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# THE CANADA

# EDUCATIONAL MONTHLY

# AND SCHOOL MAGAZINE.

# MARCH, 1890.

# CANADIAN TREATY-INDIANS.

BY THE HON. J. A. BOYD, CHANCELLOR OF ONTARIO.

DEFORE Confederation, the Indian Territory outside of the limits of old Canada (now Manitoba and the North-West) was called Rupert's Land. Half the size of Europe, it was held by the Hudson's Bay Company by virtue of a charter granted in 1670 by Charles II. This great monopoly, after an existence of two centuries, was bought out and its proprietary rights were transferred to the Dominion of Canada in 1870.

Prior to this date the Indians inhabiting Rupert's Land had been under the supervision of the Company, on account of trading relations having been established between them. Sir George Simpson, the Company's Governor, in his evidence before the House of Commons in 1857, estimated the number of Indians in the Territory at 60,000. These figures are either an exaggeration (which is probable) or there has been a more rapid reduction of the race than is usually supposed.

In Manitoba and the North-West, according to the Government returns for 1888, the Indians number about 26,000, of whom only one tenth are

in the original nomadic state—all the rest being in treaty relations with the Government.

The establishment of Confederation involved the acquisition of the territorial rights of the Hudson's Bay Company. None too soon-for about that time there was a combination of circumstances which imperilled the existence of Canadian Indians. portion of the tribes of the North continued subject to the control of the Company, but those living in the South had been brought into debasing contact with the rapidly-extending white population of the neighbouring republic. Traders, in defiance of law, crossed the 49th parallel, which marked the international boundary, and with firearms and fire-water trafficked with the tribes to their destruction. Over 50,000 robes every year were carried out of British Territory and the return for this valuable peltry, worth \$250,000, was little else than alcohol. The letter of an observer hints at the devastation which followed a visit of the powder-and-whiskey trader; and one visit is a sample of all. "No language can describe these

drunken orgies; more than sixty Blackfeet have been murdered, and if there can be a transcript of hell upon earth it is here exhibited." As the result of this bloodshed the Indians wreaked vengeance on the first white man they met, so that no traveller was safe on the plains.

Before the Canadian Government was able practically to assume police powers over the Indians, another severe blow fell upon this people, which prepared them to submit to the changes necessary for their advancement in civilization. amity was the disappearance of the buffalo. In 1872 the plains, thronged by these animals, had been laid open by three great American railways, and. as might be expected, sportsmen and hide-hunters poured in on these natural preserves. From 1872 to 1874 not less than five million head had been slaughtered for their hides. This havoc was in contravention of treaties made by the United States with the Indians; but it seemed to be no one's duty to put a stop to it. Thus came the death-blow to the American bison-and soon no trace of the once countless herds was left but piles of bones bleaching on the prairies. From the Indian point of view the extinction of the buffalo was loss incalculable. For centuries the red skins had lived upon the buffalo -with its pelt (as has been said) they covered their wigwams, wrapped in the robe of the buffalo they were safe from the cold, from the flesh they gained stores of pemmican and dried meat for time of dearth, by means of its ribs they fashioned sledges, in its sinews they had the strongest thread. Twice a year—North in fall and winter. South in spring and summer —the migration of these herds brought food, fuel, raiment and shelter to the red man's lodge. The wholesale introduction of whiskey and the disappearance of the buffalo in the early

years of Confederation mark a crisis in Indian history; relief must come, or the man, like the beast, was doomed' to perish.

At this juncture deliverance came through the intervention of the Canadian Government. Destruction from the southern whiskey-traders was stopped by the red cordon of mounted police; and starvation was averted by the supply of food from the public A new system of government was now introduced to which the wild Indians of the West had been strang-Heretofore they had looked up to the Hudson's Bay Company as their guides and benefactors; and, speaking generally, perhaps no system could have worked better than that pursued by the Company in order to utilize the Indians, as In-The Company perceived the value of these people as hunters and trappers, and also perceived the dangers they ran from the presence of white settlers and other pioneers of civilization. Unable to compete with the white settler as an equal, the red man was too proud to work as an inferior. Thereupon interposed the paternal control of the Company and protected them from the whites and from themselves. It encouraged hunting, discouraged tribal wars, repressed the use of spirits, and in times of scarcity supplied food. thus treated, the Indian made, and could make, no advance; he was kept stationary on a low level of humanity, as a mere Indian. But the Company being superseded, vast was the responsibility assumed by Canada in the adoption of the Indian population, in its debased and pauperized condition. Then arose the problem for the Dominion—what to do with the Indian?

Happily the colonial practices and traditions of old Canada were available for this new phase of the Indian question, and the answer came: No longer keep him as an Indian but strive to make a civilized man of him. the necessary preliminary to any progress is to bring the wild Indian into treaty relations. That is to say, his original right to roam over the country in pursuit of a living is commuted by the allocation of reservations of territory to be exclusively occupied by him-coupled with other advantages, such as supplies of utensils and seeds sent to the reserves and the presence or residence of farm-instructors for training him in agricultural and industrial habits so that he may be able to provide for his own needs. A small money allowance is made to each person on the reserves; schools are also opened for the instruction of the young. The reserve period is thus made one of transition from the wandering life of savagery to the pastoral and agricultural life of incipient civilization.

Now the broad historical distinctions between the Canadian and the American treatment of the Indian problem have been such as these: The United States have made treaties with the tribes as "interior dependent nations," and have suffered these treaties to be violated even by those who should have been the custodians of them; upon the reserves the Indians are allowed the most barbarous license—no interference with their filthy and superstitious habits being permitted; they have no laws and no officers of justice, but do violence upon each other as passion prompts; the white outcasts are allowed to encroach on the reserves and defile and cheat just as they please. dian's rights were ignored, his complaints were unheeded, his wrongs unredressed, his uprisings quelled in blood. Thus the Republic has drifted into native wars wherein five hundred millions of money have been wasted and thousands of soldiers and settlers have lost their lives. The

only semblance of supervision exercised over the reserves in by irresponsible agents changing with every change of administration, who in case of exigency are backed by the bayonets of the troops. But in Canada we have escaped Indian wars and bloodshed; we make laws for the Indians as Canadian subjects of Her Majesty, and these laws are enforced by magistrates and police as in the case of The treaty-Indians other citizens. receive fair treatment and the engagements entered into are carried out in letter and in spirit by permanent officers selected for their effi-I have marked in broad ciency. outline the characteristics of the two systems to explain why it is that in the States the treatment of the Indians by Government has been by writers of their own styled "A Century of Dishonour." The Government of Canada has pursued a better way, recognizing the claim of the Indian as an inferior population who need both protection and guidance.

The average red man is in one of the earliest stages of human existence. He is an overgrown child with the good and bad qualities of a mere animal. He knows no law, human or divine; he has no idea of moral right or wrong. To him the greatest good things have been what English-speaking people call pillage, arson, rapine and murder.

What may be called his religion has no morality in it—teaches no duty or obligation to God or man. All is right that he wishes to do; all is wrong that opposes him. Neither faith, nor hope, nor charity, he knows; mercy is with him a mistake; humility, an incomprehensible thing. The most advanced tribes (comprising the Five Nations) had no word for "God." The most widespread stock (the Algonquin) had no word for "love." As a counterpoise, however, Paul Kane found the Crees swearing in

French—because they had no oaths in their own language.

Within less than ten years after Confederation, treaties had been completed with (practically) all the Indians between the Rocky Mountains and Old Canada, embracing some 26,000 souls. The necessity to feed them, which began with their adoption, has not ceased to exist, and probably may not till another generation arises more imbued with Canadian ideas. natural supplies of food are well-nigh gone, so that money must be given till they can successfully and sufficiently raise grain and other crops for subsistence. In the report for 1888 it is stated: "The game is rapidly vanishing; in the north a few moose are still found, but elk has almost disappeared; bears are still killed in considerable numbers and a few black-tailed deer have so far managed to escape the hunters. Antelope, a few years ago very numerous, are now scarce; the hard winter of 1886 destroyed great numbers of them, and the Indians are wiping out the remainder in and out of season. Prairie chickens are generally very scarce, owing, I think, to Indians and mean whites killing them out of season, and bad prairie fires in hatching time. There are only six buffalo known to exist in the Territory." Little marvel then that in the year 1888 the Government expended nearly \$400,000 for the support of destitute Indians.

But not less urgent for the real well-being of the Indian is that he be educated so as to submit cheerfully to the discipline of law, and to have fixed principles of action for self-guidance. Applying their own graphic expression for the adoption of civilized manners and habits, he must learn to "travel the white man's road." This the better spirits among them have long foreseen to be their last and only hope. To this effect spake pathetically a Chevenne Chief,

"I am sick of the Indian road; it is not good. I hope the good God will give us the white man's road, before we are all destroyed."

The obstructions in the way of progress are many and great, but not insuperable. Look at some difficulties from the Indian point of view. He is slow to see cause of gratitude in the advent of white colonization. For him food and raiment are the primal necessities of life. But the pale-face has brought poverty to his lodge. His robes are worn to rags, and he has not wherewith to replace them. His land has been taken by a strong and hard people, and he is left helpless and hopeless. smarted under the white man's knavery and greed of gain. New forms of disease have come in with the stranger and send him to a quicker grave than the slow process of starvation. Formerly war and the chase gave scope to his energy; now, there is nothing to eat, and nothing to do. Hence the race has become dazed and enervated; it is not that they are exceptionally degraded, or stupid, or lezy, but because of changed circumstances their whole tenor of life is changed, and that for the worse. If simply left to themselves they must disappear from the face of the earth.

But their abject condition is not greater than that of other primitive people once like the Indians but now among the civilized races of Europe. The Indians themselves afford strong proof of the unity of man. The most cultured races have not so far outgrown their ancestry as to be quite rid of every primitive trait and of every ancient custom. As a people, the Indians are far from stupid, as all who have come into sympathetic relationship with them testify. Their great natural sagacity is exemplified in this that the lines of the trans-continental railways in the most difficult parts have followed old Indian trails.

Their slowness to work is simply that beforetime they could live without work and therefore do not take kindly to manual labour. But man, generally, white or coloured, does not like work; show him, however, that the alternative is "to work or not to eat" and he will prepare to submit to the yoke, and that is the beginning of self-help and self-discipline.

But while Government and society say, "Make a man of the Indian," that does not satisfy the deeper feelings of a people who acknowledge Christ as Saviour and King of men. The highest call is that of Christian civilization which says, "Make a Christian man of him."

For the purposes of education and mission work our Western and North-Western Indians may be conveniently divided into four groups, distinguished by their habitat. A classification has been attempted of these groups so as to indicate their susceptibility to be educated, and their receptivity of Christianity, in this order:

At the head, the Indians of the woods, such as the Crees, of whom it is said that nearly every man can read.

Second, the mountain tribes, among whom the Methodists have won a most honourable record.

Third, the inland water tribes, though these vary greatly, from some very low in the scale to the Ojibways who are of more than average intelligence.

Fourth, the prairie tribes, who have suffered more degradation from intercourse with the whites, and are therefore more difficult of reclamation.

It may be suspected, however, that success in this kind is rather referable to the zeal and devotion of the instructors, and that the old rule applies, "Like preacher, like people."

Speaking broadly of work done by Protestant missions, the Anglican Church holds the place of distinction, having the greatest number of mis-

sionaries in the field, and occupying the most wide-spread and almost inaccessible stations up in the Arctic Time is wanting, even to sketch the heroic story which began The Methodists have done in 1822. the next most extensive work among the Plains and Mountain tribes. Their assiduity in teaching and translating has been worthy of their best days of holy enterprise. It is a fact worth remembering, that the splendid peak that overlooks Banff on the Canadian Pacific Railway takes its name of "Mount Rundle" from the pioneer Wesleyan missionary, Robert Terrill Rundle, who first, in 1840, occupied that region, and whose memory is kept fresh by the hymns he translated. The Presbyterians, though the last comers, have laid sure foundations by devoting their energies mainly to the Christian instruction of the young. The most careful observers, and the wisest counsellors in dealing with all peoples cherishing ancient superstitions and deep-rooted customs have laid this down as an axiom, that to gain the race you must begin with the children. John Lawrence's words to the missionary in Calcutta, in 1840, stand good for Canada in 1890: "The only way that will bring the natives to truer and more enlightened ideas is the gradual progress of education."

Signs of progress are not wanting even now to encourage future and more systematic and united effort. Gangs of these red men, headed by their chiefs, are to be seen on the reserves preparing the soil and gathering its produce as busy and cheerful as the farmer ought to be; in cattle raising and ranching they find congenial scope for free and healthful life, and therein are also being trained to habits of order, economy and foresight. The loss of the buffalo will be more than compensated by the increase of flocks and herds, secured as

their own property by the law of the land.

The smoky wigwam, engendering ophthalmia, is being replaced by wooden cottages with windows, chimneys and the usual articles of furni-Money is being spent, not so much upon gewgaws and trinkets or whatever appeals to the childish fancy, as for useful articles of food, clothing, and household supplies. The women are getting interested in domestic work-sewing, knitting, and the like -and are learning to keep their surroundings clean and tidy. Burial in the earth is superseding every other mode of disposing of the dead. The mysterious ceremonies of the "medicine-man" are being less and less invoked, as the Indians find the benefit of skilled medical advice supplied upon the reserves by the Government. As a consequence, the claims of this same "medicine-man" to magical power over the spirit-world are also being discredited, and the red man is with expectation awaiting the messengers of the churches.

These Indians have many of the characteristics of children, with the strong, uncurbed passions of men. They need the restraining power of the law, but withal, they need to be tutored and dealt with as children of nature, who have now become children of the nation. To become citizens and civilized Christian men they

must have training of hand and head and heart. This is a task of slow development, demanding sympathy, patience, co-operation on our part with all helpful agencies. It took centuries to accomplish the evolution of the man of to-day out of our ancestors coming from the morasses of Germany and the moors of Britain. regards the red men, therefore, let us be patient with their uncleanly habits, their untutored reason, their immature conscience. They have to be led out of what they are into what they are to be. The good that is in them is to be discovered and fostered; the evil eradicated by the supplanting growth of something better.

Tools and schools is one combination which they need, but more than this they need the combination which the missionary, Sergeant, long ago commended and recommended: "The plough and the Bible go together in civilizing Indians." doubtless, the best motto for workers in this field is: Tools, Schools and Scriptures. Sir Bartle Frere condenses everything in this: "Wherever the Bible has gone, it has promoted the dignity of labour, the sanctity of marriage, and the brotherhood of But we should send the Gospel to the Indian with all the commendation that comes from its surroundings and accompaniments of Christian culture and civilization.

STAR DISTANCES.—Little has been done by astronomers to determine star distances. There are not four stars in the whole heavens whose distances have been satisfactorily determined; and there are not twelve which, under the most rigid scrutiny, have given even the slightest signs of having a measurable distance. All the host of heaven, save these few, all the thousands of stars seen on the darkest and clearest nights, all the millions revealed by the telescope, and all the millions on millions of them which no telescope yet made by man can reveal, lie at immeasurable distances. And yet the measuring line which has been used is of

inconceivable length. A single line of it brings us to the nearest star, Alpha Centauri, more than 200,000 times further away than the sun; another length added brings us to two other stars, one lying in the Swan, and another in the Great Bear; and astronomers know pr tty certainly that from three to ten or twelve lengths of this enormous line would give a distance within which lie all the twelve nearest stars. But they have no means of pushing their measuring rod further out into space. Not only can they do so now, but it is unlikely that any improvements in telescopic construction will enable them to do so at any time.—Proctor.

### THE STUDY OF GREEK.\*

#### BY THE REV. PROFESSOR M'NAUGHTON.

HAVE to thank you for the hon our you have now conferred upon me. You have appointed and solemnly installed me as the first Professor of Greek in Oueen's College. I look upon this appointment and installation as a very great honour indeed, I assure you, and, what is the other side of the same thing, as involving a grave responsibility. almost the only Professor of Greek in a vast region like this magnificent Dominion, which, considering its natural resources and the vigorous character of its people with the great traditions they inherit, has the assurance of a great destiny before it in every department of action and thought, is to have signal opportunity for good service or else for the conspicuous manifestation of sad incompetence. For the greatness of Canada in the future will depend upon its culture and, if we can argue from the past to the present, its culture will largely depend on the extent to which it succeeds in imbibing the Greek spirit. And that again will largely depend on what the leaders of thought take out of the Greek class. By the leaders of thought I mean you, gentlemen, and the like of you, the future clergymen, lawyers, doctors, journalists and literary men of the country. will be centres of light or darkness wherever you go; looked up to by the mass of toiling men around you as the representatives and models of a liberal education. You will be the leaven destined to leaven the lump whether for good or evil; for all that is inspiring and pure and lovely and of good report, or else for what is ungenerous, stupid and narrow-mind-

ed. And, just as in the past the subject which has been entrusted to me here has contributed such mighty impulses to the upward and onward movement of mankind, I judge that its force is no way abated yet; that it can do almost as much for us now as it did for Italy, Germany and England in those wonderful days of the renascence, when the introduction of Greek letters into Western Europe changed the face of the world and brought in the modern age. It is no light thing to be entrusted even in the humblest capacity with the workings of so powerful an engine as this has proved itself, to be made custodian of the sacred Greek fire. I know well from my own experience that however rich the subject is, a great deal depends upon the teacher. It is possible for him to take all life and colour and motion out of what ought to be most rich and vivid. On the other hand he may infuse the light of large principles, the warm breath of human interest into the dryest details. student's mind the subject and teacher are indissolubly associated, and he is apt to credit the one with the tiresomeness or the brightness of the other. Our students come to us generally at the age of maximum receptiveness, when their minds take on impressions as easily as wax and keep them like carved marble. They rapidly draw conclusions and, what is more, as a rule abide by them all their lives. And then so many successive sets of them come up—a new set every year; so that a professor has really a large power of inspiring widespread interest in his subject or else widespread disgust. There are many things then in the present situation calculated to inspire a new Professor of Greek

<sup>\*</sup> An Inaugural Lecture delivered at Queen's University.

with diffidence and misgiving. The greatness of his subject, the important public issues that hinge on his success or failure, the fact that on him it greatly depends whether this magnificent literature and imperishably significant history ought to be a vital force in moulding the impressionable minds of those who are destined in their turn to mould the future of a great country in respect of its highest interests.

For my part I count it as about the greatest good fortune which has fallen to me that I was introduced to Greek literature by a man with whom to be connected was in itself a liberal education—Professor, now Principal, Geddes of Aberdeen. He is well known throughout Europe as one of the wisest and most accurate scholars of the time. The learned world knows him and appreciates him; his work on the problem of the Homeric poems will always rank as a monument of critical sagacity and of an erudition wonderful both in breadth and depth. But the world does not know that to him, and him alone, is due the present state of classical scholarship in the north of Scotland, so incredibly advanced beyond what it was thirty years ago. The world does not know. what all his pupils know--and they are scattered all over the world to-day —his intimate acquaintance with every civilized language and the best of what it contains, his intense and lifelong devotion to all that is high and beautiful and good in every literature, and the irresistible charm with which his noble character and deep-rooted enthusiasm have drawn so many minds to an almost passionate reverence and love for the eloquence and poetry of Hellas. Such men as he make the country great. They are the salt of the earth. Their influence is not confined to those directly touched by them, but extends in ever-widening circles to the scholars of their scholars, the sons of their sons in the muses, and in a broad band of light goes round the world. Quasi Cursores, vitai lampada tradunt. Not their children only, but their children's children arise and call them blessed.

It is no wonder, then, that being convinced as I am of the greatness of my subject, and having before realized in my own experience so high an ideal of what a teacher of Greek may be, it is no wonder that I see many things to damp the joyful alacrity with which I accept the office you have conferred upon me. But there are considerations on the other hand which give me encouragement and hope. Greek is a subject of such innate charm, so essentially delightful to any one who has any turn for literature that it requires more than commonly massive dulness to choke the interest out of it. To make Greek uninteresting would be an exploit worthy of being sung by another Pope in another Dunciad. A reasonable amount of diligence and attention on the part of the teacher ought to ensure a modicum of success, if not the full measure possible; and diligence and attention are within everybody's reach.

I feel that I can always count on help and sympathy and encouragement from our principal, who never fails us, and from a united band of colleagues who would do honour to any university in the world, distinguished too for harmony in their mutual relations to an extent which I fear is rather rare among the learned. And last of all, but not least, I have had enough experience of you, gentlemen, and enough of students in other parts of the world to contrast with it, to make me thoroughly appreciate my good fortune and bless my happy stars for lighting among such a mildmannered tribe as the students of Queen's College. I find you do not consider your Professors as your natural enemies. You recognize the fact

that they merit indulgent consideration at your hands. You know it is rather their misfortune than their fault to have been set over you. Professor in Queen's College is reckoned a good life by the insurance companies. You are not in the habit even by way of occasional relaxation to while away the weary hours by batting and worrying your professors. Instead of applauding as public benefactors and ministers of your harmless gaiety the rising wits who imp their young wings for further flights in the days to come by such practice, you hale them before your tribunals as it were by the hair of the head, and take summary vengeance upon them. I assure you I am no less delighted than astonished at this state of things. I hope it may continue among you and be copied in other institutions. I know some parts of the world where there is much need.

On the whole, then, I think the encouraging circumstances which I have to look to outweigh the reasons for misgiving. With a delightful subject, colleagues as kind as they are able, students orderly and attentive, attached to their teachers and their college, a professor in Queen's will have himself to blame if he fail to inspire interest in his work, at any rate one must do one's best with God's help.

The Chancellor has told you that this is not an inaugural address. It is merely an informal talk, and therefore it ought to have at least one great merit, the merit of brevity. Perhaps I ought now to close instead of entering on subjects which would require more space and more careful statement than I can bestow upon them now. But I should like to say just a very few words by way of commending to you the study of Greek.

Hitherto I have all along presumed that you were as much convinced as

I am myself of its value and importance, and you have indulgently permitted me to take for granted what perhaps I should in the first place have attempted to justify by some show of reason. For we all kr w very well that there are many people who think Greek is quite an antiquated subject. A very important member of a late English government. best known to the world as Mr. Robert Lowe, is reported to have once said among other remarks c?!culated to discourage the study of classics in general, and of Greek in particular, that the battle of Marathon was of no more significance to us than a coal-pit explosion. Another statesman used to maintain that one copy of the Times was worth more than the whole of Thucydides. Now these remarks, though expressed with unnecessary vehenence, not to say coarseness, pretty well indicate the attitude of many persons. may be some even here who would say, What's Hecuba to us, or we to Hecuba? The Greeks are dead and buried, let them rest in peace. Let us read our own voiters, especially the magazines and newspapers, and mind our own affairs. "The riddling Sphinx puts far things from our minds," as Sophocles says, "and makes us heed the trouble at our doors." There are so many practical wants, private and public, to attend to; life is too short to go back so far as Greece. There are so many things, too, desirable to be known, so much useful knowledge to acquire, that, before we embark on any study, we must ask what will be the practical result? What shall we gain by Greek—it is a troublesome study? There is a great deal of Grammar to be got up, and we find a very little of it goes a long way. Its dictionary is large and labyrinthine. In short, it is a very hard nut to crack, and before we hazard our teeth upon it, we want

to know about the kernel, whether it

is any good.

Well I should, in the first place, appeal to experience. I should say:
Ask any man who has acquired some familiarity with this language whether he regrets the time spent on it. I do not think that one man out of a hundred would say he did. For the most part you will find that the most ener which the have sustained a known. They class whom the would have call name which the part you will find that the most ener when the object of have sustained a known. They have sustained a known the would have call name which the object of have sustained a known. They have sustained a known the would have call name which the object of have sustained a known. They have sustained a known the would have call name which the object of have sustained a known. They have sustained a known the would have call name which the part you will find that the most energy and the control of the contr

getic opponents of Greek are just those who have too little acquaintance with the object of their resentment to have sustained any serious injury from it. It is a case of mistrust of the unknown. They belong mostly to the class whom the Greeks themselves would have called "barbarians," a name which they applied to all who knew no Greek.

(To be continued.)

# THE PROPOSED ENGLISH CURRICULUM FOR MATRICULATION.

BY WILLIAM HOUSTON, M.A., LIBRARIAN TO THE ONTARIO LEGISLATURE.

N the CANADA EDUCATIONAL Monthly for February appears the last instalment of the paper on English, read by Prof. Cappon at the Modern Language Teachers' Associa-Though I find many things in the paper that I cannot approve of, I would not ask the privilege of a rejoinder were it not that the occasion seems a good one for explaining some of the objects kept in view by the committee that prepared the draft criticised by Prof. Cappon. I do not propose to comment on his estimates of the works of Blackmore and Scott. not because I agree with them-for I do not—but because they are entirely beside the questions raised by the draft, as Prof. Cappon would have seen for himself if he had happened to approach his self-imposed task from the proper point of view. "Lorna Doone" was put on to be read by matriculants, not because it is a work of high artistic merit, but because it combines a fair amount of literary excellence with other qualities that are in this connection of more import-The reason for selecting it and other historical romances must be plain to every one who reads attentively the preliminary announce-

ments, that at the matriculation examination nothing will be required under the head of "Composition" but an essay, that the examiner will allow a choice of subjects, and that some of these subjects will be based on the prose works prescribed for reading. The suitability of "Lorna Doone" for this purpose will be admitted by any one who has read it, and the "framers of this part of the curriculum" did not trouble themselves about its "ethical value" further than to make reasonably sure that there are in the novel no passages that even a fastidious moralist would object to. The qualities they were in search of were: (1) moral purity, (2) availability for the special purpose in view, and (3) cheapness, and they decline to be judged in their work solely by the artistic or literary merits of the novels selected as repertoires of subjects for essay writing in the examination hall. They do not presume to say that they have made the best selections possible. They made no effort to do so, knowing that under the system of a complete change of work every year the field of available English literature will in future years be re-surveyed.

Prof. Cappon's remark, that while he might heartily recommend "Lorna Doone" to a boy for private reading, he regards it as a very different thing to name the book in the curriculum of a great State institution, betrays a curious misapprehension of the nature of the task assigned to the Committee. These works are to form part of the High School course, not part of the curriculum of the University of Toronto.

If Prof. Cappon were at all intimately acquainted with the crowded state of our High School time-tables, he would never have supposed for a moment that they could be taken up for class reading. How could any English teacher deal in one year with two such prose works as "Lorna Doone" and "Sesame and Lilies." when he has at the same time to take up some 3,000 lines of Tennyson's poems? As the examiner is by implication forbidden to ask a single question on either "Lorna Doone" or "Sesame and Lilies," I hope that no High School teacher will make the mistake of undertaking to teach them.

My own idea—and I think I can speak for some, perhaps for all, of my associates on the committee—was, and is, that these books are prescribed chiefly, if not entirely, for "private reading." The fact that subjects for essay writing will be taken from them is a guarantee that they will be attentively read, and in my humble opinion, the best thing for the teacher to do is to impress this fact thoroughly on the pupil's mind, and then leave him alone with the authors.

So much for Prof. Cappon's remarks on the pass work proposed in the draft; he is, to my thinking, still further astray in his views as to the way in which work for honours should be dealt with in the High Schools. I refer, not to his preference of Chaucer to Milton—a preference which I heartily endorse—but to the scope he

would assign to the preparatory work which takes its starting point from Chaucer and Shakespeare. estly hope that English masters in all our schools will give just enough of attention to philology and versification to enable their pupils to thoroughly comprehend the prescribed There is no time in the High Schools for more of either, without stealing it from real esthetic work for which the opportunities are at the very best far too limited. Moreover. philology and versification, so far as these are deemed essential to High School equipment, can be dealt with in connection with other texts which are less worthy of esthetic study than the great productions of the great literary artists. For purposes of philological investigation I would as soon have a paragraph from a newspaper article of to-day as a scene from one of Shakespeare's dramas, or a passage from Chaucer's Prologue.

Prof. Cappon's otherwise excellent remarks on the historical treatment of literature are likely to prove amusing reading to High School masters. They do not need to be told that if they manage to get their pupils to do thoroughly the work selected from Chaucer and Shakespeare, they will have little time to trouble themselves about the historical development of either verse forms or English literature in general. Treatment of this kind may be made useful where there is time for it, but that time should not be secured at the expense of a thorough study of the prescribed texts, the versification of which need not consume much of the work of the year.

The teacher should not—pace Prof. Cappon—distract his pupil's attention by references to either ballad literature or the Arthurian legends, and he should let Surrey and Wyatt, Marlowe, Jonson and Sackville rest quietly in their literary tombs to be re-

surrected at a later stage by university professors for such pupils as have the good fortune to take a university course under professorial guidance. If their culture in English is to stop with the High School leaving examinations so much the more reason for training them in the use of masterpieces instead of cramming them with facts which they will speedily forget, and which will do them little good if they remember them, owing to the way in which they must needs be acquired. In this country, following methods imported from across the Atlantic, we have too long been pursuing the very plan suggested by Prof. Cappon, and I confess my disappointment that he does not offer more rational views for our adoption in dealing with English in schools. Learning and teaching about English instead of learning and teaching English have long been the bane of school and college work; let us now have some genuine esthetic study of the best compositions for a change.

If I may be pardoned for saying a few words on the issue joined by Prof. Cappon and Mr. Wetherell, I would like to add that my chief objection to the latter's editorial work is that it is bound up with the text in a pupil's book. Its presence there

makes really good class work with the text an impossibility. The pupils are prevented from putting forth an independent effort to construct the categories for themselves, and the categories will be useful to them in their after reading just in so far as they have been constructed by themselves, not memorized from the work of a skilful analyst like Mr. Wetherell. the editorial work is for the pupil then the better its quality the worse the effect on him; if it is for the teacher then it should be bound up in a separate book and be kept as much as possible out of the pupil's hands. Mere information that is not generally accessible to High School masters may be useful as an aid to the comprehension of the text, but no attempt should be made in a pupil's edition to supply any interpretation. so ought to be regarded by the teacher as an impertinence, which is none the less unpardonable because it claims to have departmental sanction. With plenty of cheap editions of Longfellow to draw upon next year, I trust that all editorial effort will be devoted to really aiding the teacher, not making good teaching for him an impossibility by depriving the pupil of the chance of doing independent work under his direction.

#### CONTINUITY IN EDUCATION.

#### BY CHARLES TUDOR WILLIAMS.

(Continued from February .)

DUT few will be found to deny the reasonableness of that method of education which throws the greatest stress on the development of a man's whole capacity. It is not the general mental attitude towards this question which is at fault, but the strength of the mighty force which overbears our mental persuasion. That force is, confessedly, all that is represented by

the term wealth. It is safe to say that almost all students, now-a-days, who address themselves to the getting an education, do so with the purpose of preparing themselves for making a pecuniary fortune; and failing this, the world pronounces them failures indeed. The schools and even colleges of this country, not excepting our public schools and universities (to

take the extremes), are largely modelled on the plan of fitting their students for money-making, in one form or another. The effect of this attitude is, in the case of the lower schools, to exaggerate the already strong money-making spirit and to make it the one object, not only of education but of life, and to induce a contempt for higher learning which has not for its foundation the same motive. In the case of the universities, where, if anywhere, the tradition of pure education, of culture for its own sake, still exists, this sordid spirit of the age tends to isolate them from the other extreme of the educational army, the common schools; leading the former to seek large endowments for the secure prosecution of their aims, to plant their headquarters aside from the mighty army of students over which they should. but do not, preside, to make invidious distinction between the character of their work and that of the officers in the ranks below them; to endeavour. by raising a high pecuniary, rather than a high intellectual, barrier, to win a select clientele. Now, no one will deny that making money is a creditable business, if made honestly and for a right purpose, and, so, the endowments of high institutions of learning, in order that talented specialists may prosccute their investigations, is highly praiseworthy. question is, Has either of these pursuits anything to do with a general system of education? We think not. If money considerations are foisted into the early education of children. thus robbing them of the only taste of pure culture which the most of them can ever hope to have, they might as well be sent to the workshop and store at once. And if special training is declared to be of such moment that immature young men are asked to elect life pursuits before their powers are well in hand,

then would they better abandon the university and take up, at the first, with the training school, as many are already doing? No, as James Russell Lowell has recently reminded us. a university has been defined as a place where nothing useful is taught; a sentiment by the way derived from Aristotle's more truthful and less extravagant statement, "Politica," VIII., III.: "τὸ δὲ ζητεῖν πανταχοῦ τῶ χρήσιμον ήκιστα άρμοττει τοῖς μεγαλοψίχοις καὶ τοῖς έλέυδέροις." "Το be forever striving for the useful little befits noble and free men." And it is nobility and freedom of soul that any education worthy the name inculcates. But, passing from theory to fact; we are confronted, at the present day, in the United States, with schools of socalled learning, advocating methods based upon diametrically opposite principles, the one of which has for its object the furnishing of the mind with a learning practical and useful (to employ the favourite characterization of this kind of education), the other aiming at the general and even development of a man's capabilities without regard to its immediate practicality. We do not have to go far to derive the parentage of these two systems. The former, as has been said, is the direct product of the spirit of this practical age—an age which, in politics, demands rights before respect for law, in business, profit before honour, in society, wealth before worth. Such an age must perforce demand, in education, facts before theories. But the simple accumulation of facts is like the accumulation of money; in itself, of small practical utility; nay, of decided detriment in unskilful or untrained hands. Moreover, exclusive devotion to the accumulation of facts produces an effect similar to the exclusive devotion to the accumulation of money, namely, an incapacity to handle the material when once-acquired. The contrast of the treatment of the facts of evolution by a Darwin and a Haeckel, or a Tyndall, and of the use of their accumulated thousands by a Peabody, and many another millionaire who might be mentioned, will serve to illustrate this truth. There seems to be no doubt that the preceding ages of intellectual training in metaphysical and abstract lore furnished to the human mind just the necessary education for grappling with the facts of modern discovery. natural order of development would seem to be first, analysis, then synthesis. A man must first have studied and thoroughly mastered the relations of bones in the animal frame before he can reconstruct, from a fraction of the skeleton of an extinct species, not only the skeleton itself, but the entire animal. So the inductive philosophy has no place in the history of a world or in the education of an individual before the deductive philosophy has been, as it were, exhausted. At any rate, we must confess that this has been the history of the development of philosophy, and we have not as good evolutionists, the right to say or even believe that the intellectual life of the world or of the individual. could have been developed in any The "bon mot" of the other way. epicure, that "doubtless the Lord could have made a better berry than the strawberry, but doubtless never did," would not apply to the actual fruitage of the human mind. ought not to be forgotten, therefore, that the intellect of man, in the progress of its collective development by which it has arrived at what is called modern civilization, has arrived there. not by training in specialties, but by general culture; not by a ratiocination from the individual to the general, but from the general to the individual; not by a posteriori, but by a priori processes; not by the principles of the "Novum Organon" of Bacon, but by those of the "Organon" of Aristotle. This was the process of tutelage of the human intellect and it is absurd for us to say that there might have been a better, or even any other possible way of intellectual development. This has been the Way, the Truth, and the Life of mind evolution, and to us it would seem to be as safe to discard Him who has constituted for the ages this triple bond of union in our religious and moral life, on the ground that He had served this purpose, and substitute for Him the Religion of Humanity, as for the same reason, to put in the place of a liberal education any form of special training whatever. it not plain, from the very nature of things, that such a substitution in the place of religion means a cold and calculating policy instead of a spontaneous philanthropy, and, in the case of education a narrow, sordid, penny wise-and-pound-foolish policy which must eventually stunt intellectual growth?

The necessities of daily life compel us, more or less, to special pursuits, and she who has aptly been called the "mother of invention," will doubtless furnish us all with a vocation, dependent on our desires, our ambitions, and our capabilities. These desires and capabilities, again, must depend, in larger degree, upon the character of our previous educa-Just here are we again brought face to face with the great question, the actual educational dilemma: Shall we recognize district schools of learning which have nothing in common? or, must the whole system of education, properly so called, be looked upon as one undivided and undivisible whole, and should all that tends to sectionalize, to antagonize different schools, especially schools of different degrees, be pronounced a vice and corruption?

The late Mr. Matthew Arnold was

not far wrong in his address before the University of Pennsylvania, about three years ago. He said (referring to the cause for the superior popular education in Germany and Switzerland), that cause "has expression well given to it by an article in the constitution of Canton Zurich, which declares that there shall be an 'organische verburdung;' an organic connection, between all the schools of the Canton, from the lowest to the highest. It is this connection, this vital connection of popular with higher education which produces its superiority. America has been severely blamed by foreigners for contenting herself generally with instituting a good public system of common schools and leaving intermediate and higher education to chance. When one sees colleges such as Harvard. and Yale, and Columbia, one may be inclined to say that in America higher education seems able to take good care of itself. But the question will still remain, what connection does it hold with popular education? What influence does it exercise upon that? In England our higher instruction has no relation whatever with our popular instruction. In Germany. France, and Switzerland the case is otherwise. The popular school is naturally and properly a municipal The minister dealing with it has under his direct care the training colleges where the teachers of the popular schools are formed. You can understand how this action of superior instruction upon the teacher of the common schools must affect them; how it must tend to raise their work above the common and average thing which the school work of institutions fed from the least cultivated classes and taught by instructors drawn from those classes would, of itself, tend to become . . . Therefore, I say, that what is most to be desired for the common school is an

organic connection with higher instruction, a vivifying relation and contact with it. But for this purpose public instruction must be organized as one whole. Intermediate and higher instruction would, in my opinion, be great gainers by such an organization. I can conceive no worthier ambition than that of training all who are born in a country like this of yours to all which is human. But it will not be done unless we can impart to popular education the contempt for charlatanism and vulgarity, the sound standard of excellence by which all serious higher instruction is characterized."

In relation to these statements of Mr. Arnold we may say that there seems to be a growing tendency in the United States to a "reapproachment" of the higher and lower schools of the educational world, but, in default of any government organization, and of a strange lack of condescension and a certain separateness of the higher schools, this influence seems strangely to emanate from the lower to the higher, instead of, as we should expect, and as Mr. Arnold argues, from the higher to the lower, thus, debasing the higher schools rather than raising the lower. One of three situations must exist; either the universities and public schools will be separated by an impassable gulf of indifference, as is now unfortunately too much the case, or the universities will draw the lower schools up into sympathetic union with themselves, or, finally, the lower schools under sordid guidance and by the sheer weight of numbers will drag down the universities to a lower level. Something like this latter alternative seems to be the situation in those institutions where special and elective studies are entrusted too early to the choice of the immature, uncultivated and ever after uncultivable boy. But in a government like the United States. where the people are sovereign, when

once they see, as sooner or later they will see, that the avenues to the highest and best in education should be freely open to them, they will have it so. And when once they see that they have a right to the best and most cultivated talent for the instruction of their children, they will have that at

any cost. Would that that day might be hastened by the wisdom of our universities. Would that they might take the first step toward the formation of that organic union which sooner or later must come. Let it come from the higher source that the fitness of things may be preserved.

## LIMITS OF EDUCATION.

BY C. COLBECK, M A.

THE word "inspiration" reminds me of one limit in education which I may shortly dismiss here: the limit of faculty, or natural gitt. Non omnia possumus omnes. cannot all do everything." more, few of us can do many things well. We recognize this in poetry and painting, and it is no small gain that since the spread of higher education among women, its recognition in music has rid us of much distracting thrumming of pianos; but we need to recognize it in all branches of education. Teachers may not rashly assume that the pupil has no turn for a subject: every one has a turn for something, and that something must be discovered; but, when the teacher is sure that the natural gift is lacking, then instruction in that subject should be dropped (I do not speak now of very early education) or confined to what will give intelligent appreciation only of the work of others.

Close akin to the danger of acquiescent absorption of the thoughts of others ruining individuality and originality, is the neglect of the limit of assistance which the teacher may give the student. "Overhelp," that enervating error, springs also from excess of power and care on the part of the teacher, and from the desire to secure rapid progress. It is a real and a present evil. Notes, vocabularies, introductions, translations have their

bad as well as their good side. you know what the French call "la vache enragée"? If you do not, I will only tell you that it means "cudgelling one's brains," and I will ask you to listen to some witty remarks on the excellence of the practice, or, to adopt the French metaphor, on the virtues of that particular form of diet for the young, by Madame Emile Girardin. "Oh, tender-hearted mothers!" she says, "mistrust easy methods: easy methods make lazy brains. and lazy brains make fools. Love your children, smother them with kisses, spoil them, give them a thousand indulgences, but do not smooth away the difficulties of life for them. Watch them, don't help them overmuch, don't let them break their necks, but do let them break their heads against the obstacles of learning.

Let them vex their souls, grow discouraged, make mistakes, ask themselves questions, gauge themselves, make mistakes again, train themselves, in fact. Spare them heartaches if you like, and if you can, but never spare them the aches and pains of the brain; stuff them with dainties, cakes and sweets, but never omit from their daily fare the generous dish that gives strength and courage, the magic food that transforms the simpleton into a Ulysses, the coward into an Achilles. the bitter ambrosia

on which demi-gods are nurtured, the fare from childhood upwards of all the great captains of industry and war, all the great men of the world la vache enragée. An old professor said once, 'Qu'un homme qui n'avait point mangé de la vache enragée n'était qu'une poule mouillée.' The badness of the metaphor is only equalled by the profound truth of the thought." I hope, ladies, that this ambrosial dish is not unknown to you. I hope and believe that your professors make your tasks sometimes very hard, and that, if you have begun your educational career by expunging the word "impossible" from your dictionary, it nevertheless sometimes rises to your lips in the course of your daily efforts. Be sure that, in every great and memorable achievement, there was a moment, nay, probably many a moment, when the courage which sustained the struggle was very near akin to the courage of despair. I hope that, in whatever branch of science or art you take up, you have a clear resolve to press forward to independent judgment, and, if possible, to original work. probably, all of you, learn some language, and in languages it often seems, contrary to our experience in science or art, that the work is unoriginal, and confined to the following of beaten paths, and acquisition of already known facts. Let me suggest to you that even here you cannot do better, even at an early stage, than by setting yourselves to translate on paper, as if for publication, though not necessarily for publication, some classic piece of literature. Could I inspire any one here, for instance, to attempt to translate, worthily, Auerbach's Barfüssele? If you tried, any one of you, and succeeded, our English repertory of charming tales, large as it is, would be enriched by one gem the more. Whether you succeeded or not, you would gain greatly

in independent knowledge of two great languages.

You ask how slower pace, selfquestioning, pausing to sift arguments, and master underlying principles is compatible with a world in which the field of knowledge widens day by day, and the stress of life grows harder. I admit the difficulty frankly, but I will not admit that it is insuperable. If we teach more thoroughly, you will say, we must teach fewer subjects in a given time. That is precisely what I would do, but I would also extend the given time indefinitely by recognizing practically, what most would admit theoretically, that the time for education is coextensive with the span of life itself. There have been too many limits supposed or imposed upon the time for education, many have been proved imaginary, many removed: let us not fear to break down the rest. It is a false theory of education which imposed the same "curriculum" upon all scholars; it is a false theory which prates of the classics and the learned languages; it is a false theory, again, which, flying to the other extreme. foists all "ologies" into a time-table, or a prospectus which seems to promise omniscience; a false theory which lays it down that language can only be acquired by the young, that the memory is strongest in the young: it is a false theory that invented the term "finishing" schools, and regarded education as at an end when practical life began. I do not need to tell you that your very existence, and that of kindred societies, was first a protest against these narrowing, unnecessary limitations, and are now a triumphant demonstration of the Let us frankly acknowcontrary. ledge that much of the education of the young is, and must be, merely a training in practical and useful arts, intellectual or manual. It is true that there is much of indispensable knowledge that is of the alphabet type, chiefly mechanical, and that as the race of life grows severer this may become more and more the case. It may well be that specialization will have to be stricter, and to begin earlier; that the majority of children will need to acquire, for instance, the art of shorthand writing, the Morse code, the art of the type-writer and the phonograph; or that for all destined to a commercial life a knowledge of Volapük, or whichever Weltsprache wins in the battle of the languages, may be indispensable. There looms before us even the possibility, though we may hope it may never be realized, of universal military training, which, if it ever comes, will assuredly cut a large cantle out of the time which now can be given to better things. Even this, and all that I have mentioned, and more, it seems to me, we can face without losing hope.

I can hardly omit to speak, however briefly, of that cry for technical education which is echoed with apparent approval by so many different As I understand it, it has parties. my fullest sympathy, but I am not prepared to give an unqualified assent to all that I hear said upon the subject and I wholly disapprove of the advantage the Government are seeking to take of the cry to foster a reactionary movement in education of which we may not yet know the worst. If it means a concession to those who have always thought the education of the poor a social mistake, lifting them out of their proper sphere, and fostering discontent-if it means the foisting into the instruction given to children between the ages of ten and fourteen of manual training such as is now given in the workshops between the ages of fourteen and eighteenthen it will prove a mere short sighted serving of tables, it will be a curse and not a blessing; and, so far from enabling us as a nation to keep our

position in the industrial race, it will make it certain that we shall fall behindhand. I fear that to many it does mean this, and I fear still more that, if ill-organized, it may degenerate into this. What I hope it will mean is the bringing of the intellect to bear upon the mechanical processes, and, conversely, the stimulating and resting of the intellect by an alternation with manual skill and training of the eye; and that it may not be confined to the artisan classes only, but form a part of the education of most of us, in order that thus the artisan may become more intelligent. inventive and progressive, and our intellectual classes more practical and Then we may find here capable. some common ground where the utilitarian in education and the idealist may fraternize; our children will have a better time of it than we have had. and will renew with truth the old Homeric boast that "they are better men than their fathers were."

This topic, from which I will pass on, for time is short, leads us naturally to that of physical education. What limits shall we impose upon it? Roughly speaking, there are two parties: the watchword of the one is "Health," and of the other "Amusement." The first party, starting from medical and physiological considerations, aims at producing a complete animal, and finds its means to the end in drill and gymnastics; the other trusts to sport and games, and holds that, if games are sufficiently varied, the mere machine will be perfect enough for practical purposes, while the merriment, energy, courage, and other moral qualities which wellordered games foster, are blessings not attainable, or less completely attainable, by the rival system. There is much to be said for both views, but I personally hold that the balance of advantage is strongly on the side of the "games" party.

It remains that I should speak, however briefly, of the education of the Emotions and the Will, of moral and religious education. Let me put first what can be most shortly stated. I was much struck some years ago by the remark of a successful headmaster of a great school in the north of England, apropos of the question whether a university education should be given as a preliminary to practical life, and especially to a business life. that learning weakened the will-power, and that on these grounds he doubted whether the successful men of business were not better trained by passing straight from school to active life. I would not admit that the objection was fatal then, and I do not admit it now.

But we must, I think, admit that the scholar lacks opportunities for the exercise and development of the will, and we must reckon it among the dangers of a too exclusive attention to the intellect only that the governing powers may be lost temporarily or permanently. No teaching can confer will-power, the natural gift differs perhaps more here than elsewhere; but like all powers it grows by exercise, and the student needs the warning that it is at his peril that he withdraws at any time altogether from active participation in social life. Among the pros and cons of the battle of Boarding-Schools versus Day Schools, the opportunity in the former for exercising the governing powers may fairly claim a high place. As to moral and religious education, I cannot say more than that, while the intellectual apprehension of social duties, of the desirability and necessity of justice, kindness, honesty, temperance, can be evoked by the parent or teacher, from the earliest years, and must be so, what is more important is not the knowledge of good and evil, but the practice of the one, and the eschewing of the other; and that, again, while the "early custom of education," as Bacon has well called it, can produce the habit of welldoing, there is something beyond which cannot be intellectually apprehended, and which transcends all good habits and good conduct, and that is the love of virtue in itself, the independent choice of the good at all hazards, the enthusiasm of morality. which is communicable indeed, at least the germs of it-let us be thankful that it is so-but not teachable in the strict sense of that word. therefore I, at least, am content with our present compromise in the education of the people, which leaves religious teaching mainly to the Sunday School and the Church, reads the Bible to the children day by day, trusts to high-minded teachers to enforce, by precept and example, lessons of duty and the art of living, and thus, while minimising the danger of sectarianism, leaves as little room as may be for serious complaints from The teacher in morals any side. and religion comes sooner to the limits of his usefulness than he does in the sphere of knowledge. teach definitions, he can illustrate, he can trace consequences, he can teach a prudential morality, he can teach dogmas and catechisms, he can teach the history of morals and religion; and there is a proper time, no doubt, for some of all this—perhaps for all. But it does not take us far. He can teach more by example than by precept, and at times, according to his lights, he may inspire—more often, if he is single-minded and honest, he will do so without being aware of it; but he dare not place "piety" in his prospectus of subjects or his timetable, and he can no more teach "purity of heart" than poor Dr. Keats could. Let us admit—for it is true-that we are never so conscious of the limitation of our learning as when we stand abashed in the presence of some simple soul to whom has come, not by observation, nor by taking thought, but by the grace of God, a spark of goodness that has grown into a burning light, and in the midst of this wholesome humility let us take comfort from the knowledge that such simple pious souls are to be found for the world's sweetening, subject to no limits of age, or rank, or race, or creed.—English Fournal of Education.

#### THE TRIALS AND TRIUMPHS OF THE TEACHER.

BY EX-PRESIDENT JAMES M'COSH, D.D., LL.D.

THERE are some professions whose daily work tends to do good, to spread happiness or promote morality. All human occupations are not of this character. He who keeps a drinking house or a gambling house must at times be visited with the reflection that what he does is fostering and in the end producing misery. Some,employments, legitimate in themselves, may incidentally gender evil. lawyer, obliged to defend the accused in all cases, may at times be protecting the villain to the injury of society. On the other hand, there are professions whose habitual employments produce only good, and this whether those who engage in them are or are not conscious of it. The physician. in curing disease, is lessening pain and promoting health and happiness. The minister of religion, if he be faithful to the trust committed to him, is elevating the character and adding to the peace and joy of all who allow themselves to be swayed by him.

Such facts should be considered and weighed by young men and women in choosing their life work. It is a great encouragement to a person with any moral perception, and may save him from much temptation, to know that every act he does is fitted to promote the good of man and woman, boy or girl, and thereby adding to the sum of human enjoyment.

Now the teacher has this gratifica-

tion to allure him on in all his labours. In his daily employment he is increasing the intelligence and thereby augmenting the felicity of those who are under his instructions. He should not think of this in a self-righteous spirit as if the merit belonged to himself, whereas it is due to Him who has arranged the consequences of things and not to those whose main motive may be to earn a livelihood. Still it is a pleasant thought—and he is entitled to cherish it—that in all his work he is promoting the best interests of young people, which will live when he has to leave this world.

The work of teaching is in itself an elevating one, bringing the teacher into connection with young and fresh minds. He who is engaged in it feels as if he were doing something worthy of himself and of the talents which God has given him. No doubt he has not the same opportunities of earning money as the merchant, the lawyer or banker. But to counterbalance this he is in more independent position than many others; he may have an income sufficient to support him, and should not be liable to the reverses, culminating it may be in poverty or bankruptcy, to which members of the other higher professions are exposed. He has commonly the evenings at his disposal and may employ them in improving his mind, or making himself happy in deeds of benevolence.

There are some young men and

women who should not become teachers; they have no aptitude for the work and would, therefore, become failures should they attempt it. There are those who have no interest in young people and so cannot be troubled with them and cannot attract Such persons would never have the heart and courage to meet the waywardness of children and the self-sufficiency of young men and Again there are those who have no power of expression or exposition and cannot make a difficult lesson comprehensible to the juvenile Once more there are those who have a bad temper which they are unable or unwilling to control; these are sure to be constantly irritated by the impudence of boys or the pettedness of girls, and they had better betake themselves to some less annoying occupation. But young men and women of fair natural ability and who are not hopelessly hindered by such weaknesses as these should seriously consider whether they might not have a happy as well as a useful life in the high work of training the rising generation.

A person enquiring whether he should seek the office of teacher ought to look carefully at the duties required. The first of these is to secure obedience on the part of the pupil, and the second is like unto it, to see that the lessons are thoroughly learned. Where this is not done all higher instruction, moral and religious, must be valueless, perhaps even injurious, as tending to prejudice young people against what is good. I have noticed that the schoolmaster or professor who is ever preaching piety, but who cannot keep order, is of all teachers the most likely to turn away his scholars from religion. the other hand, it is equally certain that a mere disciplinarian or formalist, strict as a Pharisee, is not likely to rear the highest style of pupil.

thorough instructor must aim at something higher than coming up to the requirements of the State Superintendent or his Board of Trustees. He must seek to attract the interest and, if possible, to gain the affections of those whom he would lead and Mere discipline, however guide. perfect, will not generate a living and lively school. With nothing else there will be a want of attention on the part of the scholars and a consequent dulness and stupidity in the work executed. It is not enough to have system, there must be life superadded. The teacher who would make lively pupils must himself be alive. It needs fire to diffuse heat. The dull teacher produces dull schol-Almost all the great teachers I have known have been distinguished for life. Some of them have been lively to excess, and been absolutely without common sense; but they were able to carry on their pupils by the stream of their enthusiasm.

The instructor should set before him a higher aim than merely to exact lessons and impart knowledge. This I fear is the standard adopted by many of our State teachers—he must not only teach in the narrow sense of the term, he has to train the He should aim not merely to secure good conduct, but to instil good principles. For this purpose he must labour to form good habits, habits of diligence, habits of truthspeaking, habits of civility to all, habits of kindness—if possible h. bits of benevolence. In short, he must seek to mould the character, and thereby determine the future conduct It is only so far as he succeeds in this that he can himself draw the highest satisfaction and receive the highest enjoyment from his work -enjoyment from seeing that he is doing good. To accomplish the highest ends of education, there must be -what God shows to us who ought to be his disciples—love mingled with law, love to stimulate and law to restrain. Every one who knows human nature will be prepared to acknowledge that the teacher cannot secure these ends to the fullest, except by making his pupil religious, and this, I may add, he cannot expect unless he himself is religious.

He who would aspire to be a successful teacher must realize that the method of instruction is advancing, both in the higher and lower departments. I can testify that the highest colleges and universities are alive and in motion—at times I think going backward, as when they prescribe a curriculum which tempts the student to take the easier and not the more solid subjects, and allows him to have a degree without having studied the branches fitted to brace and enlarge the mind. But, upon the whole, they are going forward—as freely admitting new branches of learning and insisting on a thorough mastery of the subjects taken. Elementary teaching is also making progress in its methods and in its results. teacher who would rise in his profession must be prepared to advance with the times. He must be ready to join the teachers' associations, and read the teachers' journals which explain and criticize the new methods proposed, and he has in the exercise of good sense to guard against accepting a new method because it is new, or rejecting an old subject because it is old.

But it is said that he who becomes a teacher will have his difficulties, his disappointments and his sorrows. Nowhere are these described more graphically or more tenderly than by Walter Scott in the language ascribed to Mr. Pattieson, schoolmaster at Gandercleugh, in the Preliminary to "Old Mortality." Scott there writes as sympathizingly as if he had been, which he never was, a schoolmaster

himself. He speaks of the teacher who, "stunned with the hum and suffocated with the closeness of his school-room, has spent the whole day (himself against a host) in controlling petulance, exciting indifference to action, striving to enlighten stupidity and labouring to soften obstinacy, and whose very powers of intellect have been confounded by hearing the same dull lesson repeated a hundred times by rote and only varied by the various blunders of the reciters. Even the flowers of classic genius with which his solitary fancy is most gratified have been rendered degraded in his imagination by their connection with tears, with errors and with punishment, so that the Eclogues of Virgil and Odes of Horace are each inseparably allied in association with the sullen figure and monotonous recitation of some blubbering school-boy."

There are other and coarser troubles to which the teacher is exposed. There is the scolding mother not satisfied with the attention or the position allotted to the son or daughter or offended with the penalties imposed for misdemeanours. There is the boy or girl spoiled at home and ready to work mischief in the school by violence or cunning.

But let the would-be teacher remember that all other trades and professions have also their annoyances. Customers complain of the goods of the storekeeper and of the articles manufactured by the mechanic. ents are not satisfied with the way in which the lawyer has conducted their Friends are disappointed with the doctor because the patient has not recovered. It is true emphatically that "man is born to trouble as the sparks fly upward." All engaged in public work are exposed to suspicions, and may have scandals propagated against them. It is in the midst of such disturbances that man's sagacity is called forth and the manly,

independent and upright character formed.

People see their own troubles because of their proximity, not those of their neighbour because of their distance. How often have I found the sons of ministers declining to follow the sacred profession of their father, because they saw the hardships to which he had been exposed in finding sustenance for his family, and rushing into other walks of life where their temptations have been greater and the respect paid to them much The best public defense of a man is his character, and his inward support the consciousness of acting righteously.

Over against his trials the teacher has more encouragements than are found in most walks of life. may surely have great and pure gratification when they see this pupil and that pupil growing like the plant in knowledge and in all that is good. There will be fathers and mothers showing deep gratitude for the care taken of their children. It is well known that children are not apt to have as much affection for their parents as their parents have had for In like manner, it is scarcely to be expected that the scholars should love their teachers as their teachers have loved them. Still there will be numerous cases in which the pupils through life cherish an affection for their old masters and show them a respect which is not paid in almost any other profession. In all cases the fruit of a faithful instructor will remain and go down to the generation following. The good which he has done will thus spread throughout the whole region in which his pupils are scattered.

It has to be admitted that the teacher has not always had the position in society which he ought to have from the important nature of his office and work. In ancient times

the work of educating the children of a family was often committed to slaves. In modern times the teacher has not always so high a status allowed him as the other learned pro fessions. But I am sure that the status of the instructor of youth will advance with the advance of civilization. In this as in so many other cases, he who would mount up must climb; he cannot be lifted up by another. I am persuaded that the time is not distant when teachers of youth, lower and higher, will rank with the lower and higher grades of ministers and lawvers. The teachers should remember that their success in this commendable enterprise will depend on their gentlemanlike and ladylike bearing.

My readers would feel it to be an omission if, in speaking so fully of pedagogues, I did not mention that most of them are apt to have characters of their own-some of them eccentricities and oddities. peculiarities are apt to be produced by the nature of their work. are rulers in their domains. Queen of England and the President of the United States have no such absolute power. The teacher questions all his subjects and is questioned of none. The consequence is that he is commonly independent and is apt to show his independence. have all known teachers who have been noted for their opinionativeness -that is, they had opinions of their own, and were sure to obtrude them in season and out of season. men and women of sense take pains to restrain this tendency. As they rise in the scale of society their sharp points will be rubbed off and we shall have fewer of those Dominie Sampsons who have so amused us.

It is to be understood that these remarks apply throughout not only to the schoolmasters but to the professors in our academies and colleges. These last feel that they are educating and swaying the highest juvenile minds of the country and preparing them for influential positions as teachers, doctors, ministers, magistrates, judges and statesmen who may each in his own place help to form the character and direct the energies of the country.

I cannot close this paper without stating that my highest enjoyments have arisen during all my public life in teaching young people in the critical age when the character is formed. As a minister of the Word I had always 100, sometimes as many as 170, young men and women under me whom I instructed in high biblical knowledge. For the last thirtyseven years I have had the privilege of instructing every year at least 150, and latterly upward of 200 students, in a branch which I believe is fitted more than any other academic study to enlarge and elevate the mind. Mv tastes and the talents which God has given me, have tended and flowed all along toward mental philosophy. the age of sixteen I read-I acknowledge prematurely—Thomas Brown and David Hume. I cherished the affection when I was studying theology under Chalmers in the University of Edinburgh. Without neglecting my parochial work among 1,400 church-members I indulged the taste in secret, knowing that there was a prejudice against metaphysics. I have to thank God and man that in my years of full maturity I have been put in positions to gratify my deeply seated inclination and to turn it to noble ends. I first got the means of fully gratifying my cherished passion when the eminent statesman, Lord Clarendon, had a copy sent him, without my knowledge, of my first work, spent the whole Sabbath in reading it, forgetting to go to church, and during the week appointed me Professor of Logic and Metaphysics in the newly established Queen's College, Belfast. In Princeton College, to which I was appointed without any application on my part (on the suggestion, I believe, of Dr. Irenæus Prime), I have had the fullest opportunity of gratifying my natural and acquired propensity, and as it brought me into close relationship with a large body of the students, I have found it not inconsistent with my other duties as President of the college. I have found the injunction a wise one, Doce ut discas. The answering at the recitations, the difficulties felt, the objections taken by the students have compelled me thoroughly to comprehend the better the profound philosophic themes which I taught. I can now rejoice in the thought that I have pupils exercising an influence for good in the Irish province of Ulster, through a large part of the United States, in India and in China (where I have Sir Robert Hart). know that there are thousands of other instructors in our upper schools and colleges, who have had a like experience, with their marked tastes for other branches, for literature, for classics and the now innumerable branches of science, theoretical and practical.

THE whole track of history is marked with the ruin of empires, which, having been founded in injustice or perpetuated by wrong, were ultimately destroyed.—WILLIAM M. TAYLOR. No intellectual investment, I feel certain, bears such ample and such regular interest as gems of English, Latin or Greek literature deposited in our memory during our childhood and youth.—MAX MULLER.

### NUMBER-WORK FOR BEGINNERS.\*

BY MISS ESTHER M. CHAPMAN.

THE selection of a subject for discussion having been left to me, I have chosen one that has always possessed a peculiar interest, namely, "Number-work for beginners."

A child entering one of our ungraded schools at the age of six or eight has small idea or conception of number. Many of us as teachers make a mistake in assuming that the little ones know things of which in reality they are profoundly ignorant. The best method of dealing with them is to assume that they know nothing whatever of number. teacher takes an interest in the subject and displays even a moderate share of tact, the lessons may be made bright and inspiring and a source of real pleasure. I know of no exercise which will so thoroughly arouse a child as a properly-conducted number lesson. And now for a few practical details culled from experience.

Provide as many objects as possible -smooth pebbles, grains of corn, acorns, buttons, splints. Place these things upon a table if you can secure one, and let the children stand around. If not, in lieu of one, prop the desklid to level and begin. Of course the first act in the performance will be the knocking out of the prop and the scattering of your material to the four corners of the school-room. Do not, if you can help it, scold the nervous, awkward little creature who was the cause of the catastrophe. brightly as though such an occurrence were quite a matter of course, and on the whole rather good fun, gather the things together and go cheerfully to work again.

The number three is a good starting point for the average child. The perception of this number or the ability to recognize as a whole is the first step. Call upon them to show you three acorns, three pebbles, hold up three fingers, nod three times, make three steps. Place the figure 3 upon the blackboard, and try to make them understand that it is the symbol of the objects before them. Ask them, "What can you find in 3?" If this is a first lesson they will stare you blankly in the face, and you must say, "I find 1 and 2 in 3," separating the pebbles into groups as you speak, and and making each one arrange them in the same way. Go then to the board and write 1 + 2 = 3. Tell them half a dozen little stories to illustrate this, as "Two ducks were swimming on the pond and one more came to join them. If you have been holding their attention all this time when you say, "Now who can tell me a story like that?" Put on the board a picture; this may consist of one ring with two more directly under it. The brightest child in the class (there is always a brightest one) will thrust up a hand with the request, "Let me make a picture." "Certainly," that is precisely what you wished to elicit. This will be enough for one lesson. Leave them to copy the formula 1+2=3. If they succeed even after repeated trials it will be a boon to you; you will have provided so much "busy work" to keep them employed while you are engaged in other mat-The next lesson continues the analyses, finding that 2 + 1 = 3, that there are 3 ones in 3, etc. A third lesson introduces the minus sign -. Interpret minus by telling them that it means "to take away." Let them

A Paper read before a Teachers' Institute at West Point, Mississippi.

find out that if one be taken from three two remain. Require them to perform the operation, make the pic ture, tell the story. This they are very fond of and soon do with great ease, sometimes showing no little imagination. There is a tragic tale that is a part of the stock in trade of my little fellows. It is about what happened to part of a certain number of boys who went fishing after their mammas had told them not to.

The closing step is a comparison with smaller numbers. This is harder for them; they easily discover that 3 is more than 1, but they cannot tell how many more, or that 1 is less than 3, but it may take several lessons to teach them how many less. Be patient, go over and over, but have a care lest you weary them. Make the time short, laugh with them, talk with them, keep them wide awake, employ many devices to keep them from finding out how many times you are re-

peating the same thing.

It will readily be seen that 4 is a more interesting number than 3. There are more facts in it. For instance, it may be divided into two equal parts. And just here, though it may seem premature, you may give a lesson on fractions, cutting an apple into two equal parts before their eyes, and dividing the pebbles into equal groups of two. Very soon the children will know that  $\frac{1}{2} + \frac{1}{2}$  is one whole, and that  $\frac{1}{2}$  of 4=2, and will be able to write these facts and make pictures of them. Better still, they will have conceptions that will last always and that will enable them to stamp more complex pictures upon that wonderful sensitive plate—a child's brain. As the lessons progress, a wise teacher, recognizing that objects are a means not an end, will try to abstract the idea from the concrete objects and gradually dispense with them, using them only occasionally to test the correctness of mental processes.

not be afraid to give them the sign of multiplication and division at an early stage, only being very sure that they are thoroughly comprehended; their accurate and rapid use soon becomes reflex action. I have often been surprised to see the development of a child's reasoning faculties under this system. I will say: "If 6+5=11, how much is 11-6?" in an instant a dozen hands are up. And such eager hands! Their owners nearly shake them off.  $6 \times 2 = 12$ , how much is  $12 \div 6$ ? It is very clear that I would exceed the time allotted to me and weary you all were I to attempt to go into the minutiæ of this subject. I have only given a few points and these are merely suggestive. It remains for each teacher to work out of his own individuality a plan for himself.

## A SNOW PARABLE.

BY A. L. SALMON.

Softly falls the snow and slowly, slowly, O'er the solitude of wold and hill; Winds are breathing desolate and lowly Where the wearied world is lying still.

All the dismal darkness of the city
Lies enshrouded with a perfect white:
God in wonderful eternal pity
Sends his snowy message through the night.

Like a cloak of pardon and remission
Falls the snow on city den and street—
Emb em of the contrite heart's condition,
Earnest of forgiving love complete.

Where the sin and sadness are unsleeping
Lies a purity which is not theirs;
Thro' the night there comes a sound of
weeping,

Thro' the night there comes a voice of prayers.

Turn, O hungry souls that tire of sinning, Take the peace which earth can never give! Leave the by-gone for a new beginning, Leave the dreariness of death, and live.

Softly falls the snow and slowly, slowly,
O'er the solitude of street and mart:
Hear, O Father! Thou art holy—
Lay its whiteness on the sinner's heart.
—Good Words.

#### NOTES FOR TEACHERS.

The Elephant's Trunk. — The elephant has more muscles in its trunk than any other creature possesses in its whole body, their number being, according to Cuvier, no less than 40,000, while the whole of a man's muscles only number 527. The proboscis or trunk of the elephant, which contains this vast quantity of small muscles, variously interlaced, is extremely flexible, endowed with the most exquisite sensibility and the utmost diversity of motion. — The School Newspaper.

A HISTORY LESSON.—I know that a good history lesson is a fatiguing one to give, that it is disappointing to find presently how little of it is remembered; but we must take heart in the knowledge that its value lies in mental and moral stimulus, in increase of power and alertness, in awakened curiosity, in an enlarged horizon, in the exercise of the reasoning faculties through definition and expression, in the training of the emotions and the conscience. Our pupils may display no signs of "a universal insight into things"; we shall not the less earnestly continue striving to render still more practical this most practical of trainings, and looking to the end of our great vocation, which is to fashion "steadfast pillars of the State."—R. F. Charles, in the Journal of Education (London).

Someone, who evidently felt the truth of what he was writing, has said that a valuable essay might be written on the healing or mitigating power of books on the mind and heart. Most of us at some time of our lives want a good Samaritan to take pity on us, and a good many of us reject the proffered oil and wine for the reason that we do not care to lay bare our

wounds which want healing. But unfailing friends do exist whose ministrations any one of us can accept, and these are books; they never betray our secrets, they sympathize, fortify, or rebuke us, and we can turn from one to the other seeking whichever seems to heal our present trouble best. They ask no gratitude, and, above all, they lift us out of our narrow sphere of petty trouble into a larger one of thought and reasoning.—The Hospital.

Don't Have Prejudices.-I was told that a Charles P--- would give me no end of trouble, and unfortunately I believed it. He was a large boy, not well dressed, and annoyed me excessively by constantly looking I was quite set against him, too, because the other boys seemed to take to him. I kept myself prepared for an outbreak, and was surprised that none came. One night after all had gone, he returned and said the wagon was coming, and asked me to go up to "their house." I consented, and on arriving was told by the mother, "Charles thinks so much of you." I felt guilty enough. been harboring the worst thoughts about Charles, and here he was, thinking kindly about me. "Yes, Charles would do anything for you. He has been talking about having you come up here ever since he has been to school. He never got along very well before; the teacher did not seem to understand him. Now he thinks he is doing so well." I determined to deserve the good opinion of this I found him one of the noblest boys in the school, and then and there determined not to have prejudices against pupils. I have been disappointed again and again with grown-up people; they are not what they seem. So it is with pupils. Once a child said to me on the first day, "I sha'n't like you." She had taken a dislike to me from my looks. I bestirred myself and determined she should like me. About two weeks after she lingered behind and said, "I like you ever so much." I felt I had gained a victory. We cannot improve under those we do not love.—C. D. Elmore, in New York School Journal.

ELECTRICAL TRAMWAYS.—Electricity has entirely banished animal power on the street railroads in Scranton, Pennsylvania. The People's Street Railroad Company, which now operates all the lines in the city, was one of the first to try the electric motor, and has been, in operation, one of the most successful. There are in all twenty five miles of street railroad in the city and its suburbs,

some of which is very difficult to operate, having very short curves and grades as high as 10 per cent. ordinary duty of a car is about 100 miles per day. The system in use is the overhead wire, the power-wire being carried above the track on brackets suspended from cross-wires stretched from poles on either side of the street. A feeder-wire is carried on the poles on one side, so that in case of a break in the main wire, a new connection can be made at any point and current supplied without delay. The connection between the power wire and the car is made by a trolley carried on a long iron rod on top of the car, and the connection can be made or broken by a slight movement of the conductor's or driver's hand. The cars run very smoothly and well, and do not seem to experience any difficulty in climbing the steepest gradient. - The Glasgow Herald.

### PUBLIC OPINION.

PLINY AND THE PUBLIC SCHOOLS. —Furthermore, finding that there was no school at Comune, and that the boys had to be sent away to Milan to be educated, he engaged to pay onethird of the salary of a qualified teacher, and would have paid the whole had he not believed it was wrong to relieve the parent of his responsibility. "Where," says he, "could boys pass their time more pleasantly than in their own district, be subject to more virtuous control than under the eye of their parents, or be reared more cheaply than at home." These words and acts of Pliny are of special interest in the present day. - Fames Cowan, M. A., Asst. Master, Manchester Grammar School.

A MATRON.—An alderman in Chicago is preparing a novel plan which

provides for the appointment of a matron for each public school, whose sole duty will be to keep an eye on the scholars and see that their clothing, shoes, and stockings are not wet. before they enter upon their school duties. When the influenza epidemic was at its height, Alderman Powers learned that 30,000 children were stricken with the complaint, and after studying the matter he came to the conclusion that some of the children must have caught the epidemic because of the wet weather. — The Schoolmaster.

CHARACTER OF TEACHERS.—The London School Board has taken a wise step in making confidential inquiries with regard to the moral character of candidates for appointment as teachers. General testimonials af-

ford little guidance except to experts who can read between the lines and knows something of the personal equation to be applied to their writers. The teachers of the London School Board have hitherto been appointed too exclusively on the strength of their academic qualifications. The result has not been satisfactory. Many teachers of high attainments and great ability have been appointed whose moral qualifications have been by no means on a par with their intellectual.

—The School Fournal.

WHAT IS OF VALUE?-How often are the teachers of the young asked this question by anxious parents, full of care for their children's future? How often is the answer given in some such form as this, "Going to the University, is he? Well, he must grind away at classics or mathematics -one of the two; it won't pay him to take up both." Or the question may resolve itself into an ever recurring cry from the parents themselves: "How is the boy doing in French? Can he talk a little German? How many words a minute can he write in shorthand?" And so on, and so on. What a farce the whole thing is! What good will his classics or mathematics do him if he is so self-willed, so undisciplined, that at Cambridge or Oxford he wastes his substance in riotous living? Will his French or his German advance him a yard upon the road to success if his latent energy has not been brought out, if his sense of steadfastness has not been educated? Or his skill in shorthand. will that compensate him or his parents when he has not the virtues which are needed even at the clerk's desk? We repeat again what a farce the whole thing is! When will the parent recognize that an education in habit is better than an education in tongues; that it is even more valuable, more paying in his own paltry sense? Of course we must be practical; if we do not bake we shall have no bread. But to train a lad up to tenacity, steadfastness, hardiness, and a real sense of duty is truly practical, and practical in a most undisguised form. It will pay from the beginning, it will pay in the long run. It will enable him to lay a course of bricks with the exacting soul of the true artist, even if he be but a bricklayer: and it will lead him to do equal justice to the most helpless and the most influential, should he be called to the responsibility of controlling human affairs. There is hardly a schoolmaster in existence who has not been asked by some fond father or anxious mother if the boy has reached certain stages in Greek or Latin, French, or what not; but how many of us are asked, and how often, if that lad is learning to restrain his passions, to be brave and truthful, to be grateful to his elders and generous to his equals-to be, in short, diligent in all things? Few of us, indeed! Truly has it been said that the culture of the head is left to the schoolmaster, but the culture of the heart to circumstances.-The Private Schoolmaster.

#### GEOGRAPHY.

A New RAILWAY IN BRITISH COL-UMBIA.—The southern section of the Province is at present badly in need of railway accommodation. From the eastern boundary to the Pacific Coast is a strip of fine country possessing rich and varied resources. Near the eastern boundary are the Crow's Nest coal deposits. In them have been found thick seams of the best coal. The supply appears to be inhaustible. Coming west are mining districts known to be rich in gold, silver and other metals, all waiting for a railroad to develop them. There are fine agricultural lands capable of yielding heavy crops of wheat on the route of a railway running from east to west, and it would run through the bunch grass district, on which any number of cattle and horses could feed and fatten. In this southern section are also large areas of timber land, which without better means of transport than now exist are of little or no use to the Province. A railroad through this southern strip would make all those resources immediately available. The coal of the Crow's Nest seams is absolutely necessary to enable the miners of the districts between the Rockies and the Coast to work their mines to advantage; and the agricultural and grazing lands need a railway to get their products to a market. The Spokane Falls and Northern Railway Company have, we see, made application to construct roads in this district, and the Crow's Nest and Kootenay Lake Railway Company have a charter to build a road through the eastern part of it. The country would be benefited and the projectors' interests would be served if these roads were all incorporated into one scheme. We trust, therefore, that the Crow's Nest Coal and Mineral Company (Limited) will come to an agreement with the Spokane and Northern Railway Co., and unite to give the Province a through railway from Crow's Nest to English Bay.—The Victoria Colonist (B.C.).

ENGLAND AND PORTUGAL.—The difficulty between England and Portugal has ended by the complete submission of Portugal. The trouble

arose through the invasion by Portuguese forces of the territory occupied by the Makololo in the highlands of the Shiré, a river running from Lake Nyassa into the Zambesi. Gatling guns were turned against these unoftending people, and hundreds of them were slain. Believing that they had been abandoned by England, whose flag they carried, they submitted to the conquerors, whereupon the Portuguese officer announced that he would extend his authority northward to Nyassa, including the lake shores. Premier Salisbury sent his ultimatum to Portugal, which was that her army should be withdrawn from the banks of the Shiré, and that if a reply were not received in twenty-four hours the British legation would withdraw and await a response or a British man-of-Portugal decided to recall her forces, but the cabinet had to retire from office. This action was followed by rioting in Lisbon, during which the mob attacked the British legation. demolishing the escutcheon on the building and smashing the windows. The Makololos first became known through the publication of Livingstone's narrative of his trip across Africa, about thirty years ago. They are simple and honest in character. and showed great devotion to the famous explorer. A large majority of them formed a liking for the beautiful country on the right bank of the Shire, where they settled at the request of its people, who needed their protection, and laid the foundation for what is now a really prosperous state in Nyassaland, and one that has always refused to allow slavery or slavetrading within its bounds. It is this state which the Portuguese attacked under a disputed claim.—The New England Fournal of Education.

#### EDITORIAL NOTES.

EDUCATION DEPARTMENT.—By an Order in Council of the Government of Ontario, in January, J. George Hodgins, LL.D., was appointed Historiographer and Librarian of the Education Department, and Alexander Marling, LL.B., was appointed Deputy Minister.

THE UNIVERSITY OF TORONTO, FEBRUARY 14TH, 1890.

THE destruction of the University of Toronto will be regretted by anyone who has ever looked upon the noble pile of buildings. The sense of loss comes more keenly to the President, the Faculty, and the undergraduates, but to none will the calamity cause more heart-felt grief than to the men who in past years inhabited its halls students. as These precincts are dear still to the graduates, although the passing years have scattered them around the world. It is impossible for one who has been familiar with the University to dwell upon the occurrence without realizing more fully every hour the irreparable loss. As each part of the building, with its own peculiar and sacred associations, rises undestroyed in the memory of the graduate it brings with it an answering pang when he reflects that these halls can never be again as when he trod them. He is again in the Convocation Hall, above him he can see the roof of oak resting its grotesquely carved images upon the walls, reaching up to it their That roof has fallen, shatsupport. tered and charred upon the floor The memorial window, commemorating, it may be, companions of his own college days, or, if coming after him, they were students of a later date, whose young, glorious deeds thrilled his heart with pride; if before him, they were heroes whose fame had been storied to his listening That window, sacred to the heroic dead, has been broken by falling rafters, desecrated by fire, destroyed by the stones placed there to protect it. Fiery destruction has rushed along the halls and stepped imperiously upon the winding stairs of the tower, has knocked at the ironbound, oaken doors with flaming hands that forbade resistance. portraits of the men held honourable in the College annals have vanished, their features, kept in the memory of the graduates, glow more life-like in the light cast by their destruction. The hoarded annals of years have themselves disappeared, the fruit of patient labour, of talent, of love, has gone in a night. The priceless volumes, gathered slowly and guarded jealously, no longer exist. Even the record of their names can never be obtained. The finest products of art and science, the memorials of history, the achievements of genius, of heroism, of industry, of time, have gone down together before this swift destruction.

Another University will rise more glorious from the ashes of its predecessor; the lines of its architecture may follow those of the old building, except where wider and better things are needed. The generosity of its friends may remove from the hands of those who guide its affairs the burden of poverty, but there still remains the bitter regret, "It can never be again the same." next generation the new building will take the place of the old, but not to us, who remember the University of 18**60**-1890. The University fallen and almost destroyed calls to her sons to aid her, to remember the love she bore them, the pleasant ways in which she led them. Can there exist a man who will not respond to the cry of his mourning Alma Mater?

#### EDUCATION AND POLITICS.

¶R. MEREDITH'S proposal to take education out of politics is well received and will help to fill his sails at the election unless the Government alters its course so as to take the wind out of them. abolition of the Council of Public Instruction a twelvemonth after its reorganization was not a deliberate measure or dictated by experience: ic was caused by a personal crisis in the Board, the wrath of the Chief Superintendent having been kindled by the revision of his text-books, the inquiry instituted into his Depositories, the free exercise by the Council of its power of election to the headships of Training Colleges, and generally by the curb which the activity of the reorganized Council put upon his autocracy. Had the Government been firm enough to enforce upon its Chief Superintendent an observance of the rules of public life, or had there been a strong man in the Chair of the Council, all might have gone well. At the pass to which things had been allowed to come the change was inevitable, nor were there wanting other arguments in its favour, such as the convenience of having in the Legislature a Minister responsible for the expenditure. It seems to be felt, however, that the result of the experiment is unsatisfactory and that it would be well to return to the old system or something like it. A Council is of course unfit for ordinary administration, which must be placed in the hands of some regular officer. But for such matters as the selection of text-books and the regulation of the curriculum it is useful. Council was certainly free from any influence, political or commercial. Nor did it show any such tendency to ecclesiasticism as the Council of Instruction in Manitoba is said to betray. It is good for the educational profession to have at its head a body of its most eminent representatives. As Minister of Education we must take whomsoever, in the somewhat fortuitous distribution among the leaders of a political party, it may please fate to give us, and if the man happens to be unfamiliar with the special subject and obliged to rely on others the result is an irresponsible Vizier or a Camarilla. With the withdrawal of education from politics Mr. Meredith, it may be surmised, will combine a cautious and conservative policy with regard to education generally. It is time that we should take care what we are about if we do not mean to educate country life and farm industry out of existence.—Bystander.

[We are gratified to have so accomplished and experienced an educator as the editor of the *Bystander* so fully in harmony with the policy advocated for years by this Magazine.—ED.]

EVERY book is a quotation; and every house is a quotation out of all forests and mines, and stone quarries; and eve y man is a quotation from all his ancestors.—EMERSON.

God be thanked for books! They are

the voices of the distant and the dead, and make us heirs of the spiritual life of past ages. Books are the true levellers. They give to all who will faithfully use them the society, the spiritual presence, of the best and greatest of our race.—W. E. CHANNING.

# SCHOOL WORK.

## MATHEMATICS.

ARCHIBALD MACMURCHY, M.A., TORONTO.
EDITOR.

## ANSWERS TO PROBLEMS.

By Prof. Edgar Frishy, of the Naval Observatory, Washington, D.C.

81. Solve, by a simple quadratic method, the equation  $x^0 + 12x^0 + 14x^4 - 140x^3 + 69x^2 + 128x - 84 = 0$ .

81.  $x^6 - 12x^5 + 14x^4 - 140x^5 + 69x^2 + 128x - 84 = 0$ , is im nediately seen by inspection to be satisfied by x = +1 and x = -1, it is therefore divisible by  $x^2 - 1$ , and 1 ecomes  $(x^2 - 1)(x^4 + 12x^3 + 15x^2 - 128x + 84) = 0$ , the right hand fact r is equal to  $x^4 + 12x^3 + 36x^2 - 20(x^2 + 6x) - x^2 + 8x + 84 = 0$ , or  $(x^2 + 6x)^2 - 20(x^2 + 6x) + 100 = x^2 + 8x + 16$ ,

$$x^2 + 6x - 10 = \pm (x+4)$$
  
 $x^2 + 5x - 14 = 0$ 

 $x^{2} + 7x - 6 = 0$ the first gives  $x = \frac{-5 \pm \sqrt{81}}{2} - 7$  or + 2

the second  $x = \frac{-7 \pm \sqrt{73}}{2}$ ,

the 6 roots are therefore: 1, -1, 2, -7,  $\frac{-7 + \sqrt{73}}{2}$ , and  $\frac{-7 - \sqrt{73}}{2}$ .

85. Construct a triangle, the product of two sides, the medial line to the third side, and the difference of the angles adjacent to the third side, being given.

85. 
$$\frac{a+b}{c} = \frac{\cos\frac{A-B}{2}}{\sin\frac{C}{2}}$$
 (1)

$$\frac{a-b}{c} = \frac{\sin\frac{A-B}{2}}{\cos\frac{C}{2}}$$
 (2)

 $a^2 + b^2 = \frac{C^2}{2} + 2d^2$  (3) d being the

medial line.

From (1) 
$$(a^2 + b^2 + 2ab)$$

$$\sin^2\frac{C}{2} = c^2 \cos^2\frac{A-B}{2}$$
 (4)

from (2) 
$$(a^2 + b^2 - 2ab)$$

$$\cos^2 \frac{C}{2} = c^2 \sin^2 \frac{A - B}{2}$$
 (5)

adding and subtracting these two equations we have

$$a^2 + b^2 - 2ab \cos C = c^2$$
 (6)

$$(a^2 + b^2) \cos C - 2ab + c^2 \cos (A - B) = 0$$
 (7)  
elim. cos C

$$(a^2+b^2)(a^2+b^2-c^2)-4a^2b^2+2abc^2$$

cos(A-B)=0 (8) substituting from (3)

$$\left(2d^2+\frac{c^2}{2}\right)\left(2d^2-\frac{c^2}{2}\right)$$

$$-4a^2b^2 + 2abc^2\cos(A - B) = 9$$
 (9)

whence

$$c^4 - 8ab \cos (A - B)c^2 + 16a^2b^2 \cos^2 (A - B)$$
  
=  $16(d^2 - a^2b^2 \sin^2 \overline{A - B})$ 

or 
$$C^2 = 4(ab \cos \overline{A - B} + a)$$

where  $d^2 - a^2b^2 \sin^2 \overline{A - B} = a^2$ and c is therefore known.

a and b can be obtained from (3)

$$a = \frac{1}{2} \sqrt{\frac{c^2}{2} + 2d^2 + 2ab} + \frac{1}{2} \sqrt{\frac{c^2}{2} + 2d^2 - 2ab}$$

$$b = \frac{1}{2}\sqrt{\frac{c^2}{2} + 2d^2 + 2ab} - \frac{1}{2}\sqrt{\frac{c^2}{2} + 2d^2 - 2ab}$$

C from either (1), (2), (6) or (7), and

$$A = 90 + \frac{A - B - C}{2}$$

$$B = 90 - \frac{A - B + C}{2}$$

# MODERN LANGUAGES.

Editors { H.I. STRANG, B.A., Goderich. W. H. FRASER, B.A., Toronto.

EXERCISES IN ENGLISH.

CONTRIBUTED BY MR. W. H. JOHNSTON, HAY P. O.

1. Change to indirect narrative:

(a) "Zotoff," she murmured, "goodbye, I am dying."

- (b) "On looking out of the window I perceived a detachment of soldiers advancing."
- (c) Bernstein wrote in conclusion, "Again, goodbye, my friends, my dear friends, I embrace you."
- (d) Mr. Wiman said, "It is clear that Canada will have no difficulty in providing ever-widening acres for all who come to her, but in order that they may be occupied there must be an inducement."
- (e) Mr. Drummond writes: "In books of travel great chiefs are usually called kings, their wives queens, while their mud huts are always palaces. But after seeing my first African chief at home, I found I must either change my views of kings or of authors."
  - 2. Change to direct narrative:
- (a) He claimed that of half the real woes which existed in Africa ivory was at the bottom.
- (b) He told me that the cost of ivory then was about half a sovereign a pound, and an average tusk weighed from twenty to thirty pounds.
- (c) He thought that many physicians ignorantly treated it as a cold and did more harm than good.
- (d) He advised his patients to inhale menthol.
- (c) The servant wondered how Mrs. ——could expect her servants to treat her (Mrs. ——) politely, since she was so disrespectful to them.
- (f) He advertised that he kept a real estate office and a general implement agency, and that he was determined to do an honest business. He hoped to obtain a liberal patronage from the people of the town and surrounding country.
- 3. Distinguish between the following pairs of words: bear, bare; pale, pail; lightning, lightening; soar, sore; teem, team; complement, compliment; rite, write; right, wright; stationary, stationery.
- 4. Distinguish between: Will he go? Shall he go? He is sincere; He is candid. He went to town; He went to the town.
- 5. Point out the ambiguity in the following sentences, and then re-write them correctly:

- (a) They were friends of my uncle who came to visit us.
- (b) The hawk caught the pigeon while it was flying.
- (c) The boy told his brother that he had come too early.
- (d) He told John that he did not fill his coat.
- (e) The boy told his father that whatever he did he did well.
- 6. Write sentences to illustrate the correct use of the following synonyms: Construct, build, make; conquer, surmount, subdue; conscious, sensible, assured; copious, ample, plenteous; daring, brave, courageous; harmonize, agree, coincide.
- 7. Compose sentences illustrating the use of the following words: Apartment, department, altogether, evenly, develop, development, envelop, envelope, audible, orthodox, elementary, soliloquy.
- 8. Re-write the following, using equivalents for the italicized portions:

Hostilities between the two nations were precipitated in the valley of the Ohio by the persistent encroachment of the English.

- 9. Write sentences to illustrate the following; two for each:
  - (a) An adjective used as a noun.
  - (b) A noun used as an adjective.
  - (c) An adjective used as an adverb.
  - (d) An adverb used as an adjective.
- 10. Write sentences to illustrate the different parts of speech that the following words may be: That, what, which, coal, beach, evermore, whistle, beyond.
- 11. Write a complex interrogative sentence and a compound imperative one.
- 12. Give three examples of prepositional phrases modifying adjectives.
- 13. Re-write the following sentences, leaving out unnecessary words:

He comes from thence. They both were there. Go and fetch the dictionary. Go up to the desk. He jumped off of the fence. I have no doubt but that you are right. He does equally as well as John. I have got an apple. The two first tried it over again. You seldom ever repeat again what you hear. Continue on as you have begun. They are conversing together.

14. Choose the correct form:

Divide the money among (between) the four boys. He is the smartest (smarter) of the two brothers. He is liable (likely) to go. It feels smooth (smoothly). Where will you spend the balance (rest) of your time? There were less (fewer) girls at the party than boys. There were more than (over) forty bushels in the bin. He is more able (better able) (ablet) than I.am. Where are you stopping (staying)? Did you aggravate (irritate) him? He gave his testimony (evidence) very clearly.

## CLASS-ROOM.

#### ARITHMETICAL PROBLEMS.

1. A man has 150 acres of land. He keeps 5 fields, each containing 10 acres 2 roods 27 sq. per. 17 sq. yds., and divides the remainder equally among his nine children. How much more or less than one of his own fields does each child obtain?

Ans. 10 sq. per. 13 sq. yds. 8 sq. ft. more. 2. Divide \$42 between A and B, so that if A were to give  $B_{7b}$  of his share they would have equal amounts.

Ans. A gets \$22.40; B gets \$19.60.

- 3. A barrel of sugar would be worth \$10.50 if it contained & more. If the price of sugar be 4\mathbb{g} cts. per lb. find the quantity in the barrel.

  Ans. 216 lbs.
- 4. One t ain leaves Toronto for Montreal at 6.30 a.m., going 27 miles per hr.; another leaves at 8.20 a.m., going 36 miles per hr., and thus arrives at Montreal 1 hr. 15 min. earlier than the former. Find (1) Where the latter overtakes the former. (2) The distance from Toronto to Montreal.

Ans. (1) 198 miles from Toronto; (2) 333 miles.

- 5. John owes James 3 of what James owes Henry. James gives John a \$5 note to square accounts. How much did James owe Henry?

  Ans. \$25.
- 6. A gamester, after losing  $\frac{1}{4}$  of his money won \$10. Then he lost  $\frac{1}{4}$  of what he had, after which he won \$6. Then he finds he has \$50. How much did he lose?

Ans. \$10.

7. In an electoral district 12 of the voters

are Conservatives. In an election 225 of these vote with the Reformers, and 75 refuse to vote, while 32 Reformers do the same. The Reform candidate is elected by a majority of 13. Find the supposed strength of each party in the district.

Ans. Con., 6,240: Ref., 5,760.

- 8. A dealer buys a piece of furniture for \$10. Find what he must ask for it in order to fall \$\frac{1}{2}\$ of his asking price and still make a profit of \$1.25, if the one to whom he sells can pay but 75 cents on \$1.

  Ans. \$18.
- 9. At 40 cts. per yd. a man finds it costs \$14.40, or \$3.60 more than he had allowed, at the same price per yd., to cover the floor of a room with carpet 27 in. wide. If he measured the floor correctly account for the difference in cost.

Ans. Carpet 27 in. wide instead of 36 in.

# SUGGESTIVE QUESTIONS IN GEOGRAPHY.

- I. Furnish yourself with a day's provisions, and tell the source of each article in your supply.
- 2. In what foreign markets would a person be likely to find articles of Canadian produce.
- 3. What country on this continent has the greatest variety of products? Explain why.
- 4. Make a list of all the articles you know of found in Canadian markets not products of American soil, and mention the country from which each comes.
- 5. Name the source of each material used in writing an invitation to a friend to dine with you on the morrow.
- 6. Notice the walls, furniture, etc., used in the school-room, and tell what each is made of, where the material is chiefly produced, and where the article is chiefly manufactured.
- 7. Name all the animals represented in a lady's fashionable winter wardrobe.
- 8. What do we mean by the "natural resources" of a country? Classify in the order of importance Canada's Natural Resources.
- 9. Distinguish between Customs Duties and Excise Duties, with examples.

# CONTEMPORARY LITERATURE

In Littell's Living Age a sequence of sonnets on the death of Robert Biowning from the Fortnightly, and an article on the great poet by Edmund Gosse are selected from the mass of current literature on this absorbing topic. Personal Recoilections of Thomas Carlyle by Prof. Tyndall is a valuable addition to what is already known of Carlyle's life. The fiction is worthy of the high standard of the magazine.

AGAINST Heavy Odds, the story of a young Norwegian inventor is concluded in the Youth's Companion of February 20th. Prof. Charles G. D. Roberts, of Windsor, Nova Scotia, has a series of Tales of the Lumber Camp. Young people will find useful as well as interesting matter in the Companion, while the little stories filling up the chinks cause many a hearty laugh.

THE present number of Canadiana contains an article on the literary movement in Canada up to 1841. In Reminiscences of Col. Claus Mr. Ernest Cruikshank tells the story of 1812. But the most interesting article is Washington's Address to the Canadians. If General Washington could repeat the words he would be fain to confess that Canadians to-day enjoy more liberty under their so-called tyranny than do the citizens of the United States under mob rule.

THE Popular Science Monthly for February contains an article on Comparative Mythology, by Dr. A. D. White, in which the author, from the pinnacle of unassailable (!) reason, views with pitying contempt "the myth-making powers of Jews, Christians and Mohammedans." Prof. J. T. Donald, of Montreal, has an interesting paper on Asbestos Mining in Canada. An editorial on "Useful Ignorance" counsels fewer subjects for study, as you can not thin out at will an over-abundant intellectual crop.

THE February number of Scribner's has Life Among the Congo Savages by Mr. Herbert Ward, one of Stanley's officers; anything about Africa is interesting. What shall we do when Africa is exhausted? An article by Stanley himself is promised for an

early number of the magazine. W. C. Church contributes the first of two articles on John Ericsson, the great engineer. The present article deals almost solely with his private life; his influence on modern invention will be discussed in March. Through the Gate of Dreams, by T. R. Sullivan, ouches a note seldom heard in the fiction of to-day. In the Valley and Expiation are serials of strong interest, presenting widely different scenes in American life.

In the English Illustrated Magazine the gloom surrounding Whitechapel is lightened by E. Dixon in "A Whitechapel Street," where we find the London children playing much as children do all over the world. A delightful historical sketch of Winchelsea is an attraction of the present number. We learn of Bells and Belfries from the Rev. H. R. Haweis, and Sir Julian Goldsmid tells of his travels in Canada and the United States on the way to 'Frisco.

#### RECEIVED.

"The Harvard University Catalogue, 1889-90."

"A Report in Regard to the Tone and Tendencies of Harvard University."

- (1) Education in the State Constitutions.(2) Pedagogical Chairs in Colleges and
- Universities.
  (3) The Culture Value of the History of
- (3) The Culture Value of the History of Education. By Prof. B. A. Hinsdale, Ph.D.
- "Annual Report of the Local Board of Health, Toronto."

A Primer of French Literature. By F. M. Warren, of Johns Hopkins University. (Boston: D. C. Heath & Co.)

The Third Reading Book. By E. H. Davis, A.M. (Philadelphia: The J. B. Lippincott Co.)

French and German Reading Books. Heinrich Von Eichenfels. Edited by G. Eugène Fasnacht. (London: Macmillan & Co., and New York.)

Elements of Astronomy. By Charles A. Young, Ph.D., LL.D., Professor in the College of New Jersey. (Boston: Ginn & Co.)

The Elements of Trigonometry By Prof. Crawley, of the University of Pennsylvania. (Philadelphia: The J. B. Lippincott Co.)

Sept Grands Auteurs du Dix Neuvième Siècle By Prof. Alcée Fortier, of the Talane University of Louisiana. (Boston: D. C. Heath & Co.)

The Gospel according to St Matthew. Annotated. (London: Moffut & Paige.)

Longmans' Handbook of English Literature. By R. McWilliam, B.A. and New York: Longmans, Green & Co.) Parts I. and II. In many respects this is a satisfactory work on English literature. The mechanical execution is excellent, and the author's plan of giving a series of more or less complete biographical sketches rather than a history of English literature has much to recommend it, especially where a mere biographical sketch is adequate. So that the chapter on Shakespeare is rather disappointing, while those on Sir David Lindesay, of the Mount and Roger Ascham, are pleasant reading, and altogether more satisfactory. Not much attention is devoted to the consideration of style. But, on the whole, the work may fairly be called a useful addition to our school books on literature. Part I. ends with the death of Lydgate, and Part II. with that of Bacon. We shall look with interest for the other parts.

The College Series of Greek Authors. AE-chines against Ctesiphon. Edited by Prof. Richardson, of Dartmouth College. (Boston: Ginn & Co.) We are glad to announce the appearance of another of the volumes of this series which is under the general editorship of Prof. White, of Harvard, and Seymour, of Yale. This is, we be ieve, the eleventh volume, and it bears evidence of the same taste and scholarship that characterized the other volumes of the series.

Syntax of the Moods and Tenses of the Greek Verb. By Prof. Goodwin of Harvard University. (Boston: Ginn & Co.) Prof. Goodwin now issues, re-written and greatly enlarged, his work on the Greek verb which first appeared in 1860. The work is now a large one, and especially suited for advanced

private study and reference by classical scholars. In an introduction the author ably reviews the progress made in the study of this part of the Greek grammar, and alludes incidentally to the labours of other classical scholars. We have no doubt that the work will now be a standard one and congratulate the author and publishers on its appearance.

The Public Schools Music Course. In six books. By Charles E. Whiting. (Boston, New York and Chicago: D. C. Heath & Co.) This series of music books is most complete, and supplies hundreds of hymns, songs and marches, etc., suitable for use in the primary and advanced classes of Public Schools, also in High Schools and Normal Schools. Some of the books are illustrated, and the course is doubtless one of the very best for school use.

Macmillan's Elementary Classics. Casar. Gallic War VI. It is a pleasure to chronicle the appearance of another of the excellent elementary classics. The editor is Mr. Colbeck, late Fellow of Trinity College, Cambridge, Assistant-Master at Harrow School.

A New Spelling Book. 1s. (St. Audrews: A. M. Holden.) This spelling book is well arranged, and the words, with meanings, carefully selected. The compiler makes use of "Side Lights from History," by giving interesting notes about some of the words.

Arithmetic for Beginners. By J. Brooksmith and E. J. Brooksmith. (London: Macmillan & Co., and New York.) The general plan of this excellent elementary arithmetic is similar to that of the well-known larger work by Mr. Brooksmith, the main portion of the present work being done by Mr. E. J. Brooksmith, Instructor in Mathematics at the Royal Military Academy, Woolwich. Arithmetic as far as interest is taken up, and a goodly number of miscellaneous questions and problems are given.

Helps to Higher Arithmetic. By Rev. G. F. Allfree, M.A., and Theodore F. J. Scudmore, B.A. (London: Hamilton, Adams & Co.) Beginning with problems of distance, rate, time, etc., and then passing on to interest, discount and the other advanced rules of arithmetic, this mathematical text-

book may be correctly described as a higher arithmetic, and one of the very best at that. Ability and care are evident in the treatment of the work, which is at once scientific, thorough, and adapted to a student's needs. An appendix on Scales, Progressions, etc., appears, and one of the things about the book that will please mathematical teachers and examiners most is the useful collection of twelve hundred questions at the end of the book. We cordially commend this book to our mathematical friends.

The Newspaper Reader's Index of Refer-Compiled and published by Henry ences. Axon. (Bolton: Bolton Express.) 3s. 6d. How often one sees an article in a magazine or a chapter in a book likely to be useful, only to have a dim recollection a few months or years after, that there is "something somewhere" which would be a great assistance re the subject on hand, if one could only remember what and where it is. Here is a book providing easy and ample means of indexing such matters. It is likely to be of considerable service, especially to those who read and write much or speak in public, or carry on professional work. Alphabetically headed, ruled conveniently, and ingeniously arranged, it is the book for the purpose.

Canada. (Montreal: E. B. Biggar.) \$3. The publisher announces this as a reference book for public institutions and public men. It contains over 1,000 pages and treats of the history, geography, government. resources, commerce, manufactures, industries, and general statistics of our country. Some seventy-five illustrations and twelve maps are given, and the reader cannot fail to be struck with the general correctness and description and detail found in this work, which is probably the most comprehensive book of reference on the subject, and as such, ought to be placed in all public libraries, as well as in the libraries of schools.

A Short Geography; with the Commercial Highways of the World. By J. M. D. Meiklejehn, M.A., F.R.G.S., Professor of Education in the University of St. Andrews. (St. Andrews: A. M. Holden. London: Simpkin, Marshall & Co.) 15. Like Prof. Meiklejohn's other works, this excellent short

geography is all that could be desired in arrangement and style. It is as clear and concise as possible, full of well-selected matter, and admirably adapted for the use of schools anywhere in the British Empire. The lessons on the commercial Highways of the World are valuable (by the way, the Canadian Pacific Railway has been omitted from these); a number of maps and diagrams are inserted.

The Treasury of Sacred Song. F. T. Palgrave. (Oxford: At the Clarendon Press. London: Henry Frowde.) 10s. 6d. Francis T. Palgrave, Professor of Poetry in the University of Oxford, has added another beautiful book to those for which we have already to thank him. The Treasury of Sacred Song is a beautiful book, containing selections representative of the entire range of English sacred poetry, to which are added brief biographical and explanatory notes. The selections number above four hundredthere is not one we would willingly see withdrawn. This delightful collection will be at once a standard volume, a favourite gift book. and an authoritative aid to the compilers of church hymn books and others. The printing and paper are choice, and the binding tasteful. Everything about the book is as nearly perfect as can be.

The Sixpenny Atlas: (Edinburgh and London: W. & A. K. Johnston.) This wonderfully cheap atlas contains fifty-three maps. The name of the publishers is sufficient guarantee for it.

Notable Churches of the City of London. Church Bells Office. Price 32 cents. The sketches of the London Churches, here collected and published, are exceedingly interesting, both historically and otherwise. So much of English thought and history is connected with these sacred edifices, that we can easily imagine that this book would be a pleasant companion. There are twenty-five full-page illustrations.

MacMillan's English Classics.

The Lay of the Last Minstrel. Edited by Professor Stuart, of the Presidency College, Madras.

(2) Milton's Comus. Edited by Professor Bell, of the Government College, Lahore.

Notes showing both scholarship and common-sense and an introduction which is of no little use, in the study of the poem, along with a clearly printed text, make up the latest numbers of the English Classics' Series, which are worthy of their predecessors.

Some Eminent Women of our Times. By Mrs. Henry Fawcett. (London and New York: Macmillan & Co.) 2s. 6d. A series of short Biographies originally contributed by Mrs. Fawcett, to the Mothers' Companion. have, we are glad to see, been issued in book form. Among the subjects are the Queen, Hannah More, Lady Sale, Sister Dora, Mrs. Browning, Mrs. Somerville, Dorothy Wordsworth, Florence Nightingale and others. Lives of such women as these, written by one who is eminently qualified for the task, could not be anything else than good to read and know. This is an excellent book for girls.

Stories of New France. By Miss A. M. Machar and Thomas G. Marquis (Boston: D. Lothrop Company.) Price \$1.50. No volume placed in our hands for review by the publishers of late is more welcome than Miss Machar and Mr. Marquis have entered an open field and one full of promise. The early history of Canada is, to those who know it, full of inspiration and instruction. Sad to say, we fear it is little understood or taught in too many schools, Too many history text-books and teachers have the life "squeezed out of them," and cannot aid in invoking the patriotic wisdom which is one of the most precious things in national life. Our friend Miss Machar das a theine worthy of her pen, and we are glad to see the name of a new Canadian writer associated with hers. The volume is comprised in some seventeen chapters, eleven of which are by Miss Machar. We could almost regret that, so far as we noticed, no quotations are introduced from the works of Parkman and other Perhaps the best chapters in the book are those on Champlain and La Salle. The narratives in all cases are full and satis-We hope that the book will meet with the cordial reception that it deserves, and think it cannot fail to be useful both to

- (1) New York State Graded Examination Questions, with Answers. \$1.00.
- (2) Easy Things to Draw. By D. R. Augsburg. 30 cents. (New York and Chicago: E. L. Kellogg & Co.) The volume of questions and answers named above may possibly be found useful occasionally by a good teacher-it will certainly be hailed with joy by many who cannot teach. The publishers congratulate themselves that "It is a great step that all of the one hundred and thirteen commissioners have adopted this series of questions." Not at all. Men. women, children, and examiners are not all alike, and it is a mistake to try to make them so. "Easy Things to Draw" will be found a great help in blackboard drawing. The sketches of flowers and other objects are good; those of animals, somewhat wooden.

The State and Federal Governments of the United States. By Prof. Woodrow Wilson. (Boston, New York and Chicago: D. C. Heath & Co.) We had much pleasure in reviewing recently Prof. Wilson's work on "The State." This is the longest—perhaps also the best—chapter in that book, here reprinted as a text-book for schools and colleges. We are glad to chronicle its appearance in this form, and we believe that it will speedily be adopted for study by students of political economy in American and other colleges.

Macmillan's Classical Series.

- I. Pliny's Letters. Books I., II. Edited by James Cowan, M.A.
- II. The Histories of Tacitus. Books III., IV., V. Edited by A. D. Godley, M.A. The volume entitled "Pliny's Letters" contains, besides the text, a Life of Pliny, copious and scholarly notes, extending over more than one hundred pages, and an index. Of the "Life," with its interesting incidents and references, its allusions to the acts of the philosopher and his friends, and its picture of his character and usual employments, we can hardly express our opinion without laying ourselves open to the charge of exaggeration from those who have not seen the book. Though the notes are many, we could not wish one to be omitted, and the editor deserves the cordial thanks of the profession

for preparing so valuable a work. II. Mr. Godley, a Fellow of Magdalen, is the editor of the "Tacitus" mentioned above. An introduction and notes are supplied, also an index. In regard to the notes, we can only repeat what we have said above of those in another volume of this most excellent series. Choice renderings are frequently inserted, and interesting explanations of the numerous points which claim the attention of teachers in the study of such a work.

Lippincott's New Series. The Second Reading Book. By Eben H. Davis. (Philadelphia: The J. B. Lippincott Co.) This is an attractive reading book, beautifully printed and illustrated and excellently adapted for the use of chi'dren.

Word by Word. By J. H. Stickney. (Boston: Ginn & Co.) In this illustrated primary spelling book, an attempt is made to lay the foundation for correct spelling and pronunciation, and we have no doubt that teache.s will be much pleased with it. Great care has been taken in the selection and arrangement of the matter, and in the hands even of an average teacher, we think junior pupils will learn a great deal from this bot. k.

The New Arithmetic by Three Hundred Authors. By Seymour Eaton. (Boston: D. C. Hea'h & Co.) We had the pleasure of reviewing this collection of arithmetical principles and questions some time ago,

and we are glad to see that it has now reached the fifteenth edition.

Report of the Department of Indian Affairs. We are indebted to the Super-intendent-General of Indian Affairs for a copy of the annual report of this department, containing a mass of information relative to its work. Especially cheering are the signs of general improvement on the North-West reserves.

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The Editor will always be glad to receive original contributions, especially from those engaged in the work of teaching.

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