

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/  
Couverture de couleur
- Covers damaged/  
Couverture endommagée
- Covers restored and/or laminated/  
Couverture restaurée et/ou pelliculée
- Cover title missing/  
Le titre de couverture manque
- Coloured maps/  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/  
Planches et/ou illustrations en couleur
- Bound with other material/  
Relié avec d'autres documents
- Tight binding may cause shadows or distortion along interior margin/  
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/  
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

- Coloured pages/  
Pages de couleur
- Pages damaged/  
Pages endommagées
- Pages restored and/or laminated/  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached/  
Pages détachées
- Showthrough/  
Transparence
- Quality of print varies/  
Qualité inégale de l'impression
- Continuous pagination/  
Pagination continue
- Includes index(es)/  
Comprend un (des) index

Title on header taken from: /  
Le titre de l'en-tête provient:

- Title page of issue/  
Page de titre de la livraison
- Caption of issue/  
Titre de départ de la livraison
- Masthead/  
Générique (périodiques) de la livraison

Additional comments: / Includes some text in Latin.  
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below /  
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
						✓					

THE CANADA  
EDUCATIONAL MONTHLY  
AND SCHOOL MAGAZINE.

---

APRIL, 1888.

---

OUR WORK AND HOW TO DO IT.

BY REV. PROFESSOR WILLIAM CLARK, TRINITY COLLEGE, TORONTO.

*(Continued from page 86.)*

1. **A** FIRST obvious and fundamental principle is this, that our work should be lawful work, that it should not, as far as we know or believe, be at variance with the will of God. And this is a principle which is upheld by every consideration which should weigh with a thoughtful and conscientious mind. Self interest itself requires such a provision. A business which is unlawful will seldom be really remunerative. Honesty is the best policy, upon the whole, and in the long run. It is often and truly said that, if our rogues would employ the same ingenuity, industry, and perseverance in following a lawful calling which they show in their roguery, their worldly success would be triumphant.

But there are higher motives enforcing the same conviction. The voice of conscience is nobler than the prescriptions of self-interest. Even those who may decline to recognize the sanctions of religion

will admit that a man must obey his conscience if he would preserve his self-respect. His self-respect—nothing can compensate a man for the loss of that. When it is gone there stands nothing between him and moral ruin. "Give a dog a bad name," it is said, "and you may hang him." Let the dog feel that he deserves the bad name and he would almost as soon be hanged. The contempt in which the tax-gatherers of the time of our Lord were held by their countrymen reacted upon the men themselves, and it came to pass, on the one hand, that those who held that office fell in their own estimation, and, on the other hand, that men possessed of self-respect would not adopt such a calling, and so from both of these causes the men came to be very much what they were thought of and called. It is ever so. Let young men listen to this solemn warning before they enter upon the path which they intend to tread to

their life's end. Whatever else they may think of being and doing, let them do nothing whereby they shall forfeit their self-respect. "Happy is he that condemneth not himself in that thing which he alloweth." At the same time we ought not to encourage a nervous and excessive scrupulousness which sees evil and mischief in many things which are perfectly harmless, and which is so afflicted by doubts and fears as to the lawfulness of the most common and necessary employments of human life that it can hardly enter upon them without a sense of guilt. Such over-scrupulousness is not evidence of a tender and healthy conscience, but of one which is morbid and perhaps perverted. There are real sins enough without adding unreal ones to the number. There are quite enough deflections from the straight road without inventing imaginary ones. There was great good sense in the reply given by an English Nonconformist minister, when he was told he ought not to smoke. He said he found it quite difficult enough to keep the commandments which God had promulgated. He found none which said, "Thou shalt not smoke." He had no mind to add to the number. If a man sincerely believes any particular calling, such as the manufacture of tobacco or of beer, to be mischievous or useless, then he does well to abstain from it. "Whatsoever is not of faith, is sin." But let him not condemn his neighbour who is unable to perceive the value of his scruples.

Let it not be imagined for a moment that in guarding against over-scrupulousness, we are wishing to encourage unscrupulousness. If the one is a disease, the other is a sin. If the former proceeds from a morbid conscience, the latter comes from a darkened conscience and a perverted will. To refer to our previous remarks, no man can preserve his self-

respect in life and work who does not hear the voice of this inward guide. And, if we are really bent on discovering what work is lawful and useful, we have many aids towards the conclusion which we seek. We have our own conscience, we have the Bible, we have the conscience of the society in which we live. And, although we must never suffer this to override the testimony of our own conscience, we may often receive light from the light of our fellow-men. If we pay proper respect to these guides, if we lay to heart the lessons taught by experience—our own and that of those who have gone before us, and of those who are living with us—we are little likely to go wrong in our choice.

2. A second rule, and one which is very closely connected with the first, requires that our labour should not only be lawful, but that it should also be *useful* to ourselves and others. Lamartine, who about forty years ago, was a very elegant writer of the French language, and a very indifferent President of the French Republic, declared that "it is a matter of very little importance *what sort* of work we are engaged in," provided we do really labour.

Excluding from this notion all unlawful work, we may admit that there is a small measure of truth in the statement. A man who really works will very soon find out whether he is doing well or ill; whether, in short, his work is producing anything. He will scarcely go on for ever weaving cobwebs or drawing water in a sieve. He will want to have something to show for his labour, and therefore it is far better that a man should get to work, even if he does little good by his work; for he will certainly find his way to useful labour much sooner by work than by idleness.

3. Further, the decision of our work for life may and should be determined, in part, by our personal *en-*

*dowments and qualifications*, and even to a certain extent by our *inclinations*. What a man *ought* to do must depend greatly upon what he *can* do. It is possible that some of us may have come under the influence of a form of Christian ethics which did not hesitate to lay down the rule that a man was bound to fulfil certain duties, and that this obligation was not in the least diminished by his utter inability to meet it. It is hardly possible to imagine a theory which should ultimately be more destructive of a sense of duty, and which should more effectually engender an utter disregard of all moral restraints. Thanks be to God, it is but seldom now that doctrines so nonsensical and pernicious are put forth by Christian teachers. We hold, as the very basis of the throne of righteousness, that responsibility is limited by ability, that a man is accountable up to the measure of his strength.

On the other side, our qualifications should always be allowed great weight in determining the kind of work which we decide to undertake. Some one has said a man enjoys doing a work which he does well. But it is equally true that a man is more likely to do his work well if he enjoys the doing of it, and if he feels a kind of fitness for it and a tendency towards it. How many men would have escaped the shame of utter failure if they had had regard to this plain dictate of common sense! How many a man might have employed profitably and fruitfully time which has been utterly wasted, if he had only considered how many things there were which he was capable of doing, and that there were some that he had very little qualification for performing!

4. One other consideration should not be overlooked, namely, the *actual circumstances of our life*; or, to put it in another and certainly in a better form, the *leading of God's providence*. It is not too much to say that in most

cases this is the safest guide—in many cases it is the only guide. There are multitudes of human beings who do not seem to have special aptitudes for any particular kind of work, who will yet do almost any ordinary work fairly well, if they can only come to see that it is their duty, and will really give their minds to it. In such cases, and they are very numerous, let it be said to a man, "Do what you are set to do, and do it as well as you possibly can, and your life will be honourable and even dignified."

People often imagine that because they have failed in life, or done their work very indifferently, they have therefore mistaken their calling, and that they would have succeeded in some other profession or business. Most of us are sometimes tempted to think that we might have excelled in some work which we have had no chance of trying, although we may scarcely have attained to mediocrity in that which we have attempted. Undoubtedly there are such cases. Mr. Carlyle laments that the world could find no better work for the poet Burns than setting him to gauge ale-barrels. Scattered through the sorrowful history of the human family there are instances not a few of men who have been what we should call utterly thrown away.

But these cases are exceptional. Few men have the right to assume that the case is their own. Very few men will be justified in thinking that the reason why they have not succeeded in life has been the mistake they made in choosing their work. It will be safer to attribute their failure to the defective manner in which they have undertaken and carried out their work. A man who does one thing badly is likely to do many things badly. A man who does one thing well would probably do many things well if he had them to do. Dean Stanley relates that when he was appointed to a canonry at Canterbury,

he one day met Mr. Carlyle, and asked him whether he could offer him any hints as to the best way in which he might use his new position for the good of his fellow-men. He could not have been quite unprepared, he certainly could not be surprised at the answer which he received: "Whatever thy hands findeth to do, do it with thy might." It is but little help that one man can give to another in a matter of this kind. Every one who is really willing to work will find out for himself the best way of turning his work to account. "Do the duty which lies nearest to you," says the Eastern proverb, "the next will have already become clearer." Yet one or two hints may be offered to the inexperienced, and these are derived from the experience of those who have gone before us. So much on the choice of work.

One other topic still remains to be considered, namely the *doing of our work*. We have seen the importance and the necessity of labour. We have further remarked that every one has his own special part of the work of the world to perform, and we have tried to point out some of the guiding principles by which we may properly be determined in the selection of our work. Let us now consider how we should set to work in doing it.

1. Now there is one rule which may be laid down, which is very simple, almost we might say self-evident, and yet which is frequently forgotten or overlooked. It is this, that *what is worth doing at all is worth doing well*. Rightly understood this statement will be accepted by all; yet there are thousands who do not act upon it. We may hear people, any day and every day, justifying their neglect and carelessness by the argument that the thing they have in hand is of no importance.

But it is either worth doing or it is not worth doing; and it should either be let alone or done properly.

And the meanest duty may be done well or ill. We do not mean for a moment that all work is equally valuable, or that every duty should have the same amount of time and toil bestowed upon it. This would often be to withdraw from other and more important employments the attention and pains which they demand. But everything should be done according to its own nature and needs, with such care as shall ensure its being done effectually. The man who begins by doing anything badly, and being satisfied with so doing, is in great danger of ending by doing nothing well. But this thought has a very direct bearing upon the life-work of many. There are very many of our fellow-creatures who must toil at what are called the lower employments of life, and some of them must often feel that they are capable of better things. It is easy to understand the temptation which bids them despise their actual work. But assuredly it is the greatest folly to yield to such a temptation. When once we have satisfied ourselves that it is our duty to occupy a certain post, that here and nowhere else is our work, then let us believe that this is what our hand findeth to do, and let us do it with our might.

2. A powerful incentive to earnest and careful labour may surely be found in the *intrinsic excellence and beauty of all good work*, of whatever kind that work may be, whether the hand-work or brain-work, whether the work of the chisel, the graving-tool, the pencil, the brush, or the pen. May we not say that this is one of the very highest motives by which the worker can be animated? It is involved alike in the thought of doing all for the glory of God, in the desire to do the best we can for the world in which we live, and in the purpose of realizing our own proper perfection and doing our own appointed work.

(To be continued.)

## BIBLICAL INSTRUCTION IN THE PUBLIC SCHOOLS.

BY REV. D. J. MACDONNELL, B.D., TORONTO.

SHALL the Bible be taught in our Public Schools as the Word of God? This is the question in regard to which Mr. Le Sueur returns to the charge in an ably written paper in your issue for February. It is, I fear, impossible to arrive at a conclusion on this matter which will be equally satisfactory to the Christian and the Agnostic. Mr. Le Sueur thinks it useless or unreasonable to teach children that God cares for sparrows, or that He sent His Son to save men. The overwhelming majority of the people of Ontario, I believe, desire to have their children taught these and kindred Biblical truths. Shall this instruction be given to any extent in our Public Schools? or shall these schools be practically Agnostic instead of Christian? On the question of the giving of religious instruction in schools there is, of course, diversity of opinion amongst Christians; but I believe it is the desire of the people of Ontario generally to have the Bible read, and, if possible, taught in the schools as the Word of God. There is difference of opinion as to the sense in which the Bible is "The Word of God;" but the conviction of the people is that the Bible contains a message from God such as no other book contains, and for that reason, stands on a different level from any other book, and is an instrument of moral training such as no other book can be.

Mr. Le Sueur states the question under discussion in the following terms:—"We want to know . . . whether in a country like Canada, in which there is no State Church, and, professedly, no State recognition of any particular theology, the Bible

should be used in the schools with a warrant from the State that it is the Word of God." I think that, for practical purposes, confusion of thought would be avoided by omitting all reference to a "State Church" and stating the question somewhat differently, thus:—

Shall the great majority of the people of Ontario have their children educated in the way that they deem best, using the Bible as an instrument of moral and religious training, or shall they be obliged to exclude the Bible at the dictation of a small minority? Toward the close of his article, Mr. Le Sueur makes the following statement, which I welcome, for I am more anxious to find points of agreement than points of difference: "To the reading of the Bible in the schools and to the giving of moral instruction more or less founded thereon, I would personally make but slight objection, were it not for the domineering and tyrannical spirit in which the *right of the majority* to have such readings and teachings has been insisted on by some."

No, I think I speak not simply for myself, but for the great mass of Protestant Christians, when I say that we are as thoroughly opposed to tyranny and intolerance as Mr. Le Sueur. We are anxious to preserve the rights of the minority as well as those of the majority—we desire to interfere with no man's religious convictions. The whole history of our Public Schools is a proof of this assertion. We think, however, that the majority has rights as well as the minority, and there is a growing feeling amongst us that if our school system must be adapted to the demands of

the Roman Catholics on the one hand, and those of the Agnostics and Secularists on the other, it will come to be a question whether we shall not be compelled to give up the "common school" altogether, and have schools established in which our own conception of education may be carried out. Such a result would be very much to be regretted; but it might be the less of two evils. Is there anything "domineering" or "tyrannical" in setting forth such claims as these on behalf of the majority?

Mr. Le Sueur's statement that "there is no State recognition of any particular theology" is true of Ontario, if by "particular" we understand *denominational*; but the State does "professedly" recognize "Christianity," and whatever "theology" that term covers, especially in connection with the public school system. This avowed recognition is the starting-point of a series of resolutions recently passed by the Toronto Ministerial Association, to which I am glad to call the attention of your readers. A large and representative Committee of that Association, after very full consideration of the matter, presented a report, which was adopted without dissent, to the following effect:

"Whereas the Compendium of Acts and Regulations affecting Public Schools declares that 'Christianity is recognized by common consent throughout this Province as an essential element of education which ought to permeate all the regulations for elementary instruction;' and whereas, Christian truth is thus confessedly the best basis of right conduct on the part of citizens in fulfilling the duties justly demanded by the State; and whereas, Christian truth can be most

effectively imparted by thorough and systematic Biblical instruction, your Committee recommend—

"1. That the present provision for devotional exercises and Scripture reading at the opening or closing of the school, or both, be continued.

"2. Also, for reasons set forth above, that systematic religious instruction form an integral and regular part of our Public School programme, in addition to the devotional exercises already prescribed."

[There were two additional resolutions which it is not necessary to quote, one suggesting three tentative schemes of Bible lessons, the other indicating that Biblical instruction shall be given by the responsible teachers of the schools.]

I believe that the preamble to these resolutions expresses the conviction of the great majority of the people of Ontario that "Christian truth" is "the best basis of right conduct on the part of citizens," and that the proposal to have "Biblical instruction" form "an integral and regular part of our Public School programme" will commend itself to their judgment. I heartily agree with Mr. Le Sueur in his abhorrence of "incantations," and for that very reason I shall be glad to have "systematic instruction" in Biblical truth instead of, or in addition to, the mere reading of a few verses in the hearing of the children. I do not deny that there are difficulties in connection with this important matter—difficulties growing out of the very greatness of the themes with which the Bible deals and out of the varying conceptions of "Christian truth" on the part of earnest and devout men; but I believe that if we are to avoid very serious perils these difficulties must be faced.

## PEDAGOGUES AND PEDAGOGY.

[AN ALLEGORY.]

BY A. H. MORRISON, BRANTFORD.

There in his noisy mansion skilled to rule,  
The village master taught his little school.  
—*Deserted Village.*

YES, I am a pedagogue, and, though I say it myself, a conscientious one, I trust. Mr. Goodfellow, my friend, who is the leading spirit in a certain department of a highly respectable firm down ——— Street, sometimes in the course of conversation condescends to offer sundry and manifold invaluable suggestions as to the practical utility of pedagogy in general, and the individual merits and demerits of divers pedagogues of our acquaintance in particular. Now Goodfellow is a very good sort of fellow indeed, in spite of certain frailties and idiosyncrasies of habit to which he, in common with the rest of poor humanity, has fallen heir. I do not profess to be a casuist in any sense of the word, neither have I ever called a man conceited to his face in my life, but when a fellow lays himself open to the spiteful little innuendoes of his lady acquaintances, why whose fault is it? We cannot always pinch our tongues between our finger tips you know. And what are you to do for a man who will choke himself with six-story stick-ups, and thunder and lightning cravats, but slap him on the back till he comes to and returns to a normal state of respiration. It is undeniable that my friend G., by a pleasant fiction of imagination, does consider himself the dual fountain-head of importance in these parts, to wit; first, as absolutely and incontrovertibly unique in inherited ability to detect a spurious article in his special line of goods, or tear into shreds the specious arguments of a fraudu-

lent drummer; secondly, as being by self-acclamation the elected and seated *Magnus Apollo* of the good town of ———, upon whose superb presence the admiring glances of the fair electors of young ladydom rest, as on the *ne plus ultra* of masculine super-excellence. But then you will remark, these are mere frailties, scarcely deserving the name of faults. What if one of our friends persists in wearing orthodox stand-ups, that need not necessitate a renunciation on our part of heterodox, but infinitely more comfortable, lay-downs? What if another, in a moment of verbal inspiration, declares that President So-and-so was greatly *debilitated*, or that he suffers from *voyalant* spasms, that need not entail upon us the office of expounder of the whole "faith and duty" of a lexicographer and orthoepist. And if a third chooses to imagine himself the head centre of feminine attraction, or the best beloved of the amorous belles of the locality, what business is that of yours, brother Pick-a-hole, or of mine, either? Are *you* not the mainstay of this or that interest in a certain riding or township, which shall be nameless? Am not *I* the most enlightened pedagogue on this continent? Are not *my* opinions *the* opinions that will one day be the opinions of all enlightened pedagogues in this fair land? And am I not only too well aware that had I but inclination I could step out into the streets any day and cut out all *the beaux* of the district, and appropriate as my own the fairest dove of the fluttering flock which bills and coos so prettily round the strutting turkey gobblers of humanity? Ah!

me. Are we not all great men? Yes, and great women too. And if I do not usurp your sanctuary, brother "Captious," or monopolize your boudoir, sister "Quiz," 'tis because the will is wanting and not the ability.

One morning upon entering the breakfast room, I found Mr. Good-fellow discussing concurrently, and apparently with equal relish, his matutinal meal and the previous evening's paper. His usual salutation, "Good morning, Mr. Pedagogue," was supplanted on this occasion by the interrogatory, "Have you read yesterday's paper; I see there's a long article upon the Teachers' Association at ———?" I replied that I had seen, but had not read the article in question, though doubtless the perusal would be interesting. "Oh, yes; but I don't think I'd like to be a teacher," was the dubious response. "One must require an awful stock of patience, and then there's no money in it." Whereupon I strove to convince this erring but well-disposed seeker after mammon, that the acquisition of filthy lucre is not, according to Scriptural teaching, the chief end of existence, but that patience and perseverance and a spotless reputation are all temporal means to a spiritual end of well-being. Patience, indeed, with the majority of our calling—amateur Jobs and Jobesses—is usually considered one of the cardinal virtues. Even when exercised in conjunction with \$35 a month, the possession of certain expensive and consequently naughty tastes, engendered by a liberal education, and not impossibly the accompaniments of a delicate wife and half a dozen olive branches, whose tutelary deity would doubtless preside somewhere about the region of the waist-band, and so necessitate plethoric bakers' bills and lax purse strings.

So we drifted into the tide of discussion. And, as each individual

pedagogue, as all the world knows, holds within his own immaculate mental grasp the key to the solution of the gravest difficulties that have ever beset, that do beset, or that shall beset, the by no means rosy path of the educationalist of the nineteenth century, and every other century to boot, I, as worthy representative of the race, and inheritor of a full share of the professional *amour propre*, laid my finger in the palm of my hand and proceeded to discourse in this wise:

"Pedagogy, it must be admitted, is a poor calling, but so was the Saviour of mankind's a poor calling. According to testimony which is unimpeachable, not only was the vocation a singularly impecunious one, but to make matters worse, an alien and inimical influence was necessitated, in the person of one Judas, to bear about the receptacle which received the burden of impecuniosity. Now, we pedagogues have at least the privilege of carrying our own bags, whether full or otherwise. And though we suffer divers and manifold persecutions, and are not infrequently betrayed by a kiss—of some designing damsel—into the labyrinthine bonds of matrimony, yet I never heard of a modern dominie yielding up his life for the faith. Nay, he is ever more ready to yield up his calling for the profession of one of the three black graces, notably that which is dear to the shade of Æsculapuis. And so, not seldom, instead of falling a victim to another's tyranny, becomes, in his own person, the indirect medium whereby, through the too generous and promiscuous administration of pill and potion, many another fellow-creature is sent to his last account. Well, if not lucrative, our calling has at least the merit of being respectable. That is to say, the common school teacher if not looked upon as a very useful or highly ornamental member of society, is at least tolerated as a sort of non-

descript, who can do no great amount of harm, but who can possibly act, in emergencies, as a strong and healthy antidote to the eccentric vagaries and irregular predilections of youth. He is a sort of homespun restraining machine, belonging to every one in general and no one in particular. A species of masculine nurse-maid and professor in embryo combined, to whom may be committed with impunity the tender years of prattling infancy, or the maturer and more robustious period of shambling hobbled-hoy-hood. Moreover, in certain country districts there is no small amount of real importance attached to the office. The pedagogue, in such localities, ranks second only to the minister—a \$500 dollar minister be it observed—and is usually considered the oracle of the neighbourhood. If a knotty question in arithmetic is proposed by the rustic genius of the spot, and his method of solution fails to satisfy the instinctive doubts of his fellow-rustics, the advice is at once tendered, 'Go to the skule teacher.' If the village pump gives out, or neighbour Goose-Poke's well goes dry, the 'skule teacher' is called on to explain in scientific principles the causes of the phenomena. If a small account is to be made out, or a secretary wanted at a school trustee meeting, the aforesaid 'skule teacher' is *the* man of the time. There is but one exceptional limit to this widespread sphere of notoriety and usefulness. Strange to say, whenever the financial year terminates and settling day arrives, by some unaccountable law of nature or of art, the 'skule teacher' is at a discount. No one seems to want him, and if he turns up at this inopportune period, he seems to be looked upon as rather in the way than otherwise. 'Which things are an allegory.'

Trustees of rural schools have much to answer for in the matter of anomal-

ous positions occupied by the pedagogue, for they under-pay their willing and too frequently over-tasked employees, and with the masses, as we very well know, money makes the man, although the man's great grandfather may have made the money. In many parts of the country these liberal-minded guardians of the intellectual potentiality of their respective neighbourhoods, may not seldom be found bargaining for a teacher in much the same manner that Daddy Hogg would haggle for a bushel of pease, wherewith to satisfy the abdominal cravings of his grunting and four-footed namesake. There is a system of advertising in vogue among the trustees of many rural, and I am sorry to add some town sections, which cannot be too strongly reprehended. It runs somewhat after this fashion:

WANTED.—Teacher for School Section —, must have a first or second class certificate. Apply by letter, forwarding testimonials, and stating salary required, etc., etc., etc.

Now I always look upon an insertion of this description as an advertisement of personal meanness on the part of the advertisers. I should not care to trust the originators of a similar specimen of penurious astuteness-within—say a hundred yards—of my chicken-roost; and were I a usurer, I should want good security before I lent them \$100. When translated it simply means this:—We, the undersigned, want a thoroughly efficient workman, but do not care to pay him a first class workman's wages. If we can obtain a first class man on a second class salary, well, if on a third class pittance, still better. Or, again, if Mr. H., a thoroughly qualified and practical teacher and disciplinarian, offers himself a candidate for the vacancy at a salary of \$500 per annum, and Mr. Z., a far inferior article, volunteers to instruct the young idea-

for \$25 or \$50 a year less, why Mr. Z. is the man, and Mr. X. may shift for himself.

Another form of advertisement, worthy the attention of philanthropic ratepayers and educational political economists, is the following :

**TEACHER WANTED.** — As Mathematical Master in a High School. Must be a University Graduate. A gold medallist preferred. Salary \$600 per annum.

Generous souls! Why the first year's salary would almost pay for the medal. One instinctively looks for a codicil to such an insertion wherein it is stated that the applicant for academic milk and honey will be expected, in addition to his onerous and multifarious duties in the class-room, to supervise the washing or answer calls at the front door. But one more specimen of style in the art of trustee pettifogging and I have done :

**THREE FEMALE TEACHERS** wanted immediately for — Public Schools. Second or third class certificates. Salary \$200 per annum.

Think of it. Ye "good old English gentlemen, who live at home at ease," \$200 per annum for a human being. A white slave, in the guise of a female teacher. A being who will be expected, perhaps, to wear some description of clothing, and comport herself, probably like a Christian, possibly like a lady. Well, there, we know that young girls—and of course none but young girls would snap at such munificent offers—can live upon grasshoppers' legs and butterflies' wings, and make themselves look becoming with a yard of muslin and a rosebud. And well for them that they can, poor creatures. Shame! shame! that the want of a piece of bread should necessitate culture struggling itself heart-sore for the pittance of a housemaid, and handicap men (?) in the practice of such despicable meanness towards their fellow-men! But I see, Mr. Goodfellow, that the clock is about to "strike the hour for retiring" to our respective duties, and doubtless I have said enough, so I wish you good morning.

## DEFECTS IN EDUCATION.

BY REV. GEO. M. MILLIGAN, B.A., MINISTER OLD ST. ANDREW'S, TORONTO.

**D**ISADVANTAGES adhere more or less to all circumstances. Plenty and poverty, refinement and rudeness, civilization and barbarism, have their dangers to be watched and shunned. Our educational advancement has been great, but it, like other boons, brings in its train dangers against which we must guard. It is these we desire at present to consider. Let it be remarked that the educational evils we notice attach to no particular educational system in this or other countries. They grow out of the educational organizations characteristic of our time and adhere more

or less to them all. The causes—some necessary, others not so—of these evils are the classification of pupils gathered in large numbers in educational institutions, the uniformity in curricula consequent upon such an arrangement, and the demand for educational results that can be tabulated so as to secure pecuniary or other marks of outward success.

It cannot be too strongly urged that the chief aim in a liberal education is not the imparting of a certain amount of knowledge to the pupils, but the training of their minds to keen discrimination and energetic and sus-

tained activity. School education deals specially with the culture of the mind by means of books and kindred appliances. We deem industrial and other species of education than the one we have specialized as impracticable, and therefore foreign to the purpose of public school work. The glory and success of this work lie in qualifying the mind to enrich itself through the instrumentality of books. We extend no sympathy, therefore, to those who decry book knowledge in every form under the vague and indiscriminating denunciation of "cram." Still in education, as in other matters, it requires to be remembered that "there's nothing great in man but mind." It, like religion, must guard against bibliolatry, and ascribe supreme importance not to the contents of books but of minds. The generative point in all education is internal quickening and growth. Its kingdom is within men. Its fruits are emotional, moral, imaginative, and intellectual. Educational appliances are only wisely used when directed to mould and move the faculties and capacities of our whole inner nature. Educational results are only truly reached when the mind is trained accurately, and with sustained energy to perform its functions of observation and reasoning and memory. The mind's eye should be trained to look clearly and steadily at what offers itself for its investigation. "Mind," says Professor Bain, "starts from discrimination." The mind should be exercised in making sharp and correct discrimination between things and relations which differ the one from the other. Mental indifference consists in failure and consequent disrelish to make such discrimination, and is equivalent, therefore, to ignorance. The first essential condition of knowledge is, therefore, the power to distinguish differences in things and relations.

It requires, however, time for the mind to discriminate rightly. As the eye requires to be adjusted to an object to see it properly, so must the mind in relation to what is presented to it for its apprehension. As the view of an object is prevented by defect or excess of light, so there is such a thing as too much and too little mental light. Scanty or excessive information is alike prejudicial to mental vision. We must avoid both overpowering the active energies of the mind by presenting to it truth or knowledge which it is unprepared to take in; or, on the other hand, dealing out information in such meagre and intermittent fashion as fails to evoke its powers of vision. To change the figure we must neither surfeit nor starve the intellect, which we strive to nourish upon the bread of truth. In short we must in imparting instruction, keep mainly in view the attitude of the mind to it. We must see to it that the mind is in vital, discerning relations to the information we seek to communicate to it. The mind to discern knowledge has to become more or less familiar with it. It requires a geometrical bias of mind to discern geometrical truth; a scientific to appreciate scientific truth; an historical to estimate aright historical truth. There can be no adequate discerning of any species of truth until more or less we acquire the bias of mind requisite to appreciate that truth.

Now, the production of a mental bias requires attentive and repeated looking at the domain of truth to which it is related. Attention and memory must be intensely and repeatedly exercised upon any subject to bring the mind up to any proper discernment of it. As the mind gazes again and again upon it does it break in clearer and more comprehensive vision before it? We must not be content with mere information upon a subject, but must take that infor-

mation and work it into practice either arithmetical, botanical or literary. He that stops with mere information upon a subject, without working it into his mental being by practice, is like a man "beholding his face in a glass and going his way and straightway forgetting what manner of man he was." We must continue to practise the principles and truths of any subject before we are its disciples, indeed. The man on a train rushing through a country can have no discernment of it. He who patiently observes its scenery to sketch it acquires discernment regarding it. Its forms and colours, by close and continued observation of them, duly impress themselves upon him, and find in him adequate appreciation of their qualities.

Now, our modern system of education, by the variety and quantity of studies it imposes upon youthful minds, is inimical to the formation of mental habits of sharp discrimination and sustained thorough exertion in any one line of research. The mind is called upon to occupy itself with too many subjects of study to become familiar with any one of them. It, moreover, does not come in contact with these several subjects with a frequency requisite to secure that mental momentum which gives a sense of mastery and progress in any study which should mark the performances of a mind liberally educated. These mental qualities should be sought from the very beginning, and all along the line of school work. "Jack of all trades and master of none," applies to education as well as other things. Early habits tend to perpetuate themselves in it as well as in morals. "The boy is father of the man." An education begun in conditions favouring mental dissipation is apt to go on in the same to the end. Train the mind in primary studies aright, and when it addresses itself to meet university re-

quirements, it will demonstrate the advantage of acquiring early the habit of accurate and persistent mental activity. A great defect, therefore, of our modern educational appointments is a lack of mental training proportionate to the amount and varied nature of the information which they demand.

Closely connected with the evil to which I have just referred, is that which consists in the predominance of the passive over the active attitude of the mind. The objective must be the inexhaustible well from which the mind is to draw the water of its life. To richly impart we must of course receive. It is, however, not to be forgotten that the mind must qualify all its acquisitions to impart to them life and point. These are ultimately to be viewed as, in a sense, incarnations of the mind to which they belong when expressed in word or deed. Our knowledge should not be in a relation of mere juxtaposition to us like our clothes, but in one vital like our skin. Hence it should be conveyed to the mind with the purpose of evoking its energies so that it may become woven into our mental life. The acquisition of knowledge should be kept in subordination to mental appreciation and assimilation. The senses, the intellect, the emotion, the will, the imagination and the memory, are all to be led out into discriminating and harmonious action in relation to the worlds of matter and mind. Do not the complex and ponderous programmes of our present systems of education render next to impossible the realization of this "consummation so devoutly to be wished?" Are not conventionality, mediocrity, parrot-like performances, likely to abound under a system which aims rather to prepare pupils to pass examinations than to give a reason for the intellectual and other conclusions and hopes that are in them? Such a system is,

moreover, far from favourable either to the development of individuality of character, or to the raising up of standards in the mind to fix moral and intellectual ideals.

The disrespect for individuality of character, unconsciously promoted by present methods of study, results in the formation of weak and irresolute types of character. The temptation exists to seek scholarly success rather than scholarly character; to acquire merely dexterity in using books so as to come out well in examinations; and to come in early years under the influence of the error that a man's life consisteth in "the abundance of the things he possesseth." It becomes us to inquire how far, by our failing to make, as we might, the end of education the strengthening of our mental powers, we are accountable for the want of a strong, persistent individuality of character so disastrously manifested in the various walks of modern life. As we provide in the education of the young for the development of a vigorous and genuine personality, so may we expect men in maturer years to exhibit a high, unsundering self-respect, which will make their yea, yea, and their nay, nay.

The fault, dear Brutus, is not in our stars,  
But in ourselves, that we are underlings.

If we set tasks for the youthful mind that in size or character, or both, preclude their thorough performance, we are enemies to the building up of what should be the first aim in all education—a right mental and moral character.

The first fruits which ought to be sought in educating the young, are the intelligent and thorough performance of whatever work is presented for study. And why? Because in starting an educational career the prominent aim should be, not the acquirement of knowledge, but of right mental habits. In after years,

when, for example, professional studies are pursued, the information sought, rather than the mental habits with which it is sought, may wisely enough rise into greater and greater prominence as an object in our researches. In early years, however, the supreme end in study should be the training of the mind accurately to observe, tenaciously to remember, and skilfully to reason. This end is gained only by making it possible for the mind to rightly do what is appointed it. By being "faithful over the few things" committed to it in early years for its exercise, will it become ruler over the many things claiming its attention in after life.

Another evil springing out of our advanced educational condition requiring to be guarded against, is the danger of leaving the mind in such relation to educational means that they become ends. It is hardly necessary to point out how hurtful this is to mental tone and vigour. To subordinate mental interests to any outward arrangements devised for their development is to materially hurt them. The aim of all studies should be to place the mind in vital relations with the ultimate objects treated of in these studies. Botanical inquiry that stops short in botanical books without placing us in sympathetic relations with the vegetable kingdom, is botanical pharisaism. Historical information that fails to bring us into real touch with the times with which it deals, is historical pharisaism. In short we owe it to the mind to put it in vital relation with what is real and ultimate in the subjects occupying its attention. The fulfilment of this obligation would largely revolutionize some of the methods pursued in the most important branches of study. It would be interesting to know how much is being done, for example, in the study of history to develop what has been aptly termed "the historic con-

sciousness," without which one can have no real acquaintance with any historic period or problem.

This treating as ultimate the formal and instrumental, accounts in no small degree for a mental feature characteristic of our age. I refer to the passion for analysis. We expect scientific and literary pursuits to partake largely of an analytic character. It is, however, never to be forgotten that analysis is only a means to an end. We dissect only to benefit the living. We take to pieces the parts of an organism that we may more thoroughly appreciate them when they are seen in all their living beauty. The anatomic passion has in our day too largely dominated our intellectual ambitions, owing to our proneness to rest in the formal and subordinate in our mental pursuits. The anatomic mania has even urged men to cut to pieces our moral and intellectual intuitions, and to pry into the *modus operandi* of all things great and small, from the genesis of a mushroom to that of the conscience. Let me throw out a few suggestions by way of remedying somewhat the defects noticed above :

1. The remedy for some of the defects indicated is such a lessening of the number of studies, that the minds of our youth may have a thorough insight into and mastery over the subjects appointed for their training.

2. Encouragement should be given from the very commencement of an educational course, to studies promoting individuality of mind and character. Thus only can be secured what should be the aim in all mental activity from the alpha to the omega

thereof, namely, the power of concentrated and sustained thinking.

3. To avoid the evils arising from studying with a view mainly of passing examinations and to, at the same time, secure all the good which written examinations are fitted to yield, I would require scholars to undergo an examination upon what they have studied, without knowing the day or hour when it may occur. Such examinations would not, it is true, show so well in tabulated results as those conducted on the present basis; but I am sure they would both secure a higher educational result, and indicate the real intellectual status of the scholars.

4. The best minds should teach all subjects, primary as well as advanced. The most eminent scientists throw the best light on the elements of science. University men, if apt to teach, would infuse life and meaning into even primary studies beyond the power of teachers less instructed than they. We see the beginning of anything best from its end. Age can best describe youth. The best culture can deal best with primary instruction.

It is therefore to be regretted that our universities are not more in touch with our public schools. Knowledge from the very beginning should be brought into contact with the mind vitally and luminously. Otherwise education will be mechanical in its nature and disappointing in its results. Of an equipment other than we have advocated it may be said,

He that depends  
Upon your favours swims with fins of lead,  
And hews down oaks with rushes.

THE caution which is needed in teaching temperance to school children is well illustrated by what Gen. Grant says: "I know from my own experience, that, when I was at West Point, the fact that tobacco in every form was prohibited, and the mere possession

of the weed severely punished, made the majority of the cadets, myself included, try to acquire the habit of using it." The rebound or reaction from the teaching needs to be thought of as well as its more immediate effects.

## THE FORCES THAT REDUCE THE ATMOSPHERE TO ITS MEAN CONDITION.

BY W. A. ASHE, F.R.A.S., QUEBEC OBSERVATORY.

HAD the mean arrangement of the earth's atmosphere been such that its greatest depth occurred at the poles, it is probable that the old time argument of the greater value of gravity there would have been considered sufficient to account for the arrangement, in fact this was the condition attributed to our atmosphere and the reasons given for the same, until careful compilation of actual observation proved that it had a tendency to collect approximately about the equator, with a pronounced tendency to leave the poles. Had the observed conditions proved the atmosphere to be occupying an oblate spheroid concentric with the earth's surface, it would have been very reasonable to suppose that the forces that had so developed the earth's outline were still in existence, though possibly altered in amount, and constantly exerted their influence to restore the atmosphere, after every seasonal or local disturbance, back to the outline of the oblate spheroid, or the solid of equilibrium for a rotating body under the influence of gravity.

The atmosphere being comparatively free to move, and being at a greater mean distance from the centre of the earth than the surface of the same from the same, it will have developed under gravity and the centrifugal force, a solid having a greater amount of compression than that of the earth. It will have been controlled in its development, to some extent, by the now eccentrically placed earth, in so far that in the neighbourhood of the poles the development will have been retarded, and the resulting outline not that of a regular curve. In any case with such a want

of regularity in the developed outline of the atmosphere we have nothing to do at present, as it would be of insignificant amount, and is only mentioned to show that it is a departure from the regular spheroid in a polar situation, and cannot therefore be held as accounting for any peculiarity in the outline of the atmosphere in an equatorial situation.

It is known that the earth's atmosphere, in its mean annual condition, occupies a figure in which the least depth is at the poles, the greatest on either side of the equator, with a gradual decrease in depth to a secondary minimum at the equator itself.

Accepting the figure of the earth as being that of an oblate spheroid, there must be forces constantly acting on our atmosphere, of sufficient importance to induce its departure from symmetrical arrangement about the earth, and to maintain it in its mean condition.

If the combined figure of the earth and atmosphere were divided into hemispheres by a meridional plane, we should have a section in which the outline of the earth proper would be an ellipse, surrounded by the atmosphere as an irregularly curved figure; the minor axis of which would coincide with the poles of the earth, and the major axes of which would intersect each other at some angle less than  $45^\circ$  with the earth's major axis or equator. It will be evident from this arrangement, that the outline of the atmosphere as thus viewed, could be graphically described as being that of "a square with the corners rounded off." Now, it is of a good deal of importance if we can point to other members of our system,

as having their atmospheres similarly distributed to that in the earth's case, because it will confine our search for the cause from a particular to some general law, so that instead of discussing what effects might be produced in the earth's atmosphere by forces peculiar to our situation, we can ignore them as insufficient for more than the production of seasonal and local variations in the same, and look for some general law that would be capable of producing this arrangement in all similarly constituted bodies, or of returning them to it after each disturbance by seasonal or local forces.

In describing the appearance of the earth's atmosphere in its mean condition, I have made use of Sir William Herschell's words when describing the appearance Saturn once unexpectedly presented to him. No one doubts that this was a description of no other than an actual condition of Saturn's atmosphere, because of Herschell's reliability as an observer; besides the appearance was independently observed by others.

The solar corona, as seen during total eclipses, quite frequently occupies a corresponding outline, as photographs and the evidence of eye-witnesses prove. In the case of the remaining members of our system, it is quite possible to assume that, in the cases where their constitution would permit of it, corresponding arrangement of their atmosphere would be found, if their situation in reference to ourselves permitted of sufficiently accurate observation being made to distinguish the same. With this as evidence, we may conclude that there is a tendency in the atmospheres of the sun and Saturn, if not in the remaining members of the system, to return to an outline very closely resembling that of the earth's in its mean annual condition; and it does not seem improbable to suppose that this common condition is a mean one, as in the earth's case.

In a rotating sphere, if we assume all the particles by those forming the periphery gathered at its centre, and at a given instant these particles left free to move under the influence of gravity and the centrifugal force, they will proceed in a direction which is the resultant of these two forces, and with such a velocity in these directions as will permit of their being at the end of any interval of time since they were freed, on the periphery of an oblate spheroid, in which those particles which started from the same meridian of the sphere will be on the same ellipse of the spheroid. It is evident that in accordance with their movements under these forces that the particles of the sphere will reach their solid of equilibrium when the spheroid has been developed. But, in admitting that the spheroid is the solid of equilibrium for these disturbing forces, we have assumed a condition that is not possible in fact, namely, that each particle will move into equilibrium along the resultant of the disturbing forces, and therefore independently of the movement of contiguous particles. Let us see what really does take place: If the movement of the contiguous particles all corresponded with that of the particle we are considering, or if opposite particles had equal and opposite movements, the direction of our particle's movement would be unaltered but its velocity would, because of the decreasing areas that their path would carry them through; motion then in this direction would shortly not be possible, and in consequence have to be taken up along the tangent to the curvature at the particle's position. The result of the movement of a series of particles along the surface of the sphere and in concentric paths, would be their distribution about an equatorial zone, till the aggregation there became so great that further movement along these paths would be no longer possible; then the movement

would cease in these directions and be continued by the particles more distant from the equator, passing over these arrested ones, till sufficient had been translated to build up the solid of equilibrium.

In the case of a particle of matter passing from near the poles to the equator, the translating force, or the resultant of gravity and the centrifugal force in the direction tangent to the curvature at the particle's position at any instant, starts with a value of zero at the poles, reaches a maximum value in latitudes  $45^\circ$ , and becomes zero again at the equator. If the translating force had been constant in value throughout, the particles would proceed towards the equator at a uniform rate, without any influencing the motions of the remainder; reaching the equator their motion would be arrested by the equal and opposite movements of the particles in the opposite hemisphere, and successive filaments of particles, passing over these arrested ones, would eventually develop the solid of equilibrium. Let us see what would be the effect on a particle moving from the poles to the equator, under the influence of a translating force varying in value as pointed out.

A particle, starting from near the poles, will be under the influence of a constantly increasing translating force till latitude  $45^\circ$  is reached, so that up to this point our particle proceeds on its course without being affected by the movements of adjacent particles, for those more in advance than itself are moving with a greater velocity than itself, whilst those less advanced are proceeding with a smaller velocity; the result of this will be a dispersion of the particles, and their almost independent progress. At latitude  $45^\circ$  the particle will have attained its maximum velocity of translation, ignoring the particle's inertia, and assuming that a

maximum is attained at the instant of maximum cause; whilst immediately beyond, its motion will be constantly retarded until it ceases at the equator. If, instead of considering the motion of a single particle we consider that of a filament extending from the poles to the equator, we will have one part of it in which the motions are being accelerated, the other in which they are being retarded; it will be evident that similar effects would be produced if we considered the first half of our filament as having motion in one direction, the remaining portion as having motion in the opposite. Now, we have thus two filaments of particles moving in opposite directions and meeting in latitude  $45^\circ$ , with, as a result, the thrusting of both filaments away, in this latitude, from the surface they have been moving over; each succeeding and accompanying filament will follow the same movement; the particles, from towards the centre, flowing in and distributing themselves about the resulting area of reduced pressure that would be caused by this "thrusting out" and consequent partial formation of a vacuum, would result in an accumulation of particles about this parallel, where the maximum translating velocity was acquired; it is therefore in this position that the greatest depth of translated matter will be found when the whole mass has reached its condition of equilibrium, from whence there will be a gradual diminution in depth, in either direction, towards the poles and equator.

We have assumed that our particles will have acquired their maximum velocity in latitudes  $45^\circ$  for convenience of illustration; but in practice we know that it will be some distance nearer the equator that this will be attained; how much nearer will depend on the value of the translating force, and the momentum the particles will acquire under it; a simple enough

question to solve, were it not involved with disturbing factors, some of which have been already mentioned, the effects of which can be only approximately estimated. Were there no such sources of disturbance, our atmosphere after a period of oscillations beyond this solid of equilibrium and back through it towards that of the sphere, through a gradually lessening range of oscillation, would eventually reach equilibrium with its present mean annual outline, except that the major axes would intersect the equator at an angle of  $45^{\circ}$ .

If I have accurately described the movements that do take place in our atmosphere when it is seeking equilibrium after either local or seasonal

disturbances, it should follow that there are certain portions of the earth's surface where this endeavour will be most seriously felt, namely, in that zone over which the maximum velocities are attained during restoration. It is not pretended that these velocities are in themselves sufficient to invariably produce violent atmospheric disturbances; but, it is held that in these localities, what might elsewhere be only disturbances of an ordinary nature, would in these situations, when acting in conjunction with local or seasonal disturbing forces, mark an area distinguished for the violence of its meteorological phenomena.

QUEBEC, *March*, 1888.

## DISCIPLINE IN THE HIGH SCHOOL.\*

RAY GREENE HULING, NEW BEDFORD, MASS.

GOOD discipline is universally deemed an indispensable condition of successful teaching. He who cannot govern his pupils, however learned he may be, and however amiable his disposition, works at a sad disadvantage; nor can such a teacher long sustain the burdens laid upon him by weakness of control. Indeed, to be a teacher in any proper sense implies being a ruler as well. The absence of good discipline is bad for the pupil. It renders the school a less efficient instrument in his intellectual advancement, for under suitable control both the amount learned and the ease of learning are perceptibly increased. Then, too, certain higher lessons of obedience, truthfulness, honesty and duty are seldom learned where government is loose and the individual will is law. There is abundant reason, therefore, why this topic should have a place in

educational discussions, that by interchange of opinion and experience we may clarify each other's thoughts and strengthen one another's hands.

The power of maintaining discipline, like other phases of the teacher's ability, is distributed very unequally among men and women. "There are some," says Mr. Fitch,† "who seem qualified and designed by nature to exercise ascendancy over others. They are born, like Hamlet's father, with

'An eye like Mars to threaten and command.'

or better still, they are naturally endowed with that sweet graciousness and attractiveness of manner which at once win confidence and predispose the hearers to listen and obey. Of such a teacher her pupil may often say, as Richard Steele once said in the finest compliment ever paid to a lady,

'To love her is a liberal education.'

\* Read October 27, 1887, at the Rhode Island Institute of Instruction, Providence, R. I.

† Fitch's Lectures on Teaching.

These favoured ones are the objects of much good natured envy among their fellows, but there are many more deeply conscious that such by nature is not their equipment. If to these the power to rule shall ever come, it will be, as other powers have come, by intelligent use and cultivation of the capability in this direction with which maturity finds them. No one need despair of attaining a reasonable success in discipline, if willing to learn the principles on which it rests, and if energetic enough to persist notwithstanding discouragements. Are we to regard school discipline as simply a means to an end, or as itself an important end in school life? The former impression seems to prevail, and on excellent authority. Mr. Sully\* says:

"The immediate object of school discipline is, indeed, not moral training, at all, but rather the carrying on of the special business of the school, namely, teaching."

There is much to be said in favour of this view of the case. Life is short; in particular, school life is a period crowded with its demands upon the teacher. The exigencies of the classroom are so numerous and imperative that, one may fairly say, the first duty is to see that discipline tends to establish right conditions for teaching. Order should be insisted upon, because disorder dissipates attention and prevents healthy intellectual action. Obedience should be secured because disobedience strikes at the roots of authority and enfeebles the teacher's ability to compel study and to secure order. Organization and drill should be introduced so as to use time with economy and to prevent waste of energy. All this is wise and necessary, but it is not the whole of the matter. "These ought ye to have done and not to leave the

other undone." No school can long prosper where these ends are not sought, but, on the other hand, no school has done its whole duty to its pupils if nothing more than this has been the outcome of its discipline.

I shall venture, therefore, to take issue with all who claim, as Mr. Sully does, that the chief aim of discipline is the improvement of the conditions of study, instruction and recitation, and to assert that in school discipline there should be held directly and immediately in view the moral training of the individual pupil. I should even go further and say that if the issue arises, as it rarely will, the intellectual work of the school should be subordinated to the training of character. Should any one reply that this aim is too lofty for our plain, work-a-day school life, I must rejoin with Malvolio,

"I think nobly of the soul, and no way approve his opinion."

What has been said is true of the management of schools in general, but is especially applicable to the conduct of high schools, in view of the characteristics of young people of the high school age. If with little children whose world is all within them, who are seldom conscious of the expanding self within, it is sometimes expedient and necessary to take the readiest and speediest means of accomplishing results, there can be little sober reason for haste and rigidity with older boys and girls when more quiet and less hasty measures serve for the present and for the future as well.

"The race is not to the swift, nor the battle to the strong."

The German Pfisterer has marked off the mental life of children as wisely, perhaps, as the case permits, making of it four periods. The first is infancy, to the end of the first year, in which the bodily life and

\* Sully's Teachers' Hand Book of Psychology.

sense are predominant, and instinct serves for will. Next comes the age of childhood, from the second to the seventh year. Here springs up self-consciousness in the germ, though the outer world is still engrossing. Curiosity appears and grows. Memory and imagination are active; indeed, activity is abundant under the form of play. Respect for authority shows itself and by slow degrees rises to a willing submission to simple moral rules. Feeling is less violent, and is becoming crystallized into permanent disposition. After this follows the period of boyhood and girlhood, from the seventh to about the fourteenth year,—the period of elementary school life. In this, individual peculiarities become more marked. The intellectual processes go on more steadily under the control of a stronger will-power. Hence, there becomes possible the more orderly constructive activity involved in learning and the systematic formation of abstract ideas. Self-control now begins to assert itself. The unfolding of the intellect and the exercise of the will lead to the development of independent judgment, free choice, and self-reliance. Finally this period is characterized by the up-springing of new feelings, the social, intellectual and æsthetic sentiments. The fourth period, that of youth, from the age of fourteen to manhood and womanhood, shows a gradual progress of all these powers of intellect, emotion and volition, intensified and broadened in range by well known conditions of physical change, until there arrives perfect independence and self-reliance in thought, feeling and action.

Now it is in this latter stage of development,—the transition from childhood with its manifold confused beginnings to manhood with its self-contained strength and action,—that the high school has its pupil. He is not so plastic in nature as once he

was, nor is his heart a white page with nothing stamped thereon; but he is capable of untold advancement, and is subject to the moulding of a right hearted, strong-willed teacher in ways that take hold on eternal life. The interests of his future are larger than any mere school necessities can be, and should never in the teacher's planning be assigned an inferior place. His Algebra and Latin will fade, and his knowledge of history be transmuted into comprehension of modern life, but the moral habits and the aspect of soul which he forms in this period will go far to determine his human destiny. From this it follows that a high school teacher ought to regard the discipline of his pupils, not as a petty question of organization, rules and punishments alone, but mainly as a department of moral training. He will then discern that it cannot rest upon a basis of mere empiricism, or of imitation of some honoured instructor, and least of all on one's supposed power to govern. All these will fail, because they have no root in themselves. The proper foundation for discipline is a knowledge of the hearts of children, together with a determination to form within them habits of thinking, feeling and willing, that shall result in good dispositions and good characters. Cur word govern, with its implication of the Latin *gubernare*, brings before us the picture of the master of a vessel, sitting, tiller in hand, guiding his craft over the sea. He must have intelligence enough to know whither he would steer; he must decide that the vessel shall proceed thither; and he must have at his command the power of wind or oar or steam to carry out his choice. So in the government of a school the teacher must combine in symmetrical proportions intelligence, will and power. As seen by the intelligence of one who accepts my previous statements, the aim of discipline

in the high school is to induce in the pupils such dispositions that they can be relied on in school and out of school, and after they leave school, to decide wisely and act rightly. It remains for the teacher definitely to

apprehend the steps by which this elevated plane of living can be reached. Exhaustive treatment of the matter is out of place in this paper, but a few plain details ought to be given.

(To be continued.)

## WOMEN'S EDUCATION.\*

BY THE HEADMASTER OF CLIFTON COLLEGE.

IS it necessary to say anything to you about the value of education? I think it is; because so many of the processes of education seem at the time to be drudgery, that any glimpses and reminders of the noble results attained by all this drudgery are cheering and encouraging. The reason why it is worth your while to get the best possible education you can, to continue it as long as you can, to make the very most of it by using all your intelligence and industry and vivacity, and by resolving to enjoy every detail of it, and indeed of all your school life, is that it will make you—*you yourself*—so much more of a person. More—as being more pleasant to others, more useful to others, in an ever-widening sphere of influence, but also more as attaining a higher development of your own nature.

Let us look at two or three ways in which, as you may easily see, education helps to do some of these things. Education increases your interest in everything; in art, in history, in politics, in literature, in novels, in scenery, in character, in travel, in your relation to friends, to servants, to everybody. And it is *interest* in these things that is the never-failing charm in a companion. Who could bear to live with a thoroughly uneducated woman?—a coun-

try milk-maid, for instance, or an uneducated milliner's girl. She would bore one to death in a week. Now, just so far as girls of your class approach to the type of the milk-maid or the milliner, so far they are sure to be eventually mere gossips and bores to friends, family, and acquaintance, in spite of amiabilities of all sorts. Many-sided and ever-growing interests, a life and aims capable of expansion—the fruits of a trained and active mind—are the durable charms and wholesome influences in all society. These are among the results of a really liberal education. Education does something to overcome the prejudices of mere ignorance. Of all sorts of massive, impenetrable obstacles, the most hopeless and immovable is the prejudice of a thoroughly ignorant and narrow-minded woman of a certain social position. It forms solid wall which bars all progress. Argument, authority, proof, experience avail nought. And remember, that the prejudices of ignorance are responsible for far more evils in this world than ill-nature or even vice. Ill-nature and vice are not very common, at any rate in the rank of ladies; they are discountenanced by society; but the prejudices of ignorance—I am sure you wish me to tell you the truth—these are not rare.

Think, moreover, for a moment how much the cultivated intelligence of a few does to render the society in

\* An Address given to the mistresses and girls of the High School, Clifton, on the occasion of the distribution of certificates.

which we move more enjoyable: how it converts "the random and officious sociabilities of society" into a quickening and enjoyable intercourse and stimulus; everybody can recall instances of such a happy result of education. This can only be done by educated women. How much more might be done if there were more of them! And think, too, how enormously a great increase of trained intelligence in our own class would increase the power of dealing with great social questions. All sorts of work is brought to a standstill for want of trained intelligence. It is not good-will, it is not enthusiasm, it is not money that is wanted for all sorts of work; it is good sense, trained intelligence, cultivated minds. Some rather difficult piece of work has to be done; and one runs over in one's mind who could be found to do it. One after another is given up. One lacks the ability—another the steadiness—another the training—another the mind awakened to see the need; and so the work is not done. The harvest truly is plenteous, but the labourers are few. A really liberal education, and the influence at school of cultivated and vigorous minds, is the cure for this.

Again, you will do little good in the world unless you have wide and strong sympathies: wide, so as to embrace many different types of character; strong, so as to outlast minor rebuffs and failures. Now, understanding is the first step to sympathy, and therefore education widens and strengthens our sympathies; it delivers us from ignorant prepossessions, and in this way alone it doubles our powers, and fits us for far greater varieties of life, and for the unknown demands that the future may make upon us.

I spoke of the narrowness and immovability of ignorance. There is another narrowness which is not due to ignorance so much as to persistent exclusiveness in the range of ideas

admitted. Fight against this with all your might. The tendency of all uneducated people is to view each thing as it is by itself, each part without reference to the whole; and then increased knowledge of that part does little more than intensify the narrowness. Education—liberal education—and the association with many and active types of mind, among people of your own age, as well as your teachers, is the only cure for this. Try to understand other people's point of view. Don't think that you and a select few have a monopoly of all truth and wisdom. "It takes all sorts to make a world," and you must understand "all sorts" if you would understand the world and help it.

You are living in a great age when changes of many kinds are in progress in our political and social and religious ideas. There never was a greater need of trained intelligence, clear heads, and earnest hearts. And the part that women play is not a subordinate one. They act directly, and still more indirectly. The best men that have ever lived have traced their high ideals to the influence of noble women as mothers or sisters or wives. No man who is engaged in the serious work of the world, in the effort to purify public opinion and direct it aright, but is helped or hindered by the women of his household. Few men can stand the depressing and degrading influence of the uninterested and placid amiability of women incapable of the true public spirit, incapable of a generous or noble aim—whose whole sphere of ideas is petty and personal. It is not only that such women do nothing themselves, they slowly asphyxiate their friends, their brothers, or their husbands. These are the unawakened women; and education may deliver you from this dreadful fate, which is commoner than you think.

In no respect is the influence of women more important than in religion. Much might be said of the obstacles placed in the way of religious progress by the crude and dogmatic prepossessions of ignorant women, who will rush in with confident assertion where angels might fear to tread; but this is neither the time nor the place for such remarks. It is enough to remind you that in no part of your life do you more need the width and modesty and courage of thought, and the delicacy of insight given by culture, than when you are facing the grave religious questions of the day, either for yourself or others.

But let me turn to a somewhat less serious subject. We earnestly desire that women should be highly educated. And yet is there not a type of educated woman which we do not wholly admire? I am not going to caricature a bluestocking, but to point out one or two real dangers. Education is good; but perfect sanity is better still. Sanity is the most excellent of all women's excellencies. We forgive eccentricity and oneness—eccentricity—the want of perfect sanity—in men, and especially men of genius; and we rather reluctantly forgive it in women of genius; but in ordinary folk, no. These are the strong-minded women—ordinary folk, who make a vigorous protest against one or two of the minor mistakes of society, instead of lifting the whole. I should call these women of imperfect sanity. It is a small matter that you should protest against some small maladjustment or folly; but it is a great matter that you should be perfectly sane and well-balanced. Now education helps sanity. It shows the proportion of things. An American essayist bids us "keep our eyes on the fixed stars." Education helps us to do this. It helps us to live the life we have to lead on a higher mental and spiritual level—it glorifies the actual.

And now, seeing these things are so, what ought to be the attitude of educated girls and women toward pleasures, the usual pleasures of society? Certainly not the cynical one—"Life would be tolerable if it were not for its pleasures." Pleasures do make up, and ought to make up, a considerable portion of life. Now I have no time for any essay on pleasures. I will only offer two remarks. One is that the pleasure open to all cultivated women, even in the pleasures that please them least, is the pleasure of giving pleasure. Go to give pleasure, not to get it, and that converts anything into a pleasure. The other remark is, Pitch your ordinary level of life on so quiet a note that simple things shall not fail to please. If home, and children, and games, and the daily routine of life—if the sight of October woods and the Severn sea, and of human happy faces fail to please, then either in fact or in imagination you are drugging yourself with some strong drink of excitement, and spoiling the natural healthy appetite for simple pleasures. This is one of the dangers of educated women; but it is their danger because they are imperfectly educated—educated on one side, that of books, and not on the other and greater of wide human sympathies. Society seems to be burden and narrow and dull the uneducated woman, but it also hardens and dulls a certain sort of educated woman too, one who refuses her sympathies to the pleasures of life. But to the fuller nature society brings width and fresh clearness. It gives the larger heart and the readier sympathy, and the wider the sphere the more does such a nature expand to fill it.

What I am now saying amounts to this, that an educated intelligence is good, but an educated sympathy is better. I recall certain lines written by the late Lord Carlisle on being told that a lady was plain and commonplace:—

You say that my love is plain,  
But that I can never allow,  
When I look at the thought for others  
That is written on her brow.

The eyes are not fine, I own,  
She has not a well-cut nose,  
But a smile for others' pleasure  
And a sigh for others' woes.

Quick to perceive a want,  
Quicker to set it right,  
Quickest in overlooking  
Injury, wrong, or slight.

Hark to her words to the sick,  
Look at her patient ways ;  
Every word she utters  
Speaks to the speaker's praise.

Purity, truth, and love,  
Are they such common things ?  
If hers were a common nature  
Women would all have wings.

Talent she may not have,  
Beauty, nor wit, nor grace,  
But until she's among the angels  
She cannot be commonplace.

There is something to remember :  
cultivate sympathy, gentleness, for-  
giveness, purity, truth, love ; and  
then, though you may have no other  
gifts, "until you're among the angels  
you cannot be commonplace."

—*Journal of Education* (London).—

## GROWTH OF TIMBER TREES.

BY CASPER HILLER.

IT has been a great mistake that so many of our steep hillsides have been cleared of wood and made into farm lands. These steep fields, so subject to wash, are becoming more unproductive and unprofitable every year, so that not many years hence they will be abandoned for agricultural purposes, and then they will be an eyesore and a detriment to the farm. In fact many of our creek hills are already in that condition. Where formerly giant trees grew, there is in many places barely soil enough left to grow shrubbery. After cutting out the ripe wood, had the young trees and the sprouts been taken care of, and where necessary the vacant places filled out by judicious planting, these hillsides would to-day be the most valuable part of the farm. After all the valuable articles that are yearly given to the public on the uses of trees as shelter, influence on climate, rainfall, etc., there is very little progress made in forest planting. The reason of this can perhaps best be at-

tributed—1st. To the idea that most persons have, that it takes one hundred or more years to grow a forest tree to profit. 2nd. People have so little idea of what varieties should be planted to attain success. 3rd. Too little knowledge of how to plant and care for trees. I here give the growth of trees of my own planting—it may help to dispel the idea that it takes 100 years to grow trees before they become profitable :

White pine,	40 years old,	72 ins. circum-
Hemlock,	" "	48 " "
Locust,	" "	50 " "
Larch,	" "	54 " "
Walnut,	35 "	54 " "
Sugar maple,	" "	42 " "
Silver maple,	30 "	68 " "
Tulip poplar,	" "	50 " "
Paulonia,	25 "	72 " "
Catalpa,	" "	45 " "

This would show that an acre of such hillside land as I have described, planted thirty-five years ago to any of the varieties named, would to-day, instead of being an eyesore, be worth more than any other acre of the farm.

From two dollars' to four dollars' worth of posts have been made from a locust tree thirty years old. One hundred or more such trees should be grown on an acre. What varieties to plant? Those varieties that are most useful on the farm, and of these, fencing materials are of the most importance.

For this purpose the locust, chestnut, and paulonia are the most desirable. The locust in some sections is attacked by borers which destroy its value, but the paulonia can safely be substituted in its place. It will grow three posts where the locust will make one, and in lasting quality it is superior to chestnut, equal to catalpa, outgrowing the latter nearly two to one.

There is no tree that will be so soon missed as the hickory. It is not a slow grower—could be planted thickly, and the thinning would be, in the way of hoop poles, very profitable. The osage orange should however be planted in preference to the hickory. The wood possesses same qualities as the hickory. Persons who never saw it growing but as

a hedge plant may be surprised to be told that if planted and cared for as a tree, it can be grown in twenty or thirty years to a tree fifteen to twenty inches in diameter, with a clean stem fifteen or more feet high. I have no experience in planting and growing trees as forests, but experienced planters in the western States say that a good way is to plant trees from four to six feet apart each way, and care for them as for a crop of corn until the trees are established.

The object of planting thickly is to produce upright growth, instead of spreading into extended side branches which are of little value.

The process of thinning should commence in a few years, and during the first ten or fifteen years the greater part should be removed. To what extent the thinning should be carried must be judged by the thrift of the trees. The probabilities however are that in the majority of cases one hundred trees during the second twenty years would produce better results than would a greater number.—*Lancaster Inquirer*.

## SCRIPTURE LESSONS FOR SCHOOL AND HOME.

### No. 12. THE SERMON ON THE MOUNT (V.).

#### THE CHRISTIAN'S DAILY LIFE.

To read—*St. Matthew vi. 19-34.*

I. **H** EAVENLY TREASURES. (19-21.) Not to accumulate worldly things—caution against:—

1. Lust of gain, as Gehazi. (2 Kings v. 20.)
2. Lust of spiritual power, as Korah. (Num. xvi. 3.)
3. Lust of temporal power, as Absalom. (2 Sam. xv. 4.)

Why this caution? Because earthly things may:—

1. Be destroyed by rust or thieves.
2. Put to an end—as Absalom's rebellion.
3. Give no real happiness. Gehazi and leprosy. (2 Kings v. 27.)
4. Turn soul away from God. (1 Kings xi. 4.)

Contrast with heavenly treasures, *i.e.* knowledge and love of God. Never lost, never fades, gives peace now and hereafter.

II. **S**INGLE SERVICE. (22-24.) Eye is lamp of body, *i.e.* gives light to it. If eye is single, *i.e.* free from specks, gives pure light, but if eye diseased, body receives no light. So must have pure perception of God's

truth—then will give Him single service.

Example:—A man cannot be slave of two masters. May try to, but one will be supreme. Cannot serve God and mammon (wealth) at same time. Some have tried but failed. Examples:—

Israelites to serve God and Baal. (1 Kings xviii. 21.)

Judas—Christ's disciple and greedy of gain.

Ananias and Sapphira. (Acts v. 3, 4.)

But as God's servant need not be anxious. Why? Because:—

1. He is Master—bound to provide. (25.)
2. He cares for lower animals. (25.)
3. He cares for flowers and grass. (28.)
4. We can do nothing without Him. (27.)
5. He is our Father and loves us.

Instances of God's care:—

1. Lower animals spared. (Ex. ix. 20.)
2. Grass and flowers blessed. (Deut. xxviii. 11.)
3. Righteous Noah saved. (Gen. vi. 18.)
4. Elisha's life preserved. (2 Kings vi. 16.)
5. Hezekiah restored to health. (2 Kings xx. 5.)

Therefore all must seek first God's Kingdom, and then may trust and not be afraid. Leave to-morrow's cares to to-morrow.

NOTES. 21. *Rust*, because money often buried in earth in eastern countries.

25. *Take no thought*, i.e. be not over-anxious.

26. *Fowls*. Old English for birds.

28. *Lilies*. Probably anemones.

30. *Oven*. Made of clay, often heated with grass.

NO. 13. THE SERMON ON THE MOUNT (VI.).

To read—*St. Matthew vii. 1-14.*

I. CHARITY IN JUDGING. (1-5.)  
*Not to judge*, i.e., hastily, unkindly. Sometimes must judge others, as in a

school, court of justice, etc. But must always be most careful in judging. Why? Because liable to make mistakes—only see part—cannot tell motives. God is perfect Judge because knows all—never makes mistakes.

Harsh judgment recoils on ourselves—must do to others as would they should do to us—not look out for motes or specks, i.e., little sins in others, but watch to pull out beams, i.e., great sins, in ourselves. *Example*. David's brother Eliab quick to reprove him (1 Sam. xvii. 28), St. James and St. John to rebuke man who did not follow them.

II. VARIOUS CHARGES. (1) *Holiness* (verse 6). St. Paul bids "beware of dogs, evilworkers." (Philip. iii. 2.) God's truth like pearls of great price (St. Matt. xiii. 45), because pure, precious, lasting—must be guarded carefully. Verse is example of a Hebrew stanza of four lines—first and last go together—second and third—"they turn" is the dogs. (2) *Prayer* (7-12). Three degrees—daily *asking* with lips in public or private prayer—always *seeking* with whole heart—special *knocking* at special times. Prayer always heard if done in right way. Must have (a) *humble spirit*, like woman of Cana (ch. xv. 27); (b) *sense of need*, like father of lunatic boy (St. Luke ix. 38); (c) *subjection to God's will*, like Christ at Gethsemane; (d) *faith* in God to hear and answer (St. Matt. xvii. 21). Examples of prayer heard—

Hannah praying for a son.

Elisha that his servant's eyes might be opened. (2 Kings vi. 17.)

The Church for St. Peter's deliverance. (Acts xii. 5.)

Why does God answer? Picture of family meal—father at head of table—children around—they ask for food—does he refuse them—give them stones? Greatest pleasure to supply

want. Therefore learn to think of Heavenly Father with confidence.

(3) *Diligence* (13, 14). Enter in at *strait, i.e., narrow gate*. Two roads leading to eternity: narrow gate and road lead to life—sought by few, entered by few; broad gate and road lead to death—many enter. What is the gate of life? Christ says He is the *door* (St. John x. 7), the *way* (St. John xiv. 6).

Examples of seeking and finding—The man born blind (St. John ix. 36, 37); Nicodemus (St. John iii. 2).

This gate always open: will admit sinner, but not his sin.

NO. 14. THE SERMON ON THE MOUNT (VII.).

To read—*St. Matthew vii. 15-29.*

I. FALSE PROPHETS. (15-29.)

What were the duties of prophets?

To teach God's Word, as Isaiah. (Isa. i. 1.)

To foretell the future, as Jonah. (Jonah i. 2.)

To denounce sin, as Elijah. (1 Kings xviii. 21.)

To offer sacrifices, as Samuel. (1 Sam. xvi. 2.)

Sometimes lying prophets. Signs given for testing such. (Deut. xiii. 1.)

How do they come? With smooth words as did to Ahab. (2 Chron. xxviii. 5, 21.)

Do it for their own ends, to gain favour or to lead astray.

Must be judged by their fruits. Good tree, *i.e., heart*, produces good fruit, *i.e., life*. Evil heart produces evil life.

Examples of good heart—David appointed to be king (1 Sam. xvi. 7), produced fruit of love to Jonathan,

forgiveness of Saul, gentleness to his erring son Absalom.

II. FALSE PROFESSORS. (21-23.)

Deeds, not words, will be accepted by

God. Judas said, "Hail, Master," while betraying Christ. Saul said, "What wilt Thou have me to *do*?" (Acts ix. 6), and spent whole life in Christ's service.

*In that day, i.e., great Day of Judgment*, fruit, lives, hearts, all will be tested. Faith without works, profession without practice, dead. (St. James ii. 26.)

III. SOLEMN WARNING. (24-29.)

(1) *House on rock*. Who built it? A wise man, full of fear of God (Prov. i. 7), full of wisdom from above (St. James iii. 17), does good works for God's glory, such as almsgiving, etc., described in St. Matt. xxv. 35. What does he build? A house, *i.e., a life*.

Not only talks but does. Not only professes but practises. What is the foundation? Christ the never-changing Rock. (1 Cor. x. 4.) What is the result? The house lasts. Its stability tried by—

Rain of adversity, like Job.

Wind of trial, like Abraham.

Flood of temptation, like Joseph.

Founded on God the life resists, remains steadfast.

(2) *House on sand*. Builders, mere professors as in previous verses. The house a life spent for themselves. No looking to God, no prayer. Same trials come as to others—no strength to meet them—therefore cast away. Thus Gehazi, prophet's servant, fell by covetousness—Absalom by ambition, etc.

So Christ's first Sermon ended. Sample of all His teaching Taught as one sent from God—speaking words of life. Taught as with real authority—hence gained credence. Taught with effect—people believed.

We have heard, been taught. Do we believe? do we practise?

## NOTES FOR TEACHERS.

THERE is no cant (says the *New York School Journal*) more hypocritical than that of the oratorical stock-jobber who exalts our public system of education, and then turns around and enslaves the teachers who have made it what it is. "A magnificent system!" they say, but the teacher is at once treated as a hireling who hasn't sense enough to select his own text-books, or arrange his own course of study. If our school system is grand, and the artist is greater than his work, then the teacher must be grander. Let us stop prating about the excellence of our school system, or else treat the teacher as one who is able to direct his own affairs.—*Ex.*

THE efficiency of oil, when dropped on the water, to calm boisterous waves may now be regarded as established. It is astonishing how small a quantity of oil will answer the purpose. Admiral Cloné gives the amount as from two to three quarts an hour dropped from perforated bags hanging over the sides of the ship in positions varying with the wind. The oil, then, by its own outspreading, extending over the waves, forms a film of less than a two and a half millionth part of an inch in thickness; and this is enough to reduce breaking waves and dangerous "rollers" to unbroken undulations that are perfectly harmless. The oils that have been found most effective are seal, porpoise, and fish oils. Mineral oils, such as are used for illumination, are too light; but the lubricating oils are denser, and may be found sufficient.

## AN IDEAL EDUCATIONAL SYSTEM.

1. Ample provision for teaching all children of school age.

2. A body of teachers, who have

consecrated themselves to teaching as a life-work, as doctors, lawyers, and ministers have consecrated themselves to their life-work.

3. A school system, administered by teachers, as far as the details of school work are concerned, in which there is the minimum of the machine and the maximum of the teacher.

4. Examinations conducted by the teachers themselves, with supervisors who shall be as little anxious as possible to find out how much pupils have learned from their books, and how much they have acquired of mental, ethical, and bodily power.

5. Only competent teachers employed and these guaranteed fair salaries regularly paid, *permanency and a pension* when past the teaching age.—*Ex.*

## CENTRALIZATION IN SCHOOL LIFE.

—James P. Applegate, editor of the *New Albany, Indiana, Ledger*, in an address before an Editorial Association, considering the evils of the centralizing tendencies of the times, traced their origin to the Public Schools, when he said:—"Teaching and learning have been reduced to a mathematical system and work with the regularity of machinery. Given so much room, so many pupils, so many hours, so many studies, so many pages of each, so many months in one department, so many in another; one class goes into the hopper at one end and goes out at the other. No matter if one head is larger or smaller than another, the brain brighter or duller, the body stronger or weaker, all is grist that goes to that mill and it is all ground with the same burrs. This system produces a certain order of general average intelligence, higher, perhaps, than existed in the days when boys

and girls, not classes, were taught, but where are the individual scholars? Passing through the Public Schools the student, if further pursuing his studies, goes to college, and there the routine, while of a higher order, is the same in principle, all class and grade individuality is lost. Do the graduates of our colleges go out as well educated as their forefathers? The average is higher, no doubt, but are they individually as well equipped for the battles of life?"

**INSIST ON PROMPTNESS.**—Teach your children to be prompt. Promptness is one of the most necessary things for them to learn, and you can in no other way be as sure that your teachings will be productive of the desired results as you will be if you yourself set an example of promptness.

One of the most cherished compliments I ever received was from one of my pupils, years ago, when I was a country school ma'ara. "You may just bet," he said, "that something awful has happened, if teacher is n't on time."

I gave my scholars to unders and that I considered a failure to be promptly on time entirely too much of a disgrace to be patiently endured, and one that was wholly unnecessary. Only the best of excuses for such failures would ever satisfy me, and I took good care never to give them the slightest opportunity to criticise me in that respect. A child will learn more by example than by precept, every time.

When I see a mother who is fond of putting things off until some more convenient time, I always wonder if she is impatient with her boys and girls when they fail to do their tasks as quickly as she thinks they should. Very likely she is. It is often the case that the ones who are least prompt have the least patience with others for being so.

There are very few instances where delay makes the task any easier to perform, or where any one is benefited by waiting for some more convenient time. The present is always the most convenient time, if we would only teach ourselves to think so, and when we have learned the lesson, then we can teach it to our children.

If they agree to do a thing at a given time, teach them to be prompt to a minute, and nothing less than "something awful" can keep them doing as they agreed, and exactly when they agreed.

A habit of promptness will be of more use to them when they have grown out of your care, than a great many gold dollars. It is your business to see that the habit is theirs.—*Selected.*

**LIFE AMONG THE SIBERIAN NOMADS.**—The Kara-Kirghese are essentially a nation of shepherds and breeders of cattle, and think it a "come-down" in life when compelled to resort to settled occupations. They are not so rich as their brethren in the plains. Very few own as many as 2,000 horses or 3,000 sheep. Also they have fewer camels; but, on the other hand, possess an excellent breed of oxen for traversing the mountains. Their cows are large, but do not yield much milk. Yaks are kept by them instead. Their cattle-breeding claims far less labour than agriculture, but is exposed to great risks. For the support of a nomad family for a year are required eleyen head of large and ten of small cattle, and to provide hay for the winter consumption even of this number exceeds the working power of one household. I was much interested to see some of the Kirghese on the march. Their wanderings are thus conducted: When the pasture in a neighborhood is eaten, one or two of the young men are sent to

select a suitable spot for another encampment, and to clean out the wells. This done, the women pack the tents and the men form the cattle into droves. The camp is ready and starts before dawn, the good women of the family riding in front. I met one old lady in this honourable position, mounted astride a bullock and looking anything but graceful. After her came the other women, variously mounted on the top of carpets, tea-kettles, tents, etc., the whole being made to wear, as far as possible, a festive aspect. The length of a stage is from thirteen to seventeen miles, and the aul traverses about twenty-five miles in twenty-four hours. On arriving at the place of encampment it is the office of the wife to put up the tent. I chanced to see a woman begin to do so, and would not stir from the spot till I had witnessed the whole operation. The principal parts of a kubitka, or tent, are large pieces of felt to cover a frame work that consists of lintel and side posts for a door, and pieces of trellis-work surmounted by poles that meet in the centre. On this trellis work are suspended arms, clothes, bags, basins, harness, and cooking utensils. Not that there is a large variety, however, of the last, for most of the cooking is done in a large open saucepan that

stands on a tripod over a fire in the middle of the tent. Crockery ware is not abundant, being of hazardous carriage, and metal goods are not cheap, so that leather has to do duty not only for making bottles (specially those for carrying koumiss) but also pails, some of which are furnished with a spout. I met with no small saucepans or tea-kettles of English shape, their place being supplied by kurgans, or water-ewers, somewhat resembling a coffee-pot. Round the walls of the tent are piled boxes, saddles, rugs, and bales of carpet, against which the occupants lean, the head of the household sitting opposite the door, and in front of him the wife in attendance. I was honoured with an invitation to dine in one of these tents, the dishes being put before us according to our rank. I heard nothing of grace before meat, but I never saw anything to exceed the alacrity with which the dishes were cleared. Hands were knives and fingers were forks, the meat being torn from the bones as by the teeth of hungry dogs. It is considered polite for a Kirghese superior to take a handful of pieces of meat and stuff them into the mouth of an inferior guest, an elegance I saw practised on another, but from which, mercifully, I myself was excused.—*Harper's Magazine.*

#### CORRESPONDENCE.

*Editor of THE MONTHLY:*

DEAR SIR,—A great deal is said just now regarding the supply of teachers as being in excess of the demand. From almost every part of the Province there comes the report that the profession is overcrowded. Now I would like to call attention to what is, I think, worth considering in connection with this matter, viz., that while not half of those who write at the non-professional examinations are successful, in most cases all who write

at the Model School professional examinations are allowed to pass. There are counties in which every candidate that writes is almost sure to receive a certificate. Is this to be taken as meaning that the most important part of a teacher's training is the non-professional; or that any one with sufficient scholarship can by a term at a Model School be made "apt to teach?" It does look as if a little more emphasis might be placed on the professional training of third class teachers.

Yours, J. E.

## EDITORIAL NOTES.

WE welcome the Rev. G. M. Milligan to our pages as a contributor. The Rev. gentleman at one time was a teacher of one of our grammar schools, took pleasure in the work while he was in the schoolroom, and much interest in it ever since. Such being the case, it is well to hear what he has to say on the school system of Ontario.

It is not often that we can have a contribution in our magazine from the pages of *Punch*, but the one in this issue is so suitable and opportune to the state of educational affairs in Ontario, at the present time, that we must surmise that the editor of the world's renowned "comic" had been reading the last report of the Minister of Education, at least that part of it for which the High School Inspectors are responsible, dealing with the state of the secondary schools in Ontario for last year. We hope to have the usual notice of the Minister of Education's Report in the May number.

THE Rev. Hiram C. Haydn, D.D., was installed in January, 1888, as President of Western Reserve University, which at the present time includes Adelbert College and a medical school. For some years young

women have attended classes with the young men at the college: the propriety and advisability of continuing this plan had been under the consideration of the university and college authorities for some time past, and on the advent of the Rev. Dr. to the Presidency the conclusion arrived at was made known, viz., "that for the future no young women are to be admitted to the college;" and that the project of establishing a separate college for women be undertaken and prosecuted with all diligence without any unnecessary delay. The trustees "place upon record their sympathy with all efforts for the higher education of women." We observe that a memorial is being signed by prominent men in New York with the intention of founding a separate Woman's College in connection with Columbia University. The sum of \$500,000 is already pledged for founding and maintaining this institution, and the promoters have no doubt but that their request will be granted. Is this the way that higher education, especially that for women, is to be carried on, viz., by private individuals, without any aid from the State? It seems so; and perhaps it is the better way for many reasons.

WOMAN IN HARVARD. — Contrary to promise a new college for women has been created in connection with Harvard University. The Annex has numbered more and more pupils each year. Last year the September classes opened with seventy-three students; the number rose during the year to ninety; this year there are 100 women studying in the Annex. A building on newly

acquired estate has been transformed into a laboratory of chemistry, the working space of the physical laboratory has been enlarged, and a number of books have been added to the library. The endowment fund of the society amounts at present to but little over \$100,000. An invested fund of \$500,000 will be needed before the college can take the relative rank which its grade of instruction requires.

## SCHOOL WORK.

## MATHEMATICS.

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

## SELECTED PROBLEMS.

By J. L. Cox, Esq., B.A. Math. Master,  
Coll. Inst., Collingwood.

1. A workman is told to make a triangular enclosure of sides 50, 41, 21 yards respectively; but having made the first side one yard too long, what length must he make the other two sides in order that they may enclose the prescribed area with the prescribed length of fencing?

2. In the expansion of  $(1-x)^{-\frac{1}{2}}$  prove that the sum of the coefficients of the first  $r$  terms bears to the coefficient of the  $r$ th term the ratio of  $1+n(r-1)$  to 1.

3. Sum the following series, each to  $n$  terms:

$$(1) 3 + 12 + 33 + 72 + 135 + \text{etc.}$$

$$(2) 3 + 14 + 39 + 84 + 155 + 258 + \text{etc.}$$

## SOLUTIONS.

1. Semiperimeter = 56,

$$\therefore \text{area} = \sqrt{56 \times 6 \times 15 \times 35}$$

let sides in second case be 51,  $41-x$ , and

$$20+x, \text{ then area} = \sqrt{56 \times 5 \times (15+x)(36-x)}$$

$\therefore$  we must have  $56 \times 6 \times 15 \times 35 = 56 \times 5 \times (15+x)(36-x)$ , whence  $x=5$  or 16, which gives 51, 36, 25, or 51, 25, 36.

$$2. (1-x)^{-\frac{1}{2}} = 1 + \frac{1}{n}x + \dots$$

$$\frac{1}{n} \left( \frac{1}{n} + 1 \right) \dots \left( \frac{1}{n} + r - 2 \right) \frac{1}{r-1} x^{r-1} + \dots$$

$$(1-x)^{-1} = 1 + x + x^2 + \dots$$

$$\therefore (1-x)^{-\frac{1}{2}} = 1 + \dots + x^{r-1} \left\{ 1 + \frac{1}{n} + x \dots \right.$$

$$\left. \frac{1}{n} \left( \frac{1}{n} + 1 \right) \dots \left( \frac{1}{n} + r - 2 \right) \right\} \frac{1}{r-1}$$

+ etc.,

$\therefore$  the sum of coefficients will be coefficient

$$\text{of } x^{r-1} \text{ in } \left( 1 - \frac{x}{n} \right)^{-\left( 1 + \frac{1}{n} \right)}$$

$$= \frac{\left( \frac{1}{n} + 1 \right) \dots \left( \frac{1}{n} + r - 1 \right)}{r-1}$$

$$\therefore \text{ratio is } \frac{1}{n} + r - 1 : \frac{1}{n}$$

3. (1) The  $n$ th term is  $n^2 + 2n$ .

(2) The  $n$ th term is  $n^2 + n^2 + n$ .

If from any point within an equilateral triangle, perpendiculars be drawn to the three sides respectively, the sum of these perpendiculars will be equal to the altitude of the triangle.

From any point within the equilateral triangle  $ABC$ , as  $D$ , draw the perpendiculars  $DE$ ,  $DF$ , and  $DG$ , and let fall the perpendicular  $AH$ , the altitude of the triangle. It is to be proved that  $DE + DF + DG = AH$ .

Draw the line  $IY$  parallel to  $BC$ . Then  $DE = HL$ , which being deducted from  $AH$ , leaves  $DF + DG = AL$ . Now draw  $MN$  parallel to  $BA$ : draw  $NP$  parallel to  $DG$ , and  $NO$  parallel to  $BC$  or  $IY$ . It then follows from the conditions of the figure that  $ANO$  is an equilateral triangle of which  $NP$  and  $AQ$  are altitudes; or,  $AQ = NP = DG$ . It now remains to prove that  $LQ = DF$ . Draw the line  $NR$  parallel to  $QL$ ; then  $QL = NR$ , the altitude of the triangle  $DFN$ . But  $DF$  is also an altitude of the same equilateral triangle; then  $QL = NR = DF$ . Hence  $DE + DF + DG = AH$ , the altitude of the triangle. Q. E. D.

Two crews, rowing the one 18 miles with the current, and the other 21 miles against it, pass one another, and complete their courses by rowing for 1 and 5 hours more, respectively. Supposing the crews to start at the same time and to row uniformly, find their rates of speed.

## CLASSICS.

G. H. ROBINSON, M.A., TORONTO, EDITOR.

## BRADLEY'S ARNOLD.

Ex. 24.

1. Hujus tanti philosophi præceptis jampridem nos obtemperare oportuit. 2. Nonne salutem tuam, utilitates tuas reipublicæ salutis posthabere debuisti. 3. Victis et ignavis servis esse (or *servire*) licet; qui patriam in libertatem vindicant eis necesse est liberis esse. 4. Pudet me tibi persuassisse ut pulcherrimo hoc incepto desisteres. 5. Amicos tuos ac propinquos per me tibi monere licuit ne in tantum periculum ac perniciem præcipites incurrerent. 6. Ejusmodi domino non potuit fieri ut civis Romanus parere vellet. 7. Quid facerent hostes, videre potuisti; sed haud scio an improvidus esse ac cæcus malueris. 8. Hoc tibi faciendum fuit; iocuit tibi pugnantem in acie petire; et mori potius debuisti quam utilitatibus tuis rempublicam post haerere. 9. Nonne senem te pudet ut inimicissimis tuis placeres, amicis defuisse, patriam prodidisse? 10. Noli timere; Romam tibi venire, quoties libebit, per me libebit; quo cum veneris, fac apud me si poteris, commorere. (11) Bis bina quattuor esse necesse est; non idcirco omnes semper sibi consulimus.

Ex. 57.

1. Tu si me amas, fac literas ad me Romam mittas. 2. Si domi es—num redieris nondum certo scio—spero me brevi literas a te accepturum esse. 3. Hæc si tecum patria loquatur, nonne impetrare debeat? 4. Redargue me, Metelle si mentior; vera si dico, cur fidem mihi habere dubitas? 5. Qua mercede etiam si virtus careat, tamen se ipsa contenta. 6. Dies me deficiat si omnia illius in rempublicam merita enumerare coner. 7. Si quisquam inanem gloriam et sermones vulgi parvi fecit is ego sum. 8. Quod si quis hoc a te petat, jure irrideatur. 9. Ad rempublicam si accedere vis, ne dubitaveris me amicorum in numero habere. 10. Quod si vir fortis ille (or iste) fuisset, hoc certamen nunquam detrectasset. 11. Quod si quam vel salutis tuæ vel rei familiaris rationem

habes, cave ne cunctis cum victore in gratiam redire. 12. Regnum vero si appetis, cur civili sermone uteris, cur civium arbitrio ac voluntati omnia te posthabere cunctulas?

## MODERN LANGUAGES.

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

## EXERCISES IN ENGLISH.

1. Divide the following sentences into clauses, and tell the kind and relation of each. Classify and give the relation of the italicized words.

(a) *She* convinced *am I* of the wisdom of this maxim, that I shall have it engraved on my plate, and *written* on the walls of my palace, that it may be ever before me.

(b) The surgeon, *trembling* with fear, promised that if the king would only pardon his guilt he would relate to him *all that* had happened.

(c) She saw her brother Peterkin  
Ro l something large and round,  
Which he *beside* the rivulet,  
In *playing* there, had found;  
He came to ask *what* he had found,  
That was so large, and smooth, and round.

2. Analyse the following simple sentences:

(a) Soon afterwards, to my great delight, there appeared among some woody islets in front a small canoe, with a man seated in the stern.

(b) During the early part of summer, gulls, ducks, and other wild fowl lay an immense quantity of eggs on these islands.

(c) Among the records of the Province was found an application made by him to the governor for a grant of the island.

(d) In the first watch of the night,  
Without a signal's sound,  
Out of the sea mysteriously,  
The fleet of Death rose all around.

3. Write sentences which shall contain the following:

(a) A substantive clause beginning with *where*.

(b) The word *much* used with two different grammatical values.

(c) The prepositional phrases with different grammatical values.

(d) The words *but what* correctly used.

4. A mariner whom fate compelled  
To make his home ashore,  
Lived in yon cottage on the mount,  
With ivy mantled o'er :  
Because he could not breathe beyond  
The sound of ocean's roar.

Ten years in vigorous old age,  
Within that cot he dwelt ;  
Tranquil as falls the snow on snow,  
Life's lot to him was dealt ;  
But came infirmity at length,  
And slowly o'er him steal't.

(a) Select, classify, and give the relation of all the subordinate clauses.

(b) Select all the prepositional phrases, and give the grammatical value and relation of each.

(c) Select all the words in the first stanza that show inflection ; point out the inflection in each case, and tell the object of it.

(d) Give the syntactical relation of *years, tranquil, infirmity*.

(e) Form a word from each of the following by using prefixes or affixes, and tell what change is made in the meaning : *fate, sound, tranquil, length*.

(f) Select all the English derivatives, that is, words that have been formed from simpler English words, and tell the force of the prefix or affix in each case.

(g) Point out any poetic words in the second stanza, and give the forms ordinarily used.

(h) Explain the force of the comparison in the second stanza. What is the name of the figure employed ?

(i) Explain in your own words what is meant by the statement in the last two lines of the first stanza.

5. Substitute phrases for the italicized words :—

- (a) *Besides* that I have other reasons.  
(b) He spoke *against* the motion.  
(c) No one knows of it *except* the secretary.  
(d) I could not hear him *for* the noise.  
(e) Did you vote *for* the resolution.

(f) I wrote to him *respecting* the matter.

(g) He continued his journey *notwithstanding* the rain.

6. Contract the following to simple sentences :—

(a) He read over the names of those who had applied.

(b) The weather was colder than it usually is.

(c) It is probable that the offer which he has made will be accepted.

(d) You will find traces of it wherever you go.

(e) When he returned to the village where he had been born he found that his parents were still alive.

(f) It was agreed that the manse should be built on the lot which adjoined the church.

(g) The chief question which we have to consider is how the money is to be raised.

(h) I hope that I shall be able to convince him that I am able to finish it.

(i) There is no doubt that he will be surprised when he learns what it cost.

(j) Is there no way in which you can prove that she is innocent ?

7. Change the following :—

(a) From direct to indirect narrative :

"Keep your money," replied the poor weaver, "My loom places me beyond want, and as to my house, I can not part with it. Here I was born, and here I hope to die."

(b) From indirect to direct :

They told him they had complied with his directions, and they wanted him to fulfil the promise which he had made to them the previous day. The tailor told them to wait till he went out and bought a piece of cloth ; when he returned they would hear what he expected them to do.

8. Express the thought in as different words as possible :

(a) Fortunately Spain made the required concessions, and indemnified the merchants for their loss.

(b) Coal is one of the greatest treasures that the mineral world bestows on man.

(c) A considerable amount is annually appropriated for the maintenance of the school.

(d) The best idea of the extent and variety of this trade is to be obtained by a visit to the quays, and an inspection of the cargoes landed on them.

9. Arrange in as many ways as possible without destroying the sense :

(a) All day for us the smith shall stand  
Beside the flashing forge.

(b) For us the raftsmen down the stream  
Their island barges steer.

(c) One fine afternoon in the month of July, a party of young ladies and gentlemen agreed to go for an excursion that evening in a pleasure boat.

10. Combine each of the following groups :

(a) Into a simple sentence :

(1) It was a magnificent palace. Near the entrance to it stood a cottage. It was old and ruinous. It was a humble dwelling. In it lived a weaver. He was poor. He was contented.

(2) A company of merchants took possession of the fort. This was two years afterwards. They formed a settlement there. They intended to trade with the natives.

(b) Into a compound sentence :

(1) The sailors were unable to remain longer on deck. They climbed into the rigging. They saw no way of escape. They gave themselves up for lost.

(2) One evening a violent storm arose. It came up suddenly. It drove the men from their work. Their ladder was fastened to the cliff. They had to leave it there.

(c) Into a complex sentence :

(1) Next day they were pursued by two canoes. These kept up the chase till the afternoon. They did not succeed in overtaking them.

(2) A poor woman heard of his great humanity. She wrote him a letter. In it she urged him to send her something for her husband. Her husband was ill. He was unable to work.

(d) Into a compound-complex sentence :

(1) There was a beautiful youth. His name was Narcissus. One day he was hunting in the forest. He lost sight of his companions. He was looking for them. He chanced to see the fountain. It was flashing in the sunlight.

(2) We were all strangers to one another. There was no one to introduce us. Consequently an awkward silence followed. We looked anxiously out of the windows. We hoped every moment for his arrival.

## CLASS-ROOM.

### FOURTH CLASS ARITHMETIC

Here is a case that occurred lately. I gave the problem "A and B hire a conveyance for \$3 to go ten miles and back. If C rides back with them what should he pay?" Now part of my class (dividing in proportion to the number of miles each travelled) says sixty cents is correct, while others hold that to be wrong, and say that C should pay one-third of the price of the return trip, or fifty cents. Will some one tell me which is the correct answer. J.

Try your fourth class with the following :

1. If it cost thirty cents to get a log cut into six pieces what should it cost to cut a log twice as thick into two pieces. *Ans.* 12 cts.

2. A could do a work alone in half a day, B in one-fourth of a day. How long would it take both working together?

### QUESTIONS ON COWPER'S TASK, BOOK III.

1. Revert to passages in this book,

(a) Giving Cowper's statement of his belief that the "good old times" were the best (ll. 75 to 107 and 744).

(b) Shewing his sympathy with the lower animals (308-350).

(c) Giving his estimate of the chase (326).

(d) Giving his justification of himself for being interested in mankind at large (196-220).

(e) Confaining his estimate of the politicians of the time (790-810).

2. What is the personal reference in each of the following lines: 108 and 371.

3. Criticise sentiment in l. 664.

4. If, as Cowper says, the country is to be

preferred to the town, how does he account for the desertion of the country for the town (825-830)?

5. Analyze lines 593 to 602, and 388 to 396.

6. Would you say the language of lines 563 to 565 is applicable to the preceding hundred lines?

7. What would give rise to the various feelings referred to in lines 840 and 841?

8. Write out in your own words the following lines: 101, 121-123, 155 and 156, 185 and 186, 206-209, 237-247, 308-319, 383-385, 442-445, 480, 567 and 568, 694-701, 730-740.

9. Explain the following expressions and discuss their appropriateness as used in these connections:

Crack the satiric thong. 26.

I feel myself *at large*. 18.

Thou art the *nurse of virtue*. 48.

Eye of noon. 135.

Learne! dust involves the combatants. 161

Go out in fume. 172.

Dropping buckets into empty wells. 189.

*Angry clouds*. 212.

*Tastes his style*. 228.

Genius had angelic wings and fed on manna. 255.

Feeds upon the sobs and shrieks. 328.

Laborious ease. 361.

His *withered hand*. 428.

Shrewd bite. 581.

Hang upon the ticklish balance of suspense. 550.

Sound of winter's heavy wing. 428.

Also lines 660 and 661, 760-764, 804, and 808-810.

10. Scan lines 113, 170, 518.

11. Give the grammatical relation of the following: charioted (69), re-entful (79), equipaged (98), soliciting (105), concealed (150), erudite (191), in (222), spark (276), theme (282), unsought (289), rapt (311), impatient (319), their (321), familiar (339), to enjoy (361), me (361), to be praised (380), rather (407), spread (475), save (411), barren (419), to enjoy (789), sweets (719), so (806).

## EXAMINATION PAPERS FROM "PUNCH."

At this season of the year we have much pleasure in reproducing these excellent specimens of examination papers for the benefit of those examiners who are now wrestling with such interesting and exhaustive subjects.

Convincing has been borne in upon *Mr. Punch* of late that—whether from the engrossing nature of modern girls' and boys' occupations, or their preference for contemporary and realistic fiction—the study of fairy tale and nursery lore is fast falling into neglect—if not (as is only too much to be feared) into positive contempt!

The disadvantages to a child in after-life of having been allowed to grow up in complete, or even partial ignorance of so essential a branch of a liberal education are too obvious to be enumerated, and *Mr. Punch* is anxious to do all in his power to avert what he cannot but consider a national calamity.

In these days there is but one means of stimulating or reviving a lagging department of knowledge—we make it a subject of compulsory or competitive examination: and so *Mr. Punch*, reluctant as he is to incur the resentment of his young friends by proposing any addition to their doubtless numerous tasks, feels it a duty, nevertheless, to suggest to parents that no child should be allowed on any pretext in future to leave the nursery for school, until he has passed creditably some such examination as is indicated below. It should not be necessary, of course, to require candidates to take up the *whole* of the works in question, which would perhaps impose too arduous study upon the younger generation. The best plan is to select such portions from each as will give the young students a fair general idea of the style and subject-matter of our greatest nursery classics.

*Mr. Punch* hopes that no parent will think it necessary to send his children to a "nursery-crammer" to be prepared for this examination, and that the use of an abstract, or "*memoria-technica*" will be discouraged as far as possible. It should be added that the candidate is expected to do these papers

without any books whatever at his elbow, and that appeals to elder persons for their assistance should be met with stern and unflinching refusal.

The following questions, though searching, will not, *Mr. Punch* considers, prove too severe for students of any industry and intelligence.

(A) SET SUBJECTS:—

"Jack the Giant-Killer" (*first two chapters*).

"Puss in Boots" (*selected portions*).

"Aladdin" (*from commencement—to the Vanishing of the Magic Palace*).

"Bluebeard" (*the whole*).

"Sinbad the Sailor" (*Second Voyage only*).

"Ali Baba" and "The Babes in the Wood" (*selected portions*).

1. Mention and criticise the conduct of *Morgiana* after discovering the Forty Thieves in the Oil-jars.

2. Should you be inclined to call *Puss in Boots* a strictly truthful animal?

3. What were the circumstances that led *Cassim Baba* to the conclusion that *Ali* had suddenly become rich? What use did he make of his discovery?

4. Describe, as fully as you are able:—

(a) *Bluebeard's* Chamber.

(b) The halls and terrace where the wonderful lamp was found.

(c) The chief physical and geographical features of the country at the top of the Beanstalk.

5. At about what time of the year did the *Babes in the Woods* perish? How do you fix this from internal evidence? Is it stated that they had eaten anything previously which was at all likely to disagree with them?

6. Sketch concisely the main incidents in the life of *Aladdin*, from the time he found the Magic Lamp to the disappearance of the Palace.

7. State all you know of *Gogia Baba*, *Haroun Alraschid*, *Alice*, the Mother of *Jack and the Beanstalk*, the *Marquis of Carabas*, *Sister Anne*, *Beauty's Father*, *Red Riding Hood's* Grandmother.

(B) CRITICAL AND GENERAL:

1. What is your opinion of the intelligence of Giants as a race? Of what substance were they in the habit of making their bread? Would you draw any and what distinction between (a) Giants and Giantesses, (b) Ogres and Ogresses, (c) a Mamma Ogress and her daughters?

2. What is a Roc? What do Rocs feed on? If you were on the edge of steep cliffs surrounding an inaccessible valley, strewn with diamonds and visited by Rocs—how would you proceed in order to obtain some of those diamonds? Give the reply of the Slave of the Lamp to *Aladdin's* request that a Roc's egg should be hung up in his dome.

3. Mention instances when (a) a *Wolf*, (b) a *Bear*, (c) a *Cat*, (d) a *Harp*, are recorded to have spoken, and give the substance of their remarks, when possible, in each case.

4. Write down the name of any hero you can remember who suffered inconvenience from (a) the imprudence, (b) the disobedience, of his wife.

5. How would you act if you were invited to go to a party on the opposite side of the way, and had nothing to go in but a pair of Seven-League Boots? Compare the drawbacks and advantages of going to a State Ball in glass slippers.

6. State which family you would rather belong to: One in which there was (i.) a Wicked Uncle, (ii.) an Envious Sister, (iii.) a Jealous Brother, or (iv.) a Cruel Stepmother? Give your reasons and illustrate them by examples. How many Wicked Uncles do you remember to have read of? Are Wicked Uncles ever sorry, and, if so, when?

7. Give any instances that occur to you where it is stated that the chief personages of the story "all lived happily ever afterwards." Are there any exceptions to this rule?

*N.B.*—Not more than four questions need be attempted in each of the above Papers. Candidates are advised not to leave any question unattempted from a mere inability to answer every part of such question.—*Punch*.

## ENTRANCE LITERATURE.

The two poems to be committed to memory for the approaching examination have not been wisely selected. The one entitled "I'll find a way or make it," is objectionable on moral grounds. Should children be taught that fame, learning and riches, are the only inducements to effort? There is not the slightest hint of higher motives. The Quaker's advice to his son: "Make money honestly if you can; but make money," is on fully as high a moral plane as this poem. Teachers who have been trying to make their pupils sound the final "g" in the present participle will not be much aided by the authorities who sanction,—

"I've heard bells *chiming* full many a *clime in*," and

"I've heard bells *tolling* old Adrian's *mole in*,"

"I'LL FIND A WAY OR MAKE IT." P. 22.

1. *Noble*—heroic.

"Rome's imperial day." See note, p. 337, the time when Rome was ruled by emperors.

*Croaker*—a grumbler.

*Castle*—(kă's-sl) a fortress.

2. *Aspiration*—an ardent desire to attain.  
*Fame*—renown.

*Her*—stands for fame's.

"Content to gaze and sigh," qualifies *he*.

Is firmness the chief qualification for attaining fame?

3. Discuss the propriety of using *climb* to denote the process of acquiring knowledge.

*Who*—he who; (he) subject of *may* slake.

Discuss the relation of *will* to success in learning.

4. *Boon*—a request, a favour granted, a free gift.

"With wishing and with fretting  
The *boon* can not be *bought*."

Are the words in italics used consistently?

"To all the prize is open."

Is it true, that an opportunity to become rich is open to all?

Is courage the main qualification for acquiring riches?

## CONTEMPORARY LITERATURE.

THE *Overland Monthly* for March appears in good time, well filled with good reading.

THE monthly issues of the *School Newspaper* always contain things worth reading.

CASSELL & Co. will shortly issue a "Life of the Late Emperor of Germany," by Archibald Forbes.

MR. W. H. FRASER'S edition of the *Philosophe Sous les Toits* is to be republished this month in Boston by Messrs. D. C. Heath & Co.

*Science* is at present publishing detailed reports from physicians in various towns and cities throughout Canada and the United States on Scarlet Fever. The weekly numbers are made up largely of statistics, etc., in regard to public health, methods of preventing disease, etc., etc.

WITH the current number the *Forum* begins its fifth volume under very prosperous conditions, its circulation having doubled within the year. The *Forum* aims "to be

the vehicle for the most important utterances on all live topics of large concern." In the present issue much attention is given to political matters, while the Rev. C. H. Parkhurst contributes an exceedingly readable article on "What Should the Public School Teach," and Thomas Hardy writes on Novels, Prof. Blackie on the Scotch, and Henry R. Elliot on Newspapers.

The current *Popular Science Monthly* contains as usual many interesting papers on subjects connected with various branches of science. The most interesting paper to the scientific, and unscientific alike, is perhaps that by Francis Speir, Jr., on "The Antechamber of Consciousness." "The Indians of British Columbia," "Curious Facts of Inheritance," "Glimpses at Darwin's Working Life," such are the titles of other articles. The Hon. D. A. Wells, in another valuable essay on "Economic Disturbances," treats of the displacement of hand labour by machinery, etc.

NUMBER STORIES. By L. J. Woodward, Boston: Ginn & Co.

THE ORBIS PICTUS OF JOHN AMOS COMENIUS. Syracuse: C. W. Bardeen. \$3.  
A handsome edition of this rare old book.

PRACTICAL LESSONS IN THE USE OF ENGLISH FOR PRIMARY SCHOOLS. By Mary F. Hyde. Boston: D. C. Heath & Co.

THE JUBILEE SERIES OF TEXT BOOKS. London: Bemrose & Sons.  
An excellent series of Arithmetics, Readers, Drawing Books, etc., has just been published under the above title.

INDUSTRIAL EDUCATION. By Robert Seidel. Translated by Margaret K. Smith. Boston: D. C. Heath & Co.

An exposition of the principles of Industrial Education and a refutation of many objections sometimes urged against it.

SHAKESPEARE AND CHAUCER EXAMINATIONS. By Prof. Thom, of the Hollins Institute, Va. Boston: Ginn & Co. 2nd edition. \$1.10.

This book will be found interesting and helpful by those who have classes in Shakespeare.

- (1) JULIUS CÆSAR.  
(2) THE MERCHANT OF VENICE.  
London: Moffatt and Paige.

These editions are admirable. A student who has two good editions already will want these also, and perhaps will find these better than the other two.

A TREATISE ON PLANE SURVEYING. By Prof. Carhart, C. E., of the University of Pennsylvania. Boston: Ginn & Co. Pp. 500. \$2.00.

Prof. Carhart's work treats of chain surveying, compass and transit surveying, city surveying, the survey of public lands, etc., etc. It is illustrated by numerous fine plates and beautifully printed. Tables useful to surveyors are included, and directions as to the use of instruments, etc., are given in this valuable book.

PRACTICAL PHYSICS. By Prof. Balfour Stewart, M.A., LL.D., F.R.S., and W. W. Haldane Gæe, B. Sc. (Lond.). Vol. I.: Electricity and Magnetism. London: Macmillan & Co.

Our readers will find this work useful. It is well illustrated, and the lessons are clearly expressed and carefully arranged.

MUCH ADO ABOUT NOTHING. By K. Deighfon, M.A. London and New York: Macmillan & Co.

Mr. Deighton, formerly Principal of the Agra College, has prepared this edition with special reference to the wants of Indian students. But it will be found an excellent edition for use in our own schools.

MACMILLAN'S ELEMENTARY CLASSICS:

1. XENOPHON. ANABASIS I.: SELECTIONS. E. A. Wells, M.A.
2. ARRIAN: SELECTIONS. J. S. Bond, M.A., and A. J. Walpole, M.A.
3. VIRGIL. ÆNEID IX. H. N. Stephenson, M.A.
4. VIRGIL. ÆNEID VI. T. E. Page, M.A.
5. LATIN ACCIDENCE and EXERCISES. By W. Welch, M.A., and C. G. Duffield, M.A.

THE ELEMENTS OF PSYCHOLOGY. By Pres. Hill, of Bucknell University. New York: Sheldon & Co.

Dr. Hill's works on Rhetoric and Logic are well known, and the present volume has the same general characteristics of simplicity and directness of style, progressive character, etc. Quotations and references to other works on the subject are frequently given.

1. THE ELEMENTS OF CHEMISTRY. By Prof. Remsen, of the Johns Hopkins University.
2. QUANTITATIVE ANALYSIS. By Prof. Hartley, of the Dublin Royal School of Science. London: Macmillan & Co.

1. Prof. Remsen's work, which is intended for beginners, will be found an excellent textbook, clear and simple in style, and practical in its scope. (2) Forms a good companion volume to this, or to a more advanced work on chemistry.

A SHORT HISTORY OF THE ENGLISH PEOPLE. By John Richard Green. 129th thousand. Revised edition. 8s. 6d. London and New York: Macmillan & Co.

Words of praise, applied to the "Short History," would almost be out of place. Few, indeed, are the students to whom it is not a familiar friend. The present edition has been, in accordance with the late author's wish, revised by his wife, and while there are many additions which one is glad to see, the most important and valuable is the short sketch of Mr. Green's life which is prefixed.

THE ENGLISH LANGUAGE. By Professor Meiklejohn, of the University of St. Andrews. Edinburgh and London: William Blackwood & Sons.

This important work has been most favourably received on account of its wide scope, its clear, bright style, and its logical arrangement. We think that any student will find it of the greatest service, and spend many a pleasant hour in its company. It may also be had in three separate volumes, as follows:

Parts I. and II.—"A New Grammar," with sixty-four pages of Exercises and Government Examination Questions. Price 2s. 6d.

Part III.—"A Short History of the English Language." Price 1s.

Part IV.—"An Outline of the History of English Literature." Price 1s. 6d.

AUSTRALASIA. By W. Wilkins. London: Blackie & Son.

This volume has been prepared by one who is thoroughly qualified for the task by local acquaintance with the scenes which he describes. The work has been carefully written, and the information is presented in a graphic as well as a condensed form. The book will be found useful for purposes of reference and general information.

AN ELEMENTARY TREATISE ON KINEMATICS AND DYNAMICS. By J. G. MacGregor, M.A., D. Sc., F. R. S. E. and C., etc., Professor of Physics, Dalhousie University. Halifax, London and New York: Macmillan & Co., 1887.

This is a valuable work of over 500 pages, of good typographical appearance, and of rather more advanced character than the average student would suppose it to be from its title. The special characteristics of this work, as it strikes us, are its accuracy and conciseness of definition. Its use as a textbook in Dalhousie proves that in this department at least the Nova Scotian university can rank with some of the most famous in the world. We congratulate Prof. MacGregor on its appearance.

## PUBLISHER'S DEPARTMENT.

THE BEST EDUCATIONAL JOURNAL IS THE TEACHER'S BEST FRIEND.

Renew your subscription. Subscribers in arrears are respectfully requested to remit the amount at once.

Notify us at once of any change of address, giving the old address as well as the new.

Accounts will be rendered from time to time, and prompt payment of the same will be expected. Specimen copies sent free from this office to any address.

Our readers will observe that special attention is given to examination papers in this Magazine; in many cases hints and solutions are added. We hope subscribers and others will show in a practical way their apprecia-

tion of the valuable work done by the editors of the different departments of THE MONTHLY.

WE are grateful to the friends of THE MONTHLY who have, from many different places, sent us letters of approval and encouragement, and request their kind assistance in getting new subscribers for 1888.

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

Bound copies of this Magazine in cloth may be had from Williamson & Co., or from James Bain & Son, King Street, Toronto, for \$1.00 per copy.