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THE CANADA  
EDUCATIONAL MONTHLY  
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MARCH, 1896.

BEAUTY.

By. F. O. McMAHON, TORONTO.

ALLOW me to give, after one or two general statements, the little I have personally observed that bears upon this subject. An object (or person) may give rise to æsthetic pleasure in us in either of two ways : by reason of its form and coloring, or by reason of its suggestiveness, as the suggestiveness of the old arm chair. According to the psychological division, the former class of impressions constitute æsthetic feeling arising from the senses, and the second æsthetic feeling arising from ideas. Technically, the word "beautiful" is applied to both kinds of objects, doubtless because no other term has been found that may be applied exclusively to the second kind. Of course, some objects are pleasing in both the two above ways.

I have often, while walking along a city street looked for beautiful faces and have been disappointed in the search, until I resolved to note at all events the pleasing characteristics of the passers by. To aid in this I would at times notice wherein the personal appearance of the individuals was better than mine. In each one I invariably observed something pleasing rather than otherwise, as erectness of body, well-fitting garments, a countenance shadowing forth a

kindly disposition, or a good rosy complexion. Every person surpassed me in something ; this did not displease me. Somehow or another I became proud of my fellow citizens. My quiet search for the pleasing was not in vain.

Many objects that are displeasing to the senses are pleasing by reason of their suggestiveness ; a long row of red brick houses is dreary as concerns the sight, but it suggests home comforts that may be found in the houses. Consider a stretch of asphalt pavement ; what could be more uninteresting at first view ? But it may suggest adaptability to end, power, permanence, continuity. It suggests the Roman roads that did knit an empire together. The other afternoon the cold grey weather suggested rest to me. O you that are companions of the bare and wintry fields, let the long country road remind you that you are not shut off from your fellow-man, but that you form an integral part of human society.

In viewing an object sometimes look for the harmony of its parts. Find out the object or unity ; for instance, hardly a street as regards its buildings in a Canadian city is a unit. The buildings have all been erected by different men ; they have

no relationship, no harmony between them; but consider each building separately and you will be repaid. The contents of a room generally form a unit; a person in the parlor of a friend's house often loses much pleasure merely because he admires the articles one by one, only as a vase or a table, and not, as well, the contents of the room as a whole.

But of course we know the proportion of individual objects gives a pleasing sense of harmony, as that of a fine plant, a sideboard or even a door. The ordinary door made a foot wider would give a sense of disproportion.

There is much pleasure to be derived from noticing the harmony of colors, as dark brown with light brown. If light red were put beside the latter, the effect would be displeasing.

The interpretation of the proverb, "a thing of beauty is a joy forever"

includes this fact: past sight experiences can be more fully recalled than those of the other senses. In recalling a pleasant social dinner, one brings to mind the beautiful scene including the guests, the shining silver, the green ferns, the brilliant lights, more fully than one does the taste of the chicken, the ices, the coffee. The beauty of the scene lasts for years; the dinner for a couple of hours.

Many say they have no time for the search for beauty. One's thoughts can turn in this direction while going to and returning from one's place of business, while resting five minutes after dinner, and while your wife is putting on her gloves. Finally allow me to impress upon you the advisability of quietly searching for beauty in things both animate and inanimate, both in "the lily of the field" and in "the human form divine."

## DEPARTMENTAL APPEALS.

By J. H. KNIGHT, P. S. INSPECTOR.

[Read at the East Victoria Teachers' Convention at Lindsay].

THE regulations of the Education Department provide for an Appeal in the case of the Entrance, Public School Leaving, Primary and Junior and Senior Leaving Examinations.

This is necessary for several reasons. For instance, for the Entrance examination there are as many sets of examiners as there are High Schools, and for the other examinations each subject may be read by more than one person. Different examiners have different ideas as to what constitutes a perfect answer, as to the value of an imperfect answer, and whether an answer is altogether wrong or partly right. There may be very little variety in the case

of correct answers, or of incorrect answers, but when an answer is partly right and partly wrong, a great difference of opinion often exists, one examiner being willing to allow 8 out of 10, where another would think 2 marks out of 10 sufficient.

So far I have supposed that the examiners were both competent and honest. Doubtless the examiners are generally selected with the view to their ability to discharge their duties properly; but with the utmost care it is possible that some may not be so thoroughly master of the subject as to do justice to every candidate, and allow no undue advantage to any one. Then it is just possible that some examiners may be appointed more on

account of their importunity, or on account of the influence they are able to bring than for their ability.

That some examiners I have worked with were not honest I have found out by bitter experience; and I have no doubt other examiners could say the same.

Then there is the hurry necessary on account of the number of papers to be read, and the anxiety of candidates to know the results. It is not pleasant to report that 50 papers were read yesterday, just after another person has reported 90. Most of the work is done in summer, and occasionally the heat is very oppressive. At such a time an examiner is apt to think of many things he would rather do than read papers. Or the examiner may be suffering with headache, dyspepsia, or some other ill which makes him practically unfit for the work.

Another reason why an appeal may be necessary is because it often happens that one or more of the questions, or a note or directions to the candidates may be ambiguous, and susceptible of two or more meanings. In such cases, I understand, it is the practice to send for the examiner who prepared the questions, to tell the examiner who reads the answers what he meant to say. This is an injustice to the candidates, because they have no better chance to guess what a careless or blundering writer meant than the man whose business it is to read the answers. I never heard of a judge sending for the legislators who enacted a statute to find out what they meant to have for the law, when there was a doubt as to what the interpretation ought to be; and yet that would be just as reasonable.

Another reason why an appeal is necessary, but one for which the present regulations fail to afford re-

lief, is owing to the possibility of different candidates' answers being interchanged, and one person getting credit for another person's work. That papers have been so changed is to be presumed from the fact that candidates have sometimes received more marks than they could possibly have obtained for the answers they gave in. That the authorities of the Department believe this to be the case is evident from the fact that they persistently refuse to allow any investigation to take place which might reveal carelessness on the part of officials and injustice to candidates. If the Department had confidence that no errors were possible, there could be no object in refusing the fullest investigation.

When it is remembered that the number of papers handled is very large, and that by a slight error the papers of one candidate may easily be exchanged with another, there surely ought to be some remedy by which a candidate might be sure that he received credit for his own work, and not for that of another person.

I do not advocate the giving to candidates any advantages they should not have. To pass an Entrance candidate who does not deserve to pass, may be to deprive that candidate of another year at a public school; because many pupils leave school when they have passed that examination. Or it may tend to lower the standard of the first form of the High School, and retard the progress of every other pupil. To pass a candidate at the Primary Examination who ought not to pass, may result in the ruin of an efficient public school; because there is always a trustee who is willing to dismiss a faithful and successful teacher, and give the position to his son or his daughter, provided that he or she can get a certificate; and there is general-

ly another trustee who is willing to be a party to the crime.

But the necessity of shutting out every ill-prepared candidate is no reason why the one who is well-prepared should not have justice. It may be quite satisfactory to one candidate who appeals, to receive a letter containing two dollars refunded and the information that the appeal

sustained; but to another who is merely informed that the appeal is not sustained it is a different matter. Some candidates would like to know whether their papers were really read a second time, and if so whether the second reader was a particular friend of the first reader, and one who would do a mean thing to one person to shield another. Then they might like to know whether the second reader gave more marks or fewer than the first. They have paid for this information and they have a right to get it. Some candidates think that they have a right to say what papers shall be re-read, and they object, when a mistake has been discovered in the first paper, to the examiner going over the other papers until he finds one from which he can deduct a few marks, and then reporting, "Literature, 15 marks added; German Authors, 15 marks deducted. Result quits. Appeal not sustained."

The Department requires that the name of every examiner who reads a

paper shall be recorded. This information is never withheld in the case of the lower examinations; there is no reason why it should be in the case of the higher.

In order that justice may be done to candidates who appeal, I would recommend that the regulations be amended so as to include the following conditions.

1. A candidate may appeal to have any one or more papers re-read. No other papers shall be read on appeal.

2. The report shall contain the subject of each paper re-read; the name of the examiner who read each paper at the examination and the number of marks given; the name of the examiner who read each paper on appeal and the number of marks given.

3. At any time within 3 months from the receipt of the report, the candidate, or any person or persons named by him, may examine the papers in the presence of the Deputy Minister or any person named by him.

If these changes were made in the Regulations the examiners would have the greatest inducement to be careful in reading the papers, the candidates could appeal with much more confidence than they can at present, and the Department would gain the reputation of being more anxious to do justice than to hide errors.

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#### INTEREST: SOME OBJECTIONS TO IT.

FRANK M. McMURRY, SCHOOL OF PEDAGOGY, BUFFALO, N. Y.

**T**H**E**R**E** is a restlessness among thoughtful teachers at present in regard to the subject of interest; they are alarmed lest the advocates of Herbartian pedagogy may exhibit extreme rashness on this important subject and thus seriously injure the

cause of education. Dr. Harris is one of this uneasy number, having sounded the alarm at the Cleveland meeting of the Department of Superintendance in February last. He there called attention to the Herbartian doctrine that interest arouses

desires, desires lead to determinations, and determinations result in deeds; and complained that such doctrines must be radically false, since it made no provision for a transcendental will. So far as replies to this charge have been given, they indicate that the Herbartians, while greatly interested in the discussion of transcendental will, regard the problem as belonging rather to metaphysics than to pedagogy. In their opinion daily experience teaches that interest does awaken desires and that desires affect volition; and that is enough for the teacher, for he sees in these facts an important approach to conduct. However, in reply to this sound of alarm, it may be said that, if a transcendental will is one that is absolutely free, or one that is entirely lifted above the influence of desire in making choice, then education is comparatively valueless, for it can find no purchase upon such a will. But if the transcendental will is one that is influenced by desire in making choice, one can believe in it heartily and still accept the above-mentioned Herbartian doctrine, for it is known that desire has its origin in interest.

But the general unrest in regard to interest has not been caused alone by Dr. Harris. There are many others who are afraid of interest; who regard the stress now laid upon it as dangerous to several of the most valuable qualities in good character. In order that some of these threatened dangers may be discussed, it is necessary, first, to show to what extent emphasis is now laid upon this subject, with reasons for the same. I shall, accordingly, first present the present standpoint with brief arguments in its favor, and then discuss some of the most serious objections to it.

Interest has been considered a matter of importance from the time of the Greek philosophers down to the pre-

sent. Plato advised that one "Use no violence toward children; the rather cause them to learn while playing"; and Herbert Spencer declares that, "As a final test by which to judge any plan of culture should come the question: 'Does it create a pleasurable excitement in the pupils?'" It is generally understood to day that one of the best tests of instruction is the degree of interest in it manifested by the children. Where, then, is there anything new in all of this talk about interest? The new standpoint does not deny this old and common view, but is new in the emphasis laid upon it. That standpoint declares that interest in the subject matter of instruction is the *sole* condition under which it can be properly acquired. Indeed, it goes even further than that; it gives to interest the rank that has been usually ascribed to knowledge. The common understanding has been that instruction is aiming at knowledge, and that interest is one of the means by which that aim can be best attained; in brief, knowledge is the end and interest is the means. But the new standpoint asserts interest to be the highest aim of instruction, and ideas to be the means by which that object can be reached; that is, interest is the end and knowledge is the means. Thus the tables have been turned. There is now a strong inclination on the part of many to measure the success of years of teaching not by the quantity of information one possesses on Commencement Day, but by the degree of interest engendered in the lines of study followed. The attitude of mind toward study is, to them, the most important point.

The kindergarten presents the practice of this theory most plainly. The kindergartner is conscious that the development of right tastes is her chief mission and that facts are mere-

ly the means to that end. Consequently, as time passes, the test of her progress is found in the extent to which her children have grown in their love for God, for people, for nature, and for the beautiful. Herbart takes the same stand as Froebel by declaring that the development of a permanent, many-sided interest is the teacher's goal—an interest in the same fields of thought as those just mentioned. If this view is correct, it is far-reaching in its effect. It applies as well to the high school, college, and university as to the kindergarten and common school. A love of any sphere of thought means a receptive mind in regard to that sphere; it is, therefore, a guarantee of growth. The young physician who has a love for medicine promises success. Such love means much more than a goodly store of medical knowledge, because the former includes the latter and much more besides. The surest guarantee of successful teaching is love for that work, and both normal schools and schools of pedagogy can much better fix deep interest in that work as their highest immediate aim than knowledge about it.

Interest is the very source of mental life. Whatever one has grown to love, returns involuntarily, and often, to his consciousness. Thus thoughtfulness is produced. Next to being good, one should be thoughtful. But this thoughtfulness means the digesting of the present store of knowledge and its increase. Whatever is turned over in one's mind from time to time, being viewed in one light and then another, comes to be thoroughly mastered; thus the proper quantity and thoroughness of knowledge are cared for. Memory, too, is involved in interest, for that which is of genuine interest is often reviewed, and, in consequence, retained in mind. Further than that, whatever has be-

come attractive is carefully noticed; thus the habit of observation, instead of being chiefly dependent upon the development of some formal power, is determined by interest. When, finally, we recall the fact that interest leads to desire and that desire greatly affects volition, we are ready for the important conclusion that *interest is the great condition* under which the chief benefits of instruction can be enjoyed: consequently it is the teacher's goal; if the right kind of interest is excited, the other great objects of instruction necessarily follow. Not only do such educators as Froebel and Herbart represent this view, but the classic dramatists and novelists practically take the same stand. Shakespeare and Dickens could have made clear the underlying truths in any of their works by a few pages presented in the form of an essay. But they were not aiming at clearness alone; they seemed to recognize that comprehension of a topic may exist without appreciation of it, and that permanent influence is conditioned by permanent interest. Accordingly they set to work to arouse this interest by an attractive narrative.

In taking this stand these educators show no tendency toward neglect of knowledge and toward superficiality. They recognize that facts are the foundation upon which they build. These facts must be very clear, otherwise they could not be expected to have the desired effect. Undigested, hazy notions, memorized words alone, do not excite deep interest. It is based, first of all, upon clear ideas. Hence, when one fixes interest as his chief aim in instruction, it does not mean that he is merely intending to amuse or entertain his children, or be satisfied with only partial mastery of notions offered; it means, in the first place, that he will select the subject-matter to be presented with careful reference

to the learners, and, second, that he will present it so as to fit it as closely as possible to their past experience, in order that they may feel genuine appreciation of it. Interest as an aim, then, signifies caution and earnestness on the part of the teacher instead of carelessness and insincerity; it demands that he be a skilled instructor and not alone a pleasant person.

I have now stated, in brief, the Herbartian standpoint in regard to interest, with the commonly given reasons for the same. It is opposed to some quite prevalent views; consequently, there are several objections worthy of careful consideration. Those presented will be found to include one another to some extent, but, since they often appear in the exact form given, they will be treated independently.

First, might not work be made too easy if people became really interested in all of their tasks? Interest would make it easy in a certain sense, but never too easy, for work cannot be made too easy. Work is simply energy directed toward an end. If the expenditure of such energy is unpleasant, the work is called drudgery; if pleasant, it may become play. The difference, then, between work and play is entirely subjective. It does not destroy the value of a piece of work because one loves it; on the contrary, it is then likely to be done better and more quickly; it is said, certainly with truth, that no one ever made marked progress in a study that he detested, or rose high in a profession that he never enjoyed. Deep interest, then, leads to greater happiness as well as to a greater quantity and better quality of work. There is abundant reason, therefore, for converting as much drudgery into play as possible.

But, it may be asked, what pro-

vision is made for the development of the sense of duty, when we plan to make children interested in all the things that it is their duty to do? This question is put with the presupposition that interest and duty are opposed to each other. But is that the case? One's duty is the course of conduct that he is morally bound to follow. His sense of duty is the degree of appreciation that he feels for that course. If it appeals to him strongly, so that he feels under great obligations to pursue it, he is said to have a high sense of duty, or even a love for it. Love and duty are often opposed to each other; that is, we often love the course that should not be pursued and hate the plain path that ought to be followed. But the two are not necessarily opposed. Unless we believe in total depravity, some of our desires are good, and, just as there may be a strong hatred of duty, so there may be the opposite strong feeling of love for it. So sense of duty and interest, or love are not mutually exclusive; we can be interested in, and even love, our duty. This is plainly true if, in place of the abstract term *duty*, we take an individual instance of it. Everyone should love his country. Many respond to that duty with genuine pleasure; *i. e.*, duty and love are there in full harmony.

The fault with people is that such harmony is often lacking; they have too often developed an interest in and love for wrong things. It is the province of the school to correct this evil, by beginning early to develop interest in right lines, in high ideals. In so doing, it is favoring the development of a sense of duty. Interest leads to desire, and the desire to follow the path of duty, simply has its origin in an interest of a high order.

As said at the beginning of this paper, if the will were transcendental in the extreme sense—*i. e.*, if it were

fully independent of all interests in the choice and performance of duties—the best instruction would not necessarily have any influence upon one's performance of duty. But very few persons, if any, believe that to be the case. While the will enjoys freedom of choice, this freedom is not absolute, but is limited to the desires that have been awakened. Of conflicting desires it is possible for the will to choose those of the higher order. The relative intensity of these desires is, however, certainly a factor in this choice. Now since the scope, quality, and intensity of desire may be greatly affected by instruction, it is possible for the educator to exert a marked influence upon the will, and hence upon character. The ideal character is approached as the friction between desire and actual duty is diminished; and the school, in awakening right desires through interest, is causing such an approach. It is true that history furnishes abundant supposed examples of duty and interest in direct conflict with each other. The monks of the Middle Ages scourged themselves and underwent innumerable tortures in order to subject interest and desire to duty. But in so doing they were still following desire, for it was in the hope of escaping future punishment and enjoying eternal bliss that they subjected themselves to such barbarous treatment. Their fear on the one hand, and their hope or desire on the other, being intense, their volition and conduct were greatly affected.

Just how school instruction can through interest engender a sense of duty may be plainly seen if a concrete example is taken. The study of Washington at Valley Forge acquaints the scholar with a remarkable instance of perseverance. Knowledge of the facts, if approached rightly and comprehended clearly, awakens a feeling of

interest in the man that amounts even to admiration. But we are so constituted that, with the admiration for moral qualities, comes the demand that we exhibit such qualities ourselves. In this case, then, we are made to feel under obligations to be more persevering. Perhaps we have had that feeling before, but now it is repeated. In this way instruction can, by arousing genuine interest, give exercise in the feeling of obligation to do right; that means the development of a sense of duty. The study of the great men in history and of the ideals of literature is continually furnishing practice for the feeling of approval or condemnation, and the accompanying one of obligation to imitate or shun the same kind of action. The sense of duty is, therefore, not only not opposed to interest, but it is developed through interest.

In spite of the argument just presented the suspicion is likely to be harbored that, to the extent that one is guided by his interest, he is threatened with selfishness. In this connection it is necessary to call to mind the fact that there are two kinds of interest; each awakens desires, but the one, being unselfish, is the source of unselfish desires, while the other, centering the attention upon self, leads to selfish longings.

The student devoted to science, first of all for its own sake, rather than owing to any particular advantage it may bring, furnishes an example of the former kind; he who, like the Jesuit scholar, is interested in study with the primary object of surpassing rivals and of winning a prize, affords an example of the latter sort. It is scarcely necessary to remark that it is mainly the former that should be cultivated. When the thing contemplated is right in itself and the interest is direct, it is not likely that selfish desires will result. The philanthro-

pist's love of mankind is not selfishness. It is important that these two kinds of interest be clearly distinguished from each other. The scientist's interest in nature, while leading to desire and being the source of much energy, is quieting rather than disquieting in its effect. It lays emphasis upon the possession already present; the flower in the hand is beautiful and enjoyable in itself; hence there is no tendency toward impatience or worry, but a feeling of contentment and satisfaction pervades the mind. Also it is not inconstant or wavering; depending on no ulterior result, but being a direct attraction for the object itself, it is ever present. Even when obstacles are encountered—as they must be in pursuing any, even the favorite, fields of thought—they are not likely to cause vexation and disappointment, but are met and overcome with much the same energy and enjoyment as the difficulties upon a pleasure excursion. Not so with the other, the selfish, interest. Instead of calling one's thought away from self, and being thus altruistic in its tendency, it emphasizes self and is concerned with personal aggrandizement. As to possessions, the accent falls upon what is lacking, rather than upon what is already secured. There is a consequent longing for possession akin to covetousness, and hence a feeling of unrest, impatience, and discontent. Obstacles are recognized as such, and increase the disquiet. Also there is no assured permanency in the desires awakened; as soon as the ulterior purpose, upon which they are dependent, is attained, they cease to exist. It is evident that this latter kind of interest is injurious in its effects, while the former, being an attraction to objects for their own sake, calls attention away from self and exerts a strong moral influence. The desires that spring from it, instead

of leading to extreme selfishness, are synonymous with unselfishness; hence one may be guided by such interest with entire safety.

Thus far the conclusion has been reached that, when a deep, permanent interest is accepted as the teacher's aim, there is no danger of making work too easy, of neglecting the sense of duty, or of engendering a spirit of selfishness. An objection comes now in another form. Since all drudgery can never be eliminated from life, since in fact each individual must have a considerable quantity of it, are we not failing to prepare for it by allowing the cultivation of interest to be our object? It is granted that the child will do those things that he is interested in; but what will lead him to do those things that he is not interested in? Experience immediately offers a partial answer. Good teachers are continually endeavoring to discover the line of natural interest in the dull pupil. One reason for having so many studies is that each child may be approached from many sides, so that native tastes or strong points may be revealed. Many boys show an aptitude for manual training who are indifferent or hostile to other school work. With such it is often the interest in this one line that makes school bearable. It begets for them some momentum for overcoming the other tasks that are mere drudgery. A universal truth is here involved. Superabundance of drudgery makes life scarcely endurable. But when a strong interest has been aroused in a part of one's necessary work, he is made brighter and happier; interest gives a buoyancy and elasticity that make one disposed to undertake duties that are naturally distasteful. Thus, instead of unfitting one for drudgery, interest is an excellent preparation for it. This admission may be made and the question still be

raised, is not the actual performance of drudgery the best preparation for and guarantee of its future performance? Does not practice in any line engender the habit of doing work along that line? Certainly practice always tends toward habit or automatism. But man is not mainly a machine; at least, when it comes to drudgery he is very much inclined to act from motive, not unconsciously. The repetition of an act may diminish rather than increase that motive. For instance, the repeated marking of examination papers does not usually make it easier to approach a new set of papers. On the contrary, the motive for not doing such work often far outstrips in growth the cumulative effect of the repetition of the act. Daily attendance at school and daily study tend toward corresponding habits. But in the case of many a schoolboy the distaste for study so far overcomes the force of habit that it finally culminates in the refusal to attend school longer. Thus, whatever is really drudgery may grow more and more irksome, rather than less so; hence it is very unsafe to depend upon performance of drudgery as the fittest preparation for its future performance. The old idea of formal discipline affects our attitude towards this question. We are inclined to develop the faculty or the formal power of drudgery through exercise, as we would the formal power of memory, of imagination, etc. But since it is pretty well established that there are no formal powers either of memory, of imagination, or of drudgery, it is not probable that they can be developed.

It should be remembered that motive cannot be eliminated from drudgery, and that the way to prepare for the latter is to develop, not a formal power, but a strong motive. Motive has its origin in interest. Hence, so far as instruction is concerned, the chief preparation for

drudgery that the teacher can give is a strong and many-sided interest.

As I understand it, the emphasis laid upon interest in this paper is in accordance with Herbart and Ziller. But the standpoint should gain ground or lose it, not because their names are associated with it, but because it appeals, or fails to appeal, to experience and reason. The tendencies of the past are opposed to it; the inherited feeling is very common that that being is most to be admired who hates a good portion of his duty and still performs it. We are almost afraid to declare that the ideal education is that in which a deep love is engendered for the chief spheres of knowledge and for right conduct. But some assurance as to the soundness of this view is found in the fact that the child's attitude toward his teachers has already undergone somewhat the same transformation as is now insisted upon in his attitude toward his studies. In Xenophon's time it was the understanding that children should regard their teacher as their enemy. In the *Anabasis*, book ii. chap. vi. 15, Clearchus is described as one who "had nothing attractive in him, but was always forbidding and repulsive, so that soldiers felt toward him as boys toward their master." Until recent times the teacher was a whipping master, whether he was an instructor or not. To-day, in Germany, mutual affection between teacher and pupil is not usually planned for by the former; he seems to labor under the conviction that his personal influence is greatest when he is stern and distant. The relation of officers in the army to the common soldiers is to a considerable extent the relation of German teachers to their scholars. But in America nothing is now better established than that close mutual friendship between the two is the first condition of a strong influence from the one upon the other. Now, there

are two great means by which the aim of the school may be reached ; *i. e.*, the personal influence of the teacher, and the studies. If we have changed our estimate of the condition under which the former can prove most effective, and are now convinced that children must love their teachers in order to receive the greatest influence from them, there are the same reasons for declaring the necessity of deep interest in, or love for, the studies in order that these latter may result in the greatest good.

The fixing of interest as the highest immediate aim of instruction in no sense precludes the exercise of authority over pupils and the development of a spirit of obedience on their part. The desired deep interest in studies

and in moral notions comes only gradually through instruction. Firm control on the part of the teacher is the first external condition under which that interest can grow rapidly and become permanent. Even carefully chosen subject-matter, that is skillfully presented, often fails of itself to preserve order and to hold the attention. Authority should then be vigorously exercised, for, if it is omitted, the children, being controlled by caprice, become unmanageable both morally and mentally. But as right interests and right habits develop, the exercise of authority becomes less necessary and may finally cease. Interest and authority are not, then, mutually opposed, but are supplements of each other.—*Educational Review.*

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## CORRELATION OF SCIENCE STUDIES IN SECONDARY SCHOOLS.

By J. M. COULTER, LAKE FOREST UNIVERSITY.

I N the discussion of this subject I wish to impose two limitations :

I. ONLY THE LABORATORY SCIENCES ARE REFERRED TO. In most secondary schools a variety of subjects is loosely aggregated under the general name "science." They differ so much among themselves in purpose and method that they should be referred to at least two widely different categories. There are those whose purpose and method are purely informational, subjects about which it is well enough that every intelligent man should be somewhat informed. Physical geography, astronomy, geology, physiology so-called, as mostly taught, all belong to this category, and are not included in the college demand for scientific training. They are necessary and exceedingly help-

ful subjects, but in the very nature of things cannot be handled in secondary schools other than as purely informational subjects. As such they contain no scientific training whatever and such claim should not be made for them. In the category of fundamental laboratory sciences are included chemistry, physics, botany and zoology. The principles derived from these are applied in the informational subjects referred to above. So far as these four fundamental subjects are studied without the laboratory they are transferred to the informational series and have no value in scientific training. I wish at this point to take issue with the too prevalent statement that the purpose of scientific training is to teach the methods of the laboratory. The true purpose seems to have

been persistently misunderstood. Facts and methods are no more science than words and grammar are literature. Science, concerning itself with facts in their relation, resulting in a formula, cultivates the scientific temper. The student of literature, ancient or modern, is brought into the region of feeling, of what is known as "appreciation," and his ultimate purpose may be broadly called æsthetic. He reads himself into his material and decides what is best in thought. The student of science endeavors to keep himself out of his material, to eliminate the personal equation, to relate his facts so as to include nothing of himself. Personal injection on the one hand and personal elimination on the other represent the ultimate difference in the two cases, and two more complementary kinds of training could not be imagined. This may suggest the educational purpose of science training; not analysis merely, but through analysis to reach a synthesis which shall contain nothing of one's self. It is evident that personal contact with the facts is an essential of such training, and that purely informational work holds no more relation to it than do the old text-books about literary people and the titles of their works to training in literature.

2. THERE IS PRESUPPOSED A CERTAIN AMOUNT OF SCIENCE TRAINING IN THE PRIMARY SCHOOL. This simply refers to the observation of the ordinary phenomena included under the general head of "nature study."

With these two limitations I wish very briefly to discuss the correlation of science studies in secondary schools. In the outset I would say that the proper sequence of the informational science studies which have been ruled out of this discussion has doubtless given much trouble, but they hold a certain definite relation to the laboratory sciences. Naturally, if geology

be taught, it should follow the four fundamentals, or as much of them as may be presented in the course. Physiology, by which is usually meant a study of the anatomy of the human body, with a little physiology thrown in, finds its natural place after a course in zoology. Astronomy certainly holds a definite relation to whatever of mathematics and physics may be taught; and so on. My own personal judgment is that the less of such subjects in a secondary school the better; but I am willing to recognize the force of a general demand. The time is limited enough, at best, in which to do good work in the fundamentals of education, without trying to inject into our schemes of study an incoherent mass of odds and ends.

Taking up the real laboratory sciences, therefore, chemistry, physics, botany, and zoology, it is not at all necessary that any secondary school present all of them in its courses. It is perhaps unwise for many of the schools to attempt a laboratory equipment sufficient for all these subjects. It would usually result in such meager equipment that the real purpose of the work would be in danger of being sacrificed. Where a school can afford it all four laboratories should be represented, but they should be open to election. To compel any student to take work in all these laboratories is as much of an educational fallacy as to permit him to enter none of them.

If the scientific attitude of mind be a large purpose, aside from information, then but two laboratories are necessary, namely, a physical laboratory for chemistry or physics, and a biological laboratory for botany or zoology; and nothing less than a year in each of them should count. A school that can afford nothing more should attempt nothing more. If it can afford three laboratories, then, although a biologist, I should

say let the third be brought about by subdividing the physical laboratory into its constituent elements, physics and chemistry, and retain but one biological laboratory, which shall be devoted to either botany or zoology. To my mind the correlation of subjects is simple enough. We start with the proposition that laboratory science is to be taught, and to be taught with its real purpose in view. In considering the field of scientific subjects we find but four that seem fundamental and capable of proper laboratory treatment in secondary schools. Upon examining these four we discover that they are naturally thrown into two groups, that differ from each other in the nature of the material, the problems presented, the method of work, the certainty of conclusions. One set is the very embodiment of exactness; the other is less exact but calls for larger powers of interpretation. In the largest sense, one measures, the other observes; one deals with matter, the other with life as it manifests itself in matter. While both have much in common each has its special effect on the mind of the student. These two effects, therefore, represent to us the result of the last analysis of the educative work of the laboratory sciences. It means that but two of them are absolutely necessary, but that these two must have contact sufficient to produce a sensible result. It means that if one or two more are added, it is by way of cumulative effect rather than specific effect. This makes the minimum two years, one devoted to a physical science, and one to a biological science. The sequence of these two subjects is naturally the next point to consider. Just here my conclusions seem to be at variance with the general custom, and also with distinguished opinion, such as is expressed, for example, in the "Report of the Committee of Ten." I

find it to be the usual custom to introduce the biological subject or subjects early in the course, and to defer the physical sciences to the later years. If plants and animals are simply to be studied as things to be named, a process which has been likened to chasing a woodchuck into its hole, there is nothing but the hole to show for the work; or if, what is far better, they are to be studied simply as forms, facts which are obtained by *post mortem* examination, then I grant that the biological sciences hold no relation to the physical, and can be put wherever it happens to be the most convenient. Such, however, is not the conception at present of the proper study of plants and animals. They are living things, and any contact with them, which leaves out of view the processes of living is worse than the play of Hamlet with Hamlet left out. They are not merely living things with multifarious internal physical and chemical processes, but they hold definite relations to heat, light, gravity, etc., as well as the chemical compounds, in their environment. To have even an elementary appreciation of plants or animals in their life activities, one must bring to the study at least some elementary conceptions of the general principles of chemistry and physics, such conceptions of both as can be obtained from a year's study of either. If there be any natural sequence, therefore, between the physical and biological sciences, it is certainly one that places the study of matter and its laws first, and afterwards the study of life as it manifests itself in matter. I should certainly place the biological subjects late in the course, provided suitable primary work has been done. If this has not been done, then the biology of the secondary school begins upon a plane that I have not taken into consideration.

In case both chemistry and physics

are taught, I take it that the much discussed question of their sequence has been settled as a matter of convenience rather than of logic. Logically physics should precede chemistry; but practically it demands so much mathematics that the reverse sequence is a common one. I do not regard this, however, as a matter of large importance when compared with the sequence of the biological and physical sciences. The same kind of discussion might be taken up concerning botany and zoology in case both are to be taught, without any such logic in the situation, it is true, but fully as unessential.

My opinion of a well-equipped secondary school in which the sciences are presented in a strictly coherent and purposeful way is one in which the four laboratories are represented, each equipped for two years of work; in which each student is required to take at least two years of science, one of which must be a physical, the other a biological science; in which

a student in any laboratory can have the opportunity of a second year in the same laboratory; in which physics shall be placed at the beginning of the course, and the other three introduced afterwards either in sequence or two of them simultaneously. Such are merely general principles, which would need adaptation to all sorts of conditions. No inflexible scheme is feasible, but teachers are supposed to be able to adapt general principles to any set of conditions. The only thing in the whole situation that cannot be adapted is the poorly equipped teacher.—*The School Review.*

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Neither let us be slandered from our duty by false accusations against us, nor frightened from it by menaces of destruction to the Government, nor of dungeons to ourselves. Let us have faith that right makes might, and in that faith let us to the end dare to do our duty as we understand it.—*Abraham Lincoln, 1860.*

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#### A FEW WORDS ABOUT EDUCATION.

AT no previous time in the history of this country has the discussion of educational questions been so serious a pre-occupation as it is at present. During the past quarter of a century we have become thoroughly awakened, not so much to the importance of education, which has never been questioned, as to the importance of establishing education upon the right foundation, and of conducting it in accordance with the most enlightened methods. So great a fermentation in so important a department of thought is, of course, a desirable thing, even if its blessings be not wholly unmixed. It is well

occasionally to shake off our torpor, to get out of ruts, to avoid stagnation at almost any cost. But such a condition of intellectual unrest, such a determination to re-examine the old grounds of faith, is always fraught with the danger that we may, in our haste to make all things new, sweep away good with the bad, and discard some of the fundamental principles of the philosophy of a sound education.

Many zealous advocates of what they are pleased to call "the new education" are so thorough-going in their notions that the temperate onlooker is compelled to view their proposed policy somewhat askance.

They would have us believe that the world has hitherto been all astray, that the educational wisdom of the ages is little better than foolishness, that we are upon the eve of a reform in our practice which is to be nothing less than revolutionary in its effect. These theorists complain, briefly, that education has in the past been made too much a matter of words; the remedy they offer is to make it in the future chiefly a matter of things. To bring about this radical change, it is proposed to displace, to a great extent, the sterile practices of literary, philological and historical study, by the productive practices with which physical science acquaints us; to substitute for the study of man in his social and political character the study of man in his character as a tool-making and tool-using animal, mainly intent upon material comfort and progress. The educational tendency here suggested is very marked at the present day, and the signs of the times in many ways force it upon our attention. It is a tendency more marked, perhaps, during recent years than ever before, and more marked, probably, in our own country than in any other. This is a fact easily to be accounted for. The development of physical science is the dominant intellectual characteristic of the age, and this development, with its countless implied possibilities of material amelioration, has diverted many eyes from those things of the spirit that are so essential to the higher welfare of mankind, fixing them instead upon the objects which their lower natures demand; it has, in a word, substituted ideals of comfort for ideals of virtue and of the full-statured life of the soul. And this diversion of attention from the higher to the lower aims of life, this substitution of lesser ideals for greater, of ignoble for noble purposes, has been nowhere else so nearly complete

as in this country of unexampled material resources and unexampled material prosperity.

Matthew Arnold, in one of his essays on religious subjects, has a passage exactly descriptive of our too prevalent attitude toward the educational problem. This passage, with the necessary substitution of "the humanities," or some such phrase, for the word "religion" runs as follows:

"Undoubtedly there are times when a reaction sets in, when an interest in the processes of productive industry, in physical science and the practical arts, is called *an interest in things*, and an interest in [the humanities] is called *an interest in words*. People really do seem to imagine that in seeing and learning how buttons are made, or *papier mache*, they shall find some new and untried vital resource; that our prospects from this sort of study have something peculiarly hopeful and animating about them; and that the positive and practical thing to do is to give up [the humanities] and turn to them."

Now a great many sincere and well-meaning people have been telling us of late that "the positive and practical thing to do" in education is to set aside such useless studies as "mere" history and literature, as "dead" languages and ancient civilizations; to restrict considerably the attention paid to most other kinds of "book" learning; and to devote the time thus reclaimed from waste to such scientific and even manual pursuits as are likely to have some direct bearing upon the every-day life of the men and women that our school-children are so soon to become.

Half-truths are more dangerous than downright errors and the consequences of the socialist theory of education just outlined are in many directions

manifest. For one thing, there is the loud outcry, heard in many quarters, for the introduction of "manual training" into our common-school systems, not as an adjunct to intellectual training, which it may very properly become, but as a substitute for what is contemptuously styled the *Wortkram* (word-cram) of the old systems. One persistent advocate of this particular nostrum goes so far as to say that in the ideal school of his imagining "the highest text-books are tools, and how to use them most intelligently is the highest test of scholarship." In the field of higher education, the same spirit is illustrated by the immense expansion of the technological and scientific departments of our universities, at the expense, too often, of the humanities, and by the determined warfare that has been waged, during the past score of years, upon the classical and other branches of the older education.

In the development of the current popular opinion upon this all important subject, we may distinguish two phases. To begin with, science, in the first flush of its great mid-century achievements, put forth the arrogant plea that it alone was deserving of serious consideration as an educational discipline. Mr. Spencer's famous tractate upon "Education" seemed to give cogency to this plea, and for a time did duty as a sort of gospel of the new dispensation. But the narrowness and inadequacy of that gospel became, after awhile, apparent even to the less reflective of minds, and a new doctrine emerged to fit the altered educational attitude. That doctrine, which has lately been urged with considerable eloquence, is, substantially, that all subjects are equally valuable as intellectual disciplines, and that physics and biology, if pursued in the proper spirit, are as potent to build up the full-statured

life as are history and literature and philosophy. But there are now indications that a third phase of the discussion is at hand, and that the question of relative educational values is about to receive a more searching examination than it has ever had before. And, in this connection, it is indeed significant that the President for 1895 of the National Educational Association, in preparing his inaugural address, should have felt that the time was ripe to use such words as the following:

"If it be true that Spirit and Reason rule the Universe, then the highest and most enduring knowledge is of the things of the spirit. That subtle sense of the beautiful and the sublime which accompanies spiritual insight, and is part of it, it is the highest achievement of which humanity is capable. . . . The study of nature is entitled to recognition on grounds similar to those put forward for the study of literature, of art, and of history. But among themselves these divisions of knowledge fall into an order of excellence as educational material that is determined by their respective relations to the development of the reflective reason. The application of this test must inevitably lead us, while honoring science and insisting upon its study, to place above it the study of history, of literature, of art, and of institutional life."

Contrasted with such an ideal as this of well-ordered education, how poor are all ideals that but proclaim the watchword of a narrow practicality. One of the finest expressions ever given to the nobler view is embodied in this passage from Newman's "Idea of a University:—"

"That perfection of the intellect, which is the result of education, and its *beau ideal*, to be imparted to individuals in their respective measures, is the clear, calm, accurate

vision and comprehension, of all things as far as the finite mind can embrace them, each in its place, with its own characteristics upon it. It is almost prophetic from its knowledge of history; it is almost heart-searching from its knowledge of human nature; it has almost supernatural charity from its freedom from littleness and prejudice; it has almost the repose of faith, because nothing can startle it; it has almost the beauty and harmony of heavenly contemplation, so intimate is it with the eternal order

of things and the music of the spheres." Nor does this higher aim concern the advanced stages of educational work alone. It should be an inspiring force in the kindergarten no less than in the college; for the child, as well as the man, does not live by bread alone, unless, indeed, it be that "pan degli Angeli" whereof Dante tells us. "Those few," he says, "are blessed who sit at the board" where it is eaten. Let it be our task to make the few the many, and the largess such as knows no stint.—*Dial*

## INSPIRATION AND EDUCATION.

BY REV. W. G. JORDAN, B. A.

THE forces represented by these two words have been linked together by God and ought not to be divorced by man. To explain what is meant by them, and to discuss their relationship would require a long, luminous treatise; in this brief article our purpose is more modest, it is simply to call attention to a significant fact in the history of God's people. In the course of Sabbath school lessons, a short time ago, we were called upon to pay some little attention to the period of the Judges. That was a long, apparently barren period, variously estimated from 350 to 500 years in duration. It was a time of reaction and vacillation, of shallow faith mingled with superstition, of disunion and consequent enslavement. This period had its great men; for God raised up judges to deliver the people from their oppressors. They were strong men of a rude type. Their heroism was the heroism suited to a rough, violent age. In the scanty records of that period we occasionally read of a man of God or a prophet, but we

meet no great prophet, no Amos or Isaiah, appealing mightily to the conscience of the tribes and leaving behind an everlasting name. The one great name associated with prophetic and poetic power is that of a woman, Deborah. It is good to know that the prophetic spirit which cannot be confined to any caste is not limited by sex, but even when we admire the genius and force of the "Mother in Israel," we realize that a nation needs prophetic men; men of insight and enthusiasm; men of "light and leading." The song of Deborah is wonderful as a patriotic poem. There is something Homeric in its recapitulation of the tribes, and its exquisite relish of revenge tells of a vivid imagination, and is in harmony with the spirit of the times. We are thankful for the Deborahs and Hannahs, but we feel the need of men who have heard the voice of God. There must have been in quiet places devout spirits that brooded over the deeper things which are never wholly forgotten, but the Word of the Lord was rare, there was

no open vision, there was no mighty human voice to echo the call of God. Samson was fitful and Eli feeble—such men could not be a help and a hiding place in the great storms. In the fulness of time God's highest revelation came to the world as a little child.

So here in one of Israel's darkest hours the voice came to a ministering boy. The first message was indeed a sad one, and it is a sorrowful thing to see such a burden of responsibility placed upon the heart of a child. Not seldom, however, is it the fate of children to learn the terrible reality of sin and the stern righteousness of God through the misery that comes upon those whom they love. The story of Samuel's youth is a beautiful one. Hardly anywhere else do we find set forth in such lovely forms the sacredness of motherhood and the consecration of childhood. It is so full of sweet suggestions that we are tempted to linger over it, especially as the heavenly light that is in it is made so much brighter by the surrounding darkness.

We set out with the purpose of emphasizing this one fact: that in beginning a new era of hope and progress God provided a man who was open to inspiring influences and who knew the value of education. It was a transitional time, when the nation was in danger of falling into separate tribes, because the common faith was weaker than the conflicting interests. Samuel became a power for political and religious unity. We are not likely to forget that he was an inspired man. That is impressed upon us by the narrative which tells of the awakening of his prophetic consciousness, and by the words, "Speak, Lord, for thy servant heareth," which strike the keynote of his life. We believe also that he did much towards organizing the prophetic schools. One of the men

who is most distinctively inspired is the leader in the organization of religious teaching. Inspiration and education ought to be in harmony. When God chose men for battle He chose strong, able men; and when he chose men for teaching, men were selected who were endowed with rich mental capabilities. Every kind of strength may be consecrated to the service of God, and as a rule the leaders of great religious movements which have left an enduring influence in the world's life, have been men of wonderful powers of mind. Intellectual pride may be a hindrance even as other forms of pride, and a dry intellectualism is a poor thing anywhere. But while Amos teaches us that the spirit of God is not monopolised by any class or profession, we learn from Moses, Samuel, Isaiah and Paul that the same spirit can chasten and consecrate the highest culture. Those who talk as if study and education were in themselves a hindrance to spirituality, do not know as much about their Bible as they think they do. In the schools of the prophets there were doubtless many who were formal and perfunctory, possessing little of intelligence or fervour; but there were also many whose names we do not know who quietly helped to sow the seeds of a nobler faith, and out of those schools there arose strong men who fearlessly rebuked the sins of princes, and taught to the nation new visions from God.

We are thankful for all healthful excitement and strong impulses that tend towards a higher life, but not by these alone does a nation grow in purity and power; we need the steady working of the forces of enlightenment which draw out and discipline the noblest powers. Our thoughts of education to-day are larger, the world of knowledge is widening in all directions, and some are afraid that all this

leads away from God, but as in the rude times of Samuel, inspiration and education worked harmoniously toward: a larger life, as the results of Greek thought aided in the development of Christian theology, as the

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humanities of the Renaissance formed the prophetic outburst of the Reformation, so will God give to us men of faith who will teach us that He is the God of light as well as the God of love.—*Canada Presbyterian.*

## IMMIGRATION AND THE INCREASE OF POPULATION.

SYDNEY G. FISHER takes up, in *Appleton's Popular Science Monthly*, the thesis recently discussed in another magazine by Gen. Francis A. Walker—"Has Immigration Increased Population?" Mr. Fisher, like General Walker, answers that question in the negative. He contends that the lowering of the rate of native growth was due to the increase of foreigners, and that if the native population had kept up an increase per decade of only 34 per cent, which was less than it had in the twenty years 1790 to 1810, and immigration had ceased, the white population would now be more numerous than it has become with the assistance of immigration.

The men who fought the revolution and created the United States were almost exclusively native. The population of New England, as is well known, was produced out of an original immigration of not much over 20,000, all of whom arrived before the year 1640. From 1640 until 1820, a period of nearly 200 years, the growth of New England was entirely by births among the native stock. There was no immigration worth mentioning, but, on the contrary, an overflow into the neighboring colonies, New York, and the West. Franklin, writing in 1751, when the population of all the colonies was about 1,000,000, said that the immigration which had pro-

duced this number was generally believed to have been less than 80,000. With the beginning of the century the modern immigration movement began, and by 1830 it had grown to be formidable. It provoked the native American or know-nothing movement in the forties, and stimulated it until, in 1850, it crystallized into a separate National party, which in 1856 nominated a separate ticket for the Presidency. It was taken for granted, both by the know-nothing leaders and by those who opposed them, that the large influx of immigrants would enormously raise the rate of increase of our population. This was predicated upon the remarkably rapid increase by births among the first colonists, to which Benjamin Franklin called the attention of the learned men of his time.

The early colonists in some parts of the country, without the aid of immigration, doubled their numbers within 25 years. If such a rapid rate of growth had been attained, unaided by immigration, it was argued that, when supplemented by immigration, a still more astounding rate of increase would follow. Thomas Jefferson in 1815 predicted that the American people would number 80,000,000 by the year 1875. At that rate of progress our population to-day would considerably exceed 100,000,000. But that prophecy has not been fulfilled, and it is now evident that

neither the native stock nor the immigrant element, has increased in numbers by births to anything like the extent which Franklin and Jefferson and other contemporary writers anticipated. It appears from careful calculations made by Gen. Francis Walker and other statisticians that the native stock has shown a steadily lowering rate of increase ever since the great influx from Europe began.

Mr. Fisher argues that this coincidence of the decline of the rate of increase in native population with the rise of immigration has been so exact that the two occurrences must have stood in the relation of cause and effect. He quotes General Walker, superintendent of the tenth census, as to the precise nature of this relationship, as follows:

"The excess of foreigners, at the time and under the circumstances, constituted a shock to the principle of population among the native element. That principle is always acutely sensitive alike to sentimental and economic conditions. And it is to be noted in passing that not only did the decline in the native element, as a whole, take place in singular

correspondence with the excess of foreign arrivals, but it occurred chiefly in just those regions to which the new-comers most freely resorted."

There is another way of saying that the immigrants who came to New England and the Middle States in such large numbers brought with them lower standards of living and a willingness to work for lower wages; that consequently the native element found itself crowded to the wall in many of the employments of unskilled manual labor and subject to a stress of competition even in the occupations of skilled labor which it had not known before. As soon as this fact was acutely felt the native American or know-nothing ferment followed, as an expression of the native resentment. That movement culminated in 1856, and died, as it was bound to do, because of the impossibility of reconciling it with the foundation principles of American government. Nevertheless, it appears to be true that the native population of those sections of the country to which foreign immigration was most largely attracted, and especially the New England States, has never recovered its former rate of increase.

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### "THE LAW ALLOWS IT AND THE COURT AWARDS IT."

**I**N Ontario by the *Act respecting Separate Schools* every person paying rates, whether as proprietor or tenant, *who* gives notice before the first of March in any year to the Municipal Clerk that he is a Roman Catholic and Separate School supporter is exempted from all public school rates for the current year. The person giving the notice, if resident, must live within three miles from the site of the school house. If the taxpayer be non-resident he

may require also by notice that his taxes be applied towards separate schools. The Assessor, who assesses for purposes of taxation, is bound to accept the statement of any person who claims to be a Roman Catholic—and mistakes or fraudulent notices may be corrected by the Court of Revision. If land happens to be assessed both to owner and occupant, or to owner and tenant, then the occupant or tenant is deemed to be the person liable to the rates, and his

decision governs where they are paid if there is no agreement on the subject as between owner and tenant. If ultimately by default of the tenant the owner has to pay the taxes, then he decides where they are to go. Municipal councils are charged with the collection of school rates, and when collected the taxes are paid over to the trustees. Each separate school is also entitled to a share in the public grant based on the proportion which the number of separate school pupils attending school bears to the whole number of pupils in the school district. Teachers in separate schools are required to have the same qualifications and certificates as public school teachers. Thus, in Ontario, the effort is made to have separate schools on exactly the same lines as the public schools, but separate.

The Dominion Bill, now before the Dominion House, is on generally the same lines. The difference is that the Dominion is instituting these schools for the Province instead of the Province instituting them for themselves. The whole matter must be considered apart from detail. Once admit that separate schools are allowable, the machinery for carrying out the separation is, as is shown by the above outline of the Ontario law, simple.

The question is—why must there be separate schools at all? The answer is that the Roman Catholic Church desires them. The Roman Church has plainly spoken on this point of separate schools. A devout Roman Catholic would not, if he could help it, send his child to a school where Roman Catholic doctrine is not taught. Protestants may not understand this feeling, it may be something they themselves cannot sympathize with, but the fact is that it is there, and in governing a country it must be dealt with. This desire

alone, may not, of itself, be sufficient, but in Manitoba this separate school system did exist. It was abolished. The abolition has been declared to be a grievance. The ruling of the Privy Council on that point is final. The Dominion has been legally appealed to by the minority who have lost their rights. An opportunity has been given to Manitoba to remedy this grievance, and it has not been taken advantage of. The Dominion, unless it is prepared to see the rights of minorities trampled on in every Province, must protect these minorities. The shoe to-day pinching the Roman Catholics in Manitoba may pinch the Protestants in Quebec tomorrow. In either case, no matter what happens, the spirit as well as the letter of the Constitution must be acted up to. In political life as well as in private life society can only insist on terms of concession to the feelings and prejudices of other people.

If the Constitution of the Dominion is not to be a dead letter it must be respected. The objection of Manitoba to Roman Catholic separate schools if acceded to would be a precedent for a French Canadian objection to Protestant separate schools. Facts must be looked at, not theories. The utmost delicacy and good feeling towards Manitoba should be shown in the Dominion legislation; and apparently that feature is not overlooked. If it is omitted it should be remedied. But the remedying of a declared grievance is one which demands fair and dispassionate discussion. We have doubting Thomases among ourselves. We have candid friends quite ready to say, "I told you so," if the Dominion does not successfully overcome this difficulty. We have a treacherous sprinkling of sub-acid hostile critics who are ready to give aid and comfort to our enemies, and point out

all our failures with great satisfaction. Canadians, disappoint these men. Show that this school difficulty can be settled without acrimony or further friction. Canada wants no question of State rights between her borders. One country, one people, no sovereign States claiming any right of secession. The law of Canada, when once declared, must be supreme. However Protestants may be opposed to separate schools

there is a higher principle at stake. The question becomes one of the supremacy of law and the maintenance of the Constitution. We would gladly welcome Roman Catholics into our public schools, and we believe it would be more to the benefit of the community if there were no separate schools. But the law has declared that those who ask for them are entitled to them and against that position there is no attack.—*The Week.*

### PATRIOTISM IN TEXT BOOKS.

THAT we can do more through our school books than we are doing to disseminate a better knowledge and appreciation of Canada and its resources, and to foster a spirit of patriotism, is a fact that has been painfully evident to all who have taken the trouble to reflect on the matter. Recently in Montreal, under the auspices of the Y. M. C. A., Mr. Watson Griffin delivered a lecture on "The Industries of Canada." He prefaced his remarks with a quotation from Chase's High School Geography, in which the statement is made that the essential elements of successful manufacture are running water or coal, and natural facilities for obtaining the raw material. It then goes on to say that Canada possesses these only in a moderate degree. Mr. Griffin imposed upon himself the task of exposing the fallacy of the latter, and he had little difficulty in accomplishing it. Perhaps no country in the world is more plentifully provided with running water than Canada. This is a fact so patent to any one having the slightest knowledge of the country that to state it is sufficient. Coal is found in inexhaustible quantities in the maritime group of Pro-

vinces, in the Northwest, and in British Columbia. Only Ontario and Quebec can be said to be without it, and they are situated so conveniently to the Nova Scotia and Pennsylvania mines that its absence is scarcely felt. Canada is also rich in the raw materials entering into much the larger proportion of the more important manufactures. It is not necessary that this point should be elucidated here, as this article is not designed to be a lecture on "The Industries of Canada." Its mere statement will pass with those who are familiar with the conditions of the country. Yet one of the Canadian text books teaches our children that the country is not adapted for manufactures. We are not surprised that Mr. Griffin should manifest a good deal of indignation in his comments on the fact.

Towards the close of his address he referred to the subject again, saying that this was not the only mistake made in the text book in question. "The chapters on the Dominion of Canada and its Provinces," he said, "gave an altogether inadequate conception of the resources and advantages of our Dominion, while the chapters devoted to the United States

gave a very complete and glowing account of that country. The politicians of both parties had had a great deal to say about the exodus from Canada to the United States, each party blaming the other, but for his part he believed the teachers were more to blame than the politicians. In early times our Canadian schools used books for American schools published in the United States. These books represented Canada as a poor and insignificant country, and the United States as the grandest country under the sun. Our school books now are made in our own country, but they are not much better than the old ones. It is no wonder that so many young men leave our vast Dominion, with all its varied resources, and seek

their fortunes in the United States." This is less than fair to the teachers, who do not compile our text books and have no direct responsibility in authorising them. They have to take and teach what is given them, although probably it is in their power to influence a choice if they were sufficiently alive to exercise it. Our school books are perhaps more responsible than we think for the continued exodus to the United States. To our Canadian youth we should teach Canada first of all and above all. This is plainly our duty, surely; yet only the other day it was stated that the school authorities of Manitoba were already contemplating the introduction of a series of United States text books!-- *W'peg Free Press.*

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#### THE DUKE OF ARGYLL ON VOLUNTARY SCHOOLS.

The Duke of Argyll in a letter to the *Times* says:—

The discussions which are being conducted or reported in your columns on "voluntary schools" prove very clearly that there are a good many real difficulties in the way of any perfectly satisfactory solution of the religious problem in national education. These practical difficulties concern chiefly such questions as the geographical distribution, the management, and the finance of schools. I do not now address you for the purpose of adding to the number of suggestions which have been made on these matters. I have considerable confidence in the variety of elements which are represented in the present Government, and in the probability of their taking a reasonable and conciliatory course toward all the great interests which are involved. But I am anxious to say a few words concerning a doctrine

—a preconception—or a prejudice on one point, which exaggerates and embitters every difficulty, and which, I venture to think, is quite erroneous. I refer to the notion that when "the State" assigns money, whether from rates or taxes, to voluntary schools, it is doing the same thing as endowing churches. The two things are not only different, but they are opposites. The principle which condemns the one is the very principle which justifies, and may even necessitate, the other. The principle is that the State, as we now understand the word, is so thoroughly secular that it cannot and ought not to meddle at all with religion or the Churches. I understand that principle and, with large explanations, I respect it. In its bearing on education it demands that the State should pay its money for secular education alone, and pay it, moreover, to every body or organization which

will undertake to produce secularly well-educated children.

The principle asserts that the State has no business whatever to ask what religion is given by any such body or organization in addition to, or along with the secular instruction which alone is its concern. If it refuses to pay for that instruction, by whomsoever it may be provided, because the body so providing it does also teach religion, then the State is violating its neutrality and persecuting the Churches. Dr. Joseph Parker assumes that strict logic is on his side, and that if it be only uncompromisingly asserted men will come round to his conclusion. I hold that strict logic is against him, and I trust that a general revolt against his conclusion will lead to a wider and wider detection of the fallacies on which it rests. The dogma with which that conclusion is inseparably connected is—not the neutrality or indifference of the State towards all voluntary societies, but an inherent hostility on the part of the State to all such bodies if they have a religious character. Religion is to be regarded as something so unclean that the State will not even touch it with a barge-pole. Churches may produce scholars educated up to any standard of secular knowledge required by a State department, but they are not to get the money thus fairly earned, because they add to the secular information some elements of knowledge in Divine things. This is not neutrality. It is hostility, and even enmity. Such a policy is a complete abandonment, and indeed a complete defiance, of the principle on which it pretends to be founded.

But having repudiated Dr. Parker's conclusion, let me explain my own. Accepting the doctrine of the State being neutral in theology, but insisting that to be so, it must not be hostile to, or even jealous of, the Churches, its attitude towards them on the mat-

ter of education ought logically to be expressed in some such language as this: "We, the State, are so divided in religious belief that we are compelled to be neutral between you, the Churches. We, therefore, cannot help ourselves; we cannot give any definite or effective teaching of religion. But you can. And you can do what we cannot; you can combine the two, the secular and the religious element. We have no right and we have no wish to prevent you. We will, therefore, pay you for the only results of which we are competent to take any cognisance, and we will pay you at such rates as may be fairly proportionate to the cost."

Of course, I am not to be held as admitting, except for the sake of argument, that, secular as our society undoubtedly is in many respects, it is really quite so pagan as this language represents it to be. But what must be insisted upon is that the most complete and absolute secularisation of the State would not only leave it free to deal with education on the footing I have defined, but would absolutely demand of it a line of conduct in harmony with that definition. I hold that the attitude of the State ought to be one of at least benevolent neutrality towards agencies which do a work which it confesses itself unable to accomplish. It ought to do everything it can to encourage those agencies to help it in secular education, and it should rejoice in that education being associated with a still higher education from which it is compelled to withdraw its hand.

I do not forget that this solution is not complete. It would be complete if any, or all, of the Churches comprehended the whole people. But unfortunately they do not. Thousands, perhaps some millions, belong to no Church. For them I fear we must be satisfied with such compromises as that which now prevails in

Board schools, where what has been called a "residuum" of Christianity is taught. I am not prepared to condemn this *via media* altogether. I do not deny that there is so wide an agreement among the Churches on certain fundamental doctrines of the Christian faith that, with good will on the part of teachers, most valuable results may be attained. But I fear the drift is, and must be, towards purely secular education. Nor do I believe in the solution which points to religious instruction separate both in time and place, and conducted by the Churches. Here and there it may answer for a time. But the drift will have its way. Parents are often careless and indifferent. A trade union of masters is claiming the right to believe or disbelieve exactly as they please, and may easily become what they evidently hope to be—masters not only of the children but of the parents and of the public. All these influences, together with the usurpation of time by the high demands of modern ideas on secular instruction, will tend more and more to leave religion—nowhere.

Financially it seems to me to be the height of folly to discourage the greatest of all agencies—zeal for religious truth—in persuading men to support efficient voluntary schools in which they take an earnest interest. I should be prepared to deal equally with all voluntary societies and all Churches in paying them for their work as tested by such methods as may be deemed best. I heartily sympathise with Roman Catholics in demanding the same reward for the same work which is freely given to secular or it may be to irreligious schools. I have long thought that the restrictions placed on their education in Ireland have been the only remaining grievance in that country; and I am rather ashamed of the Protestantism which fears the effects of the

emblems of our Lord's Passion exhibited on the walls of schools. Nor am I afraid in England of the silly fanaticism brought to light by Dr. Rigg in a catechism composed by a gentleman of the name of Gace. If Dr. Rigg thinks that this sort of thing can spread widely in the face of an open Bible, and in times when the laity are likely to take an increasing part in the government of their Church, I hope and believe he is too nervous. But in any case the field of contest with such opinions lies outside the walls of Parliament or of any Government department. Voluntary schools are the best, and, indeed, the only hope of combining good secular education with religious knowledge; and I agree with Dr. Parker in wishing to have "careful instruction by qualified teachers in distinctive Christian doctrine and morality." But as we—the State—cannot pick and choose what is "distinctive" and also true, we must be content to leave that to the various branches of the Christian Church and to deal with them all equally as our best and, indeed, our only agents in that great work.—*The School Guardian*.

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In those moments when Christ is most real to me . . . I am surest that the dead are not lost, that those whom this Christ in whom I trust has taken, He is keeping.—*Philips Brooks*.

We talk about men's reaching through Nature up to Nature's God. It is nothing to the way in which they may reach through manhood up to manhood's God, and learn the divine love by the human.

There is no royal road, and he that is not prepared to live for his work, and to be at it from week's end to week's end, will certainly fail.—*Marcus Dods*.

## THE TEACHER AS AN INDIVIDUAL.

THOSE with whom biography, and particularly autobiography is a favorite form of reading, often have occasion to note the influence exerted by teachers of strong personality upon men who have afterward attained sufficient distinction to make the story of their lives worth reading about. The literature of autobiography is full of tributes—appreciative, affectionate, grateful and reverent—to the memory of the men who, at the impressionable age of the writer's lives, gave to them the bent that was to remain characteristic, inculcated the ideals of learning or of conduct that were thereafter to be pursued. The tribute of the Florentine to his teacher, met upon the Fiery Plain of the Seventh Circle, has been repeated, with every possible shade of tender expression, by all sorts and conditions of men of the modern world, down to the pupils of Arnold at Rugby, and of other teachers of our own day. It is to be noted that in nearly all cases of the class now under discussion, the teacher is remembered as an individual, a distinctly-marked character, a personal influence for good; rarely, if ever, as the representative of a system or the exponent of a method. Stress is laid upon the fruitful contact of soul with soul, not upon the workings of the educational machinery, however nice the adjustment of its parts.

However completely a teacher may achieve the lower aims of educational work—the aims that are tested by examinations, and theses, and the observation of official visitors—a student will feel but slight personal indebtedness if the higher aims have not at the same time been sought after with equal strenuousness. Many wise writers upon education have sought to set forth the really vital aims of the art pedagogic; none, perhaps, more

successfully than John Morley. He says:

“There appear to be three dominant states of mind, with groups of faculties associated with each of them, which it is the business of the instructor firmly to establish in the character of the future man. The first is a resolute and unflinching respect for Truth, for the conclusions, that is to say, of the scientific reason, comprehending also a constant anxiety to take all possible pains that such conclusions shall be rightly drawn. Connected with this is the discipline of the whole range of intellectual faculties, from the simple habit of correct observation, down to the highly complex habit of weighing and testing the value of evidence. The second fundamental state in a rightly formed character is a deep feeling for things of the spirit which are unknown and incommensurable; a sense of awe, mystery, sublimity, and the fateful bounds of life at its beginning and its end. The third state, which is at least as difficult to bring to healthy perfection as either of the other two, is a passion for Justice.”

What, it may well be asked, is the bearing of these extremely abstract considerations upon the actual problems of the present educational day? To us the reply seems very obvious. Such aims as we believe to be the most essential of all in education are not easy of attainment at best, and whatever tends to repress the individuality of the teacher tends also to make impossible the attainment of these aims. What we are sometimes tempted to call the curse of centralization has so fallen on most of our educational organizations that the very word “system” has come to have the connotations of lifelessness, and inadequacy, and dull uniformity.

The higher education has generally learned the lesson that system, although an excellent servant, is a poor master, but the lower education everywhere calls loudly for emancipation.

Take the matter of text-books alone: a text-book is a tool, and its chief excellence is in being fitted to the hand that must use it. In our own country, we act for the most part upon the crude theory that administrative boards may properly select the text-books to be used by teachers, and the patent evils for which this notion is

responsible are counted as nothing in comparison with the blessings of uniformity. In fact, the attitude of the educator towards this subject should be that every sort of a uniform regulation must give indubitable proof of its necessity before it has any right to exist, the prevalent attitude being, we need hardly say, that the presumption is in favor of the uniform rule. Local option is as essential to educational as to political vitality, and it should be extended not merely to every school, but to every individual teacher, in every case possible.—*The Dial*.

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#### THE DUTY OF THE STATE.

**E**VEN during the hard financial strain of the past two years the great majority of those who have suffered have been those who have never been taught to do anything, or at least never been taught with a thoroughness that makes instruction convertible into terms of dollars and cents, bread and butter.

The generic problem of the race is to keep soul and body together, and the school problem is first of all to put the rising generation in the way of making the junction of the two possible. So long as the State assumes the care of paupers it is the duty of the State to use its best means to prevent the existence of paupers, and one of the most direct means to that end is to see to it that all the children in the State are thoroughly instructed in reading, writing and arithmetic, and are substantially trained in the practice of some form of remunerative handiwork, writes the Rev. Charles H. Parkhurst, D.D., in a vigorous article on "Compulsion in Child Training," in the *Ladies' Home Journal*. There is work enough to be done in this big

world by people who are willing to work and who know how. The idea of immense wealth secured by some process of financial legerdemain has so pervaded the general atmosphere that a sufficiency has ceased to satisfy, and a young man resolves either to speculate his way to fortune, or to steal some one's else's fortune, or if both these expedients fail, to turn professional idler and subsist on charity.

The incentive to substantial equipment for the struggle of life is thus withdrawn. If I were the State I would compel every child to acquire the means of an honest livelihood, even at the risk of the whip, and then if, having acquired that means, he failed to avail of it to his own maintenance, I would commit him to the workhouse and keep him at hard labor there till he experienced a change of heart. There is no respectable consistency between State's care of the poor and State's neglect of stringent means for preventing the existence of the poor. If a government ought to be "paternal" to the extent of feeding paupers

it ought to be "paternal" to the extent of obliging possible or intending daupers to be able to feed themselves. The root difficulty in all this matter is the indisposition of parents and other constituted authorities to make serious business of laying substantial foundations in the early years of our young people, boys and girls. One of the chief sources of misery among the working classes is the wife's ignorance of the duties that belong to her. She is ignorant of them because she has never been compelled to learn them. If we could split half of our pianos

into kindling wood and pluck the strings out of three-quarters of our harps and banjos, and set our young girls to the practical task of becoming proficient in a self-sustaining way upon some line or other of remunerative industry, it would be a great benison to society in general. In whatever direction we look and whatever improvement we seek to effect, we come back to it again and again that the end is determined by the beginning, and that the foundations of all public betterment have to be laid in the children.—

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#### NOTES FOR TEACHERS.

MIXED SCHOOLS.—There are many things in the Commissioners' Report with which all teachers will agree, and many about which they will differ, but there is one which simply amazes me, and runs so counter to all my experience of the facts, that I desire to call attention to it in your columns. On page 676 your account of the report says, under the head of Co education, that the evidence in favour of educating boys and girls together is overwhelming, and that "mixed schools or dual schools are strongly recommended." I have had nearly ten years' experience as headmaster of mixed or dual schools for secondary education, and my experience is so utterly opposed to this statement that I cannot help wondering what evidence the Commissioners took on the subject, and who were the witnesses on whose evidence they relied. I am almost driven to conclude that the evidence must have been that of teachers and others belonging to mixed schools. If so, I must say that such evidence should be taken *cum grano*. To the shoe-

maker there is "nothing like leather" and "it is an ill bird that fouls its own nest;" so it would be too much to expect teachers in mixed schools to decry such institutions. I do not, of course, mean that they would intentionally misrepresent them, but they naturally are prejudiced in favour of them. What would have been of more value would have been the opinion of those who had been in mixed schools but had passed to separate schools. I once asked the opinion of the headmaster of a very large endowed school in which the mixed system had been abolished, and I have never forgotten his reply: "In my opinion boys and girls should never be taught together in a secondary school."

My own experience leads me to the very same opinion. I could give many reasons for this view—reasons of discipline, *esprit de corps*, etc., but I shall confine myself to one all-important reason. As teachers of girls men are much inferior to women; but for the teaching of boys the inferiority of women to men is

even greater. That, at least, is my experience ; in fact, I should go so far as to say that girls should always be taught by women and boys by men—I do not refer, of course, to the little boys under ten. The mixed school has more disadvantages than separate schools ; the dual school has the disadvantages of both.

But I may be mistaken ; the Commissioners may only mean to recommend mixed schools on the score of

economy. They have undoubtedly that advantage in small places where a number of pupils sufficient to support a secondary school can only be got by combining the two sexes. If this is all the report means, and mixed schools are not recommended as the best, but as best in such circumstances, this letter may be beside the mark, except in so far as it may, in that case, clear up the meaning of the passage.—*Journal of Education.*

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## PUBLIC OPINION.

**BIBLE KNOWLEDGE.**—As a result of an examination given to a school of over one hundred pupils in Ontario it has been demonstrated that the pupils of that particular school are more familiar with the history and mythology of ancient Greece and Rome than with the history of the Bible. Various reasons have been assigned for this state of affairs, and, as usual in some quarters, the public schools have come in for a share of censure. If ever the time comes when Christian denominations shall so far be able to reconcile their differences as to permit the study of the Bible in the schools as a text-book, and it shall be prescribed as such, a very different showing will no doubt be made. As it is now, it only shows the difference between trained and untrained teaching. Grecian and Roman History are taught by trained teachers. Bible History is taught in the Sunday-schools by untrained teachers chiefly. In the past Sunday-school teachers have been appointed more from the standpoint of their willingness to perform the duties than from their special qualifications for the position. And it speaks volumes for them that without any pecuniary reward, with a devotion to their work that is heroic in

many cases, they are found Sabbath after Sabbath instructing their classes and giving their time at much personal sacrifice. In the olden times, when all books but the Bible were scarce, and religious controversy was more intense, there is no doubt that more voluntary attention was given to the study of the Bible than at present. In this age of books, magazines and newspapers, it is not surprising that some attention has been diverted from Bible study. Some religious bodies have recognized the need of trained Sabbath school teachers and there is now a large number of such teachers engaged in the work. Perhaps the time will come when the Sunday-schools will be as well provided for in that respect as the day schools. It would greatly hasten the time if it were deemed expedient to remunerate the services of the Sunday-school teachers in the same manner as is now done in other branches of church work.—*The Educational Review.*

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**WHAT ARE THEY READING ?**—It was said with much earnestness twenty years ago in these pages that the teachers had more to do than to put the power to read in the possession of a child. It reiterated this

in strong and forcible language that was copied in many of the papers of this country. The Catholics have felt the truth of this far more deeply than the Protestants; they have said it might be an advantage to a pupil to know how to read and then it might not—it depended on the use made of it.

Attention has anew been called to the use of the power to read by the four lads that wrecked a train on the New York Central railroad, accounts of which have thrilled the entire country. The boyhood of John Watson Hildreth has been inquired into with some minuteness. He was born in October, 1874. His residence was in East 138th street in this city; he was baptized in St. Ann's Episcopal church. His father is a lawyer of repute; he attended Sunday-School and his father was a teacher in it.

This boy attended grammar school 85 in East 138th street and was in the third grade when he left school. His teachers do not speak well of him; he read much in dime novels and his schoolmates say that his principal talk was of the pleasures to be had in adventures at the West among the Indians and robbers. He regaled his companions by telling those stories with additions made by himself.

In Rome, N.Y., he gathered about similar spirits and a plan was made him to derail a train and rob the dead. The train was thrown from the track and two persons killed; but these desperadoes were so appalled by the disaster already accomplished that they fled in fright. A clergyman of this city probably voiced the sentiment that now prevails that all four should be hanged as guilty of murder.

This event will call anew the attention of teachers to the important question, what will the pupil do with the knowledge he is gaining? It has

been the thought of THE JOURNAL that (1) the school should furnish the right kind of books to those that could read; (2) that the teacher should know what books the pupils are reading; (3) that the community should furnish books; (4) that clergymen as well as teachers should denounce the evil reading that abounds—the teacher's hands should be strengthened; (5) the teachers in Sunday-Schools should co-operate in this matter; (6) parents should have their attention called to this matter.

Now there are many papers issued on Sunday that contain stories just as injurious as the ones in the dime novels; all newspapers cannot therefore be expected to condemn vicious reading; they are themselves manufacturing it. Yet those who are not so engaged should be asked to express themselves frequently on this subject.

Again ought not the various educational associations to do something positive in this matter? Above correlation and concentration is not this a living subject? It has been gradually dawning on the world that the school must produce *moral* effects; it, however, still demands mainly that the teacher impart the power to read and let the moral effects come if they will. This incident shows that this position is no longer tenable; the school must produce moral effects let the others be what they may.—*The School Journal*.

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HISTORY IN DRESS.—Mrs. J. R. Green gave a lecture at the Working Men's College, London, Eng., on "History in Dress." The room was crowded.

Mrs. Green, in a comprehensive survey, showed how dress, in respect of materials, colours, style and ornament, had been affected by exploration, conquest, trade, incidents of the

battlefield, international relations, political partizanship, the diffusion of wealth, social distinctions, and the means of internal communication. She pointed out that behind the strange changes of fashion, there often lay a meaning which made a curious and interesting history. Whenever there was a great interest in new styles of dress, some singular prosperity or increase in trade had happened to the country. Before the Reformation, most people had very little money, according to our modern ideas, and they used to go clad in sober gowns much after the same pattern. But this was altered in the time of Elizabeth, when we began to trade with the East Indies, and to receive the gold of Peru and the plunder of Spanish dominions. Men gave up wearing the long gowns of their fathers, and copied the fashions of Venice, France or Germany. The ladies adopted silk, satin and cloth of gold, painted their faces, and had their hair "wreathed and crested," and hung with bugles and many childish gewgaws; but the piercing of the ears was "not so much frequented amongst women as men." Great ruffs stood out round the heads of women like "pillars of pride," strengthened by what the Puritans called "the Devil's liquor, starch." At this period came in pocket-handkerchiefs, silk stockings, fans and ostrich feathers. People in trade began to adopt the new finery. Two hundred years later, when we were fighting Holland and France, new wealth again showed itself in the splendour and cost of our rich folk's dress. Women collected their clothing from all parts of the earth. The men were fully as smart, and wore quite as many bright colors—bows of riband and silks and satins. Then came the romantic imitation of humble life and its simplicity. A wealthy man would dress like a shepherd and carry a crook, but that was golden, and his coat was of velvet and

lace. Titled ladies made themselves into mock milkmaids, in silk frocks covered with diamonds. Gentlemen wore loose coats called "wrap rascals" and gold-laced hats, slouched in imitation of stage coachmen; others were mock grooms, in dirty boots and spurs. A pretty fancy in women's dress at that time and for hundreds of years before was the wearing of aprons as part of their smartest dress, as a symbol of the housewifery and dainty qualities of a capable and well-bred woman. Some men had their beards starched and put in paste-board cases over night. A man appeared in St. James's Park in a coat loaded with gilt buttons, skirts long, a scarlet waistcoat, set off with gold lace, and otherwise peculiar; and he was a blacksmith. But all this kind of fashion was scarcely to be found out of London. In our own days we saw the effects of wealth and trade, and the lesson taught was that a history of dress would be largely a history of conquest, colonization and discovery. But other things had also influenced fashions. The wearing of the green by the Irish, of the Garibaldi jacket, and of the colors called Solferino and Majenta; and the imitation in England of the styles of Napoleon III. and the Empress were referred to; and then it was shown that, when we were at war with France, fashionable people went to look for models in Italy, Spain or Germany, but went back to France as soon as peace was made. It was once part of the manners of a fine gentleman to comb his wig in public places. At one time a lady's hair was dressed for three months at least, during which time it was not in her power to comb her head. At the first French Revolution we copied the simplicity of the French peasants; and then the flowing lines of Grecian and Roman dress were copied by our women, so far as they understood them. The love of good conduct and morality affected dress in the cases of

the Puritans and Quakers. The people who from these motives protested against extravagance did not invent new costumes; they simply held to what was customary in their own class and time. The Judge's robe and the clergyman's cassock represented old costumes which were once common. Living men could remember a Bishop preaching in a wig, and the Archbishop of Canterbury wore one at the Queen's coronation. The clerical broad-brimmed hat with a low crown was worn by respectable people 300 years ago. The falling collars of clergymen and lawyers were common in the time of James I., and the white bands were survivals of those collars once worn by all the laity. These costumes thought odd were the remains of what was once common. Among these were powdered hair, the big wig of the coachman, the parlourmaid's cap and apron, the hats and coats of the beefeaters at the Tower, the dress of boys and girls at charity schools, the veil of the nun, and the Court-dress of a gentleman. In general all were survivals of something that was once common. There was one motive which seldom had power to affect dress, and that was the desire to discover and wear what was beautiful; and this was a lasting shame and disgrace to Europe, for no gift of man was more lofty than the love of beauty. It might be hoped that some day, when the people have grown intelligent and cultivated, they will understand the value of true beauty, dignity, and self-respect in dress.—*The Times.*

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NOTE THE FOLLOWING.

- (1) Private schools, Mr. Matthew Arnold notwithstanding, can and do furnish just the same guarantees as public schools.
- (2) It is possible to organize Sec-

ondary education without interfering with the freedom of the teacher.

(3) Private schools, as organized in Denmark, are not here to day and gone to-morrow, but are just as permanent as an Ulster tenant right.

(4) Private schools, under any just system of organization, not only do excellent work for people of ample means (as they do in England at the present time), but achieve brilliant success in helping the poor and struggling; this is notably shown in the Danish peasant schools.

(5) Private effort, guided and helped by the State in the same way as in Denmark, is able to cover the land with all the schools it requires.

(6) Grants to private schools may be so arranged, and are so arranged in Denmark, that the school is mainly the channel of the benefit, the parents and the public getting the lion's share of the spoil.

(7) The plan of subsidising efficient public and private schools on precisely the same conditions is vastly more economical than anything yet proposed in England. The central Government in Denmark, with two million inhabitants, spends £7,000 a year on secondary schools; if England, which has fourteen times as many inhabitants, could effectively organize her secondary education for fourteen times, or even twice fourteen times, that sum, she might call herself happy in doing it.

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To read the English language well, to write with dispatch a neat legible hand, and to be master of the first rules of arithmetic, so as to dispose at once, with accuracy, of every question of figures which comes up in practice—I call a good education. These are the tools. You can do much with them, but you are helpless without them.—*Edward Everett.*

## GEOGRAPHY.

SUBLIME SCENES OF THE ROCKIES AND SELKIRKS.—A prominent American, who has recently crossed the continent on the C. P. R., gives a vivid description of the grandeur and sublimity of the Rockies and Selkirks in the *Montreal Gazette*. "The experience," he writes, "exceeded our anticipations; in fact, notwithstanding our expectations had been raised very high, in no respect were we disappointed. I do not think there can elsewhere be found scenery so sublime, varied and beautiful as that which greets the traveller on the west bound train, from the entrance to the Gap, near Canmore, until darkness falls upon him at Kamloops. It ought not to be hastily included in a continuous ride, but stops should be made, say at Banff, Laggan, Field and Glacier, so as, at these points, to view the falls of the Bow river with their magnificent surroundings; the matchless colorings of Lake Louise and her consorts; the grandeur of Mount Stephen and the Pass at the western portal of which the former stands like a giant sentinel; and as a climax, the subduing effect of the great glacier. At the last named station, after two and a half hours of hard toil, I ascended Cascade Summit, and from that elevated point obtained a vision I can never forget. Before us, to the west, was a semi-circular chain of snow-clad mountains, extending probably 150 miles; and as the time was midsummer, I assume that on those resplendent crests the snow eternally rests. We had climbed to a height which enabled us to see the top of the glacier as it lay glittering against the sky, and on either hand spread out until it became merged in the adjoining peaks. Over the heads of the glacier, whose feet touched the ground a short distance from the station, and directly

behind it rose a solitary peak whose snow-clad head glistened with a whiteness exceeding that of the passing clouds, while a little to the east, the kingly form of Sir Donald towered majestically one mile and a half above the rushing stream which flows at its base. As I looked upon that grand, yet awful monarch, with his brow above the fleecy clouds, and noted the majesty and grace with which he surveyed the vast expanse of eternal snow and ice beneath him insensibly it brought to mind (and I could compare it with nothing less than) the inspired revelation of the Great White Throne. Below us on the side track, across the valley, was our car, which at the distance looked like a toy that a child trails behind him. Beyond, he could see the railroad as it wound around the loop and followed the river, the latter appearing like a winding silver thread amid the profusion of green. I can think of no more generous thing which philanthropists or educators could do, than to enable some of the tired ones who dwell in busy cities and on lonely plains, or pastors who are exhausted and lack sermon material, teachers who are brain weary, and students who are poor but ambitious, to view the splendid sights which abound on the mountain division of the C. P. R. Such opportunity would be a liberal education, enlarging the mind, expanding the sympathies, and giving to the most indifferent a vision of hope and beauty which would gladden them through life. On other lines you get glimpses of entrancing beauty, but on the Canadian Pacific you can look upon such from daylight to twilight, and thus be compensated, by their richness and abundance, for the distance you have travelled to observe them. One great advantage the

Canadian Pacific tourist possesses. In other sections he may have longed to look upon a mountain from base to summit, but seldom has he done it. He must frequently be content with observing distant peaks. Foot hills and secondary mountains usually intervene. But it is different in the Northwest. For example, Mt. Stephen rises, sheer and precipitous, from alongside the railroad track at Field, so that all its lofty proportions are exposed to view from the observation car. In like manner, Sir Donald, Mt.

MacDonald, the Hermit, and a dozen others of sublime eminence might be named, that can almost be touched as you glide by on the train. They are before you and alongside, close at hand, giants whose massive proportions are so fully exposed, that you feel you have seen entire mountains and not been compelled to rest content with unsatisfying views of distant hill tops."

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### FOOTPRINTS IN THE SNOW.

WORN is the winter rug of white,  
 And in the snow-bare spots once more  
 Glimpses of faint green grass in sight,—  
 Spring's footprints on the floor.

Upon the sombre forest gates  
 A crimson flush the mornings catch,  
 The token of the Spring who waits  
 With finger on the latch.

Blow, bugles of the south, and win  
 The warders from their dreams too long,  
 And bid them let the new guest in  
 With her glad hosts of song.

She shall make bright the dismal ways  
 With broideries of bud and bloom,  
 With music fill the nights and days  
 And end the garden's gloom.

Her face is lovely with the sun ;  
 Her voice—ah, listen to it now !  
 The silence of the year is done :  
 The bird is on the bough !

Spring here,—by what magician's touch ?  
 'T was winter scarce an hour ago.  
 And yet I should have guessed as much,—  
 Those footprints in the snow !

—*Frank Dempster Sherman, in The Atlantic Monthly.*

## EDITORIAL NOTES.

## TEACHERS MEET.

The Educational Association of Ontario meets during Easter week. The programme is a good one, able speakers are promised, we ought to have a good meeting. The proposals in the Bill introduced by the Minister of Education, and now before the Ontario House of Assembly, should encourage teachers and awaken them to a sense of the responsibility which the Minister asks the House to confer upon their profession. A copy of the proposed Bill has not yet reached us; we will return to the subject next month.

We have lately given one or two papers by Commissioner Harris, Washington, on Interest, as a sufficient motive power to secure the best results in educational work. In this issue we give a paper by Mr. McMurry on the same subject. The former, Dr. Harris, takes the position that, in order to get the highest and best results in education, interest *per se* is not sufficient; the latter, Prof. McMurry, seems to hold that it is sufficient, tho' towards the end of his paper he seems to give up his contention, when he admits that, without a consciousness of authority somewhere residing in the school organism, disorder and chaos might invade the essence of the school. Whenever this happens, the best outcome is not secured. All educators on this point are at one. Both writers are able, experienced and good men. The discussion is interesting, profitable and timely. We are sure our readers must enjoy the perusal of these valuable papers; the profit will come to the profession and to the schools.

## COUNCIL OF EDUCATION.

The Hon. the Minister of Education has introduced an Act, which we are sure will be welcomed by the educators of Ontario. The title is The Ed. Department Act, 1896 and is virtually a revival and extension of the Council of Public Instruction, on which the public school teachers of Ontario had representation for some years before the Council was replaced by the Executive Committee of the Government on Education.

Matters educational are and have been under vigorous and intelligent discussion in England for some years. The schools of the various kinds, whether elementary, grammar, private or "public," are carefully considered by the general educational public and by a representative commission which called before it a very large number of witnesses to state their views on all classes of schools for the instruction and guidance of the Commission in forming its report. This report is now appearing in parts as our readers know. It is a valuable one and is likely to have an important effect upon legislation in all parts of the Empire, but especially in England.

Not the least important part of this active discussion, to which we now refer, is that which teachers through their various organizations contribute. All classes of schools, outside of the Universities, actively participate in this way to bring all the Secondary Schools of England into one scheme for the betterment of the secondary education of the country. In all the discussion which is going on in Societies, Associations, etc., and in the contribution made to it by individuals, it is to be noted with satisfaction how much is made of the opinions of those

who have had experience in teaching. This is the right and proper attitude of the public towards teachers. But it is one of very recent growth. The result of past non-recognition of the intelligent experienced teacher has been serious loss to the community.

It seems that a brighter day is opening. The country owes more to its teachers (even in the technical sense) than to any class in the community. The Hon. Mr. Ross is not going too far nor too rapidly when he resuscitates the Council of Public Instruction and restores to teachers their former privileges.

THE REV. D. J. MACDONNELL, M.A., B.D.

A highly valued and most sympathetic contributor to this *Magazine* has been taken to his joyous and eternal home since our last issue. At an early period of his life the Rev. D. J. Macdonnell taught the Grammar School in Wardville for a short time. When with teachers, and talking about the changes which have taken place in schools since 1860, he would relate the difficulty he had get a school on account of his extreme youth, and with his usual cheery laugh, he would say "the trustees were right, for I knew next to nothing of the work of teaching."

Mr. Macdonnell ever recognized the close relationship which there is in the work of the minister and that of the teacher. The minister instructing and inspiring the present generation to the due performance of the duties of good citizenship; the teacher earnestly doing a like work for the generation to come; one working for the present, the other for the future welfare of the country. The Editor feels that a genial and most helpful comrade has been taken while we were on the line of march.

One of the weak points in the Ontario school system, outside of the separate school idea, is the wholesale manufacture of teachers. At present there are five times more persons holding certificates to teach than there are schools. Cramming enough crude, undigested stuff into the brains of boys and girls, and then pouring them out on the country as certified teachers will have to be stopped or the solid, intellectual development of our children in the public schools will become worse than a farce. Instead of teaching becoming a profession in reality, as it should be, unless this is amended, the best educational talent will not long remain in our school-room.

Even now the teacher receives but scant pay and scantier consideration in social life than should be accorded to the scholarship and ability he is supposed to possess, and the important position he occupies.

There seems to be an increasing tendency on the part of boards of trustees to assume an offensive authority inconsistent with the position of both. There was a notable example of this in Toronto lately, and frequent instances of it occur in our towns, villages and rural sections. Teachers are supposed to be ladies and gentlemen, and in all relations, both in and out of the school-room, this should never be forgotten. If our schools are to be taught by scholarly men and women, with the instinct and manners of ladies and gentlemen—all absolutely necessary for the highest good to our children—they must be justly remunerated and accorded those courtesies to which their education and position entitle him.—*The Barrie Advance*.

THE CANADA EDUCATIONAL MONTHLY has been saying for years what our ably conducted contemporary the *Barrie Advance* states in the above paragraph. We will see when

we get the text of the new Act *re* the Council of Education, what the Hon. G. W. Ross proposes to do for the

teachers and country ; what is good for the teacher is equally good for the country.

## SCHOOL WORK.

### PROBLEMS AND SOLUTIONS IN GEOMETRY, AND COMMENTS THEREON.

PROF. N. F. DUPUIS, QUEEN'S.

1. Given the axiom that a straight line is, or measures the shortest distance between two points, to prove from this axiom alone, that upon the same side of the same base there cannot be two triangles having the two sides in the one respectively equal to the two sides in the other, and adjacent to the same extremities of the base.

Proof. If possible let  $ACB$  and  $ADB$  be two triangles upon the same side of the same base  $AB$ ; and first let the vertex of each triangle lie without the other, so that  $AD$  and  $BC$  intersect in  $O$ .

Then  $AO + OC > AC$ , and  $BO + OD > BD$ . Adding,  $AO + OD + BO + OC > AC + BD$ .

But by hypothesis,  $AC = AD = AO + OD$ , and  $BD = BC = BO + OC$ .

$\therefore AC + BD > AC + BD$ , which is impossible. Therefore, if the triangles have their sides equal they cannot have each a vertex lying without the other.

And in a similar manner, it can be shown that one of them cannot have its vertex lying on or within the other and not coinciding with the third vertex : and the theorem is proved.

In beginning any system of elementary geometry, something has to be assumed, for it is not possible to define some of the essential elementary ideas. Thus, we might define a straight line as the path along which the shortest possible distance from

point to point is to be measured, but it then becomes difficult, if not impossible, to define rigidly what is to be understood by the shortest distance. It is easy to show that if there be a shortest distance from point to point, this distance must be measured along a straight line. But I do not know that it is possible to prove *a priori* that of all the distances from one point to another, one of them is necessarily less than all the others, without falling back on some assumption with regard to space, a proceeding which appears to be a necessity in establishing the fundamentals of any system of geometry.

Assuming the foregoing axiom, however, we can start with Euc. I. 8, instead of I. 1, and go on to develop a complete system of elementary geometry.

Such considerations are useful in showing us that there may be different systems of geometry ; that Euclid did not adopt the only order of sequence that is available ; and that it is quite possible that the order adopted by Euclid is not the best one.

2. The sum of the three perpendiculars drawn from any point within an equilateral triangle to the sides is constant.

For if  $\alpha, \beta, \gamma$  be the three perpendiculars drawn from the point  $O$ , within the equilateral triangle  $ABC$  and  $s$  denote the side of the triangle,  $\triangle AOB = \frac{1}{2}as$ ,  $\triangle BOC = \frac{1}{2}as$ ,  $\triangle COA = \frac{1}{2}\beta s$ , and since these three triangles make up the whole triangle, which is constant,  $\therefore \frac{1}{2}(a + \beta + \gamma)s = \triangle = \text{const.}$

and  $\therefore a + \beta + \gamma = a$  constant. q.e.d. As the point O can travel over the whole area of the triangle, it must also be allowed, under some conditions, to pass without the triangle, unless some impossibility is thus introduced. But whether O be within or without, the perpendiculars  $\alpha, \beta, \gamma$ , remain real and no impossibility is introduced.

Therefore the statement that the algebraic sum of the perpendiculars from O to the sides of the triangle, is constant must hold for all positions of O in the plane of the triangle.

Now, if we enquire as to what takes place when the point O crosses a side of the triangle, the side  $a$ , or BC for example, we find the perpendicular  $\alpha$  diminishes until it becomes zero, and then re-appears measured in an opposite direction. The algebraical way of expressing such a change is by a change of sign; and the perpendicular is said to change sign or to change sense, and this change transforms an addition into a subtraction, or *vice versa*. And with this convention our theorem is universally true.

In a similar manner, and by similar extensions, we have the statement  $a\alpha + b\beta + c\gamma = \text{constant}$ , for every triangle.

This principle of moving or transforming a geometrical figure so as to vary the relative position of its parts while leaving its distinctive relations unaffected, except as to such ideas as change of sense, is an exceedingly important one, and introduces into geo-

metrical methods a freedom of operation which was totally unknown in ancient geometry, and which, accordingly, has no illustration in Euclid's work.

I would advise the student to consider the following problems in this light.

1. In Euclid II, 4, by moving the point on the diagonal along the diagonal, until it passes beyond an endpoint of the diagonal, prove from the original proposition that  $(AB - BC)^2 = AB^2 + BC^2 - 2AB \cdot BC$ ; and that this is the 7th.

2. In Euclid II., 5, let AB be the line bisected in C, and let D be the point dividing AB unequally.

By moving D along until it passes A or B, and transforming the figure accordingly, show that the 5th contains the 6th, and *vice versa*.

These two propositions may be stated as one by modernizing the language employed. Thus, if A, C, B, be three equidistant point in line, and D be any fourth points in the same line, the rectangle on AD and DB is equal to the difference of the squares on CD or CB.

3. In Euclid II., 9, by moving the variable point D along the line AB until it passes beyond A or B, show by properly modifying the figure that props. 9 and 10 are one and the same, with the simple variation of internal or external division, or of taking a segment in different sense.

## CONTEMPORARY LITERATURE.

Besides generous installments of "Sir George Tressady" and "Tom Grogan," the midwinter number of the *Century* contains an admirable article on "Nelson at Cape St. Vincent" by Alfred T. Mahan, and one equally valuable on "Pope Leo XIII. and his Household" by Marion Crawford. "Certain Worthies and Dames of Old Maryland," with reproductions of most valuable portraits, is by John W. Palmer. "The Palmerston Ideal in Diplomacy," written by Edward Mortimer Chapman, is an article bearing directly on the present political relations of Great Britain and the United States.

One of the most pleasing of biographical sketches is "The Gibson Boy" by Christine Terhune Herrick, in the February *St. Nicholas*, from which we learn that the boy first showed his artistic leanings in cutting out paper animals. Robert Louis Stevenson's letters are charming every month. In this number there are no fewer than five continued stories, all good, but among them we are glad to mention "Betty Leicester's English Christmas" by Sarah Orne Jewett, which succeeds in being that rare thing, a good story for girls.

Another woman's head appears on the outside of the *Cosmopolitan*. We still regret the white and red, more conventional cover, which has been replaced. Perhaps the most striking contribution to the February number is Margaret Deland's study, "One Woman's Story" which was named by its author in the first place, "The Law and the Gospel," we are informed by the *Critic*. "The Charm," a play, has a curious flavour of long ago, and is written by Walter Besant, along with W. H. Pollock. James

Lane Allen's serial proves much better than it at first promised.

"In Perils of Robbers," by the Rev. A. R. Buckland, opens the March number of the *Quiver*, and is one of a series on Missionary Pioneering. "The Trade of the Tray and Bell" gives us a glimpse of the muffin pedlar. The usual departments and serials are good.

"The Bride Elect" is finished in the February *Macmillan's*, and though it has been interesting it is not what it promised to be—an artistically conceived and worked out story. Still we feel sure that the writer will do much better again. Some more "Recollections of Jowett" are good, and "Ticonderoga" is an article specially interesting to Canadians. "A Tourist Ticket" is a quiet, yet delicate sketch in character study.

"Furness Abby and Its Story" by W. C. Sidney, and an article on the new "Photographic Discovery" appear in *Littell's Living Age* for February 22.

We have received from Macmillan & Co., London and New York, through their Toronto Agent, Copp, Clark & Co., the following books:—"Practical Plane and Solid Geometry," by Joseph Harrison and G. A. Baxandall, of the Royal College of Science, London. This book has been prepared to meet the requirements of the elementary stage of the South Kensington Syllabus and contains an introduction to the study of Graphics. Special attention is given to overcoming the difficulty experienced by most pupils in passing from the lines and figures on paper to the shapes and positions of the objects in space. Diagrams and figures are freely used, and directions are given

to enable the student to make and use a number of simple models. A large number of carefully graded examples are given.

"Elementary Mensuration," by F. H. Stevens, of Clifton College. This text book is divided into two parts, the first intended for those who know little of Euclid and Algebra, and the second for more advanced students. Since it is designed to supplement an elementary mathematical training, care has been taken to select questions which will illustrate the principles of Euclid.

"Object Lessons for Infants" by Vincent T. Murché in two volumes. These volumes are intended to be used as a preparation for the more advanced series by the same author, including the Science Readers of which we have often spoken. The lessons are well graded and cover much of what can be conveyed to children in this way.

"Pope's Essay on Man," Epistles I-IV, with introduction and notes of Prof. Morris, of the University of Melbourne. This contains, as well as notes on the meaning of the poem, a life of the poet and an estimate of his poetry which will be found valuable in school work.

"Varied Occupations in String Work," by Louisa Walker. The writer of the book is headmistress of the Fleet Road Board School Infant's Department, when she introduced Macramé knotting for the benefit of her pupils. This book is the result of her own experiments in teaching and is well adapted for its purpose.

From the American Book Company, Chicago, we have received "Concrete Geometry" by G. R. Hornbrook. The author has selected important facts and principles which lend themselves readily to demonstration and has presented them in

various relations. The pupil is expected to construct and inspect geometric forms and then to report the results in mathematical language. The lessons are prepared with a view to the use of models.

"Le Premier Livre De Francaist" by Louisa S. Hotchkiss, W. C. Heah, & Co., Boston, U.S.A. The writer gives the results of a method which she has used with success in her own classes, and has produced a fine elementary book for introducing conversational French. It cannot fail to be of assistance to Junior French teachers.

"Inductive Logic" by W. G. Ballantine, of Oberlin College, Ginn & Co., Boston, U.S.A. Most of what is given in this book is the result of the study of Mill, a fact freely acknowledged by the author. Numerous extracts from learned writers are given and an effort is made to acquaint students with the views and literary style of important scientific men. In the chapter on Primary Inductions will be an amusing and satisfactory exposition of the common saying, "The exception proves the rule."

We have received from Copp, Clark & Co., Toronto, "The Manitoba School Question" by John S. Ewart. At the present time Mr. Ewart's work on the Manitoba School Question will be found useful for reference. It contains an account of the prior litigation concerning the Manitoba School Acts of 1890, and judgments of the Privy Council upholding its validity, the subsequent petitions of the Roman Catholic minority to the Dominion Government and action thereon, with a selection from the speeches and articles of those advocating the opposing views, to which is added an historical account of the Red River Settlement of 1870, viewed from the standpoint of Mr. Ewart's clients.