, became ill while staying at an inn. In spite of the kind attention of the landlord, there seemed to be no hope of his recovery. The scholar asked for a piece of wood, on which he inscribed the pentagram, and told the landlord to hang it outside the door, so that all wayfarers might see it. He soon died. Years afterwards, another Pythagorean alighted at the inn, heard the story of the symbol, and handsomely rewarded the host. The metaphysics and morals of Pythagoras have a mathematical foundation. Harmony is the soul of all things; music is the type of harmony; and numbers are the regulative principles of music. Hence if we have correct notions on numbers we have the key that can unlock the secret of the universe. How important then must be the study of mathematics!

Pythagoras, as is well known, discovered *Euc. I.*, 47, that the square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the other two sides. The proof given in Euclid's *Elements* is Euclid's own. The following is one way in which Pythagoras might have proved this proposition. Given a figure like *Euc. II.*, 4. Describe a square on a diagonal of one of the rectangles. If the figure is correctly drawn it will at once be seen that the square then described, together with the four corner triangles, is equal to the two smallest squares, together with the two rectangles. But the four triangles are together equal to the two rectangles. Hence the square on the diagonal is equal to the sum of the squares on the two sides of the rectangle. Another proof rests upon the theory of proportion, and is in effect similar to that of *Euc. VI.*, 31. On discovering *Euc. II.*, 14 Pythagoras sacrificed an ox, concerning which Mr. Ball slyly remarks that as the society had all things in common this extraordinary liberality was more apparent than real. The Pythagoreans paid especial attention to

proportion, treated of course as in Euc., Book V. by the aid of lines. Indeed all arithmetical questions were then solved by lines instead of figures. The sum of the so-called triangular numbers was found by Pythagoras. If a number of small balls be placed side by side in rows on a table in the form of a triangle, n in the first, row, $n-1$ in the second row, $n-2$ in the third, and so on down to the last 3 rows in which there are 3, 2, 1 respectively, the sum of the whole is called a triangular number. Since $n + (n-1) + (n-2) + \dots + 3 + 2 + 1 = \frac{1}{2}n(n+1)$ the triangular number corresponding to 4 is 10 ($= 4 + 3 + 2 + 1$). This explains a jest in one of the dialogues of that incorrigible laughter of the ancient world, Lucian. Pythagoras was asked of a merchant what he could teach him. "To count," said Pythagoras. Merchant: "I know that already." Pythagoras: "How do you count?" Merchant: "One, two, three, four—." Pythagoras: "Stop. What you take to be four is really ten, a perfect triangle, and our symbol."

The Pythagorean schools had a great influence on the progress of mathematical science.

We must hurry on, but not without a brief notice of the prominent Pythagorean, Archytas. He was a kind of Babbage in his day, and invented some instruments for the mechanical description of figures. His notions of the shape of the earth and its diurnal motion were correct. He was drowned in a shipwreck near Tarentum in Italy; a fitting punishment, in the opinion of his fellow-disciples, for his having dared to depart from the lines laid down by the master. Archytas was one of the first to give a solution of the famous problem of the duplication of the cube. His solution is too technical to introduce here, but it is a good example of the success with which, in those early days, the Greeks could attack a difficult mathematical problem.

This is one of the three well known geometrical puzzles that have been as fruitful in mathematical results as the philosopher's stone and the elixir of life have been in chemical. The alchemists never got any nearer these *ignes fatui* for all their labour, but in the course of their search they made many valuable discoveries. So it was also with the ancient mathematicians. They all tried their hand at these problems, and though they never succeeded completely with any of them, they hit upon many things worth knowing by the way. The problems are (1) to duplicate the cube, (2) to rectify, or square the circle, (3) to trisect an angle. None of these problems have been exactly solved by Euclidean geometry.

The first is known as the Delian problem from the following story. The Athenians, when suffering from the plague in 430 B. C., consulted the oracle at Delos as to how the plague could be stopped. "Apollo replied that they must double the size of his altar, which was in the form of a cube. Nothing seemed more easy, and a new altar was constructed having each of its edges double of the old one. The god, not unnaturally indignant, made the pestilence worse than before. A fresh deputation was accordingly sent to Delos, whom he informed that it was useless to trifle with him, as he must have his altar exactly doubled. Suspecting a mystery, they applied to the geometers. Plato, the most illustrious of them, declined the task, but referred them to Euclid who had made a special study of the problem." Either the writer or his scribe is much at sea as to his dates, for Euclid was not born until 18 years after the death of Plato. Probably Hippocrates is meant, not Euclid. Archytas gave a construction for finding a line equal in length to the side of the required cube, but he had to use a cylinder, a cone, and a rotating plane. The construction being once given, the proof proceeds by Euclidean geometry. Hippocrates afterwards showed that this problem may be reduced to another, viz., to find two mean proportionals between two given straight lines, one of which is twice the length of the other. This was the form in which subsequent mathematicians attacked the problem. Many constructions for its solution were given, but all of them involve some other curve besides the straight line and the circle, or the mechanical description of some part of the figure.

The second problem—to find a straight line whose length is equal to the circumference of a given circle, or to find a square whose area is equal to that of a given circle—has never been exactly solved by any geometrical method. Several constructions have been devised for the trisection of an angle, but none of them abide by the use of the ruler and compasses only. The first and third problems may be solved very easily by conic sections.

The symbol π , which denotes the ratio of the circumference of a circle to its diameter, like the other symbol e , the base of Napierian logarithms, is continually turning up in mathematical work in unexpected quarters. De Morgan tells a story about himself, which illustrates this point. He was explaining to an insurance agent what was the probability that a certain proportion of a given number of people would be alive at the end of a given time. The formula he had to use contained π , and De Morgan explained to the

actuary that it denoted the ratio of the circumference of a circle to its diameter. "Nay but, my dear sir," said the actuary, "that must be a delusion, for what can a circle have to do with the number of people that live or die?" A certain Mr. Shanks calculated π to about 700 places of decimals, but his was labour lost; since for practical purposes it is needless to use more than 7 or 8 places at the utmost.

We have next to consider the mathematicians of the most famous of all Greek cities. The flowering time of intellectual activity in Athens was the century extending from the time of Pericles to the Macedonian conquest. During this period there lived in that city a larger number of truly great men than has ever been seen within the same length of time in any other part of the world. We have but to refer to the names of Socrates, Plato, Aristotle, Demosthenes, Sophocles, and a host of others that might be mentioned. If the poets and philosophers produced their best work in those days, neither were the mathematicians idle. The three most famous names are Hippocrates, Plato, and Eudoxus.

Hippocrates of Chios (not Hippocrates of Cos, the physician,) was born about 470 B. C. Having been swindled out of some property by the Athenian custom-house officials at the Chersonese, he came to Athens to try what the law could do for him. As might have been expected, he was only laughed at for his pains. The Athenians were a very lively, clever people, and much preferred a rogue to a fool. While prosecuting his case, he opened a mathematical school (420 B. C.). This venture was the first of its kind. He also constructed the first geometrical text-book ever used in a school. We are all the more interested in this book, that it formed the basis of a part of Euclid's Elements, which our schoolboys still use. In this we have a remarkable example of the vitality of thought. The factories, and looms, and ships, and merchandise of Tyre and Carthage have vanished off the face of the earth, and are as if they never had been, while this unostentatious product of the mind of Hippocrates is still a living power in our midst. Hippocrates was the first to use letters on his diagrams; he says, "the point on which the letter A stands," "the line on which AB is marked." The Indian mathematicians never used letters on their figures, and their demonstrations are therefore very prolix and tiresome. Like most of his contemporaries, Hippocrates spent much labour over the squaring of the circle, and the duplication of the cube. In the course of his attempts upon the first of

these problems he discovered some interesting facts concerning the area of a lune. If a semicircle be described externally upon the chord of a quadrantal arc of a circle, the area of the lune formed by the arc and the semicircle thus described is equal to one-fourth of the area of the square inscribed in the circle.

Plato (429 B. C.—348 B. C.) is chiefly known as a philosopher, but he lost no opportunity of impressing upon his pupils the importance of mathematics. The inscription, "Let none ignorant of mathematics enter here," was placed over the door of his Academy, and we know that at least one unfortunate youth was turned away because he failed to pass the entrance examination. Plato did not study mathematics until after the death of his master, Socrates, in 399 B. C. He then travelled in Egypt and Italy and studied under Archytas. It is not so much as a practical mathematician that Plato is distinguished, as for his wonderful influence in determining the method of his contemporaries and successors. He laid down the canon that the geometrician should use no instrument in the construction of figures except the ruler and compasses. We are not surprised to find that he shews the same anxiety for carefully constructed definitions and axioms as we meet with in his philosophical dialogues. He formulated the different methods of attacking geometrical problems, calling especial attention to analysis, viz., assuming the result to be true, and working backward towards the data. Indeed, Plato occupies much the same position in regard to ancient mathematics that Bacon does in regard to modern science. Neither of them was very successful in carrying his principles into practice, but they both found successors who were able to profit by their instruction.

The third great Athenian mathematician was Eudoxus [408 B. C.—355 B. C.]. Like his contemporary Plato he studied at Tarentum under Archytas. He established a school at Athens, but to the dishonour of philosophy be it stated, Plato was so bitterly opposed to the venture that he had to give it up. His mathematical work is very excellent. He discovered the theorems in proportion given in the fifth book of Euclid, and made a special study of 'the golden section'. When a line AB is divided at a point H, so that $AB:AH::AH:HB$, it is said to be cut in 'golden section', or in extreme and mean ratio. Eudoxus shewed that

- (1) $(AH + \frac{1}{2}AB)^2 = 5(\frac{1}{2}AB)^2$
- (2) $(HB + \frac{1}{2}AH)^2 = 5(\frac{1}{2}AH)^2$
- (3) $AB^2 + HB^2 = 3AH^2$
- (4) $AB + AH:AB::AB:AH$

These are all obvious algebraical identities, and are given here as exercises to any geometrical reader that may care to try them. Eudoxus discussed the nature of those curves called lemniscates. If an anchor ring be cut by a plane perpendicular to the plane of the ring, the curves of section are called lemniscates. If the cutting plane contains a diameter of the ring, the lemniscates become circles; if it touches the ring internally they unite to form the 'figure of eight'. This last is known as Bernoulli's lemniscate. Eudoxus tried to show that the progressive and retrograde motions of the planets could be explained by Bernoulli's lemniscate. In thus extending his discovery beyond the legitimate bounds of its application, he exemplified the common failing of discoverers. Even Newton himself, the very type of scientific caution, fell into the error of thinking that gravitation would explain the refraction of light. Berkeley sought to extract from 'tar-water' not only a panacea for 'all the ills that flesh is heir to', but a complete system of metaphysics and theology. And in our own day, do we not find our would-be philosophers trying to squeeze all the phenomena of heaven and earth within the limits of their portentous formula?

Menæchmus, the only other Athenian mathematician worthy of mention, was a pupil of Plato and Eudoxus. He was the first to study conic sections. It is of him that the following well-known story is told. Having been appointed one of the tutors of Alexander of Macedon, he was asked one day by his pupil whether there was no easy way of learning geometry. "In the country, Sire," said the tutor, "there are private and even royal roads, but in geometry there is only one road for all." This answer is usually attributed to Euclid, but, as Mr. Ball points out, the idea is familiar and has often been imitated. "What devil could see through that?" said a French marquis to Rohault. "A devil with patience," was the reply.

After the Macedonian conquest there fell a fatal blight upon Athens; the intellectual light that had burned so brilliantly for a hundred years, was quenched along with the freedom and manliness that had enkindled it. The mother of arts and eloquence was slain, and to all appearance the children whose birth she had so short a time survived were left friendless and desolate. But it was not for long. The instruction of Aristotle and Menæchmus had not failed to inspire the young Macedonian conqueror with an ardent love for the learning and art which it afterwards became his delight to patronise. The torch of science, which had suffered a

temporary eclipse at Chaeronea, again blazed forth bright as ever upon an alien shore. For the next thousand years (300 B.C. to 641 A.D.), the centre of intellectual activity was Alexandria, the new city founded on the Nile by Alexander the Great. There lived the three greatest mathematicians of antiquity, Euclid, Archimedes, and Apollonius. The famous University of Alexandria was noted for the excellence of its equipment in everything pertaining to study. It had lecture rooms, museums, laboratories, scientific apparatus, and above all, the largest collection of books in its library that the world has ever seen. The library was, as is well-known, sacrificed to the stupid bigotry of the Caliph Omar when Alexandria fell into the hands of the Muhammadans in 641 A.D. The famous dilemma that sealed the fate of this splendid collection has passed into the schools, and serves a like purpose to the logician that 'imperious Caesar's' sentences do to the grammarian. "If the books agree with the Koran they are useless, and should be burned; if they disagree with the Koran, they are pernicious, and should be burned; therefore in any case they should be burned; ergo, conclusion, let them be burned." It is said that the burning lasted for six months in the market-place; a story which affects a book-lover almost as much as the details of an Auto-da-Fé.

No name is so familiar as Euclid. In our boyhood it was a synonym either for delight or for horror. It was a charmed word that could expel listlessness and ennui, or cause us like Job to curse the day on which we saw the light. Some of us can still remember the time when it first dawned upon our half-awakened thought that Euclid was really a man who had once upon a time actually breathed air and digested food like ourselves. Like the mediæval schoolmen, we had hitherto supposed that Euclid was a cabalistic name for the science of geometry. Unfortunately there is little to satisfy our curiosity about him, when we have once admitted his existence. He was born perhaps in Tyre, about 330 B.C., and died about 275 B.C. From his acquaintance with Plato's geometry, it is probable that the traditional account of his having been educated at Athens is correct. He was the first to get charge of the mathematical department in the University of Alexandria, and he proved himself to be a very successful teacher. No writer on any science has left his mark so distinctly as Euclid has done on geometry. According to the tradition of his University, he was a gentle and kindly old man.

Euclid's chief work is of course *The Elements*, the geometrical

portions of which, comprising the first six, and the eleventh and twelfth books, are too well known to need description. Most of the propositions were discovered long before Euclid's time, and he performed the part merely of a very skilful editor. "He had to collect material from all the available sources, such as Pythagoras, Hipparchus, Eudoxus, &c., throw each proposition into the shape familiar to every reader of the *Elements*—enunciation, statement, construction, proof, conclusion—prune and remodel many of the old proofs and sometimes substitute new ones of his own, discard superfluous propositions such as we now call corollaries or riders, and arrange the whole in logical sequence. An editor that can perform a task like that may well give his name to the science he all but creates.

Of course no work of man is perfect, and even Euclid sometimes resembles his great compatriot, and—nods. De Morgan notices the following defects of *Euclid as a geometrical text-book*: (1) The definitions and axioms contain assumptions that are not self-evident, this being especially the case with the twelfth axiom of the first book, about parallel straight lines; (2) no hint is given as to how the proofs have been obtained; (3) there is no attempt to generalise the results, e.g., the idea of an angle is never extended so as to include the case where it is equal to or greater than two right angles; (4) the method of superposition is very seldom used; (5) the classification is very imperfect; (6) the work is unnecessarily long and wordy.

Notwithstanding these defects, we may be well assured that Euclid has compensating advantages, otherwise it would not have remained the sole geometrical text-book for more than two thousand years. It is only in these latter days when criticism has become a fine art that the defects of the *Elements* have come to light. It would be out of place here to enter into any discussion of the technical points raised by De Morgan, but a word or two may be said in order to shew that the criticism is not quite so damaging as we may at first be inclined to think. In the first place it is impossible to define fundamental conceptions in such a way as to convey a clear and adequate idea to one who has not already got that idea. It must always be assumed that the hearer has at least the power of forming the conception, otherwise words have no meaning. The definition of parallel straight lines assumes that we can form a mental representation of two lines produced to infinity and that we know what will happen if the lines are so pro-

duced. Now it would be wrong to make this assumption in the case of an idiot, but when we are dealing with reasonable persons we may state the definition without first settling the metaphysics of the business. "All the assumptions that Euclid made resolve themselves ultimately into this—that he had reasonable persons to deal with. His definitions and axioms may not all be obvious, but they are all intelligible to any ordinary boy who likes to pay a little attention. Certainly the twelfth axiom is far from obvious; but the treatment of parallel straight lines is admitted to be the most difficult subject in elementary geometry. No substitute for this axiom has yet been proposed which removes the complexity of the subject. If we say, "two straight lines which intersect cannot both be parallel to the same straight line," we doubtless get an axiom whose phraseology is simpler, though it is not equally certain that it is more obvious than the other, when once the difficulties of language are overcome. Besides, if the difficulties are removed from the axiom they are thrown into the propositions. The second objection is really directed against what might be called the ultra-deductive character of the book. *Euclid's purpose was to frame a connected series of propositions deduced from the fewest possible number of definitions, postulates, and axioms.* It is difficult to see how he could have given an explanation of the way in which he had been led to his proofs, without departing from his original purpose, and loading his pages with superfluous matter. Moreover, it is scarcely necessary for a text-book to contain an analysis of the proof in addition to the proof itself; it is the duty of the teacher to supplement the text-book with information like this, and doubtless Euclid himself did so, while teaching his classes. Again, it is impossible to generalise geometrical results properly without the aid of numbers, i.e., without trenching on the province of trigonometry. This is essentially a modern objection. For example, Euclid would have found much difficulty in grasping the idea of an angle greater than two right angles. It is right that Euclid's results should be generalised, but a geometrical text-book for schools is not the proper place for the generalisation to appear. As regards superposition it is a perfectly legitimate and rigid method of proof, and might have been oftener used with advantage. Probably Euclid thought it too mechanical. The fifth and sixth objections are directed against the literary character of the book. There can be no doubt that the classification is imperfect. The third book deals entirely with circles, and the fifth with proportion, but the principle of classi-

fication in the other books it is difficult to discover. De Morgan suggests that Euclid did not live to revise the first rough draft of the Elements, otherwise his work would have had a more finished literary aspect.

Within recent years, an attempt has been made to displace Euclid from his position in schools. He has been to a large extent abandoned on the Continent, but according to Mr. Ball with no good result to geometry. Away from other considerations, it would be a pity to part lightly with the advantage of having a common text-book as a universal reference. The compilers of some modern text-books seem to forget that there is a difference between 'the science of geometry', and 'geometrical drawing'. Geometry is not an experimental science, and however expert we may be in the use of the ruler and compasses, mechanical measurement can never take the place of reasoning. The prevailing theories of education favour such instruction as 'trains the senses' and some text-books seem to be constructed with a view to that end. It is needless to say that this is a total misconception of the true end of geometry, though it may doubtless have its place in a complete system of education.

Books VII., VIII., IX., and X. of Euclid's *Elements* treat of the science of numbers. This is not quite the same as our arithmetic, but deals specially with ratio, proportion, and the theory of numbers. Arithmetic, as we understand it, did not form a part of a boy's education among the Greeks; it was childish, a low commercial art; and those who required to calculate learned to do so by means of the abacus.

Euclid published two collections of riders to the Elements, as well as the following geometrical works all of which are lost: (1) Elementary Conic Sections, in four books, (2) Curved Surfaces (cone and cylinder), (3) Geometrical Fallacies (as exercises), (4) Porisms, in three books. His Conic Sections prevailed in the University until displaced by the more extensive work of Apollonius. When one considers the confusion and uncertainty due to the want of a proper standard text-book on Conic Sections, one cannot help wishing that Euclid's treatise had been preserved, and though possessed of as many faults as the Elements, had taken a similar place in the schools. Euclid wrote upon Optics and Astronomy.

Archimedes belonged to the royal family of Syracuse, and was born in that city in 287 B.C., and died in 212 B.C. He studied at Alexandria under one of Euclid's successors, but as soon as his

student days were over he returned to his native island. The whole of his after life was devoted to science. Although, like Plato, he held that the purity of science would be sullied by alliance with any of the base mechanical arts, he was the author of many new inventions. His genius was too strong for him. He could no more stifle the 'inventive demon' within him than he could refuse to draw breath and live. King Hiero seems to have resorted to Archimedes whenever he was in a difficulty. On one occasion, a very large ship had been built, but it was found impossible to get it off the slip. Archimedes accomplished the task by an arrangement of cogged wheels, screws, and levers. Upon this, Hiero exclaimed, "After this I will believe anything that Archimedes says;" to which Archimedes answered, "Give me a place to stand upon and I will move the world." The Archimedean screw for pumping up water to any height is another of his inventions. He is said to have set fire to the Roman ships lying in the bay of Syracuse by concentrating the sun's rays upon them with mirrors and burning-glasses. It is an extraordinary story that might have grown out of some hint to the purpose dropped by Archimedes, but Mr. Ball seems to think that it may be true. The Romans were kept at bay for three years by means of the catapults invented by Archimedes. The manner in which he lost his life is characteristic. When Syracuse was taken by the Romans (212 B.C.) the Consul Marcellus ordered that the house and life of Archimedes should be saved. A rough Roman soldier, however, entered the house, and found the old man busily engaged with a geometrical figure drawn in sand on the floor. Archimedes, doubtless in the tone of the *genus irritabile*, told the man to get off the diagram and not spoil it. The soldier, insulted at receiving orders from a Greek captive, slew him on the spot. So at least runs the story. The Romans had the grace to erect a tomb to his memory, on which was engraved the figure of a sphere inscribed in a cylinder, to commemorate his discovery of the proportion that exists between the volumes and surfaces of those bodies.

Archimedes wrote on every branch of mathematics then known. His writings, unlike those of Euclid, are addressed to the learned. The following is a list of some of his works:—

I. On plane geometry the extant works are:

i. The Measure of the Circle, in 3 propositions. He here proves that the area of the circle is the same as that of a right-angled triangle whose sides are equal to the radius and the circumference

respectively ($\frac{1}{2}a \times 2\pi a = \pi a^2$). He then finds the perimeter approximately by taking it to lie between the perimeters of the inscribed and circumscribed polygons of 96 sides. By this means π is proved to lie between $3\frac{1}{7}$ and $3\frac{1}{4}$. Taking the mean we get $\pi = 3.1418$, a very correct result. The true value is nearly 3.1416.

ii. The Quadrature of the Parabola, in 24 propositions. The problem is to find the area of a segment of a parabola. The method employed by Archimedes is practically the same as that given in any modern text-book of conic sections. He first shews that the area of the segment is the same as the sum of the series $\Delta + \frac{1}{4}\Delta + \frac{1}{16}\Delta + \frac{1}{64}\Delta + \dots \infty$ where Δ is the area of the triangle formed by joining the ends of the chord of section to the point where the corresponding diameter cuts the arc. Now, this series would present no difficulty to a schoolboy who had once mastered the formula for geometrical progression. But Archimedes had no formula; this was probably the first geometrical series he had ever seen, and it is interesting to see how he proceeds. Let A, B, C, ..., J, K be such that $B = \frac{1}{4}A$, $C = \frac{1}{16}A$, &c. Take magnitudes $b, c, d, \dots k$ equal to $\frac{1}{4}B$, $\frac{1}{16}C$, $\frac{1}{64}D$, &c., respectively. Then $B + b = \frac{1}{4}A$, $C + c = \frac{1}{16}B$, ..., $K + k = \frac{1}{64}J$. From this we find that $A + B + C + \dots + K = \frac{1}{4}A - \frac{1}{64}K$. But K becomes zero in the limit. Hence the series is equal to $\frac{1}{4}A$. That is to say, the area of the segment is four-thirds the area of the triangle Δ . Of course Archimedes's proof is here translated into modern terms, but the principle of procedure is the same.

Archimedes also discovered the area of the ellipse.

iii. On Spirals, in 28 propositions. This contains the curve known as the *spiral of Archimedes*. He finds by geometry most of its properties, including the area enclosed by the turns of the spiral or the radii vectores.

iv. A lost treatise on Geometrical Methods.

II. On geometry of three dimensions:—

i. The Sphere and Cylinder, in two books of 60 propositions. In this remarkable book, Archimedes established many important propositions regarding the volumes and surfaces of the sphere, the cylinder, the cone, the pyramid, and other figures of revolution. He regarded this work as his masterpiece; he sent a copy of it to Alexandria, but purposely misstated some of the results, in order, as he says, "to deceive those vain geometricians who say that they have found everything, but never give their proof, and sometimes claim that they have discovered what is impossible." This reminds one of a similar trick of Descartes: "I have purposely omitted

some things," he says, "for I can foresee that those clever people who boast that they know everything will be sure to say that I have written nothing with which they were not already acquainted, if I make myself too intelligible to them."

ii. A work on Conoids and Spheroids.

iii. A lost treatise on the thirteen semi-regular polyhedrons.

III. A work on Arithmetic. Archimedes sketched out a decimal system of notation.

IV. On mechanics:—

i. On Statics; centre of gravity and equilibrium.

ii. On levers, and other machines.

iii. On floating bodies. This is the most important of his works on applied mathematics. He discovered the principle of specific gravity. The stories of the gold crown and the bath are too well-known to need repetition. As an example of the kind of problem that Archimedes could attack successfully by geometry, take the following: "A solid in the shape of a paraboloid of revolution of height h and latus rectum $4a$ floats in water, with its vertex immersed and its base wholly above the surface. If equilibrium be possible when the axis is not vertical, then the density of the body must be less than $(1 - 3a/h)^2$."

V. Astronomical observations.

This brief enumeration will give a faint idea of the power of Archimedes. As has been already hinted, he was the prince of mathematicians until the splendour of Newton's genius cast all others in the shade.

So much space has already been occupied with the two greatest Alexandrian mathematicians that little can be spared for the third, Apollonius. All that is known of him is what Pappus, the ancient historian of mathematics, tells us. According to his account, Apollonius was "vain, jealous of the reputation of others, and ready to seize any opportunity of depreciating them." He and Eratosthenes were both professors in the University at the same time, and curiously enough the nicknames given to them by the students have been preserved. Eratosthenes was called 'Beta' (or 'Two'), and Apollonius 'Epsilon' (or 'Five'); the probable origin of the names lying in the fact that their class-rooms bore those numbers. Apollonius's great work is his *Conic Sections*, in which he collected all that was then known about those curves and added much new material of his own. Indeed, with the exception of the directrix properties of the conic sections and the focal properties of the para-

bola, Apollonius knew as much as will be found in any modern work on the subject. His treatise displaced Euclid's work, which had up to that time been in use. It is very accurate and logical in its arrangement, but prolix and tedious.

The property from which Apollonius deduced all his theorems is that usually expressed as the ratio $PM^2 : AM \cdot A'M$ in an ellipse and a hyperbola, and $PM^2 : AM$ in a parabola. He was the first to give the curves their present names. The work contains 400 propositions.

Apollonius wrote several other works besides the one already mentioned. In his *Methods of Numerical Calculation* he proposed a decimal system similar to that of his contemporary, Archimedes. Of course he also tried his hand at duplicating the cube, and found a construction for two mean proportionals to two given straight lines.

Eratosthenes ('Two') was born at Cyrene in 275 B.C., was educated at Alexandria and Athens, became librarian at Alexandria University, and died in 194 B.C. He was the 'all round' man of the period, being both a poet and a mathematician. He is chiefly known as an astronomer. To him we owe the Julian calendar, with leap year once in four. He determined the obliquity of the ecliptic, and made out the length of a degree on the earth's surface to be 79, instead of 69, miles. He invented an instrument for duplicating the cube. "The sieve of Eratosthenes" is a device for finding primes. Write down the natural numbers, 1, 2, 3, &c., strike out every second number from 2, every third number from 3, every fifth from 5, and so on. The numbers left will be primes. In order to find the primes up to 1000000 you will require to work for six weeks, ten hours a day!

With the death of Apollonius ends the most brilliant period of Greek mathematics. Euclid, Archimedes, and Apollonius had reached the *ne plus ultra* of pure mathematics. Further it was impossible to go on the same lines, and it was not until Descartes discovered a new method, 1,800 years afterwards, that any more progress was made. We shall therefore pass very lightly over the remaining geometricians of the Alexandrian school. They were famous men in their own day, and the names of some of them still survive as the inventors of various curves (e.g., the conchoid of Nicomedes, and the cissoid of Diocles), but they did not advance the science as a whole. Hipparchus, born 160 B.C., is the most famous of Greek astronomers. His observations are very accurate

He and Ptolemy, the next greatest astronomer, laid the foundations of the science of trigonometry. Hero of Alexandria (circ. 125 B.C.) was a renowned engineer. He constructed many ingenious scientific toys, but we are not told that he started a factory for their supply, as his modern rival Edison is said to have done. His stationary steam engine was in use in Scotland under the *alias* of Savery's patent, until displaced by Watt's improved form. Hero was a utilitarian in mathematics, and studied the subject only so far as it might prove useful in mechanics.

The first Alexandrian school came to an end with the commencement of the Roman administration of Egypt in 32 B.C. During the turmoil of the revolution the studies at the University were for a time interrupted, but as soon as peace was restored they were recommenced. In the second century after Christ the ablest mathematician was Ptolemy, the astronomer. His great treatise on astronomy was translated into Arabic under the name of *al midschisti*, or, as it was called in the Middle Ages, *The Almagest*. He was not such an accurate observer as Hipparchus, but his powerful application of mathematics to astronomy warrants the high place he takes among scientific men. It is the fashion to laugh at his 'cycle in epicycle, orb in orb', but though infinitely more complicated than the correct theory, it was a good working hypothesis in its time. Pappus, the greatest geometrician since the famous three, lived at Alexandria towards the end of the third century A.D. He discovered the focus of the parabola, and the directrix in the conic sections. Many isolated propositions of celebrity are due to him.

The fourth century of our era is notable in the history of mathematics from the fact that the foundations were then laid of the science of algebra. It is true that the first genuine algebraical theorem was enunciated by Thymaridas in the second century after Christ. But no real advance in the theory of numbers had been made since the time of Archimedes. Euclid's arithmetic was confined to such problems as were susceptible of geometrical representation. Towards the end of the third century the problems that awakened most interest were such as we should now solve by simple equations, e.g., "Demochares has lived a fourth of his life as a boy; a fifth as a youth; a third as a man; and has spent thirteen years in his dotage; how old is he?" All such problems may be solved geometrically, if we represent the unknown quantity by a line. They may also be solved by what is known as the *rule of false*

THE HISTORY OF MATHEMATICS.

168290

assumption, i.e., assuming any number for the answer and correcting it, if wrong, by simple rule of three. But it is not likely that either of these was the method that then prevailed. They have no affinity to algebra, and the sudden development of that science in the following century can be best explained on a different supposition.

There are three stages in the growth of algebra, the *rhetorical*, the *syncopated*, and the *symbolical*. In rhetorical algebra the reasoning is expressed in words without the use of symbols, or abbreviations of any kind. If we could imagine a teacher talking out the solution without the use of a black-board or of x , we should have some idea of the rhetorical method. The process is exceedingly long-winded and tedious.

The example which Mr. Ball gives of Diophantine algebra requires a slight acquaintance with Greek notation and syntax. I shall therefore try to translate the symbolism into English in order that all readers may gain some idea of the method. It will look a little absurd to those who know the original, but if the object is gained, no great harm will ensue to the noble Greek language. Let us denote the first ten natural numbers by the first ten letters of the alphabet, omitting *i* and *j*, so that *l* would be denoted by *l*. Now let the next 9 letters *m, n, o, p, q, r, s, t, u* represent 20, 30, 40, &c., up to 100. Let intermediate numbers, such as 11, 23, 89 be denoted by combinations of letters, thus *la, mc, sk*, respectively. The remaining 5 letters together with three arbitrary symbols could be used for multiples of 100 up to 900. For higher numbers, if necessary, the alphabet could be used over again with an accent on each letter. In this way we get some idea of the Greek system of notation. Now, as to the symbolism of Diophantus. The unknown quantity is denoted by, say, $\bar{x}$; its plural by $\bar{xx}$; its square by $\bar{sq}$; its cube by $\bar{cu}$. Coefficients are placed *after* the quantities they multiply, thus $\bar{x} a (=x)$, $\bar{xx} la (=11x)$, $\bar{sq} mc (=23x^2)$. Absolute numbers, such as 12, occurring in the equation, are denoted by the corresponding alphabetical symbols, preceded by the abbreviation *un* (for *unit*), thus *un lb* (=12, simply). Addition is denoted by mere juxtaposition, subtraction by an arbitrary sign ϕ , and equality by *i*. *Thus: $\bar{cu} a \bar{xx} h \phi \bar{sq} e \bar{un} a i \bar{x} a$ represents $x^3 + 8x - (5x^2 + 1) = x$. When the equation had once been stated thus it was not worked out by symbols, but in the old-fashioned rhetorical manner, the abbreviations being placed in the midst of the text. Anyone who takes the trouble to translate an algebraical solution from symbols

into ordinary language will find the advantage of using even a few contractions.

The greater part of the work of Diophantus was taken up with indeterminate equations in two or three variables. He gives a rule for solving simple equations, and in one of his lost books he also gave a rule for solving quadratic equations. The skill with which he reduces his problems to equations that come within the scope of his analysis is very remarkable. One of his problems runs thus: "A man buys x measures of wine at 8 drachmæ a measure, the rest at 5. He pays for them a square number of drachmæ, such that if 60 be added to it, the resulting number is x^2 . Find the number he bought at each price." As an example of the way in which critics determine facts concerning an author and his work from 'internal evidence', we may refer to the use that is made of the preceding problem. It was formerly believed that Diophantus lived in the second century after Christ. But M. Taunery pointed out that the prices of wine mentioned by Diophantus are higher than were usual until after 200 A.D. Diophantus belongs to the fourth century.

The last two mathematicians of Alexandria were Theon (circ. 370), and his daughter Hypatia, the well-known heroine of Kingsley's novel. She wrote a commentary on the Conics of Apollonius, and was more distinguished than her father. She was foully murdered in the street during an outbreak of religious bigotry in the year 415 A.D.

The fate of Hypatia is a symbol of the fate of Greek learning. It lingered on for two centuries more, but the vigour of life had left it; and the burning of the Alexandrian library in 641 A.D. was a fitting holocaust to mark the extinction of an ancient civilization.

JAMES BRENNER.

CHERAMAN PERUMAL.

On page 116 of the eleventh volume of *The Indian Antiquary* will be found a letter signed 'W. L.' (evidently Mr. William Logan, late of the Madras Civil Service), in which the following occurs:—"At Zafhar (on the Arabian Coast) lies buried one Abdul Rahiman Sâmiri, a king of Malabar. The inscription on his tombstone says he arrived at the place A. H. 212 and died there A. H. 216. The tomb is regarded with much veneration as that of a Hindu

(Sāmuri—Samaritan=worshipper of the calf. Koran, S. 20) king of Malabar who became a convert to Islam. If the dates are correct, then (a) This is almost certainly the tomb of the Kodungalloor (Cranganore) king mentioned in the *Tahafit-ul-Mujāhidin*, the author of which placed the king's conversion about A. H. 200. (b) The origin of the Kollam era of the Malabar Coast is accounted for in the most natural way if it is dated from the traditional Cheraman Perumal's setting out for Arabia. The interval between A. D. 824 and his arrival at Zafhar (A.D. 827) is probably accounted for in the *Tahafit-ul-Mujāhidin*, which says he remained a considerable time at Sahar where he first of all landed."*

The fact and the conclusions drawn therefrom may be perfectly true and yet Cheraman Perumal might not have turned a Mahomedan and undertaken a pilgrimage to Mecca. The king that lies buried at Zafhar cannot be the king of Kodungalloor, as suggested in (a). For the very name Abdul Rahiman Samuri shows that he was one of the well-known Samorin Rajas of Calicut, and not one of the earlier kings of Kodungalloor, who were generally known as Cheraman Perumals or Viceroys from Chera. The native name for the king of Calicut is Samuri (or Samudiri=Tamutiri), and the word appears in its original form in the name of the convert king who lies buried at Zafhar. Ibn Batuta calls him Al-Samari, while in the *Tahafit-ul-Mujāhidin* and by 'Abdur-Razzak he is called Samuri. Buchanan has both Samudiri and Tamuri. It is not unusual for converts of position to retain their original designation in addition to the new names they receive from the religion they embrace, in order that their original status might not be forgotten. Accordingly the Hindu king of Calicut, who became a Mahomedan, and who undertook the pilgrimage to Mecca, might have tacked his original title to his Mahomedan name, so that his former subjects might recognise in him their old ruler. It looks rather unnatural to twist the word Samuri into Samri and then give it a strange meaning on the authority of the Koran. Ferishta, the great Mahomedan historian, has no doubt as to who the Malabar king was that embraced the faith of Islam. He says that a Samurin turned Mahomedan towards the end of the ninth century and undertook a pilgrimage to Mecca,

* The tradition that Cheraman Perumal turned a Mahomedan is described by Rev. George Milne in the columns of the *Madras Christian College Magazine*, Vol. viii. p. 336.

and that from this period Mahomedans extended their religion and their influence in Malabar, and many of the princes and inhabitants becoming converts to the new faith, gave over the management of some seaports to strangers whom they called (Nowjatis) Nowayits (literally, the new race).* There is ample evidence to show that it was not Cheraman Perumal who became a convert to Mahomedanism. There never was an individual of that name. The term denoted a Viceroy from Chera and was the official designation of the Viceroys sent by the Kings of Chera to govern Malabar.† In commenting on the Jewish and Syrian copper plates, Dr. Gundert, the eminent Malayalam scholar, observes that "Cheraman world" occurs here (in the plates) twice for Kerala. Surely there has never been an individual Cheraman Perumal though his name is in every mouth on the Coast. Cheraman is the name of the dynasty of Chera or Kerala rulers for these two names are the same."‡

But taking the individual meant to be the last Cheraman Perumal, as is generally accepted, (see the *Keralotpathy*, Mangalore Edition) it is unnecessary to remark that it was not possible for him in the beginning of the ninth century [see (b)] to have seen Mahomet at Jeddah, as alleged in the Mahomedan account. The *Keralotpathy* says that the Perumal proceeded to Mecca in A.D. 355. That would be about two centuries previous to the birth of the Prophet, so that the meeting between the apostate king and the Apostle of Islam must necessarily be a figment of the poetical imagination. Almost all religionists appear to claim this renegade king as having gone over to their faith. Faria-y-Souza considered him to have become a Christian. For, he says, "wherever it was that Chera Perumal then reigned, who, tired with the cares of a crown, and having some knowledge of the evangelical doctrine, as being a great favourer of the Christians of St. Thomas, inhabiting at Cranganore, he resolved to end his days at Meliapore, serving in the Church. By consent of all princes he resigned the crown to Manichan Herari, a page esteemed worthy and able to govern that empire. Perumal died at Meliapore and it is thought that one of those bodies found with the Apostle was his."§

* See Briggs' *Ferishta*, Vol. iv. pp. 531, 533; Christian Lassen's *Indisch Alterthumskunde*, Vol. iv. pp. 256-7.

† See Day's *Land of the Perumals*, p. 42.

‡ See *Madras Journal of Literature and Science*.

§ *Faria-y-Souza*, Vol. ii. p. 244.

The Buddhists claim him as a devotee to their religion and Mr. Talboys Wheeler is disposed to think "that in all probability the Perumal turned a Buddhist monk in his old age."*

The story of the Buddhist king Nasanga as related in the *Kerala Mahatmyam* fits in closely with the story of Cheraman Perumal as related in the *Keralotpathy*. In the *Kerala Mahatmyam*† we read that a clever Buddhist woman by name Mali fascinated a rishi and had by him a son for whom she procured the right to the crown by exchanging her infant for that born to the queen of the eleventh Kolattiri king. In due time the boy became king of Malabar and governed the country through Buddhist officers, though he was also kind to the Brahmans. It further adds that the first Buddhist Vihara or (palli) chapel, was made by him at Nasameepapura (Mádāya or Payangadi). Nasanga was so powerful, that even Parasu Rama, incarnation of Vishnu as he was, found it difficult to overcome him. Rama is said to have extirpated the Buddhists and lopped off the hands and feet of the king. But no sooner were they cut off than they sprouted afresh. After describing the changes which the king introduced into the administration of the country and the difficulties which Parasu Rama experienced in his endeavours to get rid of him, the *Mahatmyam* goes on to say: "The king was detained in the chase by Siva in disguise, whilst the queen fell in love with Kródha, the minister, and made offers to him, the flat refusal of which prompted her desire for a speedy revenge. She acts all the part of Potiphar's wife. But the faithful seryant, when on the point of being executed, is discovered mounted on the heavenly chariot; and, parting, advises the king to go to Mecca and worship there Vishnu incarnate in all shapes (Viswarupavataṛa), in order to go to Vishnu's heaven. The king did so."

This story has its exact counterpart in the *Keralotpathy*.‡ There we read that Cheraman Perumal's wife fell in love with Patamala Nair, the chief of the king's guards, and made offers to him. The sturdy chief flatly refusing them, the haughty queen swore to take dire vengeance on him. She instigated the Perumal to punish the Nair chief for some supposed crime, and, while the man was about to be executed, the Devas alighted in a heavenly chariot, and, carried the Nair bodily to the upper regions. The Perumal on seeing the chariot ascend heavenwards with his late minister, begged of him

* *History of India*, Vol. iii. p. 424.

† Chapters 61 to 73.

‡ Pages 65-66. Mangalore Edition.

to give directions by means of which he might attain *Moksha* (beatitude). The Nair advised the Perumal to give up his religion and to conform to the tenets of Mahomet. Adopting this advice Cheraman gave up Hinduism, became a follower of the Prophet, and left Malabar on a pilgrimage to Mecca, after distributing the country among his friends and dependants.

The Mahomedans stoutly maintain, in spite of chronological impossibilities, that Cheraman became a Mahomedan, was named Thiaj-ud-din (crown of the faith), went to Mecca, met the Prophet at Jeddah, married the sister of the king of Sahar, had issue by her, and died on his way back to Malabar, to spread the religion of the faithful amongst the unbelieving people of Malabar.* It must be admitted, too, that the story is not of recent growth; for Camoens, in his great poem of the *Lusiad*, sings:—

"But certain strangers coming to the realm
From Mecha in the gulf of Arabia,
Who brought the law of Mahomet with them,
(In which my parents educated me,)
It so befell, with their great skill, and stream
Of eloquence, these to that hot degree
This Perumal into their Faith did win,
That he proposed to dye a saint therein.
"Ships he provides, and therein (curious)
For off 'rings lades his richest merchandise.
To turn monastick, and religious,
There, where our legislative Prophet lies,
Having no heir, left of the royal house;
Before he parted he did cantonize
His realm. Those servants he lov'd best, he brings
From want to wealth, from subjects to be kings."

[Fanshawe's Translation.]

Notwithstanding its evident improbability, the Mahomedan legend is still believed to be genuine by many, though doubted by soberer Mahomedans themselves. It will be seen that the Malayali Arabs do not credit the facts contained in the *Keralotpathy* and the Mahomedan legend. They say that if these were true the name of such an influential convert as that of an emperor of Malabar would have surely found a place in the works of the old commentators and would have thus come down to posterity. Again they say that no such names as that said to be taken by the convert denoting attachment to Islam were given in the Prophet's lifetime. Sheik Zinud-dien the author of the *Tahafit-ul-Mujāhidin* rejects the story as current on the ground, among others, that the convert was said,

in his time, to have died on the coast of the Red Sea, whereas it was well known that his tomb was at Zafbar (on the Arabian Coast, north-east of Aden). The Malayali Arabs hold with the Sheik aforesaid that Mahomedanism was not introduced into Malabar till 200 years after the Hejira.* This view receives a certain amount of corroboration from the statement of the Arab merchant Sulaiman (A.D. 851-52), who says that in Malabar he did not know of "any one of either nation (Chinese or Indian) that had embraced Mahomedanism or spoke Arabic."† Ferishta believes that the convert king was one of the Samorins of Calicut and not any of the Cheraman Perumals. Zeiroodien Mukkudam, an Egyptian traveller of the fifteenth century, observes that the story is entirely unfounded.‡ Referring to the alleged meeting of the Perumal with the Prophet, the author of the *Tahafit-ul-Mujahidin* says, "There is, however, but little truth in this account."§ Jacob Canter Vissher after giving in detail the story as related to him on Mahomedan authority goes on to remark that "the narrative I have followed is, however, filled with trifles and does not hang well together."|| Mr. Talboys Wheeler is clearly of opinion that "the Mecca pilgrimage is doubtless a pious invention of the Mahomedans."¶ "The story rests probably upon no good foundation,"** says Major Heber Drury. Kookel Keli Nair in his memorandum on the Syrian and Jewish copper plates, says that the Perumal turned a Jain and not a Buddhist, Mahomedan, or Christian. It is said that the Perumal's departure to Mecca, called in Sanskrit Magadha, was due chiefly to the religious inducements of Majains, called Jainas or Boudhas, who as a people were then settled in Arabia and many of whom visited Malabar. The original name of Mahajains became in time corrupted into Magains or Magans.††

Whilst the Buddhists, the Jains, the Mahomedans, and the Christians each claim the Perumal as a follower of their religion, it is interesting to find that the Hindus do not acknowledge the apostacy of the king and the consequent pilgrimage. Shungoony

* Logan's *Manual of the District of Malabar*, Vol. i. p. 191.

† Renaudot's *Translation of Ancient Accounts of India*, &c., London, 1733, p. 37 (a).
Quoted by Logan, *Malabar*, Vol. i. p. 191.

‡ *Madras Journal of Literature and Science*, O.S. 20., p. 35.

§ Rowlandson's *Translation*, p. 56.

|| Vissher's *Letters from Malabar*, p. 121.

¶ *History of India*, Vol. iv.

** Drury's *Account of Travancore*—Vissher, p. 163.

†† *Madras Journal of Literature and Science*.

Menon in his *History of Travancore* holds that the Perumal never changed his creed and adds that certain Tamil accounts say that he ascended to heaven with one Sundramoorthy Swamy.* Jacob Canter Vissher is uncertain whether Cheraman turned a Mahomedan and went to Mecca or whether he simply proceeded to the river Ganges in fulfilment of a vow.† Even this pilgrimage is denied by Major Heber Drury; for he says, "Like Charles V. the aged monarch, weary of the cares of the state, retired to console his declining years with religion and solitude, and, taking up his abode within the precincts of a sacred pagoda in the Cochin territory, died full of years A.D. 352."‡ The *Tahafit-ul-Mujahidin* remarks that the Pagans believe that he has been taken up into heaven and still continue to expect his descent, on which account they assemble at Cranganore and keep ready there wooden shoes and water, and on a certain night of the year burn lamps as a kind of festival in honour of his memory.§ All the native authorities on the subject agree in thinking that Cheraman lived and died a Hindu. Pachu Moothathu records that the Perumal died a staunch Hindu at Tiruvanchikkulam (the ancient capital of Chera or Kerala) in the Cochin State, in the seventy-third year of his reign and the hundredth year of his age,|| and adds that it was not Cheraman Perumal who undertook the Mecca pilgrimage. According to him, in the reign of Bana Perumal, a predecessor of Cheraman, certain Buddhist monks came from China and succeeded in converting the Perumal, who, finding that he could not get on well with his subjects on account of his apostacy, resigned his crown and left the country.¶ One version of the *Keralotpathy* itself expressly denies the fact of the last Cheraman's reputed pilgrimage to Mecca. In recounting the story of the last days of Palli Bana Perumal's viceroyalty and of his departure from Kerala it distinctly says that the story set up by 'Boudhas' that Cheraman went on a pilgrimage to Mecca is altogether incorrect, and that the Perumal who undertook the journey was Bana.** The *Keralavakasaramam* is positive that the last Perumal died in Malabar and not at Mecca.††

* *History of Travancore*, pp. 55-6.

† *Letters from Malabar*, p. 50.

‡ Drury's *Account of Travancore*. *Letters from Malabar*, p. 167.

§ Rowlandson's *Translation*, p. 56.

|| *Keralavakasaramam*, p. 95.

¶ *Ibid.* page 90.

** *Keralotpathy*, Mangalore Edition, p. 29-30.

†† 1st Edition, p. 21.

In this bewildering confusion of authorities there is some reason to question the fact of the pilgrimage itself. The tradition is, however, said to be supported by the alleged existence of a tomb at Zafhar, reputed to be that of a Hindu king of Malabar by name Abdul Rahiman Samuri. The *Tukosif-ul-Mujâhidin*, no doubt, makes mention of a tomb at Zafhar where lies buried a king "styled by the people of that part of the world As-Samuri." The present existence of a tomb at Zafhar on the Arabian Coast is based by Mr. Logan solely on the information he received from an Arab living on the outskirts of Zafhar, and is as yet unverified, though Mr. Logan has done his best to obtain exact information on the subject both from the Resident at Aden and from other sources.* But supposing that the tomb and the inscription thereon do exist, so far from proving that the last Cheraman Perumal turned a Mahomedan, undertook the pilgrimage and died at Zafhar, this only shows (connecting the prevalent tradition with the inscription) that one of the Samorin Rajas of Calicut gave up the faith of his ancestors, adopted the tenets of Islam, died at Zafhar and lies buried there. The Samorins of Calicut have not unfrequently been confounded with the Perumals. Thus Dr. Oppert, speaking of the early Arab settlement in Malabar, says that when the Arabian pilgrim ship bound for Ceylon was driven on the Malabar coast the reigning Samorin was Cheraman Perumal. The confusion and the consequent mistake may be traced in the *Keralotpathy* itself, a work professing to deal with the early history of Kerala but which as it now stands is either full of anachronisms and absurdities and contradictions, or is an ill-digested and uncollated collection of different accounts huddled together in inextricable confusion, and full of irreconcilable inconsistencies. The *Keralotpathy* says that the last Perumal was sent to rule over Malabar by Krishna Rayer of Anagundy, one of the Vijayanagara rulers, and that the Perumal, not returning at the close of his term, the Vijayanagara king led an army of invasion to drive out his deputy and to conquer Malabar. This account anticipates the coming into power of the Vijayanagara dynasty by almost seven centuries. The mistake no doubt arose from attributing to the Perumal period a subsequent and much later invasion of Malabar, or at least that part of the country under the sway of the Samorin, by the ruler of Vijayanagara. It will be seen from the *Keralaparamat* that the Portuguese

* See *Indian Antiquary*, Vol. xvi. p. 160.

† Page 113.

Governor-General Albuquerque had about A.D. 1510, i.e., two years after the accession of Krishna Rayer to the Anagundy throne, made a compact with that prince with a view to overthrow the influence of the Mahomedan Arabs and Moors of Calicut. The Portuguese envoys to the Court of Vijayanagara proposed that the Rayer should cross the Ghats at the head of a large army while the Portuguese engaged to guard the seas against all Arab and Moorish vessels. It is certain that the Samorins lived in wholesome dread of the Vijayanagara kings, for 'Abdur-Razzak (A.D. 1442) remarks that "although Samuri is not under his authority, nevertheless he is in great alarm and apprehension from him, for it is said that the king of Bijanagar has 300 seaports, every one of which is equal to Kalikot and that inland his cities and provinces extend over a journey of three months."* There is reason to doubt that Krishna Rayer's immediate predecessor, Narasimha Rayer or Veera Narasimha, generally known as Narasinga, had sovereignty over Malabar; for the Portuguese navigator, Vasco da Gama, who arrived at Calicut in 1498 A.D., while describing the kingdom of Vijayanagara, observes that Choramandala, the country extending from Quilon to Orissa, formed the fifth province of the Rayer's empire.† The Mahomedans were, in the early centuries of the Christian era, very powerful on the coast of Malabar, and a trace of their influence at the Court of the Samorin may be found in the ceremony which the Calicut Rajas have still to observe on the occasion of their coronation when they have to receive *pan* and *supari* from the hands of a Mopla (Musulman) woman. After this ceremony the Samorins are, it is said, kept at arm's length by the other members of their family though not absolutely put out of caste. It may not be far wrong to suggest that the ceremony and the consequent degradation are a relic of the apostacy of one of the Samorin's ancestors and of his pilgrimage to Mecca, the change of religion having been perhaps the result of a *liaison*, which the then Samorin had with a Mopla woman. All known facts tend to prove that it was one of the Samorin Rajas of Calicut and not the last Cheraman Perumal that was converted to Mahomedanism.

In (b) Mr. Logan suggests that the origin of the Malabar era of *Kollam Andu* may be traced to the departure of Cheraman Perumal to Mecca. He considers it most natural that the people of Mala-

* Logan's *Manual of the Malabar District*, Vol. i. p. 295.

† *History of Tinnevely*, by Bishop Caldwell, p. 49.

bar should count the first day of a new era from the remarkable fact of the traditional Cheraman Perumal's setting out for Arabia. The Mecca pilgrimage of the Perumal is itself denied on the grounds set forth above. But granting for the sake of argument the fact of the Perumal's pilgrimage, it is still doubtful if the Kollam era had for its origin the day of the alleged journey. If the era had its origin then, it would be more natural to expect it to be called after the name of the great king who was leaving the shores of Malabar never to return. We may remember that the Salivahana Sakabdam is known after the name of Salivahana and that the Vikrama era is known after Vikramaditya. With regard to the Kollam era the fact that a certain locality in Malabar is connected with the name of the era is significant. It is called the Kollam Andu and there are two important towns in Malabar known by the name of Kollam, one in Travancore and the other in North Malabar. The version of the *Keralotpathy* preserved in the Mackenzie collection records that the Kollam Andu was calculated from the day on which an extensive tank was excavated at Kollam, in North Malabar, while Mr. Shungoonny Menon in his *History of Travancore* says that, when King Udaya Murtanda Varmah (of Travancore) was residing at Kollam (Quilon in Travancore), he convened a Council of all the learned men of Malabar with the object of introducing a new era; and, after making some astronomical researches, and calculating the solar movements through the twelve signs of the zodiac, and counting scientifically the number of days occupied in this revolution in every month, it was resolved to adopt the new reckoning from the first of Chingam of that year—the 15th of August 825 A.D. It is also noteworthy that the whole of Malabar does not date the commencement of the year from the month of Chingam, people in British Malabar calculating the beginning of their year from the first of Kanni, that is, a month later than in the Native States of Cochin and Travancore.

K. P. PADMANABHA MENON.

LITERARY NOTICES.

The Composition of the Four Gospels. By Arthur Wright, M.A. London: Macmillan and Co., 1890.

THE composition of the gospels is beyond question the most important, as it is part of the most difficult of the problems that still await solution

in the field of biblical enquiry. The difficulties which the evangelical narratives present to the careful reader have long been recognised; and while the tendency to ignore them has hitherto been a natural and harmless one, it is a tendency which in the present state of opinion is no longer safe, and ought to be impossible. The demand for explanation has become irresistible, and if an explanation is not forthcoming from those who are most capable of rendering it, the demand is likely to be satisfied by theories of the composition of the gospels which leave to them the barest minimum of historical value.

It must be confessed that as yet the Church is not in possession of such a theory of the origin of the gospels as can take the place in the minds of thinking people, of the explanations that are being conceived and promulgated in a spirit hostile to her claims. The theory of verbal inspiration has fallen—and rightly fallen—into discredit; but hitherto the Church seems to have been shrinking from the duty of honestly applying to the gospels that truer theory of the way in which God has communicated His revelation to mankind, which, as applied to other parts of the sacred record, she has so slowly and painfully mastered. The falsehood is still at work that the biblical narratives are verbally accurate. We see it in ill-fated attempts to piece together a perfect picture out of the fragments of dismembered narratives; in the expedient—hardly less desperate—of duplicating incidents, to suit the case of narratives which, while plainly referring to the same events, are nevertheless obstinately irreconcilable; or again in that appeal to unknown possibilities which, however justifiable in certain circumstances, can hardly expect to be listened to when a reasonable explanation lies ready to hand. Surely all that sort of thing is out of date. It is the after effect of verbal inspiration, and apart from the influence of that abandoned theory, such devices would never have entered into the head of man. The gospel narratives are not all equally accurate; the recorded sayings of Christ are not all equally authoritative. Such at least is the natural interpretation of the facts; and the problem of criticism—by no means such a hopeless problem as many people seem to imagine—is to explain the growth and structure of the gospel narratives; to determine their relation to each other and to the primitive tradition, and thus to secure principles of interpretation by which we may be able to sift the certain from the uncertain, the divine from the human.

Much has already been accomplished in this direction, and what is most required is that it should become the common possession of the Church. It is for this reason that we welcome Mr. Wright's volume, which is an attempt to present in brief compass, and in a form adapted to the general reader, such a discussion of the problem of the gospels as is required by the present circumstances of the Church. Upon the particular theory which he is led to put forward, we are hardly competent

to pass an independent judgment. In its main positions it accords with what is now generally accepted by biblical scholars; and rightly interpreted, it leaves untouched the substantial value of the gospels as historical documents. With his aims and methods at least we can express our intelligent sympathy. Mr. Wright is a critic, and by no means a half-hearted critic. But he exercises his function with the care and in the spirit of soberness which a clear appreciation of the importance of the interests involved can alone secure. By most readers his volume will be found to cast a flood of light upon the gospel narratives. His facts will probably be new (for it needs a theory to reveal facts) and his suggestions can hardly fail to be interesting. There are few books that could be more generally recommended as an introduction to the thoughtful study of the gospels.

Mr. Wright is afraid that his work will be regarded rather as an attack upon the gospels than as a defence of them. It is hard to believe that he can be so misunderstood. The reader must be strangely constituted who does not recognise as expressing the tendency of the book, the words which Mr. Wright has inscribed upon it as a motto—"That thou mightest know the certainty of those things wherein thou hast been instructed."

Cardinal Newman. By Richard H. Hutton. English Leaders of Religion. London: Methuen and Co., 1891.

THAT the shower of magazine articles called down by the death of Cardinal Newman, should be followed by a harvest of more or less ripe fruit, in the form of books more or less pretentious, was only what was to be expected. One of the most remarkable things about the religious movement with which the name of the subject of this memoir is indissolubly associated is the amount of really good and enduring literature which in one way or another it has been the means of producing; and we are of opinion that the work now before us, which the author himself modestly styles a 'little essay', deserves a high place in the class with which it must be ranked.

The fascination which the career of John Henry Newman has had for Richard H. Hutton has been well-known for years,—a fascination strong in its hold upon the sympathetic side of Mr. Hutton's mind, but not so strong as to overthrow his intellectual independence. Better qualifications for being the biographer of Newman no one could have, while Mr. Hutton's literary reputation is not a thing of yesterday and rests on no insubstantial foundation. It is only fair to say here, though no one who reads this book will require the explicit assurance, that Mr. Hutton's "essay was written and in type, and most of it corrected for the press, before Cardinal Newman's death." Not afraid lest the practice of bringing out books in series should be overdone, Messrs.

Methuen had projected a new series to deal with "the most prominent leaders of religious life and thought in this and the last century," and the first volume of this fresh venture is the book before us.

The subject of this biography has occupied so much space in this magazine in recent months that we feel that we should scarcely be justified, even if there were need, in entering into a detailed account of this work. It will be enough for us to indicate briefly its special features. Unlike Mr. H. J. Jennings' useful little book, which appeared some ten years ago, the greater part of this volume is devoted to a study of Dr. Newman's life before he left the Anglican Church. This means of course that the period dealt with is coincident with that covered by the *Apologia*. 'Newman as Roman Catholic' is the title of a single, if rather long, chapter. The character, too, of this work is entirely distinct from that of Mr. Jennings'. Mr. Jennings, though a Protestant quite as much as Mr. Hutton, makes no attempt to grapple with the problems raised by Newman's experience. He is content to glean the opinions of others, and gives, what perhaps is rather a want in Mr. Hutton's book, personal details and circumstances, which may sometimes have just a little air of gossip, but which nevertheless are very interesting and afford us some insight into *Newman the human being*. It is with *Newman the thinker*, the theologian and poet, that Mr. Hutton concerns himself; and while tracing his spiritual development along the line of the many works which were issued during that stirring and exciting period from 1832, when *The Arians of the Fourth Century* appeared, to 1845, when the *Essay on the Development of Christian Doctrine* was completed, our author criticises freely, though always sympathetically, the various conclusions arrived at by Newman. With most of Mr. Hutton's strictures we should feel ourselves bound to agree, but we do not intend to discuss them now. There are, however, two points on which the present writer is inclined to disagree with him. The one is his estimate of Newman as a poet. Surely it is somewhat extravagant, if on no other ground, for the reason that the bulk of Newman's poetry is after all exceedingly small. We are aware that this criticism throws the door open to a very obvious remark, but we are not afraid of it: for Mr. Hutton has very meagre materials to justify the use of such expressions as these:—"The man who had shown such exquisite and almost *Æschylean* genius;" and, "I know no more powerful conception anywhere of impotent restiveness and restlessness." We believe Mr. Hutton's enthusiasm for his subject carries him away,—a result altogether to his credit, for we imagine no writer's words have 'found' Mr. Hutton to his inmost heart as John Henry Newman's have. All the same, the critic must not lose himself in adoring gratitude, however ungenerous such a dictum may sound.

Our other point of disagreement with our author is the way in which he deals with Newman's 'alleged scepticism'. It seems to us a little

perverse the way in which he approaches this part of his subject, reaching at it across a flippant remark of Mr. Huxley's. It is of course quite easy for Mr. Hutton to show that Newman was not the credulous fool who shuts his eyes and opens his mouth, but that he was instead a man of keen intellectual discernment, quite capable of making for himself the nicest distinctions in matters of evidence. But this is perhaps scarcely the question of most general interest. What we wish to know is this, namely, whether it was not the case that Newman had a mind with a strongly sceptical, or, if the term be preferred, questioning bias,—that the discovery of this in himself thoroughly alarmed him, that he had had a spiritual experience in early years with which he felt that his soul's salvation was bound up, that with much anxiety he sought to establish this experience on a foundation outside of itself that could not be moved, that he could not trust his own judgment in the interpretation of Scripture, that he found the Anglican Church to fail him likewise, that he saw at last that the Romish Church spoke with a voice of unshaken authority. Now, if this be the case, and we think it is not an unfair view of Newman's experience, it seems to us that Newman was all along fleeing before the spectre of his own scepticism, and that his aversion to the great Protestant principle of private judgment, which, as was formerly indicated in these pages, is not without efficient safeguards, was just a convenient barrier thrown up to ward off the advance of this spirit and to gain time. He might, however, as well have tried to get rid of his own identity, so that it was from out the bitter anguish of uncertainty in spiritual things that he bowed his head in submission to that Church which seemed to speak across the centuries with unfaltering tones.

In a brief notice such as this we cannot do justice to Mr. Hutton's work. What he says about the *Essay on Development*, which was written "many years before the scientific conception of biological evolution had been explained and illustrated by Darwin and Wallace," is deserving of careful perusal; and it is interesting to place alongside his treatment of the *Essay* the words with which he concludes his task:—

"In a century in which physical discovery and material well-being have usurped and almost absorbed the admiration of mankind, such a life as that of Cardinal Newman stands out in strange and almost majestic, though singularly graceful and unpretending, contrast to the eager and agitated turmoil of confused passions, hesitating ideals, tentative virtues, and groping philanthropies, amidst which it has been lived."

The volumes of Messrs. Methuen's series will serve admirably, so far as binding and the work of the printer go, as companions to the 'Twelve English Statesmen' series. The frontispiece represents Newman as he was in 1850, when the lines on his face were not so deep as they appear in the better known photograph taken after he became a Cardinal. If

the forthcoming volumes maintain the high standard set up in this, the first volume, the series will prove an important contribution to the religious history of the last two hundred years.

The Marquess Cornwallis. By W. S. Seton-Karr. Rulers of India. Clarendon Press, Oxford.

It was at least a checkered career that of the soldier whose surrender at York Town virtually brought the American War to a close; of the soldier-statesman who, coming to India in 1786 as Governor-General and Commander-in-Chief, humbled, if he did not finally conquer, Tipú Sultán, settled the Land Question for Bengal, and placed the Civil Service in a position of honourable independence; of the statesman and diplomatist who governed Ireland at the time of the Union and negotiated the Peace of Amiens; of the patriot who rendered his last service to his country by returning to India, with the weight of years and of broken health lying heavy upon him, in obedience to what he believed was the call of duty,—only to die, however, ere he had so much as begun his appointed task. A strong, if not a brilliant, man he must have been; and from the course of such a life there could not have been absent dramatic scenes of the deepest import. All this, one would think, ought to furnish the biographer with abundant material for a history that would hold the reader's attention and make the subject live before his mind. A large part, however, of the career of Lord Cornwallis does not fall within the scope of the series for which this biography has been written. The part he played in American and European politics could only be touched upon incidentally, while Indian affairs had perforce to be treated with greater care and fulness.

While this was so, the life of Lord Cornwallis, despite the variety of scene and circumstance amid which it was passed, is not without that unity which historical evolution gives to at least every public life, America, India, Ireland, France, were not so many isolated spheres of influence for the statesman or soldier in the last quarter of the eighteenth and the opening years of this century. The American War of Independence had much to do with the outbreak of the French Revolution, while that great convulsion raised questions both in India and Ireland that demanded a settlement at the hands of the power which had suffered so great a loss beyond the Atlantic. Mr. Seton-Karr, we venture to think, would have added to the interest of his work, without unduly trenching upon its special features, had he found room in it for a greater breadth of treatment. Even in dealing with India it is measures, not men, nor yet incidents, that seem to possess most interest for the author. In this brief monograph of two hundred pages we find no less than one hundred and twenty pages devoted to an account of the various reforms for

which Cornwallis is to be held responsible, or with which he is to be credited, while the war with Tipu is passed over in less than four. Of these measures the one that naturally receives most attention is the Land Settlement. No doubt all or nearly all that is unquestionably good in the Settlement is due to Sir John Shore (Lord Teignmouth); but upon Lord Cornwallis alone must the responsibility rest of making the Settlement perpetual. Whether it was wise or not to thus convert tax-gatherers into a class of landed gentry will remain a disputed point. Mr. Seton-Karr seems to be fully aware that the Bengal Settlement is not all that is desirable, for, while he points to the fact that Government has been assisted by the large Zamindárs in times of famine and scarcity, he thus sums up the total effect of the measure:—

"Lord Cornwallis had only the experience and the legacies of failure to guide him. Pressed for ways and means, and anxious for reform in more departments than one, he committed himself to a policy which, in regard to the three interested parties—the Zamindár, the Ryot, and the Ruling Power—assured the welfare of the first, somewhat postponed the claims of the second, and sacrificed the increment of the third."

One or two of the letters written by Cornwallis after his return to England, that appear here, are worth reproducing. This is one addressed to Sir John Shore:—

"Dear Sir,—I beg to introduce to you Colonel Wesley (*sic*), who is Lieutenant-Colonel of my regiment. He is a sensible man and a good officer, and will, I have no doubt, conduct himself in a manner to merit your approbation."

The bearer of this letter was Arthur Wellesley, afterwards Duke of Wellington.

Another letter about a young man, a member of Parliament who was proceeding to India, not in any official capacity, might, as Mr. Seton-Karr says, have been written with effect, *mutatis mutandis*, at the present day.

"As Mr. ——— is a member of Parliament, he may be looked up to by the young men of the Settlement, who have chiefly gone abroad at a very early period of life, and are consequently very ill-informed in regard to European politics. Nothing could be so prejudicial to themselves as well as to the general good order of the Settlement as to instil into their minds a spirit of party and of opposition to all Government. Liberty and equality is a most pernicious and dangerous doctrine in all parts of the world; but it is particularly ill-suited to the Company's servants in India, who are to thrive by minding their own business and paying a due regard to the commands of their superiors in the service."

We trust that for the sake of India, whose affairs are now in danger of being meddled with by persons who have zeal without knowledge, the 'Rulers of India' will be largely read both here and at home. The volumes of the series are beautifully got up, and are clearly printed on good paper.

English Composition and Rhetoric. By Alexander Bain, LL.D. Edited with Additions for Indian Students by John Adam, M. A. Madras, 1891. 310

WHEN Mr. Adam introduced Mr. Murison's *First Work in English* to Indian students we felt he was on right lines. Mr. Murison's method is admirably adapted for this country. We confess to much greater hesitation in pronouncing judgment on the present work. For advanced English students Dr. Bain's *English Composition* is beyond all doubt the best treatise published, but it does not follow that it is equally suited to Indian students. In his preface Mr. Adam says, "My own chief difficulty is that the student can hardly be persuaded of either the possibility or the need of method in composition. Grammatical accuracy is the limit of his hopes." For our part we should be satisfied in present circumstances if the ordinary student could attain this by no means ambitious limit. It is to train the student to grammatical accuracy that is the problem of the teacher of English composition, and it is just this problem that Dr. Bain's work does not solve. The day may come when this volume will prove as suitable for Indian students as it is now for English, but that day is not yet; and until that time comes the teacher must be content to work on less ambitious lines.

The Indian edition is in the main a reproduction of the matter of Dr. Bain's first edition, arranged for the most part in the order adopted by Dr. Bain in his recent revised edition. Mr. Adam has, however, on many occasions varied from both, and generally we think with advantage. There are, too, considerable additions suggested by a knowledge of the needs of Indian students, such as the chapters on Punctuation and Versification, and these add materially to the value of the work. The feature which most catches the eye of one familiar with the old edition is the variety of type and the change of paragraphing. For a text-book this variety of type, while it by no means improves the appearance of the book, is of very great advantage. In the present instance, the actual improvement on the old edition is comparatively little, as Dr. Bain himself employed this device with considerable success. Yet, the change such as it is, is for the better.

Looking at the edition as a whole, while we cannot regard it as pronouncing the last word on this all-important subject, we believe that Mr. Adam has given to the Indian student a volume in several respects better suited to his needs than Dr. Bain's own editions. What is needed, however, is not an adaptation of any existing work, but a new work built from the foundation by one thoroughly familiar with native idiom and modes of thought, and equipped for his task by long experience in teaching this subject.

The Asylum Press Almanac, Directory, and Compendium of Intelligence for 1891.

Asylum Press Pocket Almanac and General Directory for 1891.

Asylum Press Sheet Almanac, 1891.

THESE annual publications of the Lawrence Asylum Press are so well known that it is unnecessary for us to say more concerning the issues for the present year than that they fully maintain the reputation won by their predecessors. Mr. G. W. Taylor deserves great credit for his efforts to keep the information contained in the Almanacs up to date and to increase their general usefulness. We feel sure that no one who uses these works for business purposes ever feels that he has not got the worth of his money, and the large almanac, apart altogether from its usefulness from a business point of view, will often be consulted by people who desire to take an intelligent interest in the affairs of their Presidency and of India generally.

NOTES AND EXTRACTS.

We are not in possession of very full or very definite information regarding the meetings that have been held to protest against the Age of Consent Bill at present under consideration by a committee of the Viceroy's Legislative Council, but we have sufficient to justify the opinion that many of the educated men of Bengal have shown themselves ill-deserving of the consideration they have received at the hands of the Viceroy and the author of the Bill. The amount of legislation proposed by the legal member of the Viceroy's Council, while calculated to put a check on practices that sap the national vigour and form a standing reproach to the civilisation of India, is such as everyone who has any sympathy whatsoever with reform might be reasonably expected to approve; and the action of those who have met in Calcutta and elsewhere for the purpose of expressing disapproval can only be regarded as an indication that they are utterly opposed to all reform. We could not but regret that among them were many of whom better things were to be expected. Whatever may be the immediate result of their ill-considered action, there can be no doubt that they have given the Government good reason for being in no hurry to accede to the demand of the advocates of political reform for a larger share in the government of the country.

We do not propose to enter into details with regard to the Bill itself. It seems to have been drawn up with due regard to the circumstances of the country, and especial care seems to have been taken to avoid any conflict with the religious ordinances of the Hindus. The Government have done well, we believe, in refusing at present to deal with all the

questions raised by Mr. Malabari and the English committee on reform, and we are glad to find that the native press has fully appreciated the clear exposition of the views of the Government contained in the Viceroy's speech on the introduction of the Bill. We do not fear that the Bill will be productive of no results, as some of its opponents predict, and not the least valuable of those results will be the educative influence which it is likely to exert. The following words, which form the concluding paragraph of the speech in which Sir Andrew Scoble introduced the Bill, will give an idea of the principles by which he has been guided in drawing it up and the results which he expects from the proposed amendment of the law:—

"On the ground, therefore, that the age of twelve years approximately may be considered as the average age for consummation of marriage, both according to law and custom, on the one hand, and on the other, as the lowest safe age as regards physical fitness, I venture to think that the line may be drawn at that age without doing violence to any respectable social usage, or to the religious law of any portion of the community. And though this age may be considered by some too low, it must be borne in mind that while this amendment of the law will afford absolute legislative protection to girls up to the age of twelve years, the remedies of the existing law in regard to cases of brutality will remain available to girls above that age. Two other objections to the proposed amendment of the law remain to be considered. In the first place it is feared that it may lead to the invasion of the privacy of families by the police, not so much for the detection of crime, as for the purpose of extorting blackmail. I have found this apprehension so widely entertained that, whether it is justified or not, I think it deserves consideration. I therefore propose that offences by a man against his own wife under the amended section shall be non-cognisable, that is to say, that police officers may not arrest without warrant, but proceedings must be taken by summons, and bail may be accepted. This concession, I hope, will remove all ground of alarm on this point. The other objection is that legislative action is not likely to have much direct result. This may be so; but for my part I shall be content if the effect of legislation is mainly educative—if it strengthens the hands of fathers of families for the protection of their daughters, and modifies custom so as to diminish the opportunities and incentives which are now afforded for indulgence in this pernicious practice. I cannot, moreover, forget it was pointed out long ago by Dr. Chevers that the existing law has done mischief to those whose interest it was designed to protect by fixing too low an age; and I agree with the late Lieutenant-Governor of Bengal in the opinion that though it may not be probable or even desirable that many cases will be brought into Court, yet, if the enforcement of the husband's rights upon a girl below twelve years of age is stigmatised by the law as rape, and it is publicly recognised that those who abet such assaults render themselves liable to punishment, a great improvement will surely be effected, not only in the condition of the class for whose protection the Bill is primarily designed, but in the physical and social well-being of the people at large."

We have before us the Report on the Administration of the Punjab and its Dependencies for 1889-90. The year under review will be remembered in the Province for the visit of Prince Albert Victor of Wales, and as the first year in which the Punjab began really to recover from financial depression. Compared with the previous year the revenue showed an increase of eight and a half lakhs of rupees. The increase was most marked in the collections under the head of land revenue, but there was a hardly less remarkable growth of revenue in the excise and income-tax departments. The increase of excise revenue is attributed mainly to increased vigilance in the prevention of illicit practices, and the increased revenue from income-tax to increased care and attention in the work of assessment. In other departments, too, there was an increase of revenue. It is hoped, therefore, that many urgent works and reforms which have long been postponed for want of funds will now be taken in hand.

The year under review was not altogether a favourable one for agriculture. There was an increase of nearly 7 per cent. in the area cropped in autumn, but the increase was mainly in the inferior staples. There was a greater area under cotton than in the previous year, but the outturn was less. The area under sugar-cane showed a considerable falling off. On the whole, however, the autumn harvest of 1889 was an average one. But the spring harvest of 1890 was poor. There was practically no rain at seed-time, and the winter rains also failed. Consequently there were large decreases in the outturns of the various crops, especially in the case of crops grown on unirrigated soils. Notwithstanding the unfavourable season there were no violent fluctuations in prices during the year. It is encouraging to note the success that has hitherto attended the efforts of the irrigation department. In a province like the Punjab, where there are large tracts of country very liable to prolonged drought the benefits conferred by a well devised scheme of irrigation are incalculable, and it is satisfactory to find that so far the works undertaken have proved a decided financial success. Several important works are now in progress.

The foreign trade of the Province during the year 1889-90 showed a considerable advance on the figures for the previous year. The increase took place chiefly in the value of exports to the countries west and north-west of the Punjab. There was a very marked increase in the trade with Kabul, which is attributed to the tranquillity of Afghanistan during the year. The trade with Kashmir maintained itself satisfactorily and there was a relatively large, though absolutely small, increase in the trade with Chinese Tibet. The mail-borne trade returns showed a large increase in the value of wheat exported, but the wheat exports of the current year are likely to show a large falling off in consequence of the bad spring harvest. The figures given in the present Report an

in the Reports of former years show to what a large extent the trade of the Punjab is a trade with and through sea-port towns, and how Karachi is year by year taking a more prominent position as the medium of communication between the Punjab and Europe. The river trade with Sind is falling off, the traffic with this Province being doubtless absorbed by the railway.

The criminal statistics for the year show a decided improvement on those of previous years, but the magistrates as a body showed want of discrimination in inflicting punishments and the police displayed an insufficiency of detective ability. Indications were not wanting, however, to show that the police and the magistrates had taken increased pains to sift the antecedents of convicted persons. The number of civil suits instituted during the year showed a considerable falling off as compared with former years. The general decrease in litigation is attributed chiefly to the agricultural prosperity which prevailed in most parts of the Province.

The cause of local self-government does not seem to have advanced much during the year under review. The working of the several municipal bodies was on the whole fairly good, though the spirit of faction was not entirely absent, but the results of the elections were rather disappointing. The system of election is still far from being popular in the Punjab. The desire for improved conservancy and sanitation is becoming more general among municipal committees, but in the great majority of cases the funds available for these purposes are insignificant. Where the municipal revenues are large, however, there is a growing disposition on the part of the committees to undertake large schemes of drainage, sewerage, and water-supply with the aid of loans from Government or raised in the open market. Local boards, except in a few localities, have not hitherto been of much practical utility, but the Government find it difficult to determine how far the alleged want of interest on the part of these bodies may not be due to failure on the part of the district boards to delegate powers and entrust business to them. The district boards themselves do not in all cases show much energy. The system of election in the constitution of district and local boards has not hitherto been very successful on the whole.

The general health of the people throughout the Punjab was not very good in the year under review. The death-rate was in excess of the average of the previous five years. The high rate of mortality is ascribed to the great prevalence of malarial fever during the autumn and winter months. Cholera was epidemic for the third year in succession, but was the cause of a comparatively small number of deaths. The birth and death-rates for the Province would seem to show that registration has on the whole made very considerable progress in the Punjab. Both the birth-rate and the death-rate are much above the recorded rates for

this Presidency. In the matter of vaccination, too, the Punjab appears to be a good deal in advance of Madras. It is calculated that in the year under review about 80 per cent. of the infant population of the Province were vaccinated. Much has been done also in the way of re-vaccination. Since its introduction in 1885-86 the use of animal lymph has been greatly extended, and the system is evidently growing in favour with the people.

The educational statistics for 1889-90 have been compared with those for 1884-85, and on the whole satisfactory progress is shown. There has been an increase in the proportion of male and female scholars in the higher stages of instruction, in the number of scholars attending institutions under the influence of the Education Department, and a very large increase in the number of candidates successful in the various public examinations. There has been an enormous increase in the income from tuition fees, and a marked development of independent educational enterprise. The boarding-house system has been largely developed, discipline has greatly improved, moral instruction has received special attention, and physical education has been placed on a better footing and widely extended. The supply of trained teachers also increases year by year. Arrangements have been made for the meeting annually of a Departmental Conference and a General Educational Conference, and five annual meetings of each conference have been held, at which a large amount of useful work has been accomplished. It is perhaps worth noting in conclusion that though there has been in recent years a very encouraging increase in the number of scholars in the higher stages of instruction the total number of students receiving a university education in the Punjab is still small.

We have before us the twenty-sixth annual Report of the Sanitary Commissioner for Madras, which covers the calendar year 1889. From it we learn that in the year under review the total rainfall was greater than in the preceding year and considerably in excess of the average of ten years. Rain fell on a greater number of days than the average of ten years. The mortality during the year was higher than that of any of the five preceding years, the increase being due to the high mortality from cholera, fevers, and all other causes. There would seem to be a close relation between the mortality rates from fevers and the amount of rainfall, and statistics appear to show that the higher the rainfall for any year the higher is the fever mortality rate. During the year under review the prices of food grains, especially cholam, were above the average. In Ganjam prices continued very high in consequence of the bad season of 1888, and the scarcity prevailing in that district affected the adjoining district of Vizagapatam and caused a considerable rise in the prices there also.

The Report is provided with diagrams showing the rainfall and the price of the staple food in each district for the three years ending with 1889, as compared with the average of ten years. With regard to these diagrams we think it well to make a few remarks. To take that which shows the rainfall, for example, we find that the total rainfall for any month is represented by an ordinate the foot of which corresponds to the middle of the month, and that the points whose coordinates thus represent respectively the time and the total rainfall for the month are joined successively by straight lines so that a broken line is formed. What the object of such a diagram is, we cannot understand. It is obvious that the ordinates of points intermediate to those mentioned have nothing to do with the rainfall at times corresponding to the abscissæ of these intermediate points. Hence, unless a great deal more information is available than these diagrams profess to supply, it would be best simply to indicate the rainfall of successive months by a series of points. In this way also the prices of food grains and the birth and death-rates should be indicated.

In dealing with the vital statistics of the general population the Sanitary Commissioner has thought it better still to base the ratios of births and deaths on the ascertained population of 1881 rather than on an estimated actual population. Until the census of 1891 has been completed there will be no accurate data to show what is the average annual increment of the population, and in a country like India where famine and pestilence are sometimes both widely spread and severe it will always be difficult to determine what increment should be allowed for any given year.

Calculated in the way indicated the birth-rate for 1889 was 30.9 per 1000, which is the highest birth-rate recorded in the Presidency during the last nineteen years. The higher rate probably indicates improvement in registration, but, as the Government point out, the large variations in the birth-rates reported from the various districts show that the registration of births cannot yet be regarded as making any very near approach to accuracy. The lowest birth-rate was reported from Ganjam, but the low rate for this district was to a large extent due to the distress which prevailed. A lessened birth-rate is an unfailing accompaniment of famine. Of the births registered in 1889 there were more male than female in the ratio of 104.2 to 100, which is almost exactly the same as the ratio for 1888. Among the Hindus the birth-rate was 31.2 per 1000, among the Muhammadans 28.4, and among the Native Christians 24.6. The months of July and October had the same average birth-rate, and that the highest for the year, while February had the lowest. In this Presidency the birth-rate is usually lowest in February and highest in July.

The death-rate for the year under review was at the rate of 23.5 per 1000 of the population. This exceeded the death-rate for 1888 by

2.1 per 1000, and was 2.0 above the average rate for the five years 1884-1888. Cholera, which appears to have been steadily increasing in intensity since 1886, was largely responsible for the high death-rate during 1889, but under all heads the deaths were in excess of those which occurred in the previous year. As usual, the mortality among infants under one year was very high, as was also the mortality among children under five years of age. This can only point to the insanitary condition of most of the towns and villages of the Presidency. In accordance with the experience of former years the death-rate for males was in excess of the rate for females. The excess was most marked in Ganjam, where distress prevailed. This, too, is in accordance with former experience. In the whole Presidency 107 deaths among males were registered for every 100 deaths among females. Amongst Hindus the death-rate was 24.0 per 1000, among Muhammadans 19.9, and among Native Christians 16.7. The largest number of deaths registered in a month took place in January, and the smallest in February. Usually the most unhealthy months are December and January and the most healthy April and May. The death-rate of the urban population was considerably higher than that of the rural population, and though it is difficult to say how far the excess in the mortality recorded among the urban population is due to the superiority of urban registration it is clear that much has still to be done for the sanitation of our large towns. The death-rate for Madras was especially high.

In the section of the Report which deals with the general history of the chief diseases, we find that the mortality from cholera was highest in June and July. The year 1889 was in this respect an exception to the rule, for in the Presidency of Madras cholera usually attains its maximum intensity in the cold weather months. Both the high mortality from cholera and the change in the time of maximum intensity were to a large extent due to the Ganjam famine. In consequence of the prolonged drought the people were in a semi-starved state for months, and for the same reason the drinking water in parts of the district was more impure than usual. In fact all the normal insanitary habits of native life were intensified by the distress which prevailed in the district. The coincidence of bad seasons in this Presidency with maximum cholera prevalence has been often noted. The conditions obtaining in years of scarcity are also favourable to the spread of small-pox, and thus we find that in the year under review Ganjam had a high death-rate from this cause. The rate was only slightly lower in Kurnool, but in this case the high rate is due to the fact that vaccination has always been opposed by the people of this district. Nearly two-thirds of the small-pox mortality of 1889 occurred among children under twelve years of age—a fact which points to the need for prosecuting vaccination among young children.

314

No new sanitary works of any importance were undertaken in the year under review, but drainage and water-supply schemes were prepared for some towns, and in Cuddapah the scheme for supplying the town with water made considerable progress. Greater attention is now being paid to conserve and guard drinking water supplies from pollution, but generally speaking most towns have no regular system of drainage. Hitherto the want of professional engineering advice and funds have been drawbacks in the carrying out of substantial and permanent improvements as well as in other matters connected with sanitation, but the former of these has been absent since the appointment of a Sanitary Engineer to Government, and by the powers recently conferred on Municipal and District Boards the latter can to a great extent be overcome. The proportion of expenditure to allotments by Municipal Councils during the year under review was on the whole satisfactory, but in this respect the Local Fund Boards showed little improvement on the previous year.

THE Report on Vaccination in the Madras Presidency for the year 1889-90 shows that the working of the Vaccination Department in the year under review was on the whole satisfactory. The number of successful cases was considerably in excess of the number for the previous year, and is the largest number on record. This highly satisfactory result is ascribed to the more general use of animal lymph and the consequent lessened difficulty in obtaining supplies of the virus. The method of animal vaccination was first introduced by Dr. Laing in 1879, and since then it has been adopted in district after district, till at the present time there are only six districts in which it is not practised. It is worthy of remark that these six districts include four out of the five which showed an absolute decline in the number of persons vaccinated during the year. In Kurnool a scheme was sanctioned in which a better class of vaccinators were to be entertained, and under this scheme the method of vaccination from the human subject was to be totally abolished. Not the least of the many advantages of the method of animal vaccination is that it reduces very considerably the cost of each successful case.

In the year under review compulsory vaccination was in force in 25 out of 55 mofussil municipalities in the Presidency. The change from option to compulsion has in all cases been well received, and it has evidently been productive of very satisfactory results.

In the present Report Dr. King refers briefly to some experiments conducted by himself on the preservation and transport of animal lymph. He also discusses the value of the substitutes that have been proposed for calves as vaccinifers. He thinks that in the meantime, and having regard to Hindu modes of thought, there is no animal that performs this

function so effectually as the cow. The success that has hitherto attended vaccination by calf lymph would seem to show that the method is popular.

THE last general report of the Theosophical Society is a document of some interest. It shows that the noble work of national regeneration is progressing very slowly, and in fact that if it were not for the help sent from America the work would soon collapse entirely. Colonel Olcott declares that his love for and confidence in the Hindus is unchanged and unalterable, but he cannot pass over the fact that the Indian branches of the Society have, with honourable exceptions, been reprehensibly inert as a whole. The independent spirit and complete self-reliance which are ingrained in the American and British character are unknown in the Indian races, which must therefore be treated in a totally different way. The President-Founder has discovered, we presume, that the people of this country must be treated as children rather than as brothers. He has great faith, however, in the ultimate success of the theosophical germs which have been implanted in various places throughout the length and breadth of the land. In many places they have remained inert, but Colonel Olcott thinks that with a proper working Head-Quarters Staff and the funds necessary to cover a variety of expenses they may be made to take root and grow. He himself will not waste his energy, however, in trying to keep the Indian branches up to their work, with such wretched help as they have given him of late. He thinks he can do enough for India, and through India for the world, without breaking his heart in the vain endeavour to make them feel their duty to their holy native land and to themselves and their children. This ungrateful task has been assigned to Mr. B. Keightley, who was sent out by Madame Blavatsky to undertake the duties of general secretary. Mr. Keightley seems to be well fitted for this office, for according to Colonel Olcott he has spent Rs. 50,000 on account of the Society. He is not likely, however, to attempt to carry on the work he has undertaken unless he receives more certain support than has been given to Colonel Olcott.

If the President-Founder could not report favourably of the work of the Society in India he could look elsewhere for consolation. His great work on behalf of the Buddhists has prospered in his hands, and he evidently looks for great results from his recent tour in Japan. Concerning this it is perhaps unnecessary for us to state that many people have quite another account to give. But doubtless the Colonel's chief cause for gratification was the flood of letters, telegrams, and protests that poured in when he announced his determination to relinquish office and withdraw into private life, though even he must have seen that many of the compliments paid to him were in reality of a very doubtful nature.

315

For instance, it is surely far from encouraging for the Founder of the Society to be told after many years labour that if he resigns the Presidency the Society will at once go to shipwreck. In answer to a request made by Colonel Olcott Madame Blavatsky refused to have anything to do with the Presidency, and told him that if he resigned she would quit the Society and withdraw Mr. Keightley from India. An American theosophist, a personal friend of the President, said that his resignation would be followed by that of a large number of members in the United States who look to him and to him alone "as the preserver of their rights and liberties." American theosophists have some cause for asking to have their rights and liberties looked after, for out of a total income for the past year of Rs. 11,600 no less than Rs. 8,300 was contributed by the American section of the Society.

The result of the pressure brought to bear on Colonel Olcott has been that he remains President, but in order that he may recover strength he has for the present delegated authority to four persons who will act as President's Commissioners. He himself, however, retains the management of the Buddhistic section of the work, which he evidently regards as his proper work for the remainder of his life.

COLLEGE NOTES.

I THINK I have some reason to complain of the friends for whom I write these Notes. In August last, I gave a course of lectures on a subject of admitted importance. The audience was crowded. The interest was evident. The lectures were published in succession in the last four numbers of the magazine for 1890. For about two months now, the whole series has been in the hands of my friends. Whether the lectures were good or bad,—whether the views they contain are false or true,—at all events, they are not quite commonplace. There is something in them which is not utterly familiar, and which is therefore fitted to stir questioning in many quarters and opposition in not a few. I expected that the lectures would be a good deal discussed, and that, in all probability, some hard things would be said about them. And this expectation has been partly realized. I have heard indirectly of some friends being astonished, and some offended, by what I said.

But here is the gist of my complaint. In the Notes which appeared when the publication of the lectures in the magazine began, I made it a particular request that those who dissented from my views or deemed the impression made by them likely to be hurtful, would communicate their criticisms to me, and thus give me an opportunity for such

restatement or supplementary discussion as is always necessary when one deals with a subject so difficult and so large. In fact, in the closing lecture itself, I said that I had intentionally reserved what is perhaps the most practically important portion of my whole theme in order that it might be treated separately when the objections which I looked for had been so stated as to let me see the best method of approaching it. Thus I avowedly left the discussion incomplete, but promised to endeavour to complete it when proof should be given that what I had said had taken practical hold on the minds of my audience and my readers.

Now what response have I had to my request? The response consists as yet of a solitary letter; and even it does little more than raise a question which goes by no means very deep into the matter.

If there were nothing to judge by beyond that letter, of course the readiest explanation of the facts would be that my lectures were ineffective and, through, their own worthlessness, had fallen entirely dead. But it is not self-esteem alone that makes it difficult for me to acquiesce in this somewhat humiliating explanation. I have been assured by many, in general terms, that the lectures proved interesting and are likely to do some good. In conversation and by letter, I have heard from not a few that they have been a good deal discussed in various quarters. I have had a larger amount of vague praise of them than I care to have, and I am unwilling to regard such praise as insincere. But why, save in one instance, have I not been told of a solitary point which requires fuller explanation, or of a single one of the numerous objections which, I am credibly informed, that a few are disposed to make?

I am quite sure that the reason of the silence I complain of is not any fear, on the part of former students or their friends, lest plain speaking should offend me. Most of that class among the readers of the magazine know well that objections to my views and the raising of difficulties about them are always welcomed by me as the best means—and often the only means,—of getting people to know what these views really are. Nor do I quite like to ascribe the all but universal silence to sheer laziness about putting pen to paper. There is more than that in it. The silence points to a serious defect in the educated young men of Southern India; and, as I make it part of my business in these Notes to dwell from time to time on the faults of my friends, I may as well mention it plainly.

Our young men,—students and those who belong to what may be called the student section of the community,—make capital listeners in some ways. Their patience is admirable. So also is their attention. And their attention is an intelligent attention. As regards understanding and appreciating, and in a certain sense 'receiving' what is said to them, I doubt whether a more satisfactory audience can be found in any

country in the world than in Southern India. But our audiences and readers have what is, to a Western mind, a perfectly wonderful power of receiving irreconcilable, or apparently irreconcilable, statements and letting them lie dormant side by side. There is intelligent apprehension. There is real interest in truth, or what is believed to be truth. But there is not that ferment of thought which truth ought always to excite. There is not,—or there is not widely at work as yet,—the great principle which makes thought vivid and influential,—the principle namely that truth is the one rightful guide of life. I fear the dominant principle still is that custom is the proper guide of life, though truth may be a good thing of its kind in its own place. Hence the indisposition to take any trouble for the purpose of ascertaining the exact truth about anything. Hence the little inclination to follow out in practice what is held—and held quite appreciatively and honestly—to be good in theory. Hence the need of constant reiteration of the motto of the magazine,—

"They are slaves that dare not be
In the right with two or three."

So long as it is the prevalent feeling,—underlying all thought though unexpressed,—that the will of the community,—that is to say, custom,—is the proper rule of all that an individual ought to do, there is no power at work within the mind sufficient to energize the truth that after a fashion is believed, and no effective reason for making earnest inquiry as to what the exact truth on any subject is.

I cannot say that I have been exactly disappointed by the want of response that my appeal has met with. I know my friends too well to have at any time looked for showers of letters expressing the difficulties and objections which my lectures are fitted to suggest whether to professing Christians on the one hand or to those who do not profess to be followers of Christ upon the other. I am well aware of how languid the response to such appeals has hitherto always been. It reminds me of the experience of a friend of mine in the Punjab who is earnestly striving to lead students and others to a higher intellectual life than is implied in the ability to pass examinations. He has recently related what pains he took to draw up and to circulate, among all the graduates in the far North-West, a scheme for home-readings, by which young men who had gone out from college into active life, "might be helped to keep up an intelligent connexion with English literature." He requested criticisms and suggestions from everyone to whom his thoughtful and elaborate scheme was sent. What was the amount of practical interest evoked? My friend shall answer.—"Only one graduate took the slightest notice of the scheme. He wrote for an appointment with me to talk over the idea. The appointment was made and accepted by him; but he failed to visit me,—and that was all the response I received in answer to the practical

question, 'Are there any Punjab graduates who would care to keep up some private study, under European guidance, of the master-pieces of English prose and poetry P.'"

I do not know whether my present appeal will meet with any better fate than his. However I shall be glad if these bygone papers,—or rather the great subject which they feebly shadow forth,—should be so earnestly thought of by former students and their friends as to lead them to tell me wherein they deem my views defective or erroneous, or my statement of these views different from what it ought to be. I do not want any communication on this matter from those,—if there be any such,—who entirely agree with me. What I do want is criticism and opposition; and, if it fall short of abuse, then the more vigorous it is the more welcome it will be.

I am ready to pursue the theme, when I can find time, in the form of either lectures or articles as may seem most desirable. But I shall have no encouragement to do so, and I see little use in spending strength upon making the effort, unless I am aided by frank statement of the points which are felt by thoughtful readers to require either reconsideration or more complete elucidation.

When I write, the College is just beginning to come to life for another session. The various Societies are on the point of reawakening. The results of examinations, both College and University, are being gradually announced. On all these things I hope to have something to say by and by. About the mere facts, all who are interested in them have of course much readier means of getting information than the pages of the magazine afford.

WILLIAM MILLER.

SCIENTIFIC AND LITERARY JOTTINGS.

THERE were 276 hours of bright sunshine in Madras during the month of January out of a possible 353 hours, or 78.2 per cent. There was one day—the 19th—when there was less than 1 hour, and on that day though no rain fell in Madras heavy showers fell inland at no great distance from the coast. There were only 3 other days on which there was less than 8 hours of bright sunshine. The average numbers for other Indian stations, given as percentages of the total possible amount, are:—Lahore 59, Delira 45, Allahabad 78, Calcutta 79, Jeypore 72.

SINCE making the observations referred to in our last number Mr. J. E. Keeler has been able to compare the position of the hydrogen line

in the Orion nebula with the terrestrial hydrogen line and thus to obtain a measure of the motion of the nebula relative to the solar system. The result of the determination shows a relative motion of recession of the nebula from the sun of 9 or 10 miles a second. This brings the chief nebular line and the edge of the magnesium fluting more nearly into coincidence, but Mr. Keeler declares that the difference is still too great to be accounted for by errors of observation. He further points out the probability that the apparent motion of the nebula is really due to the motion of the solar system, for, as he says, "the supposition seems plausible (although certainly no good reason could be given for it) that a nebula of such vast extent and extreme tenuity is more likely to be at rest relatively to the stars of our system than small, compact nebular masses or individual stars." If this be so, observations of the apparent motion of the Orion nebula would give better data for calculating the drift in space of the solar system than any observations of stars can give.

At a recent meeting of the Physical Society of London Professor Sylvanus Thompson gave an account of Dr. R. Koenig's researches on the physical basis of musical sounds. Dr. Koenig himself was present and performed the experiments illustrating the chief points of interest. Dr. Koenig is not only the constructor of all the finest acoustical apparatus in use in laboratories but he is himself an original investigator and possesses a magnificent collection of acoustical apparatus of his own manufacture. The special researches discussed by Professor Thompson were those on the cause of harmony and the nature of timbre. According to Helmholtz the whole theory of harmony depends on beats, and these beats may be caused either by two primary notes or by their upper partials. Beats, according to him, can never coalesce so as to form a beat tone, but he holds that a combination tone can be formed which has a frequency which is the sum of the frequencies of the two notes employed, just as a tone can be formed of which the frequency is the difference of the two notes. Dr. Koenig on the other hand holds that this summation tone does not exist and that beats may blend together so as to make a tone of their own. The general theory of beats as held by him is that "when two simple tones interfere, the primary beats always belong to one or other of two sets called an inferior and a superior set, corresponding respectively in number to the two remainders, positive and negative, to be found by dividing the frequency of the higher tone by that of the lower." By a positive remainder is meant the remainder got in the ordinary way, while a negative remainder is the difference between that and the divisor. For instance, if we take two primary notes giving 40 and 74 vibrations, the two remainders are 34 and 6, and these give the numbers of the superior and inferior beats, both of which can be heard. Both sets of beats, however, are not always heard, the rule being

that the inferior beat is heard best when its number is less than half the frequency of the lower primary, whilst when the number is greater the superior beat is better heard. These points were illustrated with two very fine tuning forks weighing about fifty pounds each tuned to ut_1 (64 vibrations per second), one of which could have its note raised by any amount up to a whole tone by adjustable weights.

To obtain beat-tones tuning forks giving much higher notes must be employed. Taking two forks $ut_6=2048$ and $re_6=2304$, the inferior beats will have a frequency of $2304-2048=256$ per second, and this gives rise to a distinct tone which is the note ut_3 . In this case the superior beats are not heard. But with suitable forks both the superior and the inferior beat-tones can be heard. Thus if the forks be $ut_6=2048$ and one giving 2816 vibrations, the two remainders are 768 and 1280, and when the two forks are sounded together both the beat-tones corresponding to these numbers, i.e. sol_4 and mi_5 , are heard. Similar beat-tones can be obtained with forks which differ by more than one octave, which strongly confirms Dr. Koenig's theory.

ONE other point deserves special mention. Dr. Koenig lays down the general proposition that any series of maxima and minima of sounds of any pitch, if isochronous and similar, will always produce a tone the pitch of which corresponds simply to the frequency of such maxima and minima. For instance, if a siren disc be pierced with holes which are equidistant but vary in size periodically the ordinary note produced by such a siren, depending simply on the number of holes passing the air jet per second, will be accompanied by a second low note depending on the number of maxima that pass per second.

THE first number of the *Journal of the British Astronomical Association*, edited by Mr. E. W. Maunder, aims at a high standard of excellence, and there can be little doubt that if the editor is well supported the *Journal* will prove of great value to amateur astronomers. The chief articles in this number are one by Miss Clerke on the rotation periods of Mercury and Venus and one by Mr. Maunder on the chief nebular line. An important feature of the journal is a summary of astronomical publications giving the titles and a brief account of all the astronomical papers published during the previous month.

THE extreme darkness, or, perhaps more accurately, want of transparency, of the air of London is very well shown by some statistics which have been recently published as to the average time required to print photographs there in the five months November 1889 to March 1890. Taking first the ordinary silver process and a negative which re-

quired 30 minutes to print a single copy in fine clear weather the following were the average times:—November, $3\frac{1}{2}h.$, December $5\frac{1}{4}h.$, January $3\frac{3}{4}h.$, February $3\frac{1}{2}h.$, March $1\frac{3}{4}h.$ The maximum time required was $5\frac{1}{2}h.$, on one day in December, and the shortest $1h. 5m.$, in March. Next taking the ferroprussiate process for copying drawing, requiring only 4 minutes in fine clear weather, the numbers for the same months were $2\frac{1}{2}h.$, $3h.$, $1\frac{1}{2}h.$, $\frac{3}{4}h.$, $\frac{1}{2}h.$ The longest time was $7h. 30m.$, and the shortest $4m.$, on one day in March. There were 32 days on which no silver print could be printed and 33 days on which it was impossible to copy a drawing. In Madras there is often not a single day in the course of the year on which a silver print cannot be printed easily.

Erratum. p. 553, line 4 from foot for inches read miles.

C. M. S.

IN the death of Mr. A. W. Kinglake on Friday, the 2nd of January, England has lost one of the most brilliant of her historical writers. Just three years ago in his seventy-seventh year he completed his great work, the *History of the War in the Crimea*,—a work extending over thirty years. His laborious research, and careful and minute study produced a work that must remain the standard history of the Crimean War. Though not free from prejudices and partialities due to his own strong and impetuous temperament, the History is marked by the greatest thoroughness, and though coloured by the prepossessions of the author, it is in the main accurate. Yet—so subtle are the qualities of style—this labour of a generation has never taken and probably never will take the position won by Mr. Kinglake's first work *Eothen*, which, though but a book of travel, has already lived for nearly fifty years, and charmed successive readers by the simplicity and grace of its style. It sketches in a seemingly artless way, though with the highest art, the writer's experiences in the East, and savours in no respect of the ordinary guide-book. Into it he has woven himself, and it is in this that the secret of its charm lies. *Eothen* will probably be read long after the *History of the Crimean War* is left to lie neglected on the shelf.

THE death of Dr. Henry Schliemann, whose name will be for ever linked with Troy, has led to the narration of the story of his life. It is a story which reads, particularly in the early portion, like a romance, and reveals the indomitable perseverance which from early boyhood marked his character. A sketch of his life was given by himself in the preface to *Ilios*. Before he had reached the age of ten he had come to the conclusion that the walls of Troy must still exist, and had formed the resolution to discover them. His youth and early manhood was a struggle with poverty, but through it all he cherished the dream of his life. On one occasion he had to sell his last coat, and was after ship-

wreck landed in Amsterdam absolutely penniless. He got there a post worth £32 a year, and on this meagre sum contrived not merely to sustain life but to give himself a good education, "his dinner," it is said, "costing him two pence, and a fire being an unknown luxury." From this starting point he gradually rose, and by intense application and thorough business capabilities he acquired wealth and was at last free to begin the work of his boyhood dreams. He learned to read, write, and speak fluently several modern languages, including Swedish, Polish, Russian, and Arabic, in addition to many others. Thus equipped in 1871 he began his excavations at Hissarlik, where he expected to find Troy. There and at Mycenae and Tiryns he made magnificent discoveries, and for some years was the most prominent figure in the archaeological world. He possessed a genius for discovery, and, though his inferences might be questioned and his conclusions doubted, no one could equal him in successful exploration. In later life he became a citizen of Athens where he recently died.

THE publication of *A Vision of Saints* by Mr. Lewis Morris has led to a critical and well-balanced article on the poet from the pen of Mr. Arthur Waugh in the last number of *Murray's Magazine*. The concluding sentences of the article, which in the main is adverse to the claims to place Mr. Lewis Morris in the first rank of poets, are worth quoting as the judgment of one who has made a study of the poet's works.

"One phase of thought he has represented, and represented with honour. He was born into an age of scepticism, when the air was full of theories of evolution and troubled with the clouds of Positivism and he raised his voice against a philosophy which tends to blind its followers to the one ideal light of the world. Mr. Lewis Morris raises the lamp of religion in the midst of a dark world. *The Wanderer*, one of the best of his poems, *The New Creed*, *Evening Song*, *Confession*, and innumerable shorter verses, all breathe the spirit of resignation to a will higher than man's, and a knowledge above the learning of ages. His voice is not the voice of science rebuking science, nor always of a higher knowledge silencing lower, nor can he always give us a sound reason for the faith that is in him. But as the poet of the religion of our fathers protesting against the attacks launched on the old hopes and creeds by the younger sons of the household, he has spoken and spoken not in vain. For above all things he is full of that sincerity which Carlyle considered indispensable to true greatness. The very determination with which he forces his thought upon us is only another phase of his own belief in the truth of the gospel he comes to preach, and much may surely be forgiven to the man who is genuinely sincere.

There are those whose learning is not deep, who find their faith tottering—they know not why—when they hear of new creeds and fresh philosophies; who do not seek arguments so much as assurances nor proofs so much as exhortations. These are the readers, in themselves no inconsiderable number, who will rise strengthened from a study of the poetry of Mr.

Lewis Morris. It is, perhaps, no great triumph that the most faithful in his fold should be the weakest; but it is something to have prevented weakness becoming weaker, and to have raised a voice for a faith that has found much strength in the past, and will not fail for strength in the future. Readers will not leave the poems of Mr. Lewis Morris endowed with new knowledge and new wisdom nor enriched with any undiscovered wealth of poetic thought; but many that have read him will feel a fresh comfort and consolation which they will not scorn to acknowledge, and for which in the secrecy of their hearts they will confess themselves thankful."

RECENT PERIODICAL LITERATURE.

WHENEVER Professor Huxley sallies forth, tomahawk and scalping knife in hand, to do battle with the Christian religion, he has to reckon on meeting sooner or later with that doughty champion of the faith, the Duke of Argyll. With all his love of precision, the professor is not always as accurate as a scientific man ought to be in stating the case of his opponents. We do not say he intentionally mis-states their case, but Professor Huxley has a morbid horror of anything that is vague and mysterious, and it is not to be wondered at if in seeking to set forth a subject towards which he is decidedly antipathetic he finds that it has eluded his grasp. When His Grace the Duke meets 'Professor Huxley on the War-path', as he does in the *Nineteenth Century*, it is not difficult for him to show that his opponent in venturing to contrast 'The Lights of the Church and the Light of Science' fell into a grievous blunder. It was absolutely essential to the case of the representative of science, that the Church should be committed to the doctrine of verbal inspiration in its crudest form, and, more than that, to an interpretation of Scripture which would admit of nothing but the barest literalism. Unfortunately for the professor the doctrine of verbal inspiration in his sense is not accepted by the Church or at any rate by any influential portion of it, and as for literalism,—well, there are a good many persons no doubt who are as dry and unpoetical as the professor himself, but there is also a fair num-

ber whose minds are cast in a different mould, and who when they wish to express the thoughts that press in upon them deck them out in large, generous words, with many a bold figure and rich ornament. If the ancient Hebrew prophets and psalmists are not to be allowed the use of poetic language, we should very much like to see Professor Huxley attempt to define the province of poetry. This is the first point which the writer of the article in the January number of the *Nineteenth Century* makes against his opponent, though he does not dwell upon it at length.

"I do not stop to inquire whether the doctrines of Biblical interpretation which he ascribes to two eminent divines of the Church of England are, or are not, fair and correct summaries of their teaching. Fortunately, on this subject we are not at the mercy of any individual divines whether living or dead. The Christian Church, with its long and varied history of nearly two thousand years, has never been committed to it. The doctrine indeed of verbal inspiration, though never defined and never authoritatively adopted by any Christian Church, has been often widely prevalent. But even this doctrine is exaggerated, distorted, and made ridiculous by its development in the hands of Professor Huxley. As patronised by him, the law of interpretation applied to some of the most ancient records of our race would exclude all the elements of allegory and of metaphor, of imagery, of parable, and of accommodated presentation."

The body of the article is occupied

with an examination of Professor Huxley's criticism of the Biblical account of the Deluge. His Grace in this part of the subject has his foot on his native heath and shows to very good advantage. We do not intend to follow him into the region of Quaternary Geology; but quote another passage in which he calls attention to a line of research which is sadly neglected not only by such critics as the eminent professor, but, we regret to say, by many theologians of mark.

"The assumption which inspires the tone of Professor Huxley's language on this subject—that precision in research is undermining the credit of the Hebrew Scriptures—is an assumption almost comically at variance with fact. There is, in particular, one weapon of precision which has been of late working wonders in precisely the opposite direction. That weapon is the spade. And what has it been unearthing? Everywhere over that narrow strip of our planet on which its human interests have been most impressive and profound—everywhere, from Tyre and Sidon—from Carmel and Lebanon—on the west, to Babylon and Nineveh and the boundary mountains of Assyria, on the east—the spade has been disentombing continuous and triumphant proof of the genuine antiquity and historical character of the Jewish books. Out of them comes the light that guides the explorer; and out of them shines the light which is reflected from his spoils."

Mr. Knowles is not happy unless he has a lord or two among his contributors, and this month he has three, two besides the Duke of Argyll. The Earl of Meath gives an account of 'Labour Colonies in Germany' and Viscount Lynton traces the history of 'Vert and Venery' in England. The former article has evidently been suggested by the proposals of 'General' Booth in his work *In Darkest England*, though no reference is made to them by the writer. The English poor-law system has unquestionably failed of its end, and Lord Meath believes that the method of dealing with the "unfortunate classes, which has proved so successful in Germany, will not continue to be much longer neglected in this country." Here is the passage in

which Lord Meath sketches the German system in shortest space:—

"The Germans have of late years been careful never to separate relief from work, and, in order to render possible the practical enforcement of this principle, have under the inspiration and direction of Pastor von Bodelschwingh, of Bielefeld, established twenty-two so-called *Arbeiter Colonien*, or labour colonies, in the country and two in towns, where men who are really desirous of obtaining work are received and given labour, for which they are paid at a low rate so as not to compete with the open market, after they have earned the cost of their food and lodging. The success which has attended the establishment of these labour colonies is remarkable, and the directors can point to numerous cases where men who had not worked for years have been restored to a sense of the dignity of labour, and have become honest and useful citizens."

Elsewhere occurs the following, which shows the spirit that inspired and that sustains this effort:—

"The whole colony is pervaded by the spirit of Christianity, for the pastor is persuaded that vice and weakness of moral fibre are the principal, if not the sole, causes of the degraded condition of the vast majority of these men, and that it is only by means of Christianity that they can be strengthened to resist temptation, and that a moral regeneration is to be effected."

Mr. Norman Pearson raises an interesting question in his article on 'Animal Immortality'. He is not prepared to make any dogmatic statement, but points out that many of the arguments adduced in favour of the immortality of the soul have equal force in the case of animals. Before a problem such as this can be dealt with satisfactorily we require to have greater agreement as to how 'personality' and 'character' are to be defined as distinct from 'mind'. 'Hypnotism, Crime and the Doctors' are taken up by Dr. Kingsbury to determine their relations to one another. Mr. Taylor Innes' article in the *Contemporary Review*, which was specially noticed in a recent number of the magazine, gives Dr. Kingsbury a text. He seeks to defend the medi-

cal profession in its attitude, past and present, towards hypnotism. The paper was written before the recent trial in Paris of Eyraud and Bompard for murder, but the evidence that was brought forward on that occasion will add much weight to the suggestions of Dr. Kingsbury. Travel is represented by two articles. Lieutenant Stairs contributes some notes from his diary written when he was "shut up in the African Forest" at Fort Bodo; and Dr. Jessopp writes pleasantly about his three week's 'Random Roaming' in the South of England. Art has also got two articles devoted to it: Mr. H. A. Kennedy dealing with 'Velasquez and his King', and Mr. Fuller Maitland writing an appreciation of 'The New Orfeo'. When we mention 'Home Rule for the Navy', by Sir W. F. Drummond Jervois, 'The Jew as a Workman', by Mr. D. F. Schloss, and 'The Rival Coalitions', by Mr. Edward Dicey, we have exhausted the list.

The January number of the *Fortnightly Review*, though fairly interesting, contains no article of very special importance. The first place is given to 'Light, an Epitaph', a poem by Mr. Swinburne addressed to Philip Bourke Marston, the young blind poet who died two or three years ago. It is followed by a criticism or rather an account of 'Ibsen's new Drama', by Mr. Edmund Gosse. The latest production of the pen of the Scandinavian dramatist, who lives in Munich, is called *Hedda Gabler*, and in style it appears to be similar to those other plays which have created so much controversy in the literary world during the last few years. One peculiarity of Henrik Ibsen is worth noting. For two years he preserves absolute silence. "No magazine editor, with proffered gold from Ophir, succeeds in getting Ibsen to contribute to 'symposia' on current topics. No miscellaneous poems; no pamphlets, no manifestoes of any kind break the absolute silence with which he surrounds himself. . . . Suddenly about a week before Christmas, the Pythian utterance in four acts, and in prose, is communicated to Germany and Italy, to Hungary and

France, to the parts of Massachusetts about Boston. The whole proceeding has the regularity of an astronomical phenomenon." It would be well for themselves if some other popular writers would imitate Ibsen's self-restraint.

Those persons who are not weary of reading about recent explorations in Central Africa and the wretched quarrels that have arisen in connexion with them will turn with interest to Mr. Mounteney Jephson's opinions as to 'The Truth about Stanley and Emin Pasha'. This article is an answer to the attack Dr. Peters made on Mr. Stanley in the November number of the *Contemporary Review*, and it certainly appears to be a very conclusive reply. In spite of Dr. Peters's claim to be considered impartial one could hardly believe he would be a friendly critic of the British Emin Relief Expedition, and so one is not surprised to read Mr. Mounteney Jephson's assertion that his article "contains certain statements which are misleading, and others which are entirely untrue." Mr. Jephson had the best opportunities of learning the truth about Emin and Stanley, and when we place what he saw against what Dr. Peters heard there can be little doubt as to whose version of the facts is correct.

In his article on 'Finland' Mr. E. B. Lanin gives an interesting account of a country about which few people know anything except that it is part of Russia. He gives the people a high character for truthfulness, honesty, sobriety, and intelligence, and maintains that Finland is "the best governed country in Europe." Any one who has read Mr. Lanin's previous articles will at once see from this assertion that Russia can have very little to do with the government of Finland. The fact is that Finland is a constitutional monarchy, being governed by its Diet and having the Czar of Russia as its Grand Duke, and it possesses many rights and privileges which the Czar has sworn to maintain. The Russians have hitherto treated Finland fairly well since it came into their possession at the beginning of this century. Unfortunately, however, there are signs that the patriotic Russians who

desire the complete Russification of the whole empire are wishing "a closer union" between the two countries, and to bring this about the same weapons are being used that have been employed so fatally in the Baltic Provinces. Attempts have been made to stir up race feeling between the Swedes and the Finns and to stir up the peasants against the land-owning class. The Finns are Protestants and the 'Orthodox Church' has been used "as a stalking horse from behind which deadly aim is being taken against Finnish liberties." The members of the Orthodox Church are forbidden to embrace any other form of religion, but the members of all other churches are encouraged to embrace Orthodoxy. Fortunately the tactics of the Russian Government have proved much less successful with the educated and intelligent Finns than they did with the ignorant Lettish peasantry of the Baltic Provinces. It is indeed to be hoped that Finland may not be more closely incorporated in the Empire, for that will mean the reduction of a highly civilised country to the level of a Russian province.

Russia comes in for a certain amount of criticism, too, in Mr. J. D. Bourchier's article 'On the Black Sea with Prince Ferdinand'. In spite of the difficulties caused by Russian intrigues Bulgaria appears to be making progress under the rule of Prince Ferdinand and M. Stambuloff. The country is being opened up and its resources developed, and education is spreading. In short, as Mr. Bourchier says, "Bulgaria under Prince Ferdinand has been a success."

'Anima Naturaliter Pagana' is the name Mr. J. B. Bury gives to an article in which he endeavours to show how difficult if not impossible it is for a modern to find his way to the true land of Greece and educate his imagination for living in the old Greek world.

"When we reflect, that, not only we ourselves have been brought up and live in an atmosphere wholly different from the Greek and inhabited by a music that is acquainted with emotions which to the Greek were utterly unknown, but our forefathers, who made us what we

are, have for centuries past been thinking things which never entered the thought of Plato, and feeling things of which Sophocles and Pericles never dreamed, we can apprehend the magnitude of the task awaiting him who would really cross the ages in the little bark of the mind."

All kinds of difficulties come in the way. The old classical world is transformed by poets and painters into a romantic world, in which the spirit of the old stories is no longer present. The feeling of such writers as Morris and Tennyson is purely modern even in their classical poems. There is, too, the great difficulty of language. The shades of meaning conveyed by English words denoting anything but material objects are totally different from those conveyed by the Greek words which are supposed to be their synonyms. Translators cannot avoid "the temptation to introduce echoes of modern and Christian literature" into translations, and so Mr. Bury comes to the strange conclusion that the better a translation is from one point of view the worse it is from another. "Versions which affect literary polish are those which are most likely to mislead, because they substitute in a more pronounced or more insinuating manner a modern for a Greek atmosphere." The whole article is a testimony, given with apparent regret, that Christianity has so deeply affected the whole extent of the modern mind that it is impossible for one, however paganly inclined he may be, to think and feel just as the ancient Greeks thought and felt.

Current politics are dealt with by Mr. Frederic Harrison, who writes on 'The Irish Leadership', and the Hon. Auberon Herbert in his article on 'The Rake's Progress' in Irish Politics. "Chez Pousset" a Literary Evening is an account by Mr. Edward Delille of an evening or rather a night spent in a Parisian café much frequented by the distinguished literary men of France. Mr. George Meredith continues his novel 'One of our Conquerors', and the other articles in this number are 'Scientific Sins', by Mr. Ernest M. Bowden, and "A Canadian People", by Sir George Baden-Powell.

THE MADRAS CHRISTIAN COLLEGE MAGAZINE.

MARCH, 1891.

A PLEA FOR REVERENCE.*

REVERENCE is a very simple feeling. It is one which rises about as naturally in the human heart as love, or hate, or fear; and yet, it may be well, at the outset, to call attention to what the word exactly means, that we may clearly understand what is to be pleaded for, and avoid confounding this feeling with other feelings which are apt, from certain points of resemblance, to be mistaken for it. Even the simplest feelings,—those which, in some shape or other, may be said to be the universal heritage of the human race, do not stand by themselves out of all relation to or kinship with other feelings, and, if we do not keep our eye steadily on the specific character of the feeling we are considering, we may find ourselves taking one of its kindred for itself, and be led to make statements regarding it which are true only of the related or resembling feeling with which we have confounded it. To prevent ourselves, as far as we can, from falling into error in this way let me begin, then, by stating exactly what I understand by reverence. Perhaps the best way of clearly bringing out what is implied in this feeling will be to say that the proper object of it must always be, either a being regarded as morally superior to ourselves, or, in the case of ourselves and our fellows, it must be that in us which is recognized as morally superior to the other parts of our nature. Mere power unassociated with moral worth, as in the physical forces of the universe, may be the object of fear or wonder or awe, but cannot call forth reverence, in the strict sense of the word.

Now, I think it is of the highest importance to mankind in general,

* A Lecture delivered to the Trivandrum College Debating Society in June, 1890.
Revised by the Author.

but especially to young men, that this feeling of reverence should have its due place in our nature recognized, and it is because I think the circumstances of the time are in some ways unfavourable to its recognition, nay, are such as, in some quarters, even to threaten its extinction, that I have thought it might be well to caution you against withdrawing reverence from the legitimate objects of it, and against speaking lightly or scoffingly of topics that have hitherto generally been dealt with in a very different spirit. There is a tendency abroad, which claims to have discovered, and, I might say, almost boasts of having discovered, that there is nothing holy or sacred either in ourselves, or in any individual of the race to which we belong, or in the universe of which we form a part. The idea of taking off their shoes because the place whereon they stand is holy ground is scouted by such persons, and they seem to walk through life with almost complete unconsciousness of ever being in a presence which impresses them as in any wise higher than their own,—a presence which in others raises feelings expressing themselves in the reverently bowed head or the bended knee. Now, as I think human life would be distinctly poorer and narrower if this feeling had to be banished, if it were proved that there was nothing within us, and no being without us fitted to call it forth, I wish to try to show that there is no need to banish it, and no fear that it will be proved to be a feeling to which there is nothing in heaven or earth to correspond. I hope to find a true object for it, in the three spheres of which I have already spoken. First, in ourselves, second, in others, and third, in a Being on whom we more or less clearly and steadily feel that both we and all other forms of being depend.

First, then, let us look within ourselves; for, if we cannot begin by finding a home for reverence there, we may be assured that it will be homeless everywhere. Reverence, like charity, must begin at home. If it can, like charity, succeed in finding a lodgment in ourselves, it will, I hope, like charity not need to end there. Those who love find it easy and natural to see love everywhere, and those who find it possible to reverence anything in themselves will find it equally possible to reverence something in others, and, above all, to reverence that ineffable Being who has created that in themselves and others which has drawn forth their reverence. In fact, the word reverence as applied to an existence without us is saved from meaninglessness only by first having had a meaning supplied to it by reference to something that has called it forth

within us. Grant this internal object of reverence and we as naturally look for something to reverence outside of us as love within naturally seeks to find love without. Deny us this, deny that there is aught in our own being that is, or is capable of becoming, the proper object of reverence, and our spirits will in vain grope for an object for it out of us, though infinity of space and eternity of time be given to grope in. Everything, then, depends on our being able to find in our own proper being, that which unambiguously claims and justifies our reverence. And, strange though it may seem, with this possibility of reverencing ourselves is bound up the possibility of despising ourselves; for the possibility of despising ourselves implies the existence in some form of that within us which is worthy of reverence. Our nature is a strange mixture. There is a high and a low, a noble and a base element in us all. Our true life consists, or, perhaps, I should say ought to consist, of a more or less arduous struggle for supremacy on the part of the former of these two elements over the latter; and according as we range ourselves on the side of the high and noble or yield without a struggle, or with an ineffectual struggle, to the low and base, shall we find within us something to reverence or only something to despise. If there were only the more animal within us such a struggle would be impossible and inconceivable. We should be incapable of despising ourselves, for, however strange it may sound, it is in this capability of despising ourselves that the possibility of reverencing ourselves lies. It is only because we are more than animal, only because there is that in us which claims our reverence, whilst we are, at the same time, painfully conscious that the animal element is strong, that the possibility of a struggle arises with all the momentous issues that hang upon it. It is to this unique part of us that Butler refers when he says:—Had it strength, as it has right; had it power, as it has manifest authority, it would absolutely govern the world.

Important, therefore, as this alleged part of our nature is, it becomes a matter of the highest importance to make sure that it is there; and that it will be found to be there, will, I hope, appear from the following considerations:—It never occurs to us except perhaps in admittedly foolish or playful moods to blame a beast for being beastly, and yet there is hardly a stronger epithet of loathing with reference to the conduct of a man than to describe it as beastly. It is conduct that from a beast is just what we might expect, suitable to its nature, but from a man is unmanlike, falling short of what we

believe we have a right to expect from him as being a man and not a beast. It is difficult to see why a man should object to being called a beast or a brute, if he is that, and nothing more. The beast, the brute, the animal is in him undoubtedly, and if there were nothing else it would be unintelligible that he should be annoyed at being recognized for what he is, and spoken of accordingly. The real significance of a man's indignation when these epithets are thrown at him is that he feels he is something more, and that this something *more* refuses to be regarded in any other light than as something *higher* and *nobler*. The animal, the beast, is no doubt felt to be there, but only as something to be kept under control on penalty of his becoming a beast and nothing more. For it is the awful law of our being that we are not secured or guaranteed against becoming so degraded as to be no longer distinguishable from the brutes except perhaps by superior cunning. Our condition might be described as one of unstable equilibrium, with inspiring possibilities of finding equilibrium by ascent to a higher level or terrible possibilities of finding it by descent to a lower depth. In the former case we seek to realize in ourselves what appears to us worthy of reverence; in the latter, we yield to those impulses and thoughts which end by killing out of us all consciousness of there being anything in us or out of us worthy of reverence, and making us complete cynics or sensualists. My first and earnest plea, then, is that you will deal reverently with whatever in your nature reveals itself as worthy of reverence. Trifle with it, play with it, mock it, attempt to argue or explain it away, do anything but deal seriously with it, and it will not insist on staying with you. Like a noble guest who sees he is unwelcome, it will make haste to depart, and then will be presented that saddest of all spectacles, a heart with a chamber made to receive reverence as a guest, but desolate, deserted, empty, because, though it came to its own, its own received it not.

I have already said that one of my chief reasons for choosing this subject is that I think the times are such as to call very urgently for the claims of reverence to be pleaded with all the earnestness that the importance of the issues involved demands. If I mistake not, there is a tendency abroad to narrow the scope of human nature, a tendency to make us content with things as they are, rather than to brace us for high and arduous effort to realize things as they ought to be. These latter are the proper objects of reverence, and, if we are taught to look upon them only as the beautiful

it may be, but baseless fabric of a vision, the vision will soon cease to trouble us, and we shall become conscious, when too late, that a glory and a splendour have gone from us, and that our nature has become distinctly poorer and pettier by the departure. This unfortunate tendency has, I think, been strengthened, if not altogether created, by a circumstance especially characteristic of this century, and in itself altogether admirable. I mean the marvellous development of so many of the natural sciences dealing with matter and force in all their varied forms and transmutations. The human mind, like anything else, is apt to be coloured by the atmosphere it lives in. The shoemaker's thoughts smell of leather, the horse-dealer's of the stable, and the farmer's of the land; and so, likewise, are the thoughts of the enthusiastic man of science, all absorbed, as he is, in the pursuit of his subject, liable to carry matter and motion with them everywhere, and consequently to recognize nothing but matter and motion anywhere. I do not say that a profound study of matter and motion may not afford opportunities for calling forth the feeling of reverence. I thoroughly believe that it will,—that the proper study of nature will lead from nature up to nature's God, the supreme object of our highest reverence; but then, I believe, this will hardly take place unless, before entering upon the study of nature, something worthy of reverence has been found in the study of ourselves. If we have started with this, it will be easy and natural to find something capable of drawing forth our profound reverence in that outer nature which has the same divine source as our own. But I fear that, in many cases, this start is not made. The still, small, awe-inspiring voice within, is not, as it ought to be, made the subject of sustained serious thought or meditation, and the result is that the scientific mind often dives deep, and ranges wide, in the field of nature, only to find, as the final outcome of its search or study, that it has inextricably enveloped itself in wrappings of matter and motion so dense that no ray from an object capable of evoking reverence can penetrate them.

But perhaps some of you may sadly object that I have taken too much for granted, that I have not proved to demonstration that there is anything in us worthy of reverence. Now, it is most certain that I have taken for granted the existence of something to reverence within us,—most certain that I have not proved in ordinary logical fashion its existence there. I would as soon think of proving in the ordinary syllogistic manner that the sky is blue, or sugar sweet, or fire hot. The sooner it is realized on all hands the better, that

there are some things which it is absurd to try to prove logically, that we have convictions which are beyond the scope of syllogistic reasoning,—convictions, indeed, which may be grievously harmed and weakened by a foolish process of continual syllogistic tinkering. I have attempted nothing more than to call your attention to an element in our nature that is apt to be sometimes overlooked, or to have only scanty attention paid to it; and I have done this in the full confidence that, when attentively looked at, and fairly dealt with, it will assume a majesty and authority before which we shall be content in reverence and humility of spirit to bow. And with this humility and reverence of spirit are, as I believe, bound up all the potentialities of greatness and nobleness that lie undeveloped within us. And, in taking up this position, I trust I shall not lay myself open to the charge of what is known as obscurantism. I hope I shall not be thought to be showing a disinclination to allow the light of reason to play freely about a subject that will be benefited by any additional light which reason has to throw upon it. This, I admit, is sometimes done. The fact that there are truths or convictions that will not allow themselves to be proved, and demand to be accepted on their own credentials, leads other truths or alleged truths, to set up the same claim without right to do so, and seek to gain acceptance by the, in their case, illegitimate short-cut of declaring them to be simple and self-evident. But because the claim is illegitimate in some cases it does not follow that it is illegitimate in all. Now, that there is something in us self-evidently worthy of reverence is, I think, an assured fact,—that there are acts which are felt to be high, noble, unselfish, and others which are as naturally felt to be low, base, and mean is, I think, a matter of immediate consciousness. The all important question is,—How are you and I going to deal with this undoubted consciousness? Shall we refuse to place ourselves reverently under its rightful authority? Shall we dance through life like butterflies, or welter through its muddy slime like swine, or cynically snarl through it like dogs? God forbid. Let us have more faith in this noblest part of ourselves, and in the destiny we may hope to be in store for us in virtue of its presence there. Let us trust the consciousness of the high and noble within us as foreshadowing the man that is to be, and let us, in this faith and trust, live under "the power of an eternal life." And even supposing there is, as I know in the case of many there is, something of uncertainty as to what is to be the final issue of fidelity to all that is pure and high and noble within

us; even though we cannot be quite sure that the battle for the true and right is not a losing battle, is there not something sublime in fighting a battle in a noble cause of which the issue is not quite certain? Is there not something ignoble, something sordid in refusing to stake anything in a struggle, however grand, until you are guaranteed absolute security from defeat? I am sure I can leave the answer to your own unsophisticated consciences. It is just here, as it seems to me, that we find the proper sphere of a true, a noble, an intelligent faith. The man of faith is he who though he cannot say he *knows for certain* that victory will be on the side of all that is true and right within him, is content to feel that it ought to be, and in the more or less assured hope that it will be, goes on to remove the mountains of difficulty and obstruction that lie in the way of their ultimate and complete triumph. Run your eye along the *film* of history, and you will find that it has been so. The men who have accomplished most in the world are they who have had the deepest faith in the highest within them. They who have most reverently listened to, and faithfully obeyed the still small voice have been those who have had the greatest power to rouse the world from spiritual deadness and lift it to higher spiritual life.

You know that I believe that there stands out, in the world's history, one unique personality who, by profound spiritual insight and by as profound faith in the truths revealed to this insight, has for the last eighteen and a half centuries profoundly moulded and still continues to mould the convictions and the ideas of the European world; but I have no doubt you, also, will find instances in your own long and, in some respects, great past, of men who simply because they have lived under the power of these great truths within them, have had a corresponding marvellous power over the world without them.

But it is time now to pass to the second part of our subject; and, perhaps, the most natural way of making the transition will be to quote the well known lines in the speech of Polonius:—

"To thine own self be true,
And it must follow, as the night the day,
Thou canst not then be false to any man."

To reverence ourselves, supplies the surest guarantee that we shall reverence others. If we trifle with ourselves in this respect, we may be sure we shall deal no otherwise with our fellows. We may, perhaps, look upon them, either as possible recipients of pleasure or pain, and play with them as we would with an intelligent pet;—

or as possible causes to us of pleasure or pain, and deal with them as we would with an animal having the same power. We shall try to give them a sphere in which to radiate their happiness, or muzzle them, in some approved human fashion, to prevent them from exercising upon us their mischievous proclivities. But this is precisely to treat men as nothing better than beasts,—as having nothing in them worthy of true reverence,—that is, as something less than they really are. On the other hand, the consequences that flow from recognizing this unique element, and of treating men accordingly, are profound and far reaching. You may have heard or read of the saying of a well known modern Churchman, that he would rather have England free than England sober. The saying, I believe, startled and even considerably shocked many, but, if you consider carefully, you will see, I think, that it is only a somewhat striking way, (and really we do sometimes require a good stroke to rouse us from a lazy, easy-going tendency to accept things without thought,) it is only a somewhat striking way of expressing the important truth we are now considering. However much you may wish that a man should be sober, you will, if you think carefully, wish still more that he should not be made sober at the expense of tampering with his freedom. You may, and you ought to be, deeply pained to see that he uses his freedom to get drunk, but the course to be adopted when he makes this unworthy use of his freedom is not to take his freedom from him, except on considerations of the greatest urgency, but to reason with him, persuade him, entreat him, show him, in actual life, the happy consequences of sobriety, and the dreadful consequences of intemperance. Let him see that you are prepared even to refrain from the innocent temperate use of drink yourself, if it will in any wise help him. Do everything, in short, except compel him to be sober. You, who know me, will know that I am not likely to undervalue sobriety, but, however highly I value it, there is one thing I value more. I value still more highly that in us which alone is the object of reverence, that in virtue of which, with the free consent of all that is highest within me, I follow the law of sobriety and shun the lawlessness of excess as that which, if persisted in, will drag me down from my high estate, and leave me to all outward appearance a stranded human wreck, with that noblest element—my free personality—quite gone, and, in its place, only a passive nature left, completely at the mercy of the winds, and waves, and currents of circumstance. I sometimes think that a good deal of our legislation in modern times, whereby

we seek to make people virtuous by Act of Parliament, has its source in a disinclination on the part of the individuals of a community to deal patiently with their fellows in the more troublesome way of reason, persuasion, sympathy, and example.* A feeling of impatience is generated because men will not allow themselves without considerable trouble, to be made happy or kept innocent. It seems a convenient short cut, a solution of the difficulty that saves trouble, simply to take such measures as will make it impossible for a man to make a beast of himself, and to be fully satisfied when success has followed. And yet in our impatient benevolence we often, I fear, do profound injury to the nature we thus operate upon. Our impatience to get it happy or keep it innocent leads us, as it were, to try to hustle it in a disrespectful, irreverent way into happiness. We may succeed in making it happy, though even this is very doubtful; but at what cost? At a cost which, I must be permitted to think, is far too high to pay even for the happiness attained;—at the cost of treating us as beings who can only be addressed through the stimulus of pleasure and pain wherein we occupy no higher ground than the animal creation; and as incapable of being moved by considerations addressed to our sense of worthiness and true self-respect, wherein lies our true manhood and through which alone we must be addressed, if this most unique and precious part of us is ever fully to be developed. Of course I do not say that this method of dealing with our fellows is at present always possible. It is a sad fact that, as things are, we have often to treat men for the time being as foolish inexperienced children, or as almost purely noxious creatures, and supply them with leading strings or fetters according to the nature of the case; but this method should never, with grown-up people, be resorted to except as a last and sad alternative, when everything else has been tried in vain, and, even whilst having recourse to it, our eye should ever be on the outlook for the first faint sign of an awakening self-respect to which we may make our appeal instead of to the mere animal principle of pleasure.

* In making this criticism, I would wish it to be understood that I am, nevertheless, more in sympathy with the earnestness of purpose, and, in many respects, wise and beneficent activity of those who, whilst, as I think they have made mistakes, have done much to lessen the amount of drunkenness among my fellow-countrymen, than with those who, while with a lofty air of superiority they criticize methods that are to some extent open to criticism, do not themselves stir hand or foot in the way of trying to make things better.

I trust that what I have said will not lead you to suppose that in dealing with others I am advocating a policy of 'let alone',—of *laissez faire*, as it is called. Quite the contrary. What I should like to see is not less, but more, and more truly directed activity. The busy maker of laws whereby he hopes to make all men virtuous, is apt to suppose himself to be the only one who has the interest of his fellows at heart,—apt to get out of patience with those who are not so enthusiastic believers as himself in the supposed virtue of a law to create virtue. He is apt to suppose that those who hesitate to support him are careless and indifferent to the welfare of their fellows, and yet he may be profoundly mistaken. It is comparatively easy to make a law to be obeyed under penalty of imprisonment or fine, but much more difficult to draw out and appeal to, as a real directing force, that within a man whereby he becomes a "law unto himself." The process is so slow and so little attended with the interesting excitement of visible success, we grow so weary of the poor results we seem to produce, that in our impatience, we are tempted to give up our efforts in despair, and to have recourse to the method which promises less trouble and seems calculated to produce great results in little time. As I have said, I do not say that this method of dealing with our fellows may not, irreverent though it be, in some cases be justified. I believe it may; but it lies so fatally ready to our hands, that I fear it is resorted to often out of sheer laziness to undertake the better, but more arduous way, and sometimes out of too great impatience to see the fruits of our labours. We ought, I think, to remember, that work that is meant to last, is generally slow of growth, and, in the case of our nature, with an eternity, let us hope, lying before it to build itself up in, we need not wonder that the growth of that within which fits us for eternity, is slow. It is, with God's help, our life's work to fit ourselves for this high destiny, and the man who enters upon the task with the most serious and prayerful purpose will often be the first to confess how little, at the end of life, he has accomplished. My exhortation, then, to beware how you busy yourselves too much with laying a heavy and often worse than useless burden of legislative measures on your fellows, far from being, as, I hope you will now see, an exhortation to indifference or apathy, is an exhortation to more assiduous endeavour to reach your fellows through an appeal to their true manhood, never forgetting, in your dealing with them, that reverence for the highest within them forbids them to be made happy at the cost of permanent

injury inflicted on *that*. What we want, in short, in dealing with our fellows is men rather than measures, the living action of personal spirit on spirit, rather than the dead mechanical operation of impersonal law process.

Let me then conclude this part of my subject by repeating the warning to you not to look for permanent and satisfactory results in dealing with human spirit by any means which does not recognize the inherent dignity and worth of that spirit,—does not recognize, in short, that there is something worthy of reverence in it which can only be adequately appealed to by a power which is itself reverently constituted. Let us be on our guard against relying too much on such impersonal abstractions as legislation, education, charity organization, words that are sometimes used to conjure with, as if there were lodged in them the powers of a magician's wand. These are too often only flatteringunctions laid to our souls to save us from the trouble of striving to put forth that serious personal reverent influence which it lies upon us as a perpetual obligation to exercise, and by the increase of which alone both in intensity and scope, men will be awakened from moral lethargy, and raised to a higher moral level than they have hitherto occupied. Legislation, education, and charity organization,—these must of course always be, but to possess their full beneficent power they must, in their working, be more removed than they are from the nature of mechanical processes, and become more informed by the living, lifting contact of spirit with spirit. The answer to the problem of the lifting of the world out of the slough of meanness, sordidness, and sensuality in which it is so deeply plunged, will be found, not so much in asking what government might do, what education will do, or, what this or that charitable organization can do, but what can I do. What can I, by a reverent and tender sympathy, do to awaken to a consciousness of his worth and dignity, one who at present may be dead to his own high nature and destiny? Let us give up dealing with men as capable of being influenced solely by the more or less skilful manipulation of the forces of pleasure and pain, and cheerfully take upon ourselves the much more arduous, but also, the much more inspiring and satisfactory task, of endeavouring to draw out into full and energetic activity that priceless gift of the human spirit, the consciousness of having something in it that brings it into kinship with the Divine.

I have just spoken of the Divine; and we may now naturally

pass to the third part of our subject and ask, Is this a word and nothing more? Is there, in the universe, anything to which the divine in our spirit is really akin? Is there anything to which it may be regarded as our life's work to bring our spirit into still closer kinship? It is my earnest hope and serious faith that there is,—that is, I hope and believe there is a God. But, I think, many of you probably know that a common way, perhaps I might say the fashionable way, in which the question is answered in these days is:—"I don't know, you don't know, nor can anyone know." One thing, at any rate, I think we might expect in the case of those who give this answer is that they would give it with sadness; and yet, I fear, it is not always so. On the contrary the answer is sometimes given with a light-hearted frivolity, trippingly on the tongue, as if it rather pleased than saddened the answerer to empty the universe of any being in whom all that is highest in ourselves finds a sympathetic response and a complete explanation as the source whence it has flowed. But here I think it only fair to say on behalf of those who are apt thus frivolously and lightly to answer, that the responsibility for the frivolity of the answers does not altogether lie with them. Those who cherish faith in God must accept part of the blame, for they have sometimes represented the divine being in so unworthy a manner,—as actuated by considerations which in ourselves or our fellows we should despise, as, indeed, sometimes little else than the reproduction of all that is base, treacherous, revengeful, and sensual in our own nature, coupled however with a dreadful and irresistible power of giving these hateful feelings fatal effect,—that those who have sought to relieve the world from the nightmare of belief in such a being may be regarded as conferring a boon upon it when they aim light, but keen shafts of contempt and ridicule against such a belief. It would at least be a relief to feel that we were free from the terror with which such a being is calculated to inspire us. If belief in God, as truly conceived, were unfortunately impossible, it would still be something to be thankful for not to have to believe in a devil. But surely matters assume quite a different aspect when we think of God as being in closest union and sympathy with all that is noblest in ourselves, as in fact the infinite fountain whence has flowed into our nature all the purity, and the tenderness, the unselfishness, and the love of the just and true that it contains; and anyone who entered upon the task of convincing us that there is no such being would, we should hope, do it with the utmost sadness. For what would he be doing? He would be en-

gaged in proving to us that we have no reason to believe that in our weary struggle for the true and the right there is anywhere in the universe an intelligent sympathetic response to our struggles, that it is only filled with dead, irresponsible, indifferent voices, or, it may be, with powers that mock and jeer at our efforts. I might pause here to ask, Who would then care to battle for the true and the just, if he felt certain that the universe was against him, or indifferent to him, if the true and the just were only the local product, here in this world—of the chemical working of a curious piece of matter called brain? If you think of it, what a dreadful paralysing conclusion to have to arrive at,—that we are better than the universe out of which we have come, when the consciousness of our own imperfection and weakness naturally impels our spirits to cry out for a Being to whom we may look up as possessing the perfection and strength which we are so keenly conscious we often fatally lack. Unless, then, we are shut up by a grievous necessity to part with all hope in a 'Higher than ourselves',—in an all-perfect Righteousness inseparably and eternally allied to an all-conquering Power—let us cling to this hope as the very breath of our spiritual life, as the only adequate leverage by which our poor humanity is to be lifted to those sublime heights which with the inner eye it clearly discerns, but which, to set itself to climb, it feels that it needs the assurance that there is a power ready to help it in its weariness and weakness.

We may now perhaps profitably spend a little time in considering some of the difficulties that obtrude themselves upon us when we wish to cherish faith in an absolute being worthy of all and more than all the reverence and worship we can bestow. And first, let me say a word about difficulties in general, their proper place and power. I would ask: Does any man ever hope to present us with a scheme, system, or theory of things, religious, moral or political that will be free from the pestilent troublesome things we call difficulties? I can only admire his amiable sanguineness, if he does; but I cannot admire what, out of tenderness to him, we may call his childlike simplicity. There is a tendency on the part of those who do not consider these matters sufficiently, to think that as soon as a difficulty to any scheme or belief is presented, it must either be removed or the scheme or belief is doomed. This tendency is exactly analogous to that which, in a lecture on Young India, I noticed some time ago in speaking of institutions. We are apt to suppose an institution condemned, if it is shown to

produce some evil, and as every institution, however perfect it may be, can be conclusively shown to produce some evil, it follows that every institution must be condemned. So in the case of a theory or belief; if it can be shown to present a single insurmountable difficulty, it is too readily assumed that it must be forthwith rejected. And yet we may surely ask:—Are we called upon to do this? If an opponent says: I do not see how this or that difficulty is to be overcome must the citadel of a pure and noble faith and hope be at once surrendered? Surely not. Is it not possible, say, to agree with an opponent as to the puzzling or insoluble character of a difficulty standing in the way of faith in an infinite and eternal Righteousness, and yet differ from him as to its being necessary, on account of the difficulty, to give up all living faith in that infinite and eternal Righteousness? Is it not absurd, if one thinks of it, to expect that we shall ever find a system of thought however carefully constructed, or a faith however pure and elevated, that will always have solutions ready for whatever difficulties may be raised? I would, on the contrary, venture to say that a system or a faith that professed to have a cut-and-dry answer to every objection it is possible to urge, is one which, for that very reason, I should strongly advise you to suspect.

Do not think, then, that you are called upon to answer every question asked, or clear away every difficulty urged, before feeling yourselves at liberty to accept a belief, which, in spite of the question unanswered or the difficulty unsolved, you may, in your inmost soul, feel to be indissolubly bound up with the development of your spiritual life. Whilst cherishing a calm deep faith in the highest instincts of the human heart, learn, at the same time, with reference to the solution of any specific difficulty, to be able to say fearlessly and frankly:—I do not know. Of course, on the other hand, I need hardly say that the fact that a particular system or creed can be shown to explain some difficulties, is not of itself a sufficient reason for its acceptance. It may be confidently affirmed that there is no superstition, however grovelling, no creed however degrading, but is capable of accomplishing this much. It does not, therefore, follow that the grovelling superstition, the degrading creed, ought to satisfy a nature possessed of elements that require something higher. For example, the system of belief that accepts an evil spirit or spirits as the governing power in the universe certainly supplies a simple and satisfactory explanation of the evil that prevails. But, then, its difficulty would be to account for the good. And surely we may

hope that it is more reasonable, as certainly it is more inspiring, to make a good being our creed, and evil our difficulty, than to make an evil being our creed, and good our difficulty. But it is not for us who are, happily, able to embrace the larger and nobler faith and hope, to say harsh and scornful things of those of our less fortunate brethren whose lives are so filled with evil,—with pain, want and wretchedness—that it seems the most natural thing in the world for them to think that only evil beings have power in the universe. To their own master, though they know Him not, they stand or fall. It is our part to endeavour to take out of the lives of these unhappy souls some of the gloom and pain which makes it difficult for them to entertain the belief that after all, goodness is at the heart of the universe. If they find goodness close at hand in the person of a fellow man, we may hope that their minds will gradually open to conceive the possibility of an infinitely higher and wider goodness embracing them, their fellows, and all things with an inexhaustible love.

At present the class whose difficulty it more nearly concerns us to notice is that which holds what, I trust, I may without uncharitableness describe as the paralysing theory which will not allow us to have more hope in good than in evil, nor to trust that behind the good is a Being whom we call a person, though of course that or any other human word must inevitably fail to give us anything but a very inadequate conception of what He really is. To them the universe presents such a tangled maze that they consider themselves precluded from making any affirmation, however carefully guarded, as to the possibility of the existence of a Being capable of securing the ultimate prevalence of the one over the other. And here, I think, it ought at once to be frankly conceded to them that we cannot demonstrate to them in the ordinary way of demonstration that they are wrong. But then, you will not suppose that this is equivalent to conceding that they are right. Permit me again to remind you that there is such a thing as truth that must be felt rather than demonstrated. This may be called living truth for the purpose of distinguishing it from truth capable of logical demonstration, whether mathematical, scientific, or other. This latter belongs pre-eminently to what I may be permitted to call the intellectual mechanism of mind, the former to our growing spiritual life. The characteristic findings of the one are couched in such terms as that such and such things may be, are, or must be, those of the other in a corresponding ascending series, taking the form of longings or aspirations, hopes and convictions that

such and such things ought to be. In the case of human beings with all their felt imperfections and shortcomings, this living truth appeals to a spirit that feels its need of being raised and purified into union with the source whence it believes its deepest convictions and highest aspirations flow. Spiritual truth in short must present itself to us in its most convincing form in a life, rather than in a syllogism. It is by the multiplication of a certain kind of lives,—lives characterized by deep spiritual insight and unselfish deeds—rather than by the addition to our stock of reasons that the greatest strength of the theistic position is constituted. It is not the keen logical faculty that is sufficient to deal with these matters. The reverent and humble heart has more to do with them. The position need not fear logic, even the keenest, the most searching. It may even seek its friendly alliance. But logic must be conjoined with a feeling of loyalty to what is felt to be deepest within us. Logic must be prepared to accept the inward perceptions of the spiritual eye, just as it has to accept the outward perceptions of the bodily senses. It must be prepared to concede the same amount of trustworthiness to what is revealed within, in the spiritual world, as it concedes to what is revealed without, in the physical world. It must be content, as it were, to stand reverently in front of these truths, and not too impatiently seek to get behind them or to whittle them away until there is nothing of them really left. And when keen logic is thus happily conjoined with deep spiritual insight, I would confidently hope that its final judgment on the high themes with which we are dealing would not be a paralysing agnostic 'I do not know', but Goethe's bracing and inspiring 'I bid you hope': and this hope or faith may be present in us in all degrees. It may in the words of Jesus Christ be comparable for minuteness of quantity to the tiniest of seeds,—the mustard seed—or it may possess us in all the fulness of a strength that will move mountains. But, weak though 'the smoking flax' of a hesitating faith may be, if reverently dealt with, it will not be quenched, but will be fed and nourished with food which the sometimes irreverent or flippant intellect knows not of, until it may burn with the brightness of a steady and smokeless flame.

In the meantime, however, it is perhaps inevitable in the case of nearly all of us that there should be ebb and flow in the firmness with which spiritual truth is grasped, and one sometimes hears this urged as an objection to it as compared with the steady irresistible certainty of mathematical or scientific demonstration. But I would

venture to suggest that a faith which is to act as a discipline to the human spirit demands a quality other than mathematical certainty,—something (if I may be permitted the expression) that has 'give' in it—that is neither unyielding nor irresistible, but will throb and beat responsive to the pulses of our spiritual life,—that will, indeed, maintain its presence only so long as we reverently strive to order our lives according to the revelations which it makes to us. Let us be faithless to them, and faith in all that they imply will soon languish and die away. Faith, in fact, is capable of running through all the degrees that lie between a faint and longing 'perhaps', and the certainty of clear spiritual vision,—between the weak, hesitating cry, "Lord I believe; help thou mine unbelief," and that triumphant form of it which could express itself in the words, "Though he slay me, yet will I trust in him." It is of the very essence of faith in the divine as we are circumstanced in the world that it shall not be borne in upon us in a merely cold, mechanical, irresistible way, after the manner of logical demonstration, but that its steadiness shall depend upon the depth and firmness with which we grasp the revelation of spiritual truth within us; now burning brightly, now growing dim, but with all its variableness, making, if we are faithful to our spiritual vision, continual advance, until, let us hope, it will issue into the unclouded brightness of eternal day. We are sometimes apt, I think, not sufficiently to recognize this characteristic of spiritual truth, and have dealt with it too much as if it were a body of dry intellectual doctrine, to be received very much in the way in which we should accept the axiom that two straight lines cannot enclose a space, or the truth that water is composed of hydrogen and oxygen in certain proportions.

This tendency has led to a dry, hard, unlovely dogmatic spirit on the one hand; and to a spirit of scornful scepticism on the other. The atmosphere of a debating society, or the pages of a keenly controversial book are not, I think, as conducive to the healthy development and acceptance of spiritual truth as they are sometimes assumed to be. Reverence is a delicate flower, and a rough breath may blight it. It must be more by quiet communing with our own hearts, by listening to the still small voice within, whose accents are so easily drowned in the roar of the world which "is too much with us." And if we wish to bring others to the same inspiring hope as we may have ourselves attained to, we shall succeed better if we trust more to a quiet sympathetic statement of our own personal spiritual insight accompanied by that best comment thereon,

a consistent life, than if we lean exclusively on what we take to be keen logic. I do not say, of course, that even the keenest logic has not its proper place with reference to the questions with which we are dealing. I believe it has; but it ought never to be forgotten that in many matters the heart rather than the head is the home of spiritual truth,—that in this region it is indeed true that it often sees further than the head, and that such truth can only be commended in a satisfactory way to others by an appeal from heart to heart. If this were better borne in mind by us all I think there would be in this world more of steady faith and less of paralysing scepticism,—more of bracing hope, and less of that despondent, 'I do not know'. And surely the power of goodness must be very weakly felt in any heart, if it will not enable a man when tenderly and sympathetically dealt with, to get at least the length of saying:—The consciousness of good within me enables me to hope in God without me. And this attitude of hopefulness is profoundly important. It makes all the difference between having our faces turned towards an, at present, dimly desecrated but much-loved object, in the hope that the dimness may disappear, and give place to clear vision, and turning our faces away from it altogether in sad despairing hopelessness that there is any object there at all to see. God dimly seen, and earnestly hoped in, is surely better than God not seen at all, and sadly or cynically denied.

But I must draw to a close. I will only add a few remarks on two points, one having a bearing on our reverence for God and the other on our reverence for man. I have already spoken of some conceptions of the divine being as extremely unworthy of Him,—as indeed grovelling and degrading—but it is sometimes sought to make us shrink from all attempts to use our human faculties to form any conception of God, by asserting that all such attempts must necessarily and altogether fail. To describe these attempts the formidable word anthropomorphism is sometimes used, which may be defined as describing the habit of giving a human shape or form to the divine Being, in the belief that He is thereby truly represented. To do this literally is what is ordinarily meant by idolatry; but it is contended that, even though we do not employ a tangible and visible image to represent the Deity, we are just as much debarred from attempting to form any mental conception of Him. Undoubtedly one may without any material image form an idea of God that is deeply and

indiculously dishonouring to Him. He may be, and has been thus represented, as altogether such an one as ourselves—only endowed with greater power,—as full of lust and revenge, treacherous and deceitful, gluttonous and a wine bibber. If such a being insisted on having reverence and worship paid him, under threat of the punishment of hell, then in noble defiance of him we might use the passionate expression of Mill: "To Hell we will go." But what would be the true significance of this nobly indignant, and not really impious exclamation. After one gets over the first shock caused by the seeming profanity of the expression, one sees that all it may really amount to is a defence of a pure and elevated conception of deity as opposed to that low and grovelling form of it which thinks of the divine Being as altogether like our worse selves,—as moved by flattery to smile on those who flatter, and by hate and revenge to punish those who refuse to bestow the flattery. This outburst of Mill's has always struck me as probably far more profoundly significant than he himself fully realized it to be when his indignant pen wrote it down. For whence came this noble outburst? Whence came this nobly passionate refusal to flatter what he thought to be a low and hateful anthropomorphic God? I would answer (and may I venture to think that if Mill had communed more with that part of his nature which led to this very outburst he also would have answered?), From the true God. It was in fact the divine within resolutely refusing to have aught to do with anything but the divine without. Let us grant then the reality of the divine within and it is not anthropomorphism in any sense about which we need to trouble ourselves to affirm that this is an adumbration, a shadow,—as faint and imperfect a shadow as you please, but still a shadow of a real divine without, in whom we live and move and have our being, and in whom we may continue to hope and trust. This instead of being sneered at as anthropomorphism might be more accurately described as the endeavour, in our attempts adequately to conceive the divine, to lay aside all that we feel to be characteristic of the limitations of human nature and faculty,—all its weakness and imperfection; and to think of a love that passeth understanding; of a purity in the presence of which not even heaven itself is clean; of a knowledge that is too wonderful for us,—a love, purity, knowledge transcending all attempts on our part to give shape to, or form an adequate conception of, but in all their transcendency, felt to be still truly knowledge, purity, and love.

And now there remains but to notice the second point to which I said I would call your attention. All through this lecture, I have implied that man has a great destiny before him,—a destiny not limited to this little world that is for the present his home, or to this little span of time that constitutes the sum total of his life. But there are some who object to the claim for such a high destiny being made on his behalf. They point to his insignificance,—to the fact that he occupies a tiny corner of the universe, while millions of greater worlds lie scattered over the depths of the infinite spaces around him. They point also to his petty nature,—to his meanness, to the frequent narrowness and childishness of his ideas, to the low desires and hateful feelings that play so great a part in his life, and then they scotchingly or sadly ask:—Can immortality be in store for such a limited, and, in many respects, contemptible being? Now, if you remember what I said, when speaking of the Reverential in human nature, you will not find it very difficult, I think, to give what seems to me a sufficient answer to this objection. It has in all these discussions to be remembered that our nature is composite. It is a mixture of the petty and the hateful on the one hand, and the noble and lovable on the other. And paradoxical though it may seem, I would point out that it is of our very greatness that we find out our own littleness. The very thoughts that reveal our insignificance in space and time do this because they are, at the same time, capable of soaring so high as in some measure to take in the ideas of infinity and eternity. So, too, in the moral sphere; our moral greatness consists in the fact that we can find out and despise our moral littleness. And it is with this unique power of realizing our weakness and limitations that I think our hopes of a higher destiny,—apart from revealed religion—are bound up. The profoundly significant fact is that there is that in us—a part of us—which discovers our insignificance, and which, therefore, cannot reasonably be supposed to share in the insignificance which it enables us to discover. It is this part of our nature which I ask you to trust in and be faithful to; and to work and live accordingly. There is a short Latin motto which I have reason to believe is known to some of you. I have found it on the front page of more than one of your books. I came across it the other day written in a clear firm hand in a book that once belonged to a quiet thoughtful student of this college, now long dead, and I would leave it with you as my last word to you on the high themes which have occupied us to-night. It was *Spero*

meliora—"I hope for better things." Again, then, I would bid you hope,—hope that there is in store for you fuller scope for the exercise of those intellectual faculties which with all their great felt potentialities we here feel to be so cramped and confined,—hope, too, that if we are faithful to our best nature a sphere will be given us, wherein all that is good in us may develop into complete harmony with the divine, and finally,—with reference to that divine itself—hope that in all respects that are necessary for finite beings like ourselves, we shall come to know Him even as we are known.

ROBERT HARVEY.

THE TEN TAMIL IDYLS :—I.

Among the ancient Tamil classics, if we exclude works that are more or less distinctly grammatical or ethical the 'Ten Idyls' and the 'Five Epics' deserve the most prominent mention. Till recently, portions only of these works were available in print, and the Tamil public is therefore much indebted to Mr. Swaminatha Aiyar, of the Kuwabaconam College, for now placing within its reach a complete and neatly executed edition of the 'Ten Idyls' and the first of the 'Five Epics' called *Chintamani*. The Idyls are, as the name implies, richly wrought descriptive poems in the most finished style. They are charming portraits of Nature in some of her pleasant and striking moods, and for soberness of thought and accuracy of representation they will bear comparison with anything in the whole realm of literature. In them critics will seek in vain for that idle accumulation of hyperbolic conceits which characterizes the Tamil poems of more modern times. It is to be hoped that as these immortal works of antiquity become better known and appreciated, that childish delight in riotous imagination which now passes for poetic taste will give way to a more sober-minded and judicious estimate of the true functions of poesy.

The Idyls as approved and compiled by the ancient Madura College are ten in number, and they are as follows:—

- (1) *Thiru Murugarruppadai*, by Nakkirar, dedicated to Muruga, the war god.
- (2) *Porunararruppadai*, by Mudattama Kanniar, dedicated to Karikala Chola.

(3) *Panararuppadai* (Minor), by Nattattanâr, dedicated to Nalliyakôdan.

(4) *Panararuppadai* (Major), by Uruttiram Kannanâr, dedicated to Ilamtirayan.

(5) *Mullaippattu*, by Nappûtanâr.

(6) *Madurai Kânji*, by Mâmkudi Marutanâr, dedicated to Nedum Cheliyan.

(7) *Nedumal Vâdai*, by Nakkîrar, dedicated to Nedum Cheliyan.

(8) *Kurincippattu*, by Kapilar, dedicated to Pirakattan, an Aryan king.

(9) *Paṭṭina Pâlai*, by Uruttiram Kannanâr, dedicated to Karikâla Chôlâ.

(10) *Malaiyadukudâm*, by Perum Kausiganâr, dedicated to Nannan.

These are the names of the Ten Idyls, their authors, and the persons in whose honour they were composed; and they will probably all alike sound strange to modern ears. But the Tamil student will recognize among the authors named a few of the most celebrated poets of the Madura College. Of the eight authors mentioned five are among those who are said to have conducted the famous sessions of that College when the immortal *Kural* was approved and accepted. These five are:—Nakkîrar, Nattattanâr, Uruttiram Kannanâr, Mâmkudi Marutanâr, and Kapilar.

But the names of the kings whose memory these princes of letters sought to embalm in their sweet verses are not, with perhaps a single exception, equally well-known to fame. The name of Karikâla Chôlâ, in whose honour two of the ten Idyls are written, is of frequent occurrence in Tamil literature. It appears more than four times in *Kalingattu Parani*, a work that professes to celebrate a victory of Pallava Chôlâs over the Kalingâs, whose dominions seem to have stretched all along the eastern coast from Madras to the mouth of the Mahânady. Reference to Karikâla is found both in the *Skandha* and the *Kânji Purana*, which among the Tamil *Puranas* are subsequent only to the *Periya Purana*. Flattering mention is also made of him in *Paḷa Moḷi*. He is again the subject of adulation in many verses cited as illustrations in *Tandi* and other grammatical treatises. Though his praises are thus widely sung, his coins and inscriptions, which would have been of greater service in modern researches, do not appear to have been equally numerous. At any rate epigraphists and numismatologists have not yet succeeded in fixing his age. Various and con-

flicting conjectures have, however, been started regarding it. Mr. Wilson assumes that he was the father of Mângeiarkkarasi, the famous queen of Kûn Pandia and the patroness of Sambanthar, but that apostle of Saiva has not a word to say of Karikâla, from whose territories he must have come, if the hypothesis advanced has any truth in it. Mr. Taylor represents Karikâla as the last of the Chôlâs and a mere protégé of the contemporary Pândia;—a character utterly inconsistent with the hero whose victories are so uniformly chanted by the poets of his age. Others charge him with the persecutions that Ramanuja Achariar suffered about the year 1117, while Dr. Caldwell with equal confidence places him in the thirteenth century. Inquiring into the age of the *Kural* and connecting it with the traditional account of its acceptance by the College Board at Madura, the venerable author observes, "If any weight could be attached to this tradition, it would bring down the *Kural* considerably, for other traditions connect Nakkîrar (who is always represented as the President of the College) with the reign of Karikâla Chôlâ who seems to have lived in the thirteenth century."* We are not aware of any tradition that directly connects Nakkîrar with Karikâla Chôlâ, but however that may be, it is simply preposterous to assign the thirteenth century to Nakkîrar, after placing Kamban in the twelfth, with the chance of being shifted to the tenth in accordance with the well-known stanza prefixed to his *Ramayana*. This is not the place for entering into any of the controversies to which these several conjectures have given rise. But we may nevertheless be permitted to make the remark that the discussion seems mainly to owe its origin to the fact of there having been, in more recent times, several Chôlâ princes who ruled under the honoured name of Karikâla—a source of confusion so common in Indian chronology. When the great kingdoms fell, every petty prince and polygar in Southern India assumed grand names, and passed for a Pandia or a Chôlâ—a weakness that still shows itself in the names and titles of certain Zemindars of Madura and Tinnevely. My friend Mr. Venkayya, the assistant epigraphist, tells me that he has heard of three Karikâla Chôlâs, though nothing has yet been done to fix the age of any of them. This is just what one might expect. The first having been a remarkable warrior and administrator, his name, or rather his nickname, (for the name Karikâla was given him only because he burned his foot through an accident) acted

* Dr. Caldwell's *Comparative Dravidian Grammar*, p. 131.

as a charm upon the people, and was assumed in consequence by several of his admiring successors.

Since the names of the princes with whom the Idyls are associated afford no clue to determine their age, we have for the present to be content with such flickering rays of light as literature and purely literary traditions may throw on the subject. Taking then the best known of the eight authors of the Ten Idyls, *viz.*, Nakkīrar, let us see what literary traditions have to say about his age. In the first place, the orthodox pundits have no hesitation in placing him long before the age of Sambanthar, the great apostle of Saiva. In support of this universal impression of Tamil scholars such considerations as the following may be urged:—(1) There is such a difference in the style and the vocabulary of the two authors that scarcely any doubt can be entertained as to the long interval that must have separated the age of Nakkīrar from that of Sambanthar. (2) Nakkīrar is best known as the President of the Madura College, of which scarcely any trace seems to have existed at the time Sambanthar visited that ancient seat of learning. (3) Sambanthar's name is universally associated with the final downfall and disappearance of the Jains, while we find them flourishing in the days of Nakkīrar and his fellow pundits, who make very prominent mention, as we shall see further on, of their churches and associations. (4) Sundara, the last of the apostles of Saiva, who is generally taken to have lived not long after Sambanthar, wrote a famous song entitled 'The Poets of true Piety', and all his expounders, from Numbi Andar Numbi downwards, agree in thinking that Nakkīrar is the poet chiefly referred to in that well-known hymn. (5) It is interesting to note that Nachinārkiniyar, the learned Saiva commentator, quotes not a line from Sambanthar in any of his elaborate annotations, while he scruples not to enforce his remarks by apt citations from Manikavāchagar, who, too, seems to have lived after the Madura College had become extinct. It is obvious, therefore, that in the days of Nachinārkiniyar, Sambanthar's usage had not become sufficiently old to be authoritative. (6) The *Madura Stala Purana*,* which, though not strictly historical, cannot be said to be purely fictitious, mentions as many as twenty-six Pandias, between Vamsha Sēgara, in whose reign Nakkīrar is said to have flourished, and Kūn Pandia, whom Sambanthar is claimed to have converted from Buddhism. This would leave an

* See also Taylor's *Historical Manuscripts*, Vol. I. p. 23.

interval of at least four centuries, if we allow an average of fifteen years for each of the twenty-six Pandias. (7) The last fact we would mention is one brought to the front by the commentary on the Ten Idyls themselves. The classical commentator, Nachinārkiniyar, seeks to justify the author of the tenth Idyl against a criticism of one Ālavantha Pillai Achariar, which is but one of the accepted and well-known names of Sambanthar. From the tenor of the commentator's remarks,* it is impossible to assume the interval between Sambanthar and the author of the tenth Idyl to be anything short of three or four centuries.

For these reasons, we do not hesitate to conclude that Nakkīrar lived long prior to Sambanthar; and we shall probably be not far wrong if we estimate the interval between the two authors at three or four centuries.

Now if we can by any means ascertain the age of Sambanthar, that of Nakkīrar may be relatively fixed. It is well-known that Sambanthar converted Kūn Pandia from Buddhism, and so contributed to the final overthrow of that religion in Southern India. The question then is, when did Kūn Pandia reign; and when was Buddhism finally overthrown? To neither of these questions, has archaeology as yet given a satisfactory answer. Dr. Caldwell identifies Kūn Pandia with a Sundara Pandia of certain inscriptions, and seeks to make out that Sundara Pandia is none else than the Sender Bendi of Marco Polo, who flourished about the end of the thirteenth century. Mr. Nelson questions this conclusion, and rightly points out that as several princes ruled in Madura under the name of Sundara Pandia subsequent to the days of Kūn Pandia, more cogent reasons than those adduced by the author would be needed to support the identification of Kūn Pandia with Marco Polo's Sender Bendi. For his own part, Mr. Nelson prefers to assign Kūn Pandia to the latter half of the eleventh century. "Supposing therefore," he says, "that Ramanuja was persecuted by Karikāla, and that Mangeiarkarasi was the daughter of the latter, as alleged, it is very possible that Kūn Pandia reigned in the latter half of the eleventh century."† We cannot but admire the caution with which this sentence is written, but we must nevertheless demur to the conclusion, based, as it is, upon highly questionable assumptions.

* See *Pattuppattu*, p. 243.

† Nelson's *Manual of the Madura Country*, Part III. Chapter ii. p. 65.

Turning then once more to literary traditions, we find Sankara Achariar, whose period Sanskrit scholars are now pretty nearly agreed in fixing in the eighth century, has a *sloka* in his *Soundhrya Lahiri*, in honour of Sambanthar, or the "Dravidian Infant o Parvathi," as he there calls him. This would indicate not only that Sambanthar flourished long before Sankara, but also that the interval of time that separated the two was sufficient to surround the memory of the former with a halo of divinity. Even allowing for the abnormal rapidity with which apotheosis develops in tropical India, we cannot accept any interval less than two or three centuries as enough for a philosopher of Sankara's wide experience and well-known acuteness, to be led to its acceptance. It must be further remembered that Sankara differed largely from Sambanthar in his ultimate religious views, and was really a stranger to the Tamil people, since he won his fame chiefly in Upper India, and by writings that are entirely in Sanskrit.

Now if *Soundhrya Lahiri* is accepted as a genuine production of Sankara Achariar, and it must be so assumed until very substantial reasons are shown to the contrary, the age of Sambanthar cannot be earlier than the period of Sankara. The Hon'ble Mr. Justice Telang* adduces certain sound reasons for placing that period in the sixth century; but for our purposes, it is enough to assume the age usually assigned to him, viz., the eighth century. Allowing, then, an interval of two centuries, we arrive at the sixth century as the probable era of Sambanthar.

That we are not claiming too high an antiquity for Sambanthar and that if there be any error at all, the error is on the other side will be evident from such facts as the following. In the first place the pious Buddhist traveller, Hiuen Tsiang, who spent nearly sixteen years, from 629 to 645 A.D., in visiting all the provinces of India, and in studying the prospects of his religion in its birth place, does not give any flattering report of Buddhism in the Tamil countries. Neither in Chôla nor in Malakûta, which Dr. Burnell identifies with the delta of the Kâvêry river, does he note any remarkable Buddhist institution. To him the people of the former land "are dissolute and cruel," while those of the latter are "not fond of learning but wholly given to commercial pursuits." Hiuen Tsiang does not appear to have visited Madura at all,—an omission

* See the *Indian Antiquary*, Vol. xiii. p. 95. According to Mr. J. F. Fleet, Sankara lived about 630—655 A.D. *Ibid.*, Vol. xvi. p. 41.

altogether unaccountable, had it been still the stronghold of Buddhism that it was before the days of Sambanthar. In all probability, the Chinese traveller came into the Tamil provinces only after Saivism under Sambanthar had triumphantly overthrown the religion of Buddha.

Again Sundara—the author of the hymn which celebrates the sixty-three Saiva saints, including Sambanthar—was the companion of that Cheraman Perumal who is said to have so mysteriously disappeared from his country. Though the orthodox pundits are adverse to any identification of this pious Cheraman with the last of the Perumals, yet the similarity in the accounts given of the two is too strong to be accidental. But if there be any error at all in this identification, it would be once more only an error on the side of moderation. Assuming then that the Chera friend of Sundara was the last of the Perumals, we cannot but suppose that Sundara lived in the early part of the eighth century, the age usually claimed for the last of the Perumals. This accords well also with the local tradition in Malabar, which connects the Malabar or *Kollam** era, according to which the current year is 1066, with the destruction of a port called Kollam, subsequent to the flight of the last of the Perumals. That Sundara belonged to the earlier part of the century may be further inferred from the fact that, while he names several minor contemporary saints in his famous hymn, he has not a word to say of Sankara, who so thoroughly revolutionized the religion of his country. Now if Sundara lived in the early years of the eighth century, we have to assign to Sambanthar a period two or three centuries earlier. Such an interval alone can account for the reverence with which the former names the latter, and for the fact, that while Sambanthar's career met everywhere with stout opposition from the Buddhists, not one single anecdote has come down to us of such resistance to Sundara.

The third circumstance we would mention would settle the era of Sambanthar beyond all question, if only its truth could be fully ascertained. The present honoured head of the *Sambantha Muttam* at Madura claims to be the 114th in succession from the original apostle,† and if this assertion is true, we should

* This is not the place to discuss the origin of this era. It is a mistake, however, to connect it with Quilon in Travancore, as is usually done.

† Damodaran Pillai's *Vitrachôlitam*, p. 17. According to Mr. Nelson, the present head is the 277th hereditary manager. Evidently the records of the *Muttam* must be imperfect when two such different results can be derived from them.

reach very close to the fifth century, even allowing but twelve years for each of the deceased 113 representatives of the monastery.

On these grounds, we think it not unreasonable to assume that Sambanthar lived about the fifth century. At any rate, with the evidence before us, it is impossible to assign to him a period later than the seventh century. We may therefore take the fifth and seventh centuries as marking the limits of his probable age. Now if Nakkīrar, as already shown, lived two or three centuries before Sambanthar, it would follow that the age of our poet cannot be later than the fifth century, while it is quite possible that he lived two or three centuries earlier.

But the age of Nakkīrar is not the age of all the Ten Idyls. Probably most of them were in existence in his days. The allegorical use he makes of the form of poetic composition, known as *aruppadaḥ*, would itself argue the later origin of his work. His *aruppadaḥ* is most likely the last of the kind, and the collection of the Ten Idyls was perhaps made in his own time. We may therefore tentatively place the composition of the book of Idyls about the beginning of the Christian era.

Now passing to the poems themselves, we may note that five of the Idyls are of that form of poetic composition called *aruppadaḥ*, which, under the pretext of guiding a needy traveller to an open-handed and bountiful prince, describes in flattering terms the provinces and cities of the latter, and his prowess and position. It is generally put as if addressed by a minstrel, songster, or actor, who returns well loaded with presents from a generous prince, to a fellow minstrel, songster, or actor in search of a patron. Except the first, which is dedicated to the war god Muruga, the remaining four literally fulfil this description. The first named, 'The Guide to Muruga', adopts this usual form of address to chant the praise of that god and to direct the pious-minded to his worship. This figurative and curious use of the original convention is noteworthy, as it helps to indicate the relative age of the works under consideration. Nakkīrar could not have thought of making an allegorical use of this form of address, if he had not had several instances of the literal kind before him; and it is possible that some of the very works here grouped with his may have been the models from which he copied. Of the remaining five Idyls, four are erotic, viz., the 5th, 7th, 8th, and 9th; while the central idea of the sixth, or *Maduraikkānchi* is to direct attention to a world beyond the present.

But as in the case of all Idyls, it is not so much the central idea

or purpose that is of interest, as the imagery in which it is set, and the description of nature for which it serves as an occasion. 'The Guide to Muruga', the first of the Idyls, is certainly not the best, though it happens to be the only one now generally known to the public. In the general wreck of letters that followed the extinction of the Madura College, Muruga's name seems to have served as a life-boat to this work of Nakkīrar* and to have saved it from that undeserved oblivion which overwhelmed its more illustrious compeers. It forms along with nine other minor works of Nakkīrar a portion of the Eleventh Collection of the sacred hymns of the Saivas, and with the devotees of Muruga, it is a part of their daily liturgy. A miraculous story is told of the occasion that gave birth to this work. It is said that a certain giant was in the habit of dining upon one thousand men at a time, and that on a particular day, as only nine hundred and ninety-nine were ready, Nakkīrar was caught and added to the lot to make up the requisite number. But the mathematical giant was also somewhat puritanical, and so, after completing the number, instead of sitting down at once to breakfast, he foolishly went to perform his daily ablutions, and thus afforded time for Nakkīrar to compose the poem in praise of Muruga, who, moved by its pathos, appeared at once on the spot, killed the fastidious giant and released the poet and his nine hundred and ninety-nine fellow prisoners.

Whatever may be its supernatural virtues, 'The Guide to Muruga' is from a literary point of view inferior to many of its companion Idyls, and decidedly so to Nakkīrar's own *Nedunālṛḍai*. It begins with a description of the delicate mountain fairies that go about dancing and singing in praise of Muruga's victories, and the fantastic furies, that with ears large enough for owls and serpents to sleep in, take delight in plucking out and eating the eyeballs of those slain in his battles. The poet then goes on to direct those who wish to abstract their attention from worldly concerns and to fix it on Muruga, to seek him in certain favoured places. The first of these is Thirupparamkunṛam, the hill in the vicinity of Madura,—the next railway station in fact on the way from Madura to Tinnevely. It is described by the poet as west of Madura, though the hill is really to the south-west of the modern town.

* The writer of this article made his first acquaintance with this work in 1870, when a printed copy of it was put into his hands by a pious old pundit of Trivandrum.

Madura is alluded to in glorious words, and reference is made to the ancient manner of indicating an impregnable fortress. "At the gates of Madura," says the poet, "is hoisted the flag of victory and by its side sleeps the image of a girl with a leather-ball in her hands." The image was hung up to represent the enemies and as a challenge to them to approach the fortress. The place next mentioned is Thiruchiralavây, which is now identified with Thiruchendoor. In this connection, the six faces and the twelve hands of Muruga with their occupations are described in vivid terms. The third place mentioned is Thiruvâvin Nan Kudi. The commentator remarks that this is the ancient name of the place, which in the days of Auvaiyar came to be called Chittanvâlva,—a testimony of great value as showing the long interval that must have elapsed between Nakkîrar and Auvaiyar, who is reckoned by Dr. Caldwell himself as a contemporary of Kamban, and is placed therefore in the twelfth century. Here Muruga is said to hold a levee of all the gods and saints, which we may suspect to indicate a procession on ceremonial occasions. At any rate, the description of the emaciated saints with their saffron-coloured cloths and deer skins is suggestive of an earthly rather than of a heavenly scene. Auvaiyar also alludes to the place as a village remarkable for Brahmin piety. The place next noticed, *viz.*, Thiruvêragam, seems to have been an equally famous Brahmin colony. The Brahmins are described as uttering their prayers after their ablutions, and with wet cloths on their bodies,—a habit still noticeable in villages on the banks of the Kâvêry and the Tambrapârani. Of course, no example of the rule here extolled of devoting the first forty-eight years of one's life to the study of the Vedas, can be now anywhere found. Thiruvêragam is generally identified with a village near Kumbakonam, though the commentator speaks of it as a village in the hilly districts,—a description not in the least applicable to the country about Kumbakonam. The poet then speaks of Muruga as taking a part in the festive dances of the mountaineers, clad in the green leaves of the forests. No particular place is here specified, but every hill is mentioned as the scene of such joyous mingling of gods and men.

But the concluding passage of the work is, perhaps, the best. It reveals some of the curious habits of the people of those ancient times, which are not yet altogether extinct. The sacrifice of goats on festive occasions, the hypnotic dances which accompany such festivities, the sacred groves and junctions of three or four streets,

the spreading tree under which the village elders meet for transacting public business, the stones planted in pastures for cows to rub themselves against, are all mentioned as tempting situations for meeting Muruga; and most of these are still matters of interest in the out-of-the-way villages. The scene of the sacrifice is painted in detail, and it requires but little effort to identify many of the particulars with those which occur even to this day in remote rustic parts. A shed is put up with garlands of equal length hanging on all sides. A flag is hoisted with the head of a man and the body of a bird to frighten off unwelcome devils. The officiating priest wears a double set of cloths, mutters mantras, and begins the ceremonies with bending and raising the upper part of his body a certain number of times, having his hands so crossed as to touch his ears. He has a thread tied round his wrist, scatters flowers and fried paddy on all sides, kills a bull (according to the annotator it is only a goat), and then, mingling with its blood rice and a little turmeric powder, offers the morsel with sweetmeats of different preparations to Muruga. With the burning of incense, an awful devil dance ensues, in the course of which the priest (or rather the priestess as it happens to be in this particular case) declares to the worshippers an indemnity from famine, epidemics, and war. In the hilly tracts of Travancore, such scenes are not at all rare, and the class of people who officiate at these ceremonies are still called Vâlan,—the very term used in the text. The poem closes by assuring the pious traveller of the favour of the deity, if the seeker after Muruga goes to any one of these places and duly worships him. There is nothing in the text or in the commentary to show that the hills described in the closing lines of the poem are the Pulney hills, though popularly supposed to be so, in order to make up the six camps of the war god, as they are enumerated at present. The poem, however, names only four particular spots sacred to that deity.

Such is the outline of the first of the Idyls, which is by no means the best of them. A glance at the poem will show how antiquated the style is. We will just mention but one or two of the archaisms with which the work abounds. One of the suffixes for forming the past participle from a verb is 'pu'; but it is so seldom used that even Kamban, in the very preface to his immortal *Ramayana*, makes a blunder with it, using it as an infinitive instead of as the past participle. 'Nakkupu' means 'having licked' and not 'to lick' as Kamban would have it to mean. Now

in Nakkīrar's poem under notice, which contains but 317 lines in all, this suffix is used eleven times, and that in connections where there is not the least difficulty, metrical or other, to justify the use of this rare form. Again, the repetition and elongation of the final vowel sound of a verb, called *alapedai*, to indicate the past participle, is but rarely resorted to in modern literature: but in the 317 lines of this poem it occurs thirty times. I shall not, however, try the patience of the general reader by going into such grammatical details. Turning then to the vocabulary of the poem, we find but thirty Sanskrit words, even counting such common words as *தாமரை* (lotus), *மனம்* (mind), and *மீன்* (fish), as well as words so far altered and Dravidianized as *முத்து* (pearl), and *உலகம்* (world). Taking each line to have an average of five words the 317 lines of the poem do not show two per cent. of Sanskrit words. It may be interesting also to notice that even the ancient commentator, Nachinārkkiniyar, finds it necessary to point out different readings in the poem, in three or four connections, showing how long the work must have existed even before his days. The Puranic account of the birth of Muruga, as given by the commentator, differs in certain important particulars from the account now generally accepted. It seems not altogether impossible that Muruga was originally a Dravidian deity; and that in the course of time, when Aryan civilization found it expedient to adopt the cult of the independent nations over which it came to exercise its influence, a place in the Puranic mythology was found for the war god of the Tamils, as transformed and embellished by Aryan genius, just as in more recent times, Buddhist institutions and even Buddha himself, under the name of Sasta,* came to be absorbed into Brahminism. But we have tarried too long over the first of the Idyls, which as we have more than once remarked, is certainly not the best of the collection. We therefore pass at once to the *Nedunālāḍai* of Nakkīrar, the seventh in the collection of Idyls, promising to return to the intermediate ones in due course. Unlike 'The Guide to Muruga', *Nedunālāḍai* or 'The dreary Winter' is confined to purely mundane matters. It is written in honour of a king of Madura who passed under the name of Neduncheliyan, the hero of *Thalai Alankānam*. Nothing is now positively known of this Pandia or of the victory with which his name is associated. His name

* Sasta means literally a teacher, and, according to Amara, the word is but a synonym for Buddha.

does not find a place in any known list of Pandias, Puranic or other. At first sight it may be doubted whether it is a proper name at all: Cheliyan is but one of the many synonyms of Pandias, meaning literally the prosperous, and Nedu, meaning tall or great, seems to be but a honorific prefix. Probably the poets at the court of this Prince familiarly spoke of him by this soubriquet, exactly as the courtiers of Edward I. knew him as Longshanks. According to the *Stala Purana* of Madura, the Pandian who reigned in the time of Nakkīrar was one Vamsha Sāgara. But no recollection of his military glories seems to have survived at the time when that *Purana* was composed. But as the function of the *Stala Purana* is to relate only such occurrences as illustrate the *Līlas*, or the sacred amusements of the presiding deity of the city, no conclusion can be drawn from its silence on this point. Among the eulogies pronounced on the *Kural* when it was accepted by the College Board, there is a stanza attributed to Ukkira Peru Valutiyar, presumably the then king of Madura. May not Peru Valutiyar be the same as Neduncheliyan? Both names convey the same idea—the great Pandia. But we leave such speculations to those who have the leisure and means for conducting them.

Confining ourselves to the work in hand, we have every reason to believe that the patron of Nakkīrar, whoever he was, was a powerful sovereign in his day, who by his indefatigable energy and indomitable valour won undying laurels for himself, and honour for his country. Far and near, he was a terror to his enemies. Vāna Viral Vēl was dispossessed of his capital,—the flourishing town of Alumbil—because he was slow to acknowledge his allegiance to Neduncheliyan. The thriving ports of Muthuvillil and Nelloor* were captured in no time. The princes of Kuttanad—a portion of Travancore east of the modern town of Alleppey—were among those who felt his prowess and wisely owned his sway to escape destruction. But it is his glorious victory at *Thalai Alankānam* that is universally associated with his name. If we are to believe Nachinārkkiniyar this victory was won against great odds. Two sovereigns like himself, Chera and Chola, and five feudatory princes, named Thitian, Eluni, Erumaiyūran, Irumgovonman, and Porunan, seem to have made a combined effort to crush this Napoleon of ancient Madura,

* Can this be the modern town Nelloor? The commentator is inclined to identify it with Sāliyūr a town of his own times.

but all in vain. "Even their drums," says the author of *Madurai Kañchi*, "were captured in this field of military Yaga or sacrifice to the gods." A glorious description of this battle is found also in *Purappāttu*, a rare classical work of great antiquity. It is impossible to doubt, with these facts before us, that Thalai Ālamkānam was the scene of a decisive victory, which at once raised the prestige of the Madura Country and stirred up the literary activity of its people. In all probability, Ālamkānam bore the same relation to the age of Nakkīrar and his College, that the defeat of the Armada bore to the Elizabethan era of English letters. When more of the real history of these ancient times comes to be known, Ālamkānam and the Madura College will be found to afford but another illustration of the well-established induction that links the literary progress of a nation with its political pre-eminence. But whether more of the history of the age is likely to be known or not, this much is beyond question, that the hero of Ālamkānam was a restless warrior of the times, and that he had certainly more stern duties to perform than offering prizes for poems on the tresses of his lady-love, as the *Stala Purana* would have it. The poem of Nakkīrar under notice itself bears ample testimony in this respect. It is in fact a prayer for the king's safe and quick return to the bosom of his queen, who passes restless nights in silent tears, because of the absence of her lord on the battle field.

It is one of these nights that the poet here undertakes to depict. The scene is laid in the bedchambers of the palace; but the poet approaches it from the far off rural parts, to which the shepherds have removed their cattle with the first appearance of the monsoon. It is now the end of November, and the heavy clouds, having exhausted their first fury, are now practising, as the poet puts it, the gentler art of drizzling. But the weather continues cold, and the howling north winds are all the more fierce. The monkey on the tree shivers and contracts its limbs, and having given up its arboreal marches and depredations, now looks small indeed! The birds overborne by the winds drop down in their flights: but they still make way as best as they can, to the shoals and shallow parts of the rivers, to which the fishes, unable to withstand the unusually strong currents, repair in crowds; and once there, the winged visitors make but short work of their aquatic friends. The milch cows shivering with cold forgot their motherly affections, and instead of welcoming their calves, drive them off with a kick. The shepherds fare even worse. This is not the time for them to gather

338

their favourite flowers or to indulge in their other pastoral amusements. They are now far from their homes, and the nights are specially trying to them. Exposed to the meaning piercing winds, they collect in small companies of twos and threes, and light up their fires, which make but darkness visible, exactly as their small companies make their solitude all the more impressive and pronounced. They warm the palms of their hands at these fires, and applying them to their cheeks, seek to persuade their teeth from chattering and 'drumming' (as the saying in Tamil runs) against each other. From these rural parts the poet leads us to the city through fertile paddy-fields, elegant arecanut groves, and orchards adorned with different flowers. The ripening paddy ears bow in prayer; the elongated tender arecanuts are becoming rounder with the ingathering of the fragrant catechu for which they are prized, and the boughs of the orchard trees, dripping occasional tear drops, kiss one another overhead.

It is evening when we enter the town; and passing through the streets which are as broad as rivers, we meet with strong-bodied, sinewy, Mlāchas, clad in loose garments, moving to and fro, full-drunk, and therefore unmindful of rain and winds. We should like to become better acquainted with these drunken foreigners,—particularly with regard to their nationality—but the poet vouchsafes no further information. Meantime the fair ladies of the houses on both sides of the streets, inferring the advent of night from the opening of the *pichi* (jasmine) buds in their flower-baskets, light up their iron lamps, and scatter paddy and flowers on all sides perform their evening worship. The domesticated pigeons, however, have no such means of inference, and failing to distinguish day from night, they simply alter their posture and exchange seats with their lovely mates, in the way of relieving the monotony of their enforced idleness. The menials, we observe, are engaged in grinding and preparing musk perfumes on small stones "as hard and polished as the surface of gram." For sandal paste, so unsuitable for the cold season, is nowhere in demand. For the same reason, garlands are also not in favour. The small-mouthed cold water jugs are not now in use. The exquisitely wrought fan, again, hangs in a corner, covered with cobwebs. The fire-pan and the smoke-pan are, on the contrary, everywhere in requisition. To the ordinary incenses burned in the latter, a small quantity of molasses is added in conformity with medical directions to keep off cold and catarrh. As we pass, we notice that the windows are all closed

against the wind, and the airy bedchambers in the second storey are almost forsaken. Women, given to dancing now take to singing, and to keep the strings of their harps at a proper temperature, they rub them frequently against their warm bosoms.

By this time we have reached the tower gates of the palace, which look like tunnels worked through mountains, but are yet high enough not to obstruct the royal standard carried erect on the royal elephant's back. The strong doors are models of architectural skill and beauty, and are so well fitted that not even smoke can pass through. But through the favour of the poet we succeed in finding a passage, and are now in the courtyard of the palace. It is thickly strewn with white sand, and is intended for the mirthful sports of the muskdeer and other rare animals brought up in the royal residence. But just now melancholy silence reigns there, broken only by the occasional neighing of the overfed and under-worked horses in the stables, the monotonous flow of rain water from the catchpipes of the terraces of the palace, and the infrequent but awful cawing of the peacock in the royal aviary. Entering the palace, we pass through long corridors lit up by lamps borne by images of Yavana manufacture. Of these Yavanas, too, we are curious to know some particulars, but the poet hurries us through several spacious and well-lighted rooms to the zenanas, which he stays minutely to describe. These buildings are as high as mountains, and the flags that adorn them are as varied in colour as the rainbow. Into this unapproachable compartment,—unapproachable, it is said, to every male human being except the king—the poet fearlessly leads us, and takes us direct to the royal bedroom.

There is in that bedroom an ivory 'cot, well curtained, painted and ornamented and cushioned; but to reproduce in English the poet's minute description of it would require Sir Walter Scott's command of descriptive terminology and his genius for details. As moreover this notice is intended to invite and not to supersede a careful study of the original, we may pass over such minutiae. Well; the poet then points to us a lady lying on that cot, with eyes wide open, but so absorbed in melancholy reflection that probably she would not note our presence in that forbidden place even if we were bodily there. No ornaments now adorn her natural beauty; not even a pearl necklace is there to keep company with the sacred marriage thread loosely lying on her bosom. A pair of tiny ear-rings now does duty for the wonted priceless ear-pendants. On her forearms we notice

the mark left by golden bracelets, but their place is now occupied by poor conchshell wristlets. A solitary *mudakka* or *nalivu* (as it is now generally called) guards the slender fingers that usually wear but the finest of rings. Her angelic form is now clad, not in silk, but in ordinary cotton fabrics. Thus like an outline picture waiting to be coloured, lies the queen, sleepless and careworn; and it must be remembered that it was midnight when we entered the royal bedchamber. As she rolls her eyes in thoughtless abstraction, she notices on the curtains of the cot a picture of the heavenly bodies; and the scene recalls to her the preferential love that the moon so notoriously entertains for Rohini,* and all further vision is obstructed by the flow of tears. In such distress, then, lies the queen. But where is the king?

In answer to this question the poet takes us a long way out of the country. The king is in foreign lands, wintering in his camp for the rainy season. But is he there sleeping in a snug corner of his camp in the dead of this selfsame night? No! Is he also lovesick and restless? Far from it! He is too busy for that! If we follow our poet and go into the camp, we may see him this very hour, moving from quarter to quarter, visiting the wounded and comforting the sick. Lo! you see him walking under an umbrella and behind a torch, whose light is flaming at right angles to its handle, because of the steady northern wind, so fierce and piercing. By his side is the general of his forces, pointing out one by one the heroes of the previous day's skirmish, and also the wounds that mark their valour. There, as he passes by the stables, you may note how the horses, standing day and night saddled and ready for battle, neigh and shake off the water drops from their sturdy sides, as if indicating their preparedness for immediate action. Nor is the king less prepared. For, behold his royal sword is carried by his side by his trusted *aide-de-camp*; on whose broad shoulders the king familiarly reposes his right hand! Warriors know no distinction among mankind,* but that of the brave and the coward! Well! we have now seen how the king and his queen spend this dreary rainy night; and having witnessed the two scenes, who among us would not join the poet in heartily wishing a glorious termination to the war and a speedy return of the monarch to the bosom of his beloved wife?

* Rohini is a group of stars in Taurus, said to be the favourite queen of the moon, and on that account an object of jealousy with every other of the 27 groups of stars.

TO THE KING OF THE MOUNTAINS

Such is the outline of Nakkīrar's *Nedunālvāḍai*; and I would request the reader to study it in the original, and then to say whether the author does not deserve to be placed among the very best of the poets of any country. The extreme simplicity of the central conception, the natural ease with which it is developed, the pleasing but in every way true and accurate portraits of nature amid which it is set, and the taste and tact with which every line is made to subserve the one single artistic effect that the whole piece is intended to produce, are simply admirable. It is only after carefully studying this remarkable production of Nakkīrar that one is able to understand and appreciate the universal voice of antiquity that declares Nakkīrar the prince and president of the Madura College of Pundits. It is only then, that the old story of Nakkīrar's venturesome criticism on the verse of Siva, the terrible deity of Madura, reveals any meaning. The story, I hope, is well known to the general reader. The reigning Pandia of Madura, having discovered a natural fragrance in the tresses of his queen, promised a rich reward—a lump of gold—to any poet that would tell him what thought he had in his mind. The poets of the College essayed in turn, but none succeeded in solving this Rosicrucian puzzle. A poor ignorant Brahmin devotee of Siva saw in the juncture a fine opportunity for pocketing the gold, and completing the matrimonial arrangements he had then in contemplation. He appeared accordingly before the local deity and prayed to be put in possession of the valuable information. The deity, who of course knew what queer thought had passed in the mind of the prince, granted the supplication, and favoured his dependent with a stanza praising the natural fragrance of the queen's hair. On the production of the lines, the gold was at once ordered to be awarded; but the jealous pundits, writhing under discomfiture, interposed. The stanza was produced before the president of their College, our Nakkīrar, who at once condemned it on the score of the fantastic idea it conveyed. No human hair, whether queen's or king's, said our poet, could have any odour that was not artificial or accidental. The Brahmin ignoramus was, of course, unable to reply to the criticism; and he therefore ran again for help to his deity, who now felt himself in honour bound to defend his production. He appeared accordingly in the guise of an old Brahmin, and attempted a defence; but being soon driven into a corner, the deity sought to ensnare his adversary by 'special pleadings', and asked him whether his proposition would apply to the hair of the

goddess of Madura, of whom the poet was a special devotee. All undaunted, Nakkīrar would admit no exception to his proposition; and it proved too much for the patience of the god. Already irritated by opposition, he was now touched to the quick by the insult offered to the goddess, his better half. Off went his disguise, and with his third eye that opens only to burn up the universe, fast simmering and smouldering with fire, the angry deity commanded Nakkīrar to retract the offensive criticism. But neither for god nor for man would our poet flinch from truth; and though death stared him in the face, he declined to countenance the unnatural conceit conveyed by the poem. The terrible third eye of Siva was now opened in full, and to escape the fierce fire that ensued, Nakkīrar and his College of fellow Pundits, the story concludes,* had to take refuge in the Lotus Tank within the local temple. So did might triumph over right! But what is the meaning of this tradition,—almost the only one that has come down to us of Nakkīrar? Does it not point to the extreme realism in his style? Does it not show that the poet's love of truth, love of nature, was so strong, so unswerving, that he would defy all authorities, human and divine, for the sake of maintaining accuracy of representation, truthfulness of thought, even in poetic composition? I take the whole story as the best panegyric that can be pronounced on the poet's love of nature and his unconquerable hatred of all kinds of extravagance in thought or expression: and no praise in that line will be ever found too much for the author of *Nedunālvāḍai*.

P. SUNDRAM PILLAY.

THE DANGERS OF DEBATING SOCIETIES.†

The subject of Debating Societies, like many of the common subjects of debates, is a well worn one. But just as these oft debated debates, which to the superior old members seem so stale and uninteresting, have a freshness for those who have recently joined the society, so the subject of debating societies may have still some interest for those who have not proceeded very far in their University course. I do not now propose to speak specially

* Sivaprakāśar slightly tampers with this story to suit his own purposes. See his *Kalatti Purana; Nakkīra-Charukam*.

† An Address delivered to the College Literary Society in February, 1891. Revised.

of the advantages of debating societies; I wish rather to consider those societies from a somewhat different point of view. I propose to look at the dangers of debating societies. Now this is an ambiguous expression, and it is because it is ambiguous that I have chosen it for my title. I propose in fact to consider two quite separate things, which are at the same time often intimately connected. These two things are the dangers to which a member of a debating society is exposed and the dangers which a society sometimes runs in consequence of the conduct of its members. Incidentally, no doubt, we shall have to look at the advantages of such societies as this, but it is mainly with the other side of the matter that I mean to deal at present.

There is a truth which Dr. Miller is continually pressing on the attention of the young men of this country and is constantly emphasising—the truth which he is accustomed to express in the words ‘nothing for nothing’. This is a most important and wholesome, if somewhat unpleasant, truth. If we wish to gain an important end we must make the necessary effort, if we are to occupy an important position we must accept responsibility, if we are to show ourselves brave we must not shrink from facing danger, if we are to become learned or skilful we must undergo the labour of study or practice. These and a hundred other commonplace examples might be cited in illustration of this great truth. The same thing holds true of debating societies. Believing firmly as I do that such societies confer great benefits on their members in many ways, and that they help to complete the education given in the classroom, I believe at the same time that there are special dangers connected with them to which their members are exposed, and that if they would reap the benefits, they must be on their guard lest they should contract habits which may prove injurious to their intellectual and moral development. A debating society is a microcosm, a little world, and just as we can see in the world around us how some are improved by their contact with the great busy living world, how their resources are developed, how new faculties are called into play, how they learn wisdom and tact and acquire wide sympathies and interests, so it is in the society. But other men, again, are not improved by their contact with the great world. The meaner parts of their nature seem to be those that are most stimulated by intercourse with their fellow men, self-seeking is the great motive of their lives, their interests become narrow, and they show little consideration for the feelings or interests of others.

And so, too, it may be in our small world of the society; and therefore I wish, in the first place briefly to call attention to the dangers to which members of a debating society are exposed.

We may naturally expect to find that these dangers are intimately connected with the advantages which a society offers to its members. Aristotle in writing about virtue pointed out for the benefit of future generations how each virtue held a middle position between two extremes, the one the extreme of too much and the other the extreme of too little. We may expect, then, to find that the dangers to which members of debating societies are exposed take their rise in the attempt to avoid some particular defect. Now one of the chief benefits which a debating society confers on its members is that it teaches them self-reliance. It encourages them to form opinions and it teaches them or helps to teach them how to express their opinions clearly in the presence of others. When a society does this in a right way it contributes in no small measure to the development of the intellectual faculties of a young man. A man who has no opinions of his own cannot be regarded as a fully developed man. Agreeing with every one he meets, blown about by every wind of doctrine, holding the views of the last man who spoke to him, he may be a pleasant and amiable member of society but he cannot be a very strong or a very useful one. In all probability he is at last found out, and men learn to estimate his words at their real value. To convince such a man is felt to be no gain, for one knows that within a few days, or hours, he may have changed what he calls his mind, and may have adopted the views of some one else.

But while this is true there is such a thing as the premature formation of opinion. Some men are so constituted that when once they have made up their minds on a subject or question they pride themselves upon sticking to their opinion, although their better judgment if they would but listen to it would tell them that they are mistaken. Others again are too lazy intellectually to change an opinion they have once formed, for they shrink from the mental labour that a review of their opinions entails upon them. It is important, then, that men and especially young men should be cautious in the formation of their opinions and should be ready to listen to what may be said upon the other side of a question. Now, the members of a debating society certainly tend to form opinions. The attempt to express what a man thinks not only helps him to know what it is he really thinks but also assists in forming his thought. The language he uses reacts upon his thought and the

oftener he expresses an opinion the stronger does it tend to become. The well known anecdote about George IV. illustrates this. It is said that he used to narrate how he won the battle of Waterloo, and that he told this story so often that at last he began to believe it himself. So it is with opinions. Let a man frequently defend some course of conduct or lay down some principles and at last he will begin to feel a personal interest in what he is defending and will adopt these principles as his own. It is important, therefore, for one before becoming a zealous partisan and advocate to look as impartially as possible at both sides of a question and to be convinced that the side one espouses is the right side.

This no doubt is what members of a debating society usually think they have succeeded in doing. The self-confidence they acquire in a society tends sometimes to become excessive. Young men are not infrequently charged with conceit, and there is a certain amount of justification for the charge. Older men, it is true, are often by no means lacking in that quality, but there are special reasons why young men are more subject to it than older men. They are just becoming conscious of their powers and are enjoying the pleasures of developing intellect. New thoughts are coming into their minds and new vistas of knowledge are opening up before them. In many cases they feel they have more knowledge than their fathers, and believe too that they are much wiser. It is then not unnatural that students should sometimes think much of themselves, their powers, and capacities, and that they should be strong believers in their own opinions. They have not yet learned from bitter experience that their original thoughts have been the common property of mankind for centuries. If they are reformers they have not learned how difficult it is to move mankind, if they are conservatives they are placidly ignorant of criticism. It is well for a young man to be enthusiastic. Rejoice, O young man, in thy youth, said the Preacher; and one of the reasons why a young man should rejoice is that he brings the energy and the freshness of youth to the discussion of the questions that have long engaged men's thoughts. But it is not well when a youth is too well satisfied with himself and his opinions, when he is so convinced that he is right that he is intolerant towards others, when in fact he forgets that he is probably a very ordinary mortal, and that he has still a great deal to learn. Now if a debating society performs its functions properly it should help its members to bear this fact in mind. There is nothing like a good debating

society where there is plenty of wholesome and fair criticism going, for teaching a young man his proper place. When he begins to find that others besides himself have got ideas which they can probably express better than he can, when he has his opinions criticised, and when he finds that there are two sides to the questions he had settled once for all; he begins to realise that perhaps he has been somewhat premature in some of the opinions he has formed. Thus a student in a good society learns more about himself and his own powers than he knew before, unless indeed the armour of his self-conceit is really impenetrable. Sometimes, however, societies do not perform this useful function. They become mutual admiration societies. The members are all of one way of thinking. On certain subjects certain things are the correct things to say and they are said with due regularity. * Discussion in the etymological "sense" of the word is at an end. The members no longer shake a subject asunder that they may learn the truth about it. They do not want the truth of a matter: they want to hear their own opinions expressed, and to be complimented by one another on the way in which they express what all want to hear. This may be all very well in a meeting where people simply come together to stimulate one another to carry out some common end, though even there the effect is not very healthy, but it is fatal to the usefulness of a students' debating society. Its members become more fully convinced than ever that they are the people and that wisdom will die with them, and the type of character produced is not attractive.

Even when such a state of affairs as I have described does not exist, debating societies sometimes tend to make their leading members think too highly of themselves. Success of all kinds is a difficult thing to bear, and it is most unfortunate when it produces vanity and contempt for others. Self-disparagement is not necessary, but there is nothing to hinder a man from being conscious of his powers without being conceited about it and despising those who are not so fortunate as he is himself. These feelings may show themselves by intolerance in debate or by a too keen competition for the honours which a society can bestow in the shape of office. St. John once had occasion in a letter to write against a man Diotrophes who was acting in a high-handed manner, and he gave the key to his conduct by adding that he "loveth to have the pre-eminence." Now, it is a good thing that those should have the pre-eminence who deserve it, but it is not a good thing when men love to have the pre-eminence, when they love it so much that they

cannot bear to see others enjoying it, when they love it so much that they do not much care how they make themselves pre-eminent so long as they are pre-eminent in some way.

There are several dangers connected with one of the chief functions of a debating society which are worthy of notice. As we have already seen one of the great objects of a debating society is to enable its members to express their ideas clearly before others—in other words it aims at training its members in the art of public speaking. The power of speaking in public is one which comes naturally to a few, but which most men gain only by practice. It is, indeed, a most valuable power to possess. It is most irritating sometimes to see in a public meeting how a man of fresh thought and great wisdom is listened to with impatience because he does not possess this power, while another who has but few ideas and those not original is applauded to the echo because he is a ready and practised speaker; and one feels sorry at times to see how much it costs a man to get up and say in confused feeble words in public what he could put in a clear and forcible way if he were sitting talking to his friends. The debating society affords to its members a field for practice, it supplies them with an audience and subjects to speak about, and those who avail themselves of the opportunities for improvement it affords will find the advantage of it in after life. But, as I have said, this is not without its dangers. When a man is a ready speaker he often begins to trust too much to the glibness of his tongue. Conscious that he can get up at any moment and speak for any length of time upon any subject he does not take the trouble to prepare what he is going to say. Not only does he not prepare the language but he does not even prepare the substance of his speech, and so he pours forth a flood of commonplace, concealed as far as possible beneath a show of eloquence. Not a few speakers have been spoiled by possessing the fatal gift of fluency.

There is another danger upon which I have already touched but which I think it well to emphasise, I mean the danger of exaggeration of expression. Sometimes one hears in debating societies speeches in which very strong language is used which it is impossible to believe really corresponds to the feelings of the speaker. There is a double danger in this habit. The first is that to which I have already referred. If a speaker gets into the habit of expressing his thoughts in an exaggerated way the speaker may at last come to believe that what he says is not mere rhetorical exag-

geration but is actual fact, and those who listen to him may be led astray by the same delusion. The other danger is that the habit leads the speaker to disregard the importance of words and brings him into an atmosphere of unreality. From one point of view this is not so important in the east as it is in the west, for here there is not so intimate a connexion between speech and action as there is in Europe. But just for that reason it may be said to be even more important here than it is in Europe. It is not a healthy state of matters when men do not think that their actions should be determined by the opinions they hold or at least express, and the use of exaggerated language appears to me to foster that habit of mind. A man thinks he has done enough when he has spoken strongly, and as he knows he will not be expected to act in accordance with his words he speaks more strongly than he really feels.

But, it may be asked, is a member of a debating society never to adopt a side with which he does not entirely sympathise? May he not take up a case as a lawyer does, and plead it for the sake of practice? In answer to that I would say that generally there is, as Sir Roger de Coverley used to say, "a great deal to be said upon both sides," and it is very desirable that those who are discussing a question should have both sides of it fairly presented before they make up their minds. But just as there are limits which a lawyer must not transgress when he is defending a client he knows to be guilty, so there are limits to the extent to which a debater may go in supporting a cause in which he does not believe, and the habitual disregard of these limits, or the habitual use of exaggerated language in defence of what he does believe, cannot but have an injurious effect on the speaker who thus indulges himself in intemperate language. "Nothing in excess," said the old Greek proverb, and its advice is still good.

I do not mean to say much on the second part of my subject, the dangers to which debating societies are exposed at the hands of their members. Incidentally I have referred to one or two already, as to the danger there is of a society becoming a mere mutual admiration coterie. The dangers of which I am specially speaking now are those which threaten the very existence of a society. Not infrequently in this country the career of a debating society is brief and chequered, and it dies young though probably not for the proverbial reason. A society is founded with great enthusiasm; its members work energetically for a few months; it perhaps has an anniversary and an annual report; but gradually the enthusiasm

dies out, the attendance drops off, little interest is taken in its meetings, and soon it becomes one of the things that have been, and no one mourns its premature decease. But even societies that do not meet with such an untimely end have their vicissitudes. The history of any society that has been long in existence shows that societies like men have their times of prosperity and their seasons of adversity. What are we to regard as the cause of these phenomena? Partly, no doubt, they are due to the fact that there is a fashion in things; and nowhere perhaps more than in India is the force of custom and example felt strongly for a time. If anything happens to make debating societies the fashion for the time being then we may expect to see them springing up like mushrooms to last for about the same length of time as these fungi do. When it is merely the force of example that makes students form a society we cannot expect that the society will be very long lived. Gradually, and perhaps soon, the members cease to be interested in the subjects they discuss, and they talk simply for talking's sake. They will not put themselves about for their society, and so it dies. And here we may find the answer to the question, What determines the prosperity of a society? A debating society will be prosperous only when its members understand and are willing to submit to the conditions on which all societies depend, on which society in its widest sense depends. Social life is possible only when men are willing to give up somewhat of what they regard as their own individual rights, some of their personal freedom, and consider the welfare of the community as a whole. Rules must be drawn up to which the individual must himself submit and which he must assist in enforcing. A community where law is systematically broken is in an unhealthy state, and so it is too with the miniature community of which we are speaking. The first signs of the disorganisation of a society are often a disregard for its laws, and a growing laxity in their observance. Members come late or are absent, and fines are not imposed or are regularly remitted. First one law goes and then another till a time comes when every one does what is right in his own eyes. If a society is to flourish its members must be prepared to make a little sacrifice at times, and must be ready to submit to the rules laid down for the common guidance and the benefit of all. It is better to have a society whose members are animated by these feelings and by attending regularly and taking a real intelligent interest in the work which the society is doing are thus learning to become useful citizens.

344

than to have a large society in which the majority of the members only look in now and then to see what is going on, and are practically of no value to the society.

It may be said, the society is merely an abstraction, why should I have any regard for it? I join it merely for my own benefit, why should I observe its rules if they inconvenience me? Those who put questions like these simply show that they do not understand that much of the value of the training which a society affords consists in this, that it helps to teach men to submit themselves to a common rule and to give up something of their own for the benefit of others.

But, it may be said, how we are to gain such members for our society? How are we to awaken sufficient interest in students to get them to give up something for the benefit of the society? Well I know no way to make people take an interest in anything like making the thing interesting. If you want to get others to take as much interest in the welfare of your society as you yourselves feel then you must be willing to work yourselves. For example, you must take trouble about the subjects you choose, and endeavour to get suitable and interesting subjects. Again, pains must be taken in the preparation for essays and debates. I do not mean that it is necessary to prepare magnificent orations with great swelling words in which the aim is evidently the display of the speaker's rhetoric rather than the instruction of the hearers. What I mean is that the members should think over the subject beforehand so that when the time comes for speaking they should have something of their own to say about it. They need not be very original but if what they say is their own it will not be without interest. Not that they should always say it, however. If a man hears his own original ideas given by half a dozen speakers and knows that he has nothing fresh to say and cannot put the subject in a new light he should not feel called upon to speak merely because he has prepared something. There is a time to keep silence as well as a time to speak. His labour is not lost merely because others said his best things before him. By thinking out the matter for himself he has made his ideas his own in a way he could not have done if he had merely heard them from another.

There is one matter which not infrequently diverts the attention of the members of debating societies from the main object for which these societies exist. I mean private business. Not that that bane of secretaries is without its uses when it is moderate in amount

and is carried on with due regard to law and order. It affords a certain training in the conduct of business which may prove valuable to those who have afterwards to take part in any of the numerous committees so characteristic of our age. Especially it may be useful for the chairman and the secretary. But when it is overdone, when it and not the public business absorbs the thoughts and holds the interest of the members of a society it becomes injurious, and this is specially true when it is some personal question that is being discussed which causes ill feeling among the members. No doubt such business may be interesting, but it is not good for the society. And this leads me to say in conclusion that one of the greatest dangers to which a society can be exposed is when unfriendly feelings spring up among the members, when divisions arise, and the society is broken up into cliques and parties, when beneath the arguments and the strife of words there lurk angry and hostile feelings. Not the least of the many advantages of student societies is the opportunity they afford for the making of friendships. In such societies many of the closest college friendships have been made, and they tend, too, to foster that *esprit de corps* which should distinguish *alumni* of the same college and graduates of the same university. Whenever a society is so divided against itself that it fails in this respect it becomes a source of danger to its members, and is itself in danger.

E. M. MACPHERL.

LIGHTS AND SHADOWS.

Lights and shadows on the waters,
Of the gently flowing 'Ouse,
By the bridge at Bedford city,
Beckon me to stay and muse.

On one side the shadows quiver,
On the other dancing light;
Now they meet in middle river,
Parting quickly in affright.

From poplars by the river side
Fall the shadows o'er the stream,
But the light on the moving tide
Comes far as a poet's dream.

LITERARY NOTICES.

689

Born of the sun is the limpid light
That sports on the wave by day;
'Tis broken to shimmering stars at night,
Or the moon in silver grey.

It is the light that wakes the shade,
And death brings life again,
And countless souls have worked and prayed
Through a mystery of pain.

And dark nights follow summer days,
Right lies at the feet of wrong;
But it cannot be so always,
And it may not be so long.

Winter flies at the breath of spring,
And the Christ shall come again;
Faith shall see what the ages bring
When truth and love shall reign.

INSCRIBED ON A VIOLIN.

In silvis viva silva canora,
Jam mortue cano.

TRANSLATION.

In woods the living trees melodious sound,
And now in me, though dead, the melody is found.

J. M. R.

LITERARY NOTICES.

Schopenhauer. By W. Wallace. Great Writers. London: Walter Scott, 1890.

SCHOPENHAUER has had comparatively little influence on English thought. Although his works have been translated, they have not attracted much attention, and even students are, for the most part, dependent for their knowledge of the man and his works upon passing references, and brief expositions, which tantalize rather than satisfy the curiosity. Mr. Wallace has done all that could be done, within the limits prescribed

VIII.—9.

44

to him, to make Schopenhauer known to English readers. His sketch is at once clear, accurate, and interesting. It is in the main biographical rather than critical, but from the character of its subject, is of course more concerned with the thoughts and opinions of the man than with the mere events which make the history of his outward life. There was indeed little worthy of note, and still less worthy of admiration, in the life of this great thinker. He kept studiously apart from all the nobler aims and struggles of the age, and though he may have felt at times the presence of high and generous motives, was more than usually successful in preventing these from interrupting the even tenor of a self-indulgent life.

Schopenhauer belonged to a wealthy bourgeois family of Dutch extraction, the members of which, Mr. Wallace tells us, were distinguished by a resolute tenacity of purpose, and a passion for independence and distinction. He knew little of the method and discipline of school or college, but was from his earliest years brought into direct contact with actual life. This undoubtedly tended to exaggerate the family characteristics, and inspire him with contempt for conventional modes of thought. His father intended him to be a merchant, and had him appointed to a clerk's post in a Hamburg house, but this position proved thoroughly uncongenial, and as soon as his father's death freed him from control, he resigned his appointment and gave himself up to a life of study. For a short time he tried the experiment of living with his mother and sister at Weimar, but this proved such a decided failure that he resolved to strike out a course for himself, without reference to either family or friends. So far as the Weimar episode is concerned there were undoubtedly faults on both sides, but we are inclined to lay the chief blame on Schopenhauer's shoulders. His mother was not far wrong when she complained of him as being "unbearable, and burdensome and hard to live with," for he was indeed intensely and arrogantly self-confident, and entirely regardless of the interests of others if these came into conflict with his own whims and caprices. Such a man is not likely to make friends, and Schopenhauer neither sought nor succeeded in making friends. Until near the close of his life, when his undeniable power began to win him adherents, there were few who regarded him with either interest or affection. At one time he made an attempt to win the position which he believed he deserved by becoming a lecturer at Berlin University, but this ended in complete failure, made notable only by the virulence with which he assailed men like Hegel and Schleiermacher, whose popularity made his own obscurity altogether unbearable. This disappointment, bitter as it was, did not in the least affect the philosopher's opinion of himself and his work. He believed that his philosophy was the ultimate solution of the problem of existence, and never doubted that it would in time be universally recognised as such. Unable to

endure even the most friendly criticism, if it failed to recognise the absolute finality of his system, he attributed all indifference or hostility to the worst of motives, and believed that there was a grand conspiracy on foot to prevent his recognition, and hinder the progress of the truth he proclaimed. Up to his death he devoted himself with untiring energy to the promulgation of his opinions, toiling with the zeal of an enthusiast to win himself a hearing.

Mr. Wallace passes lightly over the more repulsive features of Schopenhauer's character and fixes our attention on the thought rather than the life of the philosopher, but the sketch he gives of the man, though painted on a somewhat small canvass, shows how close was the connection between his thought and his life. Schopenhauer took to philosophy in despair, and pursued it with a distinct object in view. As do most Eastern thinkers, philosophy was to him an attempt to discover a way of escape from the intolerable evils of existence. His system, the essence of which is an uncompromising pessimism, is a kind of nineteenth century Buddhism, a protest, worked out on the lines of the critical method, against optimism on the one hand, and transcendentalism on the other. His fundamental principle which he regarded as "the solution of the enigma of the world," and in this sense a veritable revelation, is that will and not intellect is the basal fact of existence. There is no necessary, but merely an accidental connection between intellect and will. Nay more, the connection is unnatural and evil, the cause of the doubt and misery that embitter human life. Intellect is proved a curse and not a blessing. By its acquisition man has "fallen from his original tranquillity in the bosom of universal nature," and become engrossed in abstractions which he mistakes for reality. Schopenhauer's teaching as to the way of escape from this life of doubt and misery is not to any great extent original: it is practically the same as that contained in the Upanishads. The individual must advance through atheism, founded on a perception of the essential identity of the one and the all, into a state, only to be reached by entire self-abnegation, where will is lost, and the individual sinks and rises into "the world of utter non-being."

Schopenhauer's views of life and art were what might be expected of an uncompromising pessimist, who though himself a man of the gross sensual type, regarded asceticism as the ideal life. He was strongly hostile to the democratic spirit which towards the close of his life was beginning to assert itself throughout Europe. Life in the mass seemed so utterly worthless that he had no patience with attempts at its regeneration. In spite of his doctrine of solidarity, he regarded mankind in general with contempt, as a mere collection of individuals, false, unjust, and capricious, unworthy of consideration except in so far as they serve as background to superior souls, men of genius like himself. He sought to exhibit human nature at its worst, and to eliminate from it all that

touches on the ideal. This is very noticeable in his treatment of the question of woman's position in society. Without giving a thought to the testimony of history, he sweeps aside the experience of centuries as a mere glamour caught from the false light of chivalry, and pronounces woman to be unjust, immoral, and even unbeautiful, a creature "incapable of being moved except by fear, and hence a constant mine of danger." "Woman, having, in his judgment, been destined solely for the duty of childbearing, occupied in western Europe a totally false position, which was largely to blame for the restless struggles of modern civilization."

Schopenhauer wrote much on art, and if anything exaggerated its importance, but in art, as in ethics, he was of the earth earthy, and had a profound contempt for all that is mysterious and hyperphysical, for all that seeks to give expression to the nobler aspirations of the heart. Gothic architecture, that noblest and loveliest monument of the faith, and hope, and struggles of mediæval Europe, was the object of his special scorn. He could only describe it as barbarous. This is but an instance of the general tone of the man. In the whole range of human interests, social and æsthetic, it is difficult to find a single subject on which Schopenhauer was not in direct and bitter antagonism to the highest and noblest thought of his times. His life and works are interesting and deeply instructive, but chiefly for the lesson they give us in moral pathology. He was a strong man, too sincere to rest satisfied with the conventionalities of the day, but so warped by an unbounded self-confidence and self-conceit, that he was never able to rise above the pessimism of his early years to a recognition of the higher and nobler elements of human life.

Chronological Outline of English Literature. By Frederick Ryland, M. A. London: Macmillan and Co., 1890.

THE reproach, that for a satisfactory history of English literature it was necessary to have recourse to a French author, has now long been rolled away, and already Taine begins to lie dusty on the shelf. Morley and Ward, Saintsbury and Gosse, Stopford Brooke, Dowden, and a number of others equally well known have in recent years made English literature one of the most interesting of studies, and if the literature of England remain to the masses of the people as much an unknown subject in the future as it certainly has been in the past, the fault will find no excuse in the lack of material. Yet Mr. Ryland is not satisfied. Mr. Morley's 'English Writers', to be finished no one knows when, the four volume series published by Messrs. Macmillan and Co., also in course of completion, are not enough. What is needed is a colourless outline, a mere bare summary of facts corresponding to an ordinary date book in the field of political history. This Mr. Ryland gives us in the volume

before us. The writer enters into no rivalry with past or present authors, his book is not intended to supersede any existing work. Its aim is simply modestly to exist alongside these more ambitious efforts, and be a useful compendium of annals alike for lecturers and private students. Nevertheless an enormous amount of mechanical labour has been put into the volume. The three hundred and fifty pages represent months upon months of assiduous turning over of leaves, and if in the nature of the case it conveys to readers no inspiring breath of originality it is a model of patient diligence and plodding.

It is divided into two parts. The first part aims at presenting all the important works of English literature in chronological order, and showing their general connection with European literature and history. This is accomplished in a series of six columns, giving the year, the works published during the year, important biographical events, foreign literature, the chief historical incidents, and finally any useful annotations. For example, to take for the sake of easy reference one of the least fertile of years, we have in the first column the year 1741; in the second, Hume: *Essays Moral and Political*; Middleton: *Life of Cicero*; Pope: *Memoirs of Scriblerus*; J. Watts: *Improvement of the Mind*; in the third, Horace Walpole born; in the fourth, Rollin died; in the fifth, Wesley appoints the first lay preachers; Disagreement between Whitfield and Wesley; and in the sixth, a note pointing out that Hume's *Essays* were published anonymously. This is done from the year 800, though at first not continuously for every separate year, up to the year 1839. This latter year will illustrate the nature of the books selected:—Browning: *Asolando*; Bryce: *American Commonwealth*; Crawford: *Sant' Ilario*; Fitzgerald: *Literary Remains*; Pater: *Appreciations*; W. R. Smith: *Religion of the Semites*; Stevenson: *Master of Ballantrae*; Swinburne: *Study of Ben Jonson*; Tennyson: *Demeter and other Poems*; Wallace: *Darwinism*.

The second part is simply an alphabetical list of author's names with their works under each. We do not think that this second part will supersede Mr. Davenport Adams's useful *Dictionary of English Literature*, though no doubt it is well to have within one volume a double reference. Criticism of a volume of this nature is, it is needless to say, extremely easy. Why, to take the year just quoted, 1889, are six of the authors mentioned there to be found in the second part, while we look in vain for the remaining four? Surely if it was worth quoting the *American Commonwealth* as a literary event of the year, it was worth noting Mr. Bryce among the authors, all the more that his literary fame is by no means confined to that work. It was impossible for the author to refer to every work, and allowance must be made for individual judgment, but if the author has seen fit to quote a book in the one part, we are entitled to look for consistency, and to expect that he will refer to the author in

the second. Similar criticism might be made throughout, and there is often room for doubt as to the date fixed on for particular books. But making all due allowance for the natural difficulties of the subject, and the necessary defects of a first edition, we believe that Mr. Ryland has produced a volume that will often be of considerable service as a book of reference, and that if he sees fit to enlarge it and keep it up to date in subsequent editions, it will yet take a place among the standard works of reference in the student's library.

Warren Hastings. By Sir Alfred Lyall, K.C.B. London and New York: Macmillan and Co., 1889.

If one may judge by the amount that has been and still is being written about Warren Hastings, his friends and enemies, the career of that great Viceroy must be a constant source of interest to the English reading public. The English Men of Action series could not of course be considered complete without some account of the life of the virtual founder of the British Empire in India, and since the publication of Sir Alfred Lyall's little book yet another biography of Hastings has appeared in the Rulers of India series. It is not difficult to understand why so much more interest is taken in Warren Hastings than in other rulers of India. It is no doubt partly due to the importance of the work he did as Governor-General of India, but in great measure it must be ascribed to the fact that he was impeached by the Whigs, and that Macaulay wrote an essay about him. People are always more interested in controverted matters than in things about which all are agreed, and some parts of the administration of Warren Hastings have given rise to controversies which even yet are by no means dead.

Warren Hastings spent about twenty-eight years of his life in India. The history of the first fourteen of these is condensed into one chapter. The main body of the book deals with his second residence in India, and the last three chapters give an account of his return to England, his impeachment, and his last years. In dealing with the controverted questions about which so much has been said Sir Alfred Lyall writes with judicial caution. He does not write as a partisan of Hastings determined to find a satisfactory excuse for transactions which have at least a dubious aspect, nor on the other hand does he jump to conclusions in the light and airy way so characteristic of Macaulay. Thus in the oft-debated question about the treatment of Nuncomar Sir Alfred Lyall contents himself with taking up the position that there is no proof for the truth of the accusation of a conspiracy between Impey and Hastings for the purpose of destroying Nuncomar. He will not admit with Sir James Stephen that it is morally certain that Hastings was totally unconnected with the business, nor will he on the other hand allow with

Macaulay that no one but an idiot or a biographer could have any doubt that Hastings was the real mover in the affair. Macaulay's treatment of Impey is most unfair, and the picture his essay gives of Hastings is not quite the same as one gathers from Sir Alfred Lyall's little book. The colouring is different, and after reading the latter one feels that Hastings had much more excuse for those of his actions which were most called in question than Macaulay was willing to admit. While it is impossible to justify all the acts of Hastings we feel that through them all he was great, for he was willing to sacrifice anything, even his own reputation, for what he believed to be the good of his country.

The chief mistake which Hastings made was, as Sir Alfred Lyall points out, that "he followed the recognised custom of needy Indian potentates. But it would be a radical error to suppose that an English government in Asia can be administered on the Asiatic system; for upon the fact that it consistently follows a totally different system depends its whole force and stability; and whenever the English in India descend to the ordinary level of political morality among Asiatic potentates they lose all the advantages of the contrast." Hastings was no worse than the various Nabobs and Rajahs with whom he had dealings, but then he ought to have been better, and he forgot that in England he would be judged from the European and not from the Asiatic point of view.

Sir Alfred Lyall has given us in his book an appreciative review of the career of one of the greatest men that England has sent to India. But his recognition of the good work that Warren Hastings did and of the harsh treatment he received on his return home does not blind him to the flaws either of the work or of the man himself.

Elementary Mechanics. By Edward P. Culverwell, M.A. London: Longmans, Green, and Co., 1890.

It is somewhat difficult to estimate the worth of this little book. In many respects it is immensely superior to most elementary works on the subject, and yet we cannot regard it as a satisfactory presentation of the subject on the whole. The author has evidently a very thorough understanding of dynamical principles, and his methods of treatment often display considerable originality, but—partly, perhaps, on account of this originality of treatment—his exposition appears to us less orderly than it might be. Individual propositions are for the most part forcibly and clearly presented; but a perusal of the whole book leaves the impression that it is wanting in unity of purpose. It must be admitted, however, that this defect is to some extent unavoidable in an elementary work like the present, in which appeal to experiment is so prominent a feature.

Mr. Culverwell rightly insists upon the necessity for approaching the study of the subject from a proper standpoint. On the first page he

348

points out that it is of the utmost importance that the meaning of the terms employed should be fully realised, so that statements into which they enter shall be thought of as concerning material things and not as propositions concerning words, which may be learned by heart. This is good advice to give anywhere, but it is more needed in this country, we should think, than in any other, for it may be safely said that not more than one in five of the candidates who take mathematics as their optional subject for the B.A. degree of the Madras University acquire more than the most rudimentary physical ideas or the crudest understanding of physical principles. This deplorable result is no doubt largely to be attributed to the difficulty which most Indian students seem to experience in the study of a practical subject, but it is quite as much to be attributed to defective teaching. We are sure that the attention of students is not sufficiently directed to the importance of fully realising the physical ideas and principles upon which the treatment of a practical subject is based. Mr. Culverwell, in the work before us, has not only pointed out the importance of doing this, he has made a very consistent effort to make his readers realise the relation of every important proposition stated to facts of observation and experiment. And he deserves great credit for his careful and consistent use of technical terms, as well as for his clear exposition of the principles underlying the measurement of physical quantities.

We shall try to indicate, in conclusion, the class of students by whom this work is likely to be found useful. For those who intend to study dynamics from a mathematical standpoint it will be useful, not as a text-book, but as a book to be read in addition to a text-book. We think, however, that such students are less likely to use it than students of the artisan and engineer classes to whom we can highly recommend it.

Induleka: A Malayalam Novel. By O. Chandu Menon. Translated into English by W. Dumergue, C.S. Madras: Printed by Addison and Co., 1890.

We are glad to welcome *Induleka* in English dress. In June of last year we published a highly appreciative article containing a description of the plot and the subject matter of the work, which has been recognised on all hands as a valuable and original contribution to Malayalam literature. We do not, therefore, think it necessary to give a lengthy review of the translation before us. The story will be read with pleasure and interest by English readers, especially by such as have a desire to learn somewhat of modern life in Malabar. This is the best testimony that could be given both to the genuine worth of the original and the success with which Mr. Dumergue has performed the work of translation.

Milton's *Il Allegro*, *Il Penseroso*, *Arcades*, *Lycidas*, *Sonnets*, etc., with Introduction and Notes. By W. Bell, M.A.

Milton's *Comus*, with Introduction and Notes. By William Bell, M.A. London: Macmillan and Co.

THESE two volumes comprise nearly all Milton's minor poems. We regret to observe, however, the omission of the ode, 'On the Morning of Christ's Nativity'; but it may be that the publishers intend to include it in another volume. There is not much room left for the annotator of Milton to show originality in interpretation or to exhibit the results of original research. All that can now be expected of him is that in preparing a text for school or college use he should be wise in his choice of passages for grammatical or exegetical treatment and that his philological remarks should be up to date. So far as our observation has gone these conditions have been fulfilled by Mr. Bell. It would give us much satisfaction to see these publications of Messrs. Macmillan and Co. more widely used than as yet they seem to be. The good paper and clear type, not to speak of the care with which the notes are written and corrected for the press, make them infinitely superior to anything of the kind published in India.

We beg to acknowledge receipt of the following volumes:—from Messrs. Srinavasa Varada Chari and Co., Bacon's *Advancement of Learning*, De Quincey's *Goethe and Schiller*, and John Stuart Mill's *Liberty*, all edited with notes, analysis, and index, by Mr. W. E. Hoare, B.A.; Macaulay's *Essay on Addison*, with introduction, notes, and index, by Mr. P. T. Srinavasa Aiyangar, M.A.; Scott's *Lay of the Last Minstrel*, Cantos IV.—VI., with introduction, notes, and index, by Mr. S. Anantanarayana Aiyar, B.A., M.L.; and from Mr. V. Kalyanaram Iyer, *Notes on Bradshaw's Anthology*, with introduction, critical notices, &c., by Mr. J. Creighton.

NOTES AND EXTRACTS.

It appears that a new educational problem involving very momentous issues will soon come up for solution in England. Ever since 1870, when the nation adopted a system of compulsory education, the opinion has been steadily growing that the education thus thrust upon the working classes should be gratuitous, and the almost universal abolition of school fees in Scotland since 1889 cannot but have suggested to many people in England that the question of free education is one which may now be brought within the range of practical politics. In these

circumstances Mr. T. J. Macnamara has thought it desirable to take a general review of the question of free schools, which he does in an article contributed to *Macmillan's Magazine*. The object of the article is two-fold—in the first place to indicate the change of public opinion that has taken place since 1870, and in the second place to discuss some of the chief arguments for and against free schools, with special reference to the present circumstances of England.

In reviewing the change of public opinion that has taken place Mr. Macnamara first observes that Mr. Forster, who was mainly responsible for the introduction of the compulsory attendance clauses in the Act of 1870, was opposed to a system of free education. In introducing his Bill to the House Mr. Forster said:—

"Shall we give up the school fees? I know that some earnest friends of education would do that. I at once say that the Government is not prepared to do it. The sacrifice would be enormous. I hope the country would be ready to incur that cost if necessary; but I think it would be not only unnecessary but mischievous. Why should we relieve the parent from all payments for the education of his child? We come in and help the parents in all possible ways; but generally speaking, the enormous majority of them are able, and will continue to be able to pay the fees."

Mr. Macnamara points out, however, that though Mr. Forster was opposed to a general system of free education his Bill provided that school boards might establish free schools in poor localities—a provision that appears to have remained almost a dead letter.

The opinion of Mr. Forster was the prevailing one in 1870, for during the debates that took place on the Bill an amendment to the effect "that children should be admitted free of payment" was thrown out by a majority of 223. On the other hand when Mr. Arthur Acland last year asked the House to express its regret to find that the Queen's speech contained no reference to free education he found 163 out of 386 on his side, and would probably have found still more had his motion not included in its scope a sort of vote of want of confidence in the Government. A change even more pronounced has in the meanwhile come over the opinion of the House of Lords on this question. In 1870 their Lordships were for striking out the clause giving school boards the power to establish free schools in poor localities, while at the present time free education is accepted in principle by the permanent majority of the Upper House. Between 1870 and 1885, when public attention began to be concentrated on the question of free education, the people had had considerable experience of the working of the compulsory clauses, and it is interesting, though by no means encouraging, to note the different opinions held in the latter year. The Radicals had 'free education' inscribed in big letters on their banners, the moderate Liberals had hardly made up their minds on the subject, and the Conservatives

generally were bitterly opposed to it. The actual working of the compulsory clauses had been by no means satisfactory, and chiefly on account of the reluctance of the magistracy to deal sharply with delinquent parents. This reluctance was most probably based upon a sense of the incongruity between the payment of fees and compulsion, and the removal of the fee difficulty, by placing upon the shoulders of the magistrates the obligation of strictly administering the law compelling attendance, will certainly tend to the better carrying out of the system of compulsion. Mr. Macnamara quotes several extracts from the speeches of the leaders in the 1885 election, and from their more recent utterances, in order to show what changes, if any, have taken place in their opinions. Comparing two such extracts from speeches by Mr. Gladstone he observes that they neither of them give any clear indication of the speaker's mind, and that all that can be said concerning them is that they demonstrate Mr. Gladstone's ability to adopt a masterly attitude. Lord Salisbury has been a pretty consistent advocate of the policy of assisting those who cannot pay without great difficulty, but among Mr. Chamberlain's utterances on the subject there is, says Mr. Macnamara, an abundance of choice. Mr. Fawcett was an acknowledged opponent of free education, and both Mr. Bright and Mr. Forster were of opinion in 1885 that more facts were necessary before legislation would be wise. Mr. Mundella, on the other hand, had by that time been converted to the cause of free schools, and had expressed the opinion that the school pence were undoubtedly the chief cause of irregularity.

We do not propose to enter fully into a discussion of the arguments advanced for and against free schools, but some of the remarks made by Mr. Macnamara in this connection deserve attention. The advocates of free education among other things claim that it will improve attendance at school, by removing all obstacles to the admission of the very poorest children, and by increasing the regularity of those whose names are already upon the school registers. Regarding this Mr. Macnamara remarks that no one will deny that a great deal of irregularity is due to the difficulty of payment, and that thousands of children are kept away from school on Monday mornings for lack of the fee. But, he says, if anyone supposes that free education alone will secure the regular attendance of those who, having their names on the school-register, are on an average always absent, he will find that he has made a mistake. The fact of the matter is that about five-sixths of English parents send their children regularly to school and will continue to do so, fee or no fee. In their case the benefit of free education will be to enable them to do with ease what they now do with difficulty. But the remaining one-sixth of the parents are as a rule of a very different stamp. In their case, unless free education be accompanied with a very stringent administration of the compulsory clauses, it will do little to perfect attendance at school.

Experience of free education for twelve months in Scotland seems to point to two conclusions. In the first place regularity of attendance has followed the abolition of the fee in every case where the parent is possessed of a proper sense of his duty and there has been a large influx of children into the junior departments. On the other hand, where the fee-system has been maintained in the upper standards the effect has been to materially thin them, the inference from which is that if free education is to be adopted it would be detrimental to the best interests of the poor, and of the country generally, to confine it to the compulsory standards. There must, as Mr. Macnamara says, be no penalty upon the man who denies himself to strengthen and improve the educational equipment of his child.

This brings us to notice briefly one or two of the arguments advanced by the opponents of free education. In his *State Socialism* Mr. Fawcett expressed the opinion that "great care ought to be taken to preserve some recognition of the individual responsibility which every parent owes to his children in reference to education," an opinion held by many of the wisest statesmen and best citizens. Against this argument it may be urged that as payers of rates and taxes, parents have always contributed, and will continue to contribute, very largely to the cost of their children's education. In fact it would appear that at present fees cover only one-third of the entire cost in the case of voluntary schools, and one-fifth in the case of board schools. The advocates of free education regard the position of poor parents as similar to that of people who contribute to a general benefit-fund, and then receive help in time of need.

But granting that the principle of free education is a good one, and granting also that at no distant date it will be adopted in England, what is to be the fate of the voluntary schools? The vitality shown by them since 1870 is only one of many proofs that they are doing a work which will not for some time to come and may never be done so efficiently by any other agency. Taking this fact in connection with the report of the minority of the Education Commission that no practical scheme of free education compatible with the continuance of the voluntary system had presented itself to them, it is obvious that difficulties of no ordinary magnitude will have to be surmounted before free education is an accomplished fact in England.

The January number of *The Scottish Geographical Magazine* contains an interesting paper by Professor R. K. Douglas on British commercial relations with China. These relations, says Professor Douglas, have extended over nearly three centuries with varying fortunes; they now represent an annual value of many millions sterling; and they possess the potentiality of almost unlimited extension in the future. His paper follows the lines indicated in these statements.

The great antiquity of the Chinese as a commercial nation is well known, and it is long since Arab traders found their way to Cathay; but it was not until after the irruption of the Mongols into the west that European missionaries and travellers ventured to cross Asia into China. The writings of Marco Polo "first gave to Europe an idea of the extent and wealth of the Chinese empire, of the richness of its marts, of the fertility of its soil, of the magnificence of its palaces and cities, and of the number and magnitude of the canals and roads which covered its surface." The people have all along shown a genius for trade, and every branch of commerce with which they are familiar has been eagerly developed. In one respect, however, they have worked at a fearful disadvantage. "Throughout the whole history of foreign relations with China the ignorant and supercilious dicta of so-called sages have tended to foster ridiculous assumptions on the part of the mandarins; and it has, unfortunately, to be confessed that, even at the present day, though the foreign Legations have been established at Peking for more than a quarter of a century, only a small breach has been made in the wall of conceit which separates China from the outer world." The history of the commercial relations between China and England, which up till recent years had almost a monopoly of the foreign trade of the country, shows that every concession gained has been wrung from the Chinese and grudgingly acted upon. Every obstruction and annoyance which could be invented has been placed in the way of foreign trade, and the traders themselves have been treated with studied contempt. It must be admitted, of course, that the dealings of the English themselves have often been far from creditable to them, but apart altogether from the opium question, the conduct of the Chinese has been characterised by unbounded conceit and contempt for foreigners of every kind. They have been guilty of a great deal of treachery, by means of which they have not prospered, though they have more than once shown that they are not slow to act when under the influence of fear. From this it is evident that if England or any other nation wishes to establish equitable and lasting commercial relations with China she must pursue a firm and consistent policy with the Peking Government.

The present condition of British trade with China is far from satisfactory, for whereas the trade with the United States of America and the countries of Europe has of late been increasing, the trade with England has shown a considerable falling off. This seems to be due in no small measure to the apathy of the British Government concerning the development of the national trade. But it is no doubt mainly due to the enterprise of Continental traders, who push their trade by means unknown before their advent in the east. There are signs, however, that British traders are beginning to be alive to the situation, and it is encouraging to note that a School of living oriental languages has been

168290

established in London, in which "all the principal tongues of the east are taught, and where young men preparing for a life in Asia, may acquaint themselves with the history, geography, and products, as well as the languages and literatures of the countries to which they are going."

In the concluding paragraphs of his paper Professor Douglas discusses the future commercial relations between England and China. This is a subject that has an interest for the people of India, for it largely concerns the opening of southern and south-western China to the markets of other countries, and one way of doing this is by establishing a route through Burma and Siam. The two provinces of Szech'uen and Yunnan are by their geographical position practically cut off from the rest of the country. These provinces contain an area as large as that of France and half of Germany and a population of forty or fifty million souls. The soil is rich and there is abundance of mineral wealth. But the country is difficult of access. At present the frontier of Burma is coterminous with that of Yunnan, and for centuries a certain amount of trade has been carried on between the two countries by the foot paths which traverse the mountain ridges between Bhaino and Yunnan. The distance between the two places is not great, but as several of the passes rise to an altitude of over 8000 feet and are so narrow in places that two mules can scarcely pass one another, the construction of a railway is at present out of the question. A more feasible route is one which would connect Moulmein with Raheng, in Siam. But a route easier still is available to the French in Tonquin, and if the British wish to prevent the foreign trade of Yunnan from gravitating entirely towards Tonquin the sooner they set about the establishment of a route through Burma and Siam the better. From a commercial point of view the province of Szech'uen is in an even more unfortunate position than Yunnan. Some attempts have been made to face the difficulties of the rapids of the Yangtze-Kiang, which crosses the southern portion of the province from west to east, but so far with little practical result.

We have read with pleasure the Report of the Wesleyan Mission of the Mysore Province for the year 1890, which is a much more business-like production than Reports of the kind often are. Information of a statistical nature is given in tables, and the text of the Report is confined to an account of the general progress made during the year in the various departments of work carried on. In this way an outsider can obtain a much better knowledge of the work as a whole than he could obtain from wading through the reports of individual missionaries and their native assistants, overloaded as they often are, with details of a purely routine character. In saying this we do not wish it to be supposed that we advocate the exclusion of all the experiences of individual missionaries from Reports; but we do think that a judicious selection should

be made. A record of any experience likely to afford encouragement and guidance to missionaries generally is in its proper place in a Mission Report.

We proceed to notice a few points of interest in the Report before us. Several important changes have recently taken place in the staff of the Mission, chief of which is the departure of Mr. Hudson, who has taken furlough to England after thirteen years of continuous work and a service in the Mysore extending over a quarter of a century. The development of the work of the Mission calls for additions to the native ministry, but in the meantime financial difficulties stand in the way. Educational work has suffered a good deal from the same cause, and in fact it is very evident from the Report that unless the Mission receives increased financial help it will be unable to take advantage of many of the opportunities which Providence is placing in its way. A considerable item in the actual income of the Mission is set down as gains by exchange. This must always be a very uncertain source of income, and we are not astonished to hear that last year it was the cause of serious embarrassment.

Apart from references to financial straits the Report is on the whole a very encouraging one. The high school maintained in Bangalore has had to face a large amount of severe and unrelenting opposition, the ultimate result of which is not yet clearly evident, but the high school at Mysore, on the other hand, has had a year of unbroken prosperity; and altogether there is abundance of evidence that the educational work carried on by the Mission is proving successful as an evangelistic agency. The opposition of the Hindu Tract Society and its friends has subsided for the present, and it is beginning to be evident that the Hindu preachers have effectually served the cause of the Christian missionaries by attracting attention to Christianity and arousing curiosity respecting it. The result has been that large numbers of people are under instruction with a view to baptism, and the preachers are more than ever welcomed at fairs, markets, festivals, and all other places where the people congregate.

We conclude with a few remarks suggested by the following incident, related in the Report. A man who had for a considerable time been at heart a Christian was asked why he did not make open confession in baptism, to which he replied, "My father is an old priest and one of the roughest men in the village. I do not fear him, or anybody else; but the moment I take baptism I cut myself off from all chance of leading my people into this way. My wife will leave me, too, and I shall have no home and no influence. But Christ knows that I am His disciple." The position taken up by this man—in all sincerity we may believe—is a position which is likely to be taken up by an ever-increasing number of those who are favourably disposed towards Christianity, and it is a position which demands the most careful consideration of Christian

missionaries. Cases will no doubt arise in which a man should be advised to give up such a position, but heavy responsibility will rest with the missionary who has to be adviser. He must beware of placing his own anxiety to increase the number of his converts in opposition to the divine plan for the salvation of mankind. The danger of making this dreadful mistake is by no means an imaginary one even now, but it is one which is likely to call for greater and greater watchfulness as time goes on, and which is sure to present itself often to those who have to deal with men in the position of the person referred to in the present Report.

In an address delivered at the ceremony of laying the foundation stone of the Lady Kinnaird Memorial Hospital for women at Lucknow, Sir Auckland Colvin took occasion to speak of the 'indifferentism' of the people of India. For many years, he said, the English in India have been engaged in actively assaulting from various sides this great citadel of indifferentism. They have endeavoured to attack it from the side of law and order, from the side of trade and commerce, from the side of education: from all sides, in fact, on which the community, taken as a unit, can be reached. And that they have attained no small measure of success in all these directions is apparent to all who are not blinded by prejudice so deeply-rooted as to render them in an extreme degree unjust to what the Government and English enterprise have done. But the effort to approach the people individually, said Sir Auckland Colvin, and to create or raise that personal sense of material well-being and comfort which is essential to civilisation, has hitherto been much neglected. Nothing, probably, at the present day, strikes the new comer in India, as it struck him one hundred years ago, more than the low mean of individual comfort with which the people of this country satisfy themselves. Those who can see nothing good in any of the acts of Government or of its officials attribute this to the excessive poverty of the people, brought about by the oppression of British rule. But those who have studied the history of India in past centuries know that it is mainly due to the absence of public order—to the absence of civilised rule. The units of which the community was composed, were, in old days, in a constant state of fright or flight; and there could be no general standard of material comfort, because there was no possibility to the general public of attaining it. When towns were liable to be sacked, there could be little prospect or thought of public improvements; when the capitalist was afraid to show his wealth, and uncertain whether his son would be permitted to inherit it, there could be no hope of investments; when women were liable to be carried off by the marauder and their children led into captivity, there could be little thought of female medical relief. These conditions, which unquestionably existed for many decades previous to the advent of British rule, and which existed more or less from the

earliest period known to history, have happily disappeared. No general effort has been made, however, to remove the effects they have left behind them. Therefore, said Sir Auckland Colvin,

"Now that in so many other respects natives are availing themselves of the advantages of our rule, few things seem to me more to be encouraged than any effort to overcome the discomfort, the insanitary condition, and, I may almost say, the squalor in which men amongst those whose means are liberal, are for the most part as content to live as the poorest and the humblest. There are signs that some at least have become aware of the possibilities afforded by British rule, of raising themselves from what I may almost term this degradation; and it is certain that this knowledge will come home to all more vividly in proportion as we place in their hands more insistently the means of emerging from it. To accustom them to live in better conditions, to escape from the bondage of the detestable medical relief which has alone till lately been available to their women, to endeavour to put an end to the pestilent exhalations of horrible drains, to habituate them to pure air and to pure water, and to show them what is to be gained by material ease, and what is to be lost through disregard of it, is not less likely to assist in promoting the civilisation and advance of the people, because it appeals to their direct personal experience, than are those larger measures which have for their end the development of the community as a whole. Commerce is good; peace and security are good; law and justice and education are good; but individual comfort in daily life is as good as any of them. Without it the standard of taste and of public requirement is abased, and tolerance of misrule and of disorder is strengthened. That slovenly slipping through life, which is in material matters what inaccuracy is in matters of business, escapes, in such a society, the reprobation which it deserves; and the tone of the community remains desponding and anæmic. The standard of people's comfort is not a bad measure of their self-respect; and I cannot, for my part, conceive any society civilising itself merely from the practice of order, or by education, or by the pursuit of commerce, which continues to live in conditions repulsive to humanity and inimical to the health and life of a large number of those who compose it. I do not speak here of social reform. That is and must remain the business of the people themselves. I speak of material reform—reform in the standard, and appliances and habits of comfort.

Apart from the effect on the individual of an improved standard of material comfort, and of rejecting any degree of *bien-être* which is less than his civilised neighbours have attained to, there must not be forgotten in India the educational advantages of measures such as I have been speaking of. By education I mean education of each individual of the community, with regard to his common duties and obligations. A town which has recognised the need of accepting the financial burden of a water-supply has recognised, although it will shrink from a naked avowal of the recognition, that all men living in it have an equal right to the fruits of the outlay of a common capital. It has recognised that the meanest as well as the proudest has an equal right to a share in the result of a common enterprise. In no country more than in India, with its narrow caste prejudices and its active rivalries of other kinds, is a recognition of this sort more needed, or more likely to

bring men together; or to act as a solvent of the bitter animosities, or the still more deadly indifference, which contribute such noxious elements to the atmosphere now breathed by them. Similarly to recognise the fact that women have a right as good as men to medical relief; that their maladies are not a whit less painful or dangerous, and that attention is to be given to them as much as a matter of course as to their husbands or fathers or their brothers, is to contribute towards raising the idea of womanhood, which in India is sunk so low, and which hitherto we have done so little to raise. This is, to use a possibly pedantic expression, the esoteric view in which may be regarded enterprises such as your own, and others which you see taking place about you, having for their aim the personal raising of the individual from a sunken state of material well-being."

It is perhaps necessary to point out, as has been done in *The Epiphany*, from which the above extracts are taken, that when Sir Auckland Colvin asserted that "the standard of people's comfort is not a bad measure of their self-respect," he used the word 'comfort' in a sense that is perhaps not familiar to most natives of India. To them the word is often almost synonymous with slovenliness, which again is only another aspect of the indifference which formed the main subject of Sir Auckland Colvin's address.

WHEN the results of the census taken on the night of the 26th ultimo are fully known there will be much material for discussing a number of most important questions. At present, however, we must be content with the few facts that have been made public regarding the first rough estimate of the town of Madras. At the census of 1881 the population was, in round numbers, 405,000 and it has now risen to 450,000, an increase of nearly 11 per cent. As might be expected, the rate of increase differs greatly in the different districts. In some the population has been nearly stationary, while in one—the 4th district we believe—the increase is about 50 per cent. The number of persons per square mile has risen from 15,031 in 1881 to 16,770—a number which is still very moderate for a town. The proportion of the sexes is often taken as a test of the accuracy of an Indian census. In 1881 the proportion was 493 males to 507 females, while this year the corresponding numbers are 493 and 502. For the Presidency as a whole successive censuses have shown an increasing proportion of females, but curiously enough in Madras itself the reverse has been the case. In every 1,000 inhabitants there were 510 females in 1871, 507 in 1881, and 502 in 1891. Various suggestions have been made to account for this state of things of which one of the most plausible is that brought forward by the *Madras Mail* that the Scoble Bill is partly responsible for it. We would venture to suggest another explanation which can easily be tested as soon as the details of the census are known. Madras is every year becoming more crowded with youths studying at the schools and colleges, and though doubtless

many of these youths are married their wives are not usually with them in Madras. Now the difference from last census is only 5 per mille, which on a population of 450,000 is 2,250, and we have little doubt that at least one-half of this can be accounted for by the increasing popularity of Madras as an educational centre. In Bombay the disproportion between the actual results and what might have been expected is much more marked than in Madras, for in Bombay out of a total population of 806,000 less than 300,000 are females. This cannot possibly be accepted as a true statement of the case. The question is one of great interest, and it will doubtless receive most careful consideration at the hands of the census commissioners.

SCIENTIFIC AND LITERARY JOTTINGS.

THE number of hours of bright sunshine in Madras in February was 266 out of a total possible of 326, or 81·5 per cent. The comparative average percentages for other stations are :—Lahore 67, Dehra 58, Allahabad 89, Calcutta 84, Jeypore 81. The chief feature of interest in the meteorology of the month was the rainy weather from the 10th to the 12th. On the 11th there was only one hour of bright sunshine, while the rainfall for the three days was over six-tenths of an inch. Most persons seem to think that rainfall in Madras in February is almost unprecedented, but this is by no means the case. The average amount due for the month is 0·28 inch and very heavy rain in February is not unknown. Passing over a shower in 1888 the last heavy rainfall was 2·48 inches in one day in 1880, while the heaviest recorded was 6·28 inches in four days in 1873. Since 1813 more than one-tenth of an inch has fallen in February on 15 different years. The rainfall in the south has been much heavier and continued later, for on the 17th Trichinopoly received 5·27 inches of rain.

THERE was an earthquake at Bangalore on the evening of the 16th ultimo at 8·5 P.M. A correspondent writing on the 17th says :—

"Last night we had a short sharp earthquake accompanied with a rumbling noise as if heavy carriages were rattling round the house—east or north-east side I should think. It started so quickly and ended so quickly that many had not observed it I fancy. But I spotted it at once as an earthquake though like what one would expect from a distant explosion of a mine or such like It was widely felt over Bangalore."

It was felt in other places not far distant and probably came from the centre in the Salem district to which many slight shocks have been

traced. The information available does not seem to be sufficient to enable the focus to be located with any approach to certainty.

At a time when India seems to be threatened with a visit from an anti-vaccination agitator it is worth while giving something more than a casual glance at the statistics bearing on vaccination in the city of Madras. The following table shows the number of deaths from smallpox during the 20 years from 1871 to 1890:—

Year	Deaths	Year	Deaths
1871	234	1881	1654
1872	658	1882	355
1873	1062	1883	1957
1874	809	1884	4064*
1875	196	1885	26
1876	421	1886	1
1877	6758	1887	13
1878	447	1888	36
1879	910	1889	45
1880	869	1890	69

At first sight it might seem that these figures proved too much, for there is a sudden drop on the introduction of the Act from 4064 to 26 and then to 1 in the next year. A closer examination of the statistics however, explains this. The compulsory vaccination was applicable only to male children below twelve and to female children below ten, but an immense number of others submitted to the operation both before the Act was introduced and shortly afterwards. In the five years 1870-74 112,592 were vaccinated; in the next five years the number amounted to 186,606, and from 1881 to 1885-86, 224,974 were vaccinated. Hence it appears probable that by 1886, at least, practically the whole of the population had been vaccinated, with the result that while in the 13 years from 1871 to 1884 (omitting 1877, the famine year) the average number of deaths per annum was 1,049, in the last six years it has been only 32!

Now in the case of Madras it is hardly conceivable that anyone will claim an advance in general sanitation sufficient to account for this remarkable change, and though it may be freely admitted that 6 years is too short a time to give a fair average we fancy no one will doubt that some cause has been at work to reduce the deadliness of this disease and we challenge the anti-vaccinators to bring forward proofs of any thing except vaccination which could possibly have had this effect.

* Vaccination made compulsory on 15th May 1884.

If the statistics for other large Indian cities are examined they will not be found to give such favourable results, but it is very doubtful if vaccination is carried on as effectively in them as it is in Madras. Here the whole of the vaccination is direct from the calf, and at least 50 per cent. of the cases are inspected afterwards. Ninety-seven per cent. of the vaccinations are successful. With these figures before us we cannot help thinking that Government is making a mistake in agreeing to the proposal to substitute preserved lymph for lymph direct from the calf in all ordinary cases.

We have several times referred to the work done by the Microscopical Society of Calcutta, and we are glad to note from the report of last year that the number of members continues to increase and that in other respects the Society seems to be flourishing. A new feature is the issue of a *Bulletin* giving an account of each meeting, with a *resume* of the chief papers read. The number for December 10 contains an abstract of a paper by Dr. W. J. Simpson on *Bacillus Leprosæ*, which contains some features of special interest. Perhaps the most important point is one which bears on a subject to which the attention of the Leprosy Commission has been specially called, *viz.*, the possible spread of leprosy by vaccination. Dr. Simpson mentioned that he had vaccinated three lepers and had found the bacilli in very large numbers in the lymph obtained from the pustules formed on these patients.

In Madras where vaccination is carried on direct from the calf there is no risk of contamination by this means, but the risk seems to be a real one where arm to arm vaccination is employed. With reference to the communication of leprosy Dr. Simpson seems to hold that the spread of leprosy cannot be explained by heredity. He says that it is certain that leprosy is on the increase and that it is communicable, though the question of how the communication takes place is one which has still to be determined.

THREE small periodic comets are due during the present year. Encke's comet, observed first in 1786, and determined to be periodic by Encke in 1818-19, should return in autumn. As it has been observed at each return since 1818 its orbit is well known, and there can be little doubt that it will be seen. Though so well known it is still an interesting object on account of the diminution of its periodic time which has not yet been fully accounted for. The other two comets which are expected were both discovered by Tempel. One of them was shown to be periodic by Swift in 1880, and is usually known by his name. It has a period of about $5\frac{1}{2}$ years. It was first seen in 1869, it escaped observation at its next return in 1875, was seen in 1880, and was unfavourably

situated for observation in 1886. The third comet has a period of about 6 years. It was observed in 1873 and 1879 but was not seen in 1885.

MR. DAVID HOOPER, the Government Quinologist, has just published some interesting notes on mannas, including an account of his recent investigations on these somewhat peculiar bodies. It may be well to explain that "mannas are concrete saccharine exudations from plants, occurring naturally on the stems and branches, or after incisions have been made in the bark." There are many different kinds of mannas, each containing a characteristic crystalline sugar which forms the chief feature of its chemical composition. Amongst other mannas examined by Mr. Hooper was one got from a species of Eucalyptus. "The manna formed on the topmost branches of the tree at the base of the leaf stalks, and after exuding in a liquid state, collected into drops, dried in the sun, and became detached when shaken by the wind. It occurred in small masses of the size of a pea, and varying in shape, opaque, white in colour, soft but not sticky when collected in the morning before the dew had risen, and hard or brittle when dried by the sun or artificially." Another manna was got from the pines and cedars in the Himalayas. Regarding the formation of these mannas Mr. Hooper writes:—

"The above mannas may be regarded as waste products in the vegetable economy, as they appear to be formed in greater abundance than is required by the plant, and become solidified because of the nature of the sugar they contain and the dryness of the climate."

The paper concludes with a list of the chief mannas, showing their solubility in water, their action on polarized light, their melting points, the percentage of glucose in each, and the nature of the chief sugar.

MR. FRANK McCLEAN has recently taken a number of photographs of the solar spectrum from H to A (i.e., the whole visible spectrum) for altitudes of over 45° and under $7\frac{1}{2}^\circ$. The comparison of these photographs gives much information as to the atmospheric lines, for the sun's light traversed about five times as great a thickness of atmosphere in the one case as it did in the other. In a paper read before the Royal Astronomical Society and printed in the *Monthly Notices* for November details are given of the various processes adopted for obtaining the photographs of the different parts of the spectrum. These will be found very useful by anyone working at similar subjects.

PHOTOGRAPHS of parts of the Milky Way were taken last year at the Lick Observatory by means of a large portrait lens. With a similar lens some very good pictures have recently been taken at Sydney Observatory by Mr. H. C. Russell. A particularly interesting photograph is that of Nubecula Major with an effective exposure of $4\frac{1}{2}$ hours. As described

by Mr. Russell from this photograph the whole of the great cloud is a complex spiral nebula with two centres.

In certain localities, at least, windmills might be used with great advantage for generating electricity, so that some interest attaches to the huge windmill-dynamo plant erected by Mr. Brush in his garden at Cleveland, and described in the *Scientific American*. The tower is 60 feet high and carries a windmill wheel 56 feet in diameter, with a sail surface of about 1,800 square feet. The dynamo revolves 50 times as fast as the wheel, and has a maximum speed of 500 revolutions per minute. There are automatic arrangements for turning the wheel edge on to the wind in strong gales and for regulating the electromotive force in the circuit. The current is led from the dynamo to a series of 408 secondary cells in the basement of the house, and these supply the current to 350 incandescent lamps, two arc lights, and several electric motors. The plant has been in constant use for two years and has proved in every respect a success.

C. M. S.

On the 1st of February the Church of England lost another of her prominent thinkers—the Very Rev. E. H. Plumptre, Dean of Wells. He was born in London in 1821, was educated at University College, Oxford, where a relative, Dr. F. C. Plumptre, was then Master. In 1844 he graduated with a double first in classics and mathematics. He was forthwith elected to a fellowship at Brasenose, but forfeited it three years after on the occasion of his marriage with a sister-in-law of F. D. Maurice. He became chaplain at King's College, London, and afterwards Professor of Pastoral Theology and Exegesis. His work here lasted for the long period of 34 years until, 10 years ago, he was appointed to the deanery of Wells.

Dean Plumptre was at once a fertile and versatile thinker, and a voluminous author. His Commentaries, such as the well known one on Ecclesiastes, are particularly suggestive and fruitful, while his poems have passed through several editions. His great works are his most recent—his English Translation of Dante, and a Life of Bishop Ken. His death adds another to the list of leading men whom the Church of England has lost during the past year.

THE discovery of the *Constitution of Athens*, believed to be a lost work of Aristotle's, has naturally excited considerable interest among scholars. Probably the *Academy* reviewer is only speaking the truth when he says that the announcement of the discovery was received in an Oxford lecture room with groans, but outside the circle of those whose eyes are

still turned examination-wards, it can arouse only interest and hope. Scholars have deplored the loss of this work. Its existence at one time was perfectly well-known, and a few meagre fragments were preserved at Berlin. These along with a few quotations were all that remained of the work. Naturally, after the experience of recent years, there is considerable fear abroad that it may be a forgery. The editor, Mr. F. G. Kenyon, who has had it printed for the Trustees of the British Museum, to whom it belongs, has no doubt of its genuineness, but his arguments are not regarded as altogether conclusive. It is however generally accepted as an ancient work, though opinion is not yet unanimous that it actually came from Aristotle. As its name indicates it deals mainly with constitutional questions, but there are numerous incidental allusions to historical questions that add to our knowledge of Greek history. It sketches the functions of the Boule, the Prytaneis, the Dikasts, the Archons, &c. There are unfortunately also allusions that raise about as many difficulties as the work solves. Pericles, it is noticeable, is not so prominent a figure as he is in the writings of Thucydides.

Mr. W. Wyse, writing from Trinity College, Cambridge, enters "a strong protest against the manner in which the authorities of the British Museum have treated the treasure that has fallen into their hands." He declares the text to be discreditable to English scholarship, and disfigures by corruptions that can be corrected at a glance. He quotes a large number of what he calls gleanings after a first perusal, and unless Mr. Kenyon has some stronger defence than seems possible in the circumstances, Mr. Wyse's indictment is amply borne out.

The work on *The Oxford Movement*, which Dean Church was engaged on, was happily almost completed before his death. The remarkable influence exerted by Dean Church was acquired very largely through his pen. It was as a journalist rather than as a preacher that he became a power in England. This, his latest work, therefore, has been expected with considerable interest. The final revision will be done by Canon Paget, his son-in-law.

The *Academy* gives the following particulars about the University of Edinburgh. During the past year the total number of inarticulate students was 3,503, as compared with 3,602 in 1889. Of this total 94 were enrolled in the faculty of Arts, 116 in Divinity, 468 in Law, and 1,979 in Medicine. Of the students of Medicine 814 belong to Scotland, 687 are from England and Wales, 58 from Ireland, 99 from India, 27 from various British Colonies, and 51 from foreign countries.

The *Atheneum* announces that Messrs. A. and C. Black in their appeal to the law courts of the United States for an injunction to stop the sale

of an American issue of the *Encyclopædia Britannica* by a large drapery firm in New York have been unsuccessful. It appears that for the articles in the work which were copyright in America others of a non-copyright character there have been substituted, and the judge in giving his decision held the view that, though the book sold by the drapery house was 'garbled', the sale could not be stopped.

Dr. Spence's books are always welcome. His latest, just announced for publication, is a memoir of the late publisher, Mr. John Murray, under the title of *A Publisher and his Friends*. It will contain an account of the origin and progress of the firm from 1768 to 1843.

The latest series announced is one on Social Questions of To-day, which will deal with topics of social, economic, and industrial interest. The Labour Question, the Land Question, and the various phases of English Socialism as well as Continental will be dealt with in a considerable number of volumes. The editor is Mr. H. de B. Gibbins, and among the contributors are Professor Bastable of Dublin, the Rev. J. Carter, editor of the *Economic Review*, Mr. G. J. Holyoake, Mr. G. Howell, M.P., and the Rev. L. R. Phelps.

RECENT PERIODICAL LITERATURE.

We have not yet heard the last of Cardinal Newman, nor do we seem likely to for some time to come. He placed before the world some of the most important issues affecting religious belief in so clear a light that around his words the battle was bound to wax hottest. His death has reawakened a contest, which will be watched with a far keener and wider interest than it was able to secure forty or fifty years ago, keen and wide as the interest then was. It is plain enough now, even were *Robert Elsmere* the only evidence, that Newman and the other Tractarians struck a true line of cleavage when they made in their attack the Unitarians their objective. As the cleft has become wider, however, we find that the whole of the truth is on neither side. Neither 'Mr. Newcome' nor 'Squire Wendover', or perhaps we ought to say 'Mr. Grey', has all the right on his side. 'Miracles do not happen' is as gratuitous an assumption as that every ecclesiasti-

cal miracle that has come floating down on the stream of tradition is worthy of acceptance. The balance of evidence is, we maintain, strongly in favour of the occurrence of miracles at certain times, and if the believer in miracles strengthens his historical evidence by *a priori* considerations, he is justified in doing so quite as much as the unbeliever is when he falls back upon our experience of the so-called uniformity of nature.

In Mr. Leslie Stephen's article on 'Cardinal Newman's Scepticism', which occupies the first place in the *Nineteenth Century*, we have given to us not the Protestant position nor yet perhaps the position that is furthest removed from Newman's, but something midway between the two.

Mr. Huxley is Newman's antipode. Mr. Hutton holds the Protestant position, while, as we have said, the writer of this article seems to occupy an intermediate place, nearer Mr. Huxley, however, than Mr. Hutton. It was pointed out in a review in

these pages last month that Mr. Hutton's treatment of Newman's scepticism was not all that might be desired; but the *British Weekly* in reviewing Newman's *Correspondence*, apparently under the influence of what Mr. Hutton had said on the question, characterises the opinion that "Newman was essentially a sceptic" as "a silly paradox which never deceived any one with the slightest real intelligence of him and his work." What the editor of that admirable though rather omiscient paper will say, when he reads Mr. Leslie Stephen's article, we can only conjecture.

Professor Huxley, whose vanity and self-satisfaction have now gone beyond all endurance, referred to this subject more than a year ago in one of his articles on 'Agnosticism and Christianity', and offered then to prepare a 'Primer of Infidelity' from Newman's words. Mr. Stephen shows far greater dialectic skill than the Professor, and is not willingly offensive. This will indicate the line which he follows:—

"Scepticism is a word designating, I suppose, properly, the attitude of mind which declares truth to be unattainable. It is commonly applied to those who declare particular truths, and especially theological dogmas, to be unattainable. No one doubts that Cardinal Newman accepted with perfect sincerity the dogmas of the Catholic Church, and was, in that sense, the reverse of a sceptic. It seems to me, indeed, that he never fairly looked the sceptical arguments in the face; and it is partly for that reason that he permits himself to use certain arguments against opponents who partially agreed with him, with apparent indifference to the results to which they might lead in the minds of common antagonists. Scepticism, in the common sense of the phrase, was so far from his ways of thought, that he generally assumes that to call an argument sceptical is to give it a practical refutation. The question remains open, not what did Newman believe, but what did his arguments properly imply?"

The arguments with which the article deals are those set forth in *Tract 85* on 'The Scripture Proof of the Doctrines of the Church', and in the *Essay on the Development of Christ-*

ian Doctrine. Many of Newman's arguments are, we believe, sound. Mr. Hutton gives a better account of them than Mr. Stephen; but there can be no doubt that the alternatives which Newman presents, 'Believe everything or nothing', are not the only ones. His own justification for believing everything was at first his belief in the authority of the early Church. He soon found, however, that he needed further guarantee, and, as everyone knows, he thought he found what he required in the Romish Church. Newman believed that the Protestant principle of 'free enquiry' would result in permanent doubt or agnosticism, and from this intellectual extreme he shrank with all the intensity of his religious nature. He did not believe that an intellectual *Via Media* was a possibility; and so he turned his back on 'free enquiry' and embraced authority in its most august, most impressive, and most highly developed form. As Mr. Stephen says, this is "simply scepticism afraid of itself."

Mrs. Kingscote deplores 'The Decline of Indian Taste', and refers very specially to the Madras Presidency. English manufactures are undoubtedly driving native work out of the field; and it is very difficult to see how the evil is to be remedied. Mrs. Kingscote advocates the sending out of an expedition consisting of scientific and artistic men to inquire into Indian art, and wishes local exhibitions to be established, ending in "gigantic and glorious yearly exhibitions of purely Indian work."

'The Tyranny of the Nonconformist Conscience' is the title of an interesting article by the Hon. Reginald B. Brett, dealing with the political cataclysm that has followed the recent discovery of unworthy conduct in the leader of a party. He enters a caveat against the tendency, that has become very marked of late, to identify a political cause with a man's private life. At the same time he believes that the English people may be left to choose their leaders without assistance from the 'Vigilance Society'. "Another Charles the First," he says, "would in these times stand a better chance of keeping his head on

his shoulders than another George the Fourth would have of keeping his head within his crown." Mr. H. H. Champion seeks to enforce certain lessons which 'The Crushing Defeat of Trade Unionism in Australia' is fitted to teach. It has been found there that employers can sink their rival interests in the face of a common foe. Sir Herbert Maxwell makes some suggestions in view of 'The Scottish Railway Strike'. He proposes a system of compulsory superannuation as at once a check upon the men and an inducement to keep them faithful to their employers, and thinks that an independent authority might be established to whom appeal could be made in all disputes as to hours, overtime, and other matters affecting the service. 'Forged Literature' is the title of an article by Mr. Henry G. Hewlett. It shows a wide acquaintance with the history of this class of literature, but the author goes far beyond the mark when he demands that the Church should give up her sacred books, as all that is vital in her creed will in any case be preserved. Certainly it is on his part an 'exorbitant assumption' when he implies that documentary evidence must be false if no strict proofs to the contrary can be furnished. The critical faculty was not a development reserved only for these last days. Mr. Gladstone does not allow Mr. Huxley's criticism of his scholarship to pass unchallenged. He returns in this number to the subject of the Gadarene demoniac. Dr. Jesse p. issues a pathetic appeal on behalf of the 'poor birds', who have had a very bad time of it this winter. It is quite in his style, a prose idyl.

SIR W. W. HUNTER occupies the first pages of the February number of the *Contemporary Review*, with a highly optimistic article on 'Popular Movements of India'. The whole article forms a strange commentary on Mr. Townsend's which appeared in the same Review a year or two ago. The gloomy utterances of the latter have stirred no echo in the hopeful breast of Sir W. Hunter. The India of to-day is painted in the most rosy colours, and progress

and prosperity are revealed all along the line. We agree with Sir W. Hunter. The India of to-day is very different from the India of the Mutiny, and the very antipodes of the India of Lord Metcalfe. But we cannot agree with him that there is no dark shade at all to the picture. The popular movements dealt with are three—the movement among the feudatory princes of India to be more actively incorporated in the military defence of the Empire, the movement among the subjects in the British provinces to be more actively incorporated in the work of Indian government, and lastly the movement towards social reform, particularly in the way of prevention of child marriage, the encouragement of widow re-marriage, and the raising of the age of consent. The general conclusion at which Sir W. Hunter arrives is that the Government, while unable to accede to the demands of the more advanced reformers, have in all these directions already met them halfway. Already the offer of troops by the feudatory States has been accepted. A measure of encouragement has been given to political reformers in Lord Cross's Bill, and the Bill introduced to raise the age of consent is a step in the direction of social reform. But Sir W. Hunter conveys an altogether false impression of the extent of the movement for social reform, as the reformers too bitterly feel. The Social Congress, which in the article is made to rank as of almost equal importance with the National Congress, is as yet the merest seedling, however much promise for the future it may carry in it. The recent movement in Bengal, if accounts are to be accepted as correct, shows that there is the bitterest opposition to even so small a change in the direction of reform as is proposed by the Age of Consent Bill. If Sir W. Hunter wishes to convey the truth to the people of England he will have to revise his article in the light of recent facts.

An extraordinary article follows on 'Wine-drinking and Tobacco-smoking', by Count Tolstoi. The explanation of the use of these stimulants and narcotics is as follows.

"It is impossible not to see that the habit of indulging in intoxicating stimulants in large or small doses, periodically or continuously, in the higher or the lower social circles, is always induced by the same cause, namely, the need of muffling the voice of conscience in order not to be compelled to take notice of the jarring discord between actual life and the requisitions of conscience." Again, "It is not inclination, therefore, nor pleasure, nor distraction, nor amusement that gives us the clue to the universal habit of consuming hashish, opium, wine, and tobacco, but the necessity of concealing from oneself the records of one's conscience." There is absolutely no ambiguity, the statement is written without limitation or qualification. The argument is the strongest ever brought forward on behalf of abstinence. It would be absolutely impossible to escape the conclusion if it were true. But then it is not. That these stimulants are used to deaden the conscience everyone will admit, that they are always so used, everyone but Count Tolstoi we imagine will deny.

Of the remaining articles the most powerful are 'Anglo-Catholicism and the Church', in which Principal Fairbairn traverses with trenchant criticism the claims of the High Anglican Church, and 'The Realities of Christianity', in which Dr. Edwin A. Abbot replies to the criticisms of Professor Agar Beet.

Dr. Freeman writes on 'Ancient Church Endowments', contending that the State has the fullest right to deal as it pleases with the property of ecclesiastical corporations. Prince Malcolm Khan contributes an interesting article on the 'Persian Civilisation', and urges Europeans to devote their time to find some satisfactory solution of the problem how to overcome the immobility of Persia. The obstacle lies in the intense clinging to Muhammadanism, and the fear of everything Christian. Islamism itself he regards as not hostile to progress and civilisation, and if advance is to be made it must be made in the name of Islam. Wherever any progress has been made it has

been by showing that the change came from Islam, that the ideas were latent in it.

The remaining articles are 'Lord John Russell', by Lord Edmond Fitzmaurice, a review based on the recently published life by Mr. Walpole; 'Aristotle as a Naturalist', by Professor Romanes; and 'Athens Revisited', by the Right Hon. G. Shaw Lefevre, M. P., in which the recent progress of Greece is sketched at considerable length.

THE *Fortnightly* is a very good number, fresh and varied in its contents. 'Russian Finance: the Rack-ing of the Peasantry', by 'E. B. Lanin', is an exposure of shocking misgovernment. This is followed by a remarkably clever dissertation entitled 'Public Life and Private Morals', signed with a single initial, a device which does more to conceal than reveal the writer. It is of course *apropos* of the public indignation against the late Irish leader. The following passage affords some indication of the argument. "History and experience show us this: that however reprehensible we may consider adultery, there is no reason to suppose that because a politician is an adulterer he will in his public life be any the less reliable. Many men whose private lives have been most regular, have in their public lives been guilty of every meanness and dishonesty; and many men whose private lives have been loosest have in their public lives been examples of self-sacrifice, integrity, and patriotism." The writer argues that the condemnation pronounced against the offence ought to be social rather than public or political.

Hardly inferior in interest is a delightfully entertaining paper by Mr. Oscar Wilde in which he expounds his own particular socialist faith. It is a Socialism which is to make Individualism possible, the individualism of perfectly realising one's personality. Mr. Wilde writes a beautiful style: he is paradoxical in the last degree, but unfailingly justifies his paradoxes. We are inclined to agree with Mr. Grant Allen in his remark that Mr. Wilde is a man, "whom only fools

ever mistook for a mere charlatan, and whom wise men knew for a man of rare insight and strong common-sense." The following is a specimen taken almost at random.

"There is much more to be said in favour of the physical force of the public than there is in favour of the public's opinion. The former may be fine. The latter must be foolish. It is often said that force is no argument. That, however, entirely depends on what one wants to prove. Many of the most important problems of the last few centuries, such as the continuance of personal government in England, or of feudalism in France, have been solved entirely by means of physical force. The very violence of a revolution may make the public grand and splendid for a moment. It was a fatal day when the public discovered that the pen is mightier than the paving-stone, and can be made as offensive as the brickbat. . . . Behind the barricade there may be much that is noble and heroic. But what is there behind the leading article but prejudice, stupidity, cant, and twaddle? And when

these four are joined together they make a terrible force, and constitute the new authority."

The Duke of Marlborough writes commending Kentucky and Virginia to English lads who go out to America to engage in farming enterprise, in preference to the inhospitable plains of Dakota, where the climate is icy in winter and a scorching wilderness in summer.

'The Celt in English Art' is a record by Mr. Grant Allen of the influence which the Celtic temperament has exerted within a single generation on Teutonic England. The writer's remarks on the character of the Celtic genius are not new, but they will be found to be interesting, illustrated as they are by references to and comments on well-known personalities in the world of literature and art.

Sir Henry Pottinger contributes a description of another of his deer-stalking expeditions in a Norwegian forest. Mr. Meredith's novel continues to appear.

CORRESPONDENCE.

THE CHRISTIAN CONCEPTION OF GOD'S DEALINGS WITH MANKIND.

SIR,

MAY I be permitted to offer a few remarks on Dr. Miller's articles on 'God's dealing with Mankind'? It appears to me that in his eagerness to set forth the truth that God has not left Himself without witness among the nations to whom neither the Old or New Testament revelations were made known he has rushed into the opposite error and, following certain of the German schools of thought, has placed the other religious systems almost in the same category with Judaism and Christianity. Indeed he evidently regards them as revelations from God of His mind and will (though in an inferior sense) and hence asserts that the difference between them is of degree rather than of kind. He also, as far as I under-

stand him, maintains that one who knowing the Gospel of Christ yet remains in the system or religion in which he was brought up is doing what is right (though I presume that Dr. Miller would allow that it is not the best) and that he is helping to carry out God's purposes towards mankind.

These concisely stated appear to me to be the distinctive points which Dr. Miller brings out in his four lectures. If this be his teaching I desire to join issue with him on both points. I believe that God does care for all men; that he has not left Himself without witness to the heathen (I use the term in no offensive sense) nations. But that their religious systems are revelations from Him, I deny. There is not the slightest shadow of proof for such an assertion in Scripture. It is said in generations gone by "He suffered all

the nations to walk in their own ways and yet left He not Himself without witness in that He did good and gave you from heaven rains and fruitful seasons." (Acts xiv. 16.) "The times of this ignorance God overlooked but now He commandeth men that they should all everywhere repent." (Acts xvii. 30.) "Because that which may be known of God is manifest in them for God hath shewed it unto them. For the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and Godhead; so that they are without excuse. Because that when they knew God they glorified him not as God neither were thankful but became vain in their imaginations and their foolish heart was darkened. Professing themselves to be wise they became fools, and changed the glory of the incorruptible God into an image made like to corruptible man and to birds and fourfooted beasts and creeping things."

These are entirely different from and opposed to the statements that the heathen system are part of God's revelation and teaching. So too while acknowledging that there are truths enshrined in most of the heathen systems, and *very few* if any missionaries would deny this, I cannot see that this proves these systems to be revelations from God any more than texts of Scripture found in the writings of Voltaire or Tom Paine prove them to be so. For example, will Dr. Miller argue that wise and moral precepts found embedded in Hinduism prove that God was the author of that system the earliest books of which teach nature worship, and the later books idolatry and foul immorality?

Place the Gospel and Hindu Books side by side and compare. Dr. Miller is a specialist who has devoted his time to higher education and has come across characters brightened and improved by western culture and morality but I fear has not studied the systems he would defend. What does Professor Sir Monier Williams a specialist in the study of comparative theology say? "Non-Christian bibles are all developments in the

wrong direction. They all begin with a few flashes of light and end in utter darkness."

But again St. Paul writing to the Ephesians tells them that they were "strangers from the covenant of promise having no hope and without God in the world." Writing to the Corinthians he says, speaking of offerings to idols "The things which the gentiles sacrifice they sacrifice to devils and not to God." (1 Cor. x. 20.) To the Thessalonians he writes, "Even as the gentiles which know not God." St. John writes, "We know that we are of God and that the whole world lieth in the evil one." Is it then "vulgar talk" to say that Christianity is opposed to other systems? What does St. Paul say? Writing to the Corinthians he says, "What fellowship hath righteousness and iniquity or what communion hath light with darkness or what portion hath a believer with an unbeliever and what agreement hath a temple of God with idols? for we are a temple of the living God."

These examples might be very largely multiplied. The whole history of the Christian Church in Biblical and later times in its progress and conflict with the heathen systems is opposed to Dr. Miller's theory. It was the very fact of the insistence on the truth "Neither is there salvation in any other for there is none other name under heaven given among men whereby we must be saved" that raised the fierceness of Jewish persecution in the earliest days; and it is the insistence on that truth which has raised every great persecution since. Christianity unique in its purity is unique also in this that it asserts that it is the sole revelation from God.

But the second point is the error which if Dr. Miller teaches, or allows these over whom he exercises such a powerful influence to believe that he teaches, will work, I believe, a terrible wrong. For whatever interest may attach to the discussion of the questions in what relation the nations who knew nothing of the Gospel of Christ stand to God, by what law they will be judged, and how far the effect of the atonement of the Lord

Jesus Christ will be applied to them; yet the really practical question which we missionaries and Dr. Miller pre-eminently (for he speaks to young men who have had long acquaintance with the Scriptures) have to do is: What are the claims of Jesus Christ upon those who have heard individually? In what relation does their obedience or non-obedience place them? As I said before what I understand Dr. Miller to assert is that it is not the duty of *every one* who hears and knows the Gospel of Christ to believe it, and to forsake his former system of belief, and to confess Christ and to become a Christian; but that he may remain as before waking up to his light, outwardly at least say a Hindu.

I maintain that this is not the teaching of Christianity. Christ and his apostles and disciples insisted on individual or personal belief, confession (or profession) of that belief, separation from Judaism or from heathenism, and baptism into the Christian Faith. Thus Christ says, "He that believeth not hath been judged (or condemned) already because he hath not believed on the name of the only begotten Son of God." "He that believeth on the Son hath eternal life. He that believeth not (or obeyeth not) the Son shall not see life but the wrath of God abideth on him." (John iii. 18 and 36.) Nor is it, as I said before, a mere inward assent or belief that Christ insists on. He insists also on *open confession*. "Be not afraid of them that kill the body and are not able to kill the soul But whosoever shall deny me before men him will I also deny before my Father which is in heaven." "He that loveth father or mother more than me is not worthy of me and he that loveth son or daughter more than me is not worthy of me. And he that doth not take up his cross and follow after me is not worthy of me." "He that findeth his life shall lose it and he that loseth his life for my sake shall find it." (Matthew x. 28-37.)

What is this but the claim just in the clearest language for open confession on the part of those who believe in Him at the risk of losing

the love of those nearest and dearest, yea of losing life itself? This is again and again insisted on, "Whosoever shall confess me before men him shall the Son of Man also confess before the angels of God. But he that denieth me before men shall be denied before the angels of God." (Luke xii. 8, 9.)

The words of Christ are so clear that they cannot be mistaken. If the Gospel be true nothing less than belief and confession will suffice despite whatever any man may say. To believe the reverse will be to deceive oneself, to fail in the great purpose.

And could the Son of God ask less? or could we sinful men for whom He bled and died give less?

So He instructed His apostles and disciples "Go ye and teach all nations baptizing them into the name of the Father and of the Son and of the Holy Ghost." (Matthew xxviii. 19.) "He that believeth and is baptized shall be saved." (Mark xvi. 16.)

And in accordance with this the apostles and teachers acted. On the day of Pentecost St. Peter in reply to the question, "What shall we do?" replied, "Repent and be baptized every one of you in the name of Jesus Christ for the remission of sins, and ye shall receive the Holy Ghost." (Acts ii. 38.) Of Cornelius a Jew, whom St. Peter acknowledged to be a righteous man who feared God, belief in Jesus Christ for the remission of sins and baptism were required. He was not told to remain in his own community and exercise an influence but to come out. (Acts x.)

When the Philippian jailer said to St. Paul, "What must I do to be saved?" his reply was not "Be a pious Roman. Remain in your own community or faith." But it was "Believe on the Lord Jesus Christ and thou shalt be saved," and St. Paul baptized him and his house. (Acts xvi. 31.) Again he says, "If thou shalt confess with the mouth the Lord Jesus and shalt believe in thy heart that God raised Him from the dead thou shalt be saved." (Romans x. 9.)

I marvel at Dr. Miller quoting St. Paul's words to the Corinthians regarding his not having baptized them as though he thereby looked on lap-

tism as a non-essential. He does indeed set his commission to preach the Gospel higher, because by it men were led to believe in Christ and so obtain salvation; but his very argument shows that all who believed were baptized. For to thank God that he had baptized none if they were not baptized would have been absurd. In fact baptism as far as we are aware followed belief in every case. St Paul merely rejoiced that he himself had not baptized them lest they should, in their party spirit, have been tempted to call themselves followers of him instead of Christ.

St. Paul in that sermon from which Dr. Miller quotes so frequently says that while "the times of ignorance God therefore overlooked" yet "now he commandeth men that they should *allevywhere* repent." (Acts xvii. 30.) And writing to the Corinthians he urges the Christians, "Come out from among them and be ye separate." (2 Cor. vi. 17.)

I could quote hundreds of such texts and examples. The whole tenor of the teaching of The Lord Jesus Christ and his apostles and disciples was this.

There are certain truths which Dr. Miller rightly lays stress on but that he rightly delineates the Christian religion in its attitude to the heathen systems where Christ's Gospel has been and is being preached I deny. What proofs can he bring forward from Scripture? I do not here deal with his misrepresentation of the other and I believe the truer view. The words of Professor Sir Monier Williams are deeply instructive. In a book lately published* he says that it is "not a mere rift across which Christian and non-Christian may shake hands and interchange similar ideas in regard to essential truths, but a veritable gulf that cannot be bridged over by any science of religious thought." "Be fair, be charitable, be Christlike; but let there be no mistake. Let it be made absolutely clear that Christianity cannot, must not, be watered down to suit the taste of either Hindu,

Parsi, Confucianist, Buddhist, or Muhammadan, and that whosoever wishes to pass from the false religion to the true can never hope to do so by the rickety planks of compromise, or by the help of faltering hands held out by half-hearted Christians. He must leap the gulf in faith, and the living Christ will spread His everlasting arms beneath and land him safe on the Eternal Rock." "Let us teach Hindus . . . Buddhists and Muhammadans that there is only one Sacred Book that can be their mainstay, their support in that awful hour when they pass all alone into the unseen world. There is only one Book to be clasped to the heart—only one Gospel that can give peace to the fainting soul then. It is the sacred volume which contains that faithful saying worthy to be accepted of all men, women, and children in the East and in the West, in the North and in the South "that CHRIST JESUS CAME INTO THE WORLD TO SAVE SINNERS."

I extremely regret to have to thus differ from Dr. Miller. If I have misrepresented his views I beg him to state so clearly.

Sad, inexpressibly sad, would it be if the great and weighty influence which Dr. Miller possesses in this land should be used to hinder one soul coming forward into the light from confessing Christ before men and becoming His disciple.

The awfulness of the loss of the soul demands that in very kindness and love we should set forth most clearly and unshrinkingly all Christ's requirements. We cannot be wiser, we cannot be more loving than God. Heaven's gate is narrow, for nothing that defileth may enter there nor may we seek to widen it lest, in as far as it is possible, we mar God's plan, and cause the destruction of those who look to us as teachers. On each and all we ought to press entire surrender to Christ and whole hearted obedience to all His commands. In the world they may have tribulation but in Him they will have PEACE.

"What shall it profit a man if he gain the whole world"—its applause, its comfort—"and lose his own soul?"

A. F. PAINTER.

* *The Holy Bible and the Sacred Books of the East.* By Sir Monier Williams, F.C.I.E., D.C.L., LL.D. Seely & Co., 1887.

168290