

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/
Comprend un (des) index

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

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming!
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments:/
Commentaires supplémentaires:

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

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

THE
EDUCATIONAL RECORD

OF THE
PROVINCE OF QUEBEC.

No. 2.

FEBRUARY, 1894.

VOL. XIV.

Articles: Original and Selected.

FORM STUDY AND DRAWING,

By Miss Hicks, Boston.

(Concluded.)

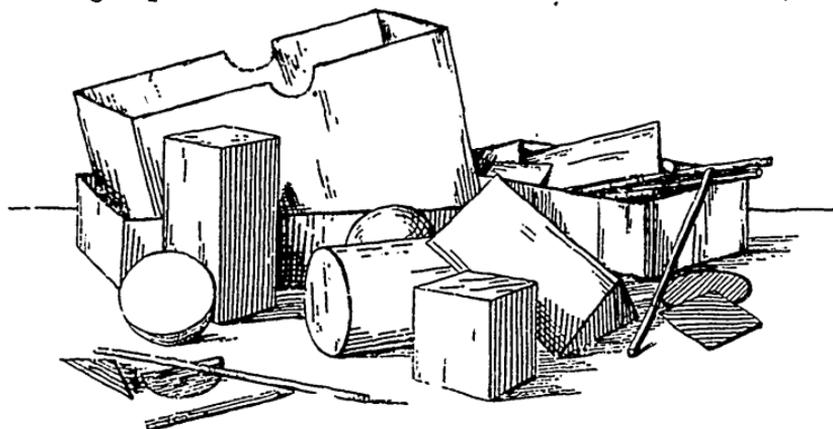
But, you may say, these type forms are the embodiment and result of the deepest thought of man; they cannot be apprehended by the child. It is true, the type forms are the embodiment and result of the deepest thought of man. They have arisen on the one hand from the closest and most profound study of nature, through which her marvellous plans have been revealed, and on the other, from mental abstractions which have been builded one upon the other into the science of geometry. And, yet, strange to say, these type forms, mediation between nature and abstract thought, stand for the ready servants of the little child, through which he may grow to the stature of a man, and with which he may himself become a creator.

Would you know how a child learns through these? Observe his methods. Observe the natural method of the child. He studies form by touch rather than by sight; he grasps, he handles, he feels the ball, he drops it, and watches it roll, he drops it again, and again he drops it and watches it; he repeats this study, almost never tiring. He parts with his little companion a moment only to grasp it again, and learns to know it well through touch. His sight does not reveal to him what he feels in his little hands.

Look at the sphere ; how much does your sight reveal to you of the sphere ? The sight can only tell of the part that is toward you, and that imperfectly, unless your sight is well trained ; touch must aid you to the rest.

This appeal to touch is made not only by the children, but by us all, also. We are not quite satisfied without handling, or at least, touching the object that we wish to examine. The sculptor does not trust to his sight alone, he frequently feels the object which he is modelling, getting through the touch the finer perception of form. The blind study form by touch, and they thus learn to appreciate form as it is, though never as it appears.

It would seem, then, that the primal study of form should be touch ; the child should himself hold, and feel, and handle the model. By degrees the sight will be trained by the touch to interpret what he has seen. Having observed the form by touch as well as by sight, and contrasted it with another form, the sphere, for instance, with the cube, he longs to show what the sphere is to him, and eagerly makes it if he has the material, thus by expression completing his idea. He then discovers something like the type ; an apple, an orange, and any other pleasant objects which are beautiful to him. From one type form he passes to another ; the group of three given by Froebel : the sphere, cube and cylinder, are followed by other groups of three. He learns of the details of form ; he

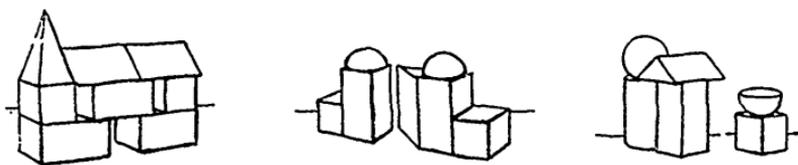


begins to express by tablet laying, by stick laying, by paper cutting, by drawing, and still his world of form enlarges. As he studies the type forms he studies all the forms about him, and in his mind are stored the images of the forms made perfect by the study of the types.

The children when coming to the primary school, and even when coming first to the kindergarten, have already done a great deal of form study of natural objects, and, wonderfully enough it seems to have been in the line of the simple primal type forms. The fruits in which the child takes so much delight are nearly all based upon the sphere. The child grasps the spheric object with pleasure, it having no edges and corners, hence the ball is a favorite plaything. To meet his constructive desire, cubic blocks are very early seen among his playthings. His study of cylindric forms and the pleasure of holding such objects seem to begin with the delightful rattle as well as with the stem of the bright flower. The child of two or three, therefore, has laid up large store of form impressions, but all are disconnected; by the representations of the type forms, those impressions are crystallized, and classification, that important result, may begin at this early stage; all spheric forms may now be studied with regard to likeness to, or difference from the sphere; cubic forms may be compared with the cube, and cylinder forms with the cylinder.

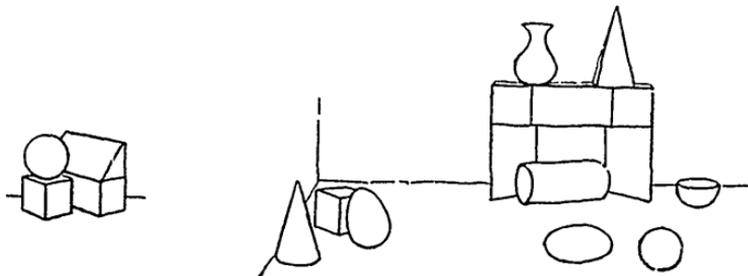
Moreover, as these types are types, they contain the essentials of form in all objects, and may stand for these objects, one type form standing for many objects. The child-mind in some way quickly seizes the essentials of form, and these essentials will readily build wonderful creations, and metamorphoses which parallel or perhaps outshine Cinderella and her wonderful coach. The sphere is not only a sphere, it is an apple, an orange, a ball; piles of these are arranged and imaginary feasts are spread; it is a kitten or a carriage, it runs so fast.

The cube may be a lump of sugar of which guests may partake to their heart's content, or a building block, firm and steady; the cylinder may be a roller for cookies or a roller for the street. The imagination will make it do for either. It may be a post, it may be a tall, tall tree, or a telegraph pole; it may be a candle, or it may be a cradle, or it may be a watering pot.



The square prism may be a brick; it may be a trunk, accompanied with all the delights of travel, of packing, or unpacking; it may be a box containing as many marvelous things as the chest of Pandora, or it is a cart, and if the horse

(the sphere) is placed before it, it goes and goes, if the cart is only pushed a little; or several make a train of cars with a most beautiful smoke stack, (the cylinder) on the first; or, adding the triangular prism, there is a lovely house in which may live many airy, fairy, spirits of fancy, or (placing the square prism vertically) a bird house, in and out of which may fly pigeons or sparrows or any bird that he cares to summon. Hidden in the ellipsoid and ovoid the fruits come in again, and here follow all the elliptic and oval shapes of leaves which cluster into ellipsoid, ovoid or conic forms of trees. From organic nature come round, rounding, and curved forms; while inorganic nature and manufacture give mainly forms of plane surface. The pyramid and cone make spires and steeples, and so a merry village grows, and the little vase form leads the thoughts to beautiful flowers, and also fosters in the childish mind the sense of beauty of form.



The following illustrative lesson will serve to show what the spirit of the exercise should be. There should be on the table about which the children are gathered several familiar objects resembling the sphere, as well as one or more spheres. The objects should be selected with special reference to their beauty and to the child's pleasure.

LESSON DEVELOPING SPHERE FROM FAMILIAR OBJECTS—TYPE INCLUDED IN THE COLLECTION.*

Teacher.—We are to have a new game this morning. See how many things we have to play with. I'll stand so that my back is toward the table, and you must let me know everything there is on it. Will you be sure to tell me something about the thing you mention, so that I may know just which one it is when I turn around afterward to look?

Several children.—Yes, Miss Rich.

* This lesson is taken from *The Prang Primary Manual Packet*, published by The Prang Educational Company, Boston.

Teacher.—Thank you. Now mention just one thing and tell me about it.

Annie.—I see a ball, a white ball. I guess it is rubber.

John.—There is a big ball with pictures on it.

Teacher.—Where is that ?

John.—Right in the middle of the table.

Teacher.—Can you play with it ?

No, it is fastened to some iron things and can only turn around.

Teacher. Oh, I see ; you mean the school globe that belongs in Mr. Porter's room. Very well, go on.

Mary.—I see a base-ball ; it is made of pieces of leather.

Lizzie.—I see a baby's rattle ; it has a round part and then a handle.

Tom.—Right side of the thing you called a globe.

Teacher.—I did not speak plainly then, it is a globe—try again to say the word.

Tom.—Globe. Side the globe, there is a chestnut-burr.

Teacher.—Can you tell me something about the burr, Jessie ?

Jessie.—It's awful prickly.

Teacher.—Very prickly indeed. Now for something else ?*

Bessie.—I see a round, round ball ; it looks like wood.

Eleanor.—There is an orange there, too.

Teacher.—You haven't told me anything about it, you know.

Eleanor.—It is yellow.

Teacher.—Now the next one see something for me.

Philip.—I see some marbles ; they are made of glass.

Rex.—One marble has stripes on it.

Teacher.—Very well, who else will use his eyes for me ?

Children.—Everything has been told about.

Teacher.—Sure enough. Now you have told me something about each one ; can you now think of some one thing that you can tell me about all of them ?

Bessie.—They are all on the table.

Alice.—They are all round.

Mary.—The rattle isn't all round ; it has a handle.

Joseph.—But part of it is round.

Theo.—The orange isn't just all round ; it's been jammed on one side.

* It will be observed that at this stage no formal correction of the child's expression is made. A child is easily disconcerted and his thought directed from the main point by being called upon to repeat his statement so as to conform to the teacher's standard. He soon learns, however, to detect the difference in the modes of expression, and will gradually try to speak as does the teacher whom he loves.

Teacher.—Who will come and find the very roundest one of all ?

Eleanor.—This wooden ball is the roundest one.

Teacher.—That is so. This ball or sphere is perfectly round. (Models are now rapidly distributed.)

Teacher.—Who is ready now to tell me something ?

Susie.—I have a ball or sphere and it is the roundest thing there is.

A dissatisfied Dodd, gloomily : 'Taint any rounder than any other ball.

Teacher.—Very true. This sphere is no more perfectly round than any other sphere. *

Teacher.—Let us play the spheres are round, round sponges, and we are going to squeeze the water out of them. (Children follow action of teacher.) Be careful or we shall wet our desks.

Teacher.—Now let us play they are snow-balls, and we will make them up round and hard so as to have a great snow-ball match.

Teacher.—Now what would you like to play they are ?

Freddie.—I'd like to play they are walnuts.

Teacher.—We will, and what shall we do with them ?

Freddie.—We'll crack them and get the meat out.

Teacher.—But what can we play are our hammers.

John.—I know ; our pencils.

Teacher.—Surely. Now we'll hold them on our desks, so, and be careful not to pound our thumbs with these heavy hammers.

Teacher.—Now, let us play they are plums, oh, so ripe, and we must handle them so, just as carefully, and we will put them into boxes or baskets, and send them to the sick children in the hospital.

(This collects materials.)

So with the essentials of form in these types the child builds, and creates, and soars, seeming many times to find more delight through the activity of the imagination in investing these essentials with these minor details than if the actual object were present. Moreover, in these lie the basic principles of life ; in the sphere, which loves to roll, but which will stand, controlled activity ; in the cube and square prism, " which love to stand," stability and repose ; in the cylinder, force, growth, and aspiration ; and through their use these principles may be developed.

Again, as the years go on, the horizon of the child increases,

* Note that the teacher's sentence corrects the faulty expression of the boy.

the great forces of the world begin to interest him. He begins to study machinery, and to learn to construct. Here he studies again the types, and he finds the world a sphere whirling through space, and the little drops of water (spheres) rolling up to be a mighty power. He finds the cylinder and curved-faced types, constant factors in machinery; the wheel and axle, the pulley and shaft, the rod, the pin, the cylinder, and the piston, the screw and matrix; in these, all cylinders, lie our great power, and in manufacture and building he finds the plane-faced types prevail, the cube, the square and oblong prism, the almost universal forms, in wall structure; while the triangular prism gives the roof covering, high or low.

And still farther, as we lead the child onward we find that in these little models lie wonderful types of the æsthetic; in their facts we study construction, in their appearance and grouping we study representation, and in their arrangement, decoration. The sphere and cube are perfect in their equal dimensions: the cube, the square prism, and pyramid suggest the Egyptian form and its square basing; the square and triangular prism, placed horizontally, and the cylinder, the low Greek; all spheric and hemispheric forms, the all-embracing Roman; the upright prism, and the cone and square pyramid, the vertical turreted, upward tendency of the Gothic. While in the ellipsoid and ovoid, and vase form rest all the lines of the most subtle beauty of that most perfect ornament, the Greek.

If we take our student to higher thought, still the type goes with him; and he learns to listen with the philosopher to the "music of the spheres."

So we find that these type forms accompany us from infancy to age; around them the fancy of the child plays with delight, through them he may be led to action, to firmness, to growth; with them he learns to analyze, to create, to construct, and, as he passes on to maturity, upon them he builds in industry, in art, in philosophy.

Once more, they are form types of the universal, they reveal nature's plans and art's ideals; through them we may grow, on the one hand, into the most inner enjoyment of nature's marvellous creations, and on the other, into accord with the greatest aspirations and achievements of art, and thus learn that these two, nature and art, are in their essence one.

I would like to close with the words of two wise men, leading to the same thought. Hear what the ancient philosopher Plato says:

“And the true order of going or of being led by another to things of love, is to use the beauties of earth as steps along which man mounts upward for the sake of that other beauty; going from one fair form to two forms, from two fair forms to all fair forms, and from fair forms to fair actions, from fair actions to fair notions, until from fair notions he arrives at the notion of absolute beauty, and at last knows what the essence of beauty is.”

Then listen to that great modern writer on art, John Ruskin :

“And now in writing beneath the cloudless peace of the snows of Chamouni, what must be the really final words of the book which their beauty inspired and their strength guided; I am able, with yet happier and calmer heart than ever heretofore, to enforce its simplest assurance of faith, that the knowledge of what is beautiful leads on, and is the first step to the knowledge of the things that are lovely and of good report, and that the laws, the life and joy of beauty in the material world of God are as eternal and sacred parts of his creation as in the world of spirit, virtue, and in the world of angels, praise.”

Editorial Notes and Comments.

Another meeting of the Canadian National Society has been held in Montreal, and though the numbers in attendance were small, the topics discussed were not lacking in interest. The society, in its devotion to the fostering of a Canadian national sentiment, has hinted, through one of its members, the utilizing of the school as a means of promoting this sentiment, and whether the school is able to bear all the burdens about to be imposed upon it or not, every true-hearted Canadian sees that if there are forces at work in consolidating a broader pride of country than mere provincialism, their action is slow and their effects since Confederation all but invisible. The Nova Scotian is as much a Nova Scotian, possibly as little of a Canadian, as he was previous to 1867, and the Quebecker is, we are afraid, still more of a *Canadien* than a Canadian. In the years before Confederation, our politicians saw the hope of a unification of national sympathies among the peoples of British North America, in a political union, and now, after more than a quarter of a century of our Confederation, it seems doubtful at times whether the political union has promoted provincial sympathies or antagonisms. Sectionalism has been the canker-worm of Confederation; and it is very doubtful whether the Canadian National Society itself does not look askance at the

various elements with which our country is being filled through the continuing process of immigration. It is a little too early yet in the history of our country, to give too much of a manifestation to the "Canadian-born" idea. A large and influential minority in our country are none the less Canadians because they happen to have been born in Europe. The subsoil of the old patriotism which was theirs at their birth affords the best of nourishment to the patriotism which becomes theirs when they find themselves the heads of families in the far west; and in the aim at consolidation, the principle of "no Irish need apply" must carefully be eliminated from every enterprise that would promote a true Canadian love of country.

—Over the suggestion that a text-book should be prepared for our schools setting forth the constitution and institutions of Canada, there may be occasion for momentary applause, but surely there can be no sound reason for this multiplying of text-books. If the enterprise in favour of a new Canadian history is to realize all that is expected from it, there surely can be found space in it, as in some of our present histories, for the necessary notes on civics and on the constitution of the country. The Minister of Education of Ontario has prepared a new reader which will possibly help in this direction; and yet the Canadian National Society of Montreal, in its exclusiveness, may not be disposed to welcome a book published by an educationist of another province. Some of the people of Prince Edward Island call their neighbors from the other provinces "foreigners:" but surely in an intelligent community such as Montreal there is no room for the silly notion that would ignore the efforts of any provincial, be he English, Irish, Scotch, or British Columbian, in the cause of promoting a wider and more stable national feeling in Canada.

—In discussing the principles laid down by Froebel, a recent writer asserts:—"Froebel's system is the indispensable preliminary to all sound, scientific, technical training. Children have too little education in true liberty. They are too often the playthings of their parents, or are merely a burden. They must either be indulged in every way or suffer unmitigated neglect. They seldom learn even the wisdom and the necessity of submission to *natural* law—and no mere 'citizen' readers or primers of biology are of any great avail. Citizenship—the flower and fruit of manhood—is a growth produced by exercise, not something learnt in a book, or presented in a gilt casket. Of all this Froebel shows an ever-present consciousness from the earliest stages of his method; and experience has shown

that this method is on the whole well fitted to produce the result at which he aimed. Education in his eyes is emancipation—emancipation of the inner self from the tyranny of lawlessness and confusion."

The text-book on civics, or a crowding of text-books in school work, is hardly to be found in the above, or in any other of Froebel's formulæ of pædentic. "I would like to see such and such a subject introduced in our schools" is too often followed by the query, "Which of our friends will prepare a new text-book on the subject?" and thus the change, which is but a seeming progress, becomes as satisfying as if it really were progress.

—Rev. Dr. George Dana Boardman, of Philadelphia, lectured recently on "The Proper Relation of Nationality to Internationalism." He compared the different nations to the members of the human body, and said, in part:—

"Every nation worthy of the name of nation is also a person having at least some of the attributes of personality: that is, each nation has its own idiosyncrasies. Recall, for example, Egyptian constructiveness, Hebrew devoutness, Greek culture, Roman jurisprudence, Gothic impetuosity, Italian æstheticism, Chinese conservatism, Japanese flexibility, Indian (Asiatic) mysticism, Indian (American) nomadism, African docility, Scandinavian valor, Turkish fatalism, Russian persistence, Swiss federalism, Spanish dignity, French *savoir faire*, German philosophism, English indomitableness, Irish humor, Welsh eloquence, Canadian thrift, American versatility."

—The death of the Rev. Dr. Douglas, Principal of the Wesleyan College, Montreal, is a loss which Canada cannot but feel. Nowadays there are so few of our Canadian publicists animated with the spirit of the true prophet, that when one of them passes away, there is all the more to lament. Dr. Douglas was a power simply because he ever refused to pander to the weaknesses that make for popularity. Had he been content to take rank with the "nice men" of his day he would probably have been as widely known as he was, for his eloquence was something that could not be hidden; but who will say that his power to do the good that is enduring would have been as great. We lately listened to a sermon in one of the Montreal churches which had about it the fearlessness that always characterized the public utterances of the old prophet of Methodism who has just been called to his reward. There was about the preacher's eloquence the true ring of the old Isaiah denouncing the cause of wickedness rather than the

ordinary pulpit coying with the personifications of wrong-doing. With him a spade was a spade, boodling was thieving, and the political ring an abomination in the eyes of God and all good men. And we are glad to think that the last of the prophets has not died with Dr. Douglas. In these times we need a phalanx of them to war against the combinations of cunning and canvassing that are to be found in more of the circles of Canada than the political circles. In a late issue of the *Illustrated American* the true function of the preacher who has the old spirit of the prophet about him is well illustrated in an article on the Rev. Dr. Tyrell of St. Louis, who, it says, has decided to throw off his coat, step down from the pulpit, and personally wrestle with the children of Satan. "Wherever crime is to be ferreted out," he says, "and evidence collected for its suppression, detective work is necessary." The reverend gentleman is the leader of the Law and Order League which purposes to follow the example set by the Rev. Dr. Parkhurst, of New York city—gather the evidence and wage relentless war against vice. When vice entrenches itself in a community, it is the duty of municipal authorities to enforce the law legislation has placed upon the statute book to control it, and these authorities should be held strictly accountable to the citizens by whose votes they are placed in office. If vice menaces a community, it is plain the law is not enforced and plainer still that citizens have lost the control of municipal government. The blame then lies with the citizens who do not enforce their rights. Throughout the country ambitious occupants of pulpits are entering the war against vice. They seek to eradicate it. However brave the work, however satisfactory the temporary results, it seems impossible that the vile and vicious turned from one quarter do not find shelter in another, for vice is as cunning as virtue is clever. In spite of all skepticism, the pulpit is the recognized source of moral guidance. The priest stands as the guide and watchman at the gate of Heaven, pointing out to man the way and calling the sinner to repentance. His influence upon the congregation, in the community in which he performs his mission, should be as leaven in the loaf. Under his teachings and influence men should turn from wickedness and, in steadfastly purposing to lead the right life, shun evil. This, and this alone, eradicates vice. Men turn to the pulpit to receive strengthening grace, and he who is the medium between God and man is best fitted to his calling who is not closely connected in the minds of his congregation with sensational exploits. What men need in

this age of low ideals is spiritual sustenance, which gives them an impenetrable armor to turn aside the barbs and arrows of sin. Let the pulpit lead men and women in the right path, and each so led leads another into better ways. The sinful man or woman may be caged as a captive beast, but when the cage is broken he or she is the same sinful man or woman. The function of the pulpit is to strengthen the weak and to raise the fallen. When this is done good has been accomplished, but nothing else is of profit. These Don Quixote charges against the windmill of vice may prove more dangerous to the authority of the pulpit than to the vicious. Let not the dark waters of vice dash against the oak of the pulpit, lest men turn their faces away and the message of divine love fail to reach the ears of men.

Current Events.

—The Rev. E. I. Rexford, in the course of addressing the Canadian National Society of Montreal at its last meeting, said that there had been some difficulty in the teaching of Canadian history, which was greatly added to by the fact that in the romantic beginnings of our country the persons of the drama were all French and the great actors in the development of the present conditions were not Canadian. The defect of not having a good history was likely soon to be overcome. Sixty-five writers were at present engaged competitively in preparing a text-book which should be adapted to all the schools of the country. The best of that number should, surely, be very nearly the thing, especially as the incentive of having a royalty on the sale was a very attractive one.

—The report read at the last quarterly meeting of the corporation of McGill University showed the number of students to be 1100, divided as follows: Faculty of Law, 43; Faculty of Medicine, 349; Faculty of Arts, including students from other faculties attending lectures, 599; Faculty of Arts only, 350—men 233 and women 117; Faculty of Applied Science, 186; Faculty of Veterinary Science, 58; McGill Normal School, teachers in training, 136, making a total of 1122, or, deducting the 22 students reported in two different faculties, 1100. This is an increase of 71 over 1893, and 171 over 1892. During the year the college buildings had been extended by the opening of the Engineering and Physics buildings, and the Redpath library. New endowments and donations amounted to \$230,000, of which \$162,000 will produce additional permanent income; \$60,000 is for land and buildings,

and \$8000 for current expenditure. Three new professorships have been endowed, while the staff of professors and lecturers has been increased by five, the total number now being 77. The library staff has been increased from two to seven.

—The announcement of the death of Mr. Peter Redpath is an event which marks the history of education in our province. As the *Witness* has said, Mr. Redpath made during his lifetime many princely donations to McGill, this University being to him a special object of care and solicitude. His name, with those of the founder, the Molsons, the McDonalds and others, is intimately connected with that institution. If these names had not been written on the pages of its history it would not occupy to-day the enviable position that it does amongst the world's great universities. Founded by one citizen, it was maintained and extended by the liberality of Mr. Redpath and others. It offers its benefits to all Canada with a success which cannot but be gratifying to these gentlemen, who have striven for this end. So great an expansion of the University in a few years justifies the foresight and munificence of Mr. Redpath, who by his endowments aided in producing it. The donations of money and buildings to McGill are instances of his remarkable generosity in the encouragement of the liberal and professional studies, which cast honor on his name. Mr. Redpath donated the Peter Redpath Museum as a gift to the University in 1880, and it was opened to the public in 1882. In 1891 he gave the Peter Redpath Library Building, which was opened with so much *éclat* by the Governor-General and Lady Aberdeen in October last. He endowed the Peter Redpath chair of Natural Philosophy in 1871, granting \$20,000. He also donated \$10,000 for the expenses of the museum, and an additional sum for improvements. Several other endowments, prizes, and medals are the result of his generosity. He has presented over 3000 volumes to compose the Peter Redpath Collection of Historical Books. These volumes are invaluable and priceless. Some of them cannot be duplicated.

—The Faculty of Arts of McGill College has passed the following resolution, with regard to the death of Mr. Peter Redpath:—The members of the Faculty of Arts of the McGill College, meeting on the day when the mournful intelligence has arrived of the death of their common friend and benefactor, Mr. Peter Redpath, and remembering his many munificent, wise and thoughtful gifts to this university, and especially to this faculty, more particularly the chair of mathematics, with the costly museum and the library which bear his name, desire

to express their high appreciation of the qualities of intellect and of heart which led him to set so high a value on sound learning, both in literature and in science, and by which he was prompted in so many conspicuous ways and with such princely liberality and untiring zeal to promote the full equipment and efficiency of this faculty. His efforts in the cause of higher education have won a name and place for him among the benefactors, not of this university only, but of his country at large, and have brought him lasting and well-deserved renown. The members of the faculty further desire to give expression to their heartfelt sorrow and sympathy with her who has for so many years been his partner in life and the true help-mate and sympathizer with him in his many and varied acts of beneficence for the good of his fellow-citizens and of mankind. To the members of the family of the deceased residing in Canada the faculty respectfully desire to tender their condolence in the loss they have sustained.

—At the last meeting of the Teachers' Association in connection with McGill Normal School an address was delivered by Mr. Parmelee, of the Education Department, on the Educational Exhibit at the World's Fair, in which he took occasion to point out the defects and excellencies of the various national systems of education represented by such exhibits. In referring to the French system, he is reported as saying that the most conspicuous element in that system was the socialistic plan of school government. Local boards of instruction to prescribe subjects to be learned by the pupils were unknown. If a certain item was to be taught, the Minister of Instruction sent out the order and every school in the country had that item and it was taught. The schools were strictly secular. The grading was by pupil not by class. In France actual school work began in the very cradle and continued to the finish, and at Chicago work might be seen by pupils of two years old. The system was such that a daily record of every boy's exercise in school was kept in a book. This book was, at the end of every few weeks, carefully laid away and the whole at the end of, say, three years, or when the boy completed his schooling, was compiled into a volume. The volume, a specimen one of which (about twice the size of Lovell's Directory) Mr. Parmelee exhibited to the audience, was kept by the Government. It contained a photograph of the boy when he began school, with a short account of his family, his age and the circumstances of his entering, together with his character during his term at the school, aptitude, etc. Thus the Government was enabled to

keep an eye on every pupil that entered and went out of its schools, and on the other hand the boy could refer to his 'record' in Government possession for character at future time. Mr. Parmelee noticed that the handwriting of the French pupils as exhibited was peculiarly good. This, however, would seem to be the outcome of the French national character. He at the same time found not a few mistakes in the exercises, the teachers also having made mistakes in the corrections. The establishment of government libraries in connection with every school of any size was a very important feature in system. Invariably there were two of these: one for the pupils, generally of about six hundred volumes carefully selected to the various ages of the pupils, and one for the teachers as well selected. Strong efforts were being made to reform the system of athletic exercises. Reference was made to the paternal care exercised by the French Government for the infant classes as well as in providing food for the poorer pupils at school. 'Nurse teachers' took charge of all pupils from the age of two to six, whose business it was to see to their physical wants as well as mental instruction. In the towns a pupil could go to what was known as the "school canteen," the schools being as much as possible in groups, were he could procure a plate of hot soup and meat and vegetables for a sum of from one to three cents. Tickets were issued for these meals, and if a pupil was too poor to pay the amount he got the food for nothing.

—The matter of corporal punishment was lately brought up before the Montreal School Commissioners. The question arose over a pupil of the Royal Arthur school who, refusing punishment, was sent home and suspended. The school committee decided that as the boy had been sent home his suspension was illegal and should be stricken off the suspension list. The committee recommended that in future any boy who refuses punishment shall be sent home and not received back at the school until he consents to receive the punishment. This was agreed to by the Board.

—At the same meeting a discussion arose over the principle of announcing or not announcing the subject of an examination before the actual time of an examination. In the past envelopes have been sent to the schools announcing the subject and the time, and this, it was felt, had led to cramming. The letter containing the date and subject of examination would be received one or two weeks before the day fixed, according as the subject was early or late on this list. The committee did not object to the pupils studying up the subject at home in the

evening, but to the teacher giving three hours continuously to it the day before the test. Eventually, after several amendments had been proposed and abandoned, it was proposed by Dr. Shaw, and seconded by Ald. McBride, that notice of the subject of examination should be given as heretofore, but that the ordinary school time-table should not be departed from for the purpose of cramming. To this the Ven. Archdeacon Evans, seconded by ex-Ald. Wilson, offered an amendment, that the clause eliminating the notice of subject should stand and that Mr. Arthy report upon its effect at the end of the year. This amendment being supported by the chairman was carried. The teacher in the future, therefore, will not know the subject of examination until the hour and day of examination.

—The North-West School Ordinance of 1892 is not to be vetoed. The Minister of Justice has submitted a report to Council recommending that the ordinance be left to its operation. This, however, is against the strong opinion of a large section of the Cabinet whose advice was to listen to the protest of Bishop Grandin, Father Leduc and the Roman Catholics of the North-West Territories. As a compromise, it is also recommended in the report of the Minister of Justice, that the Council of Public Instruction for the Territories be requested by the Governor-General-in-Council to modify the school regulations, so as to make them less obnoxious to the Roman Catholic schools, by allowing the sisters to teach without qualifying with a Normal School certificate and by some other concessions. The sisters are chiefly French-Canadians sent up from the Province of Quebec and are unable to speak or teach English. There are other regulations objected to, and it remains to be seen whether Premier Haultain and the Executive of the Territories, who compose the Council of Public Instruction, will agree to mutilate their act and adopt a reactionary policy after having deliberately determined on a sweeping reform. They will be under no obligation to follow the Ottawa suggestions, unless these are accompanied by a strong hint that if the suggestions are not followed there will still be time to veto the ordinance, Feb. 7 being the date limit. How Mr. Ouimet, the Minister of Public Works, can reconcile the decision of the Cabinet with his position, as defined in his recent speech before the Club Conservateur of Montreal, is hard to see. In that speech he said the Conservatives were from principle in favor of separate schools, while the Liberals, on the contrary, were in favor of non-sectarianism in education. The school ordinance in question abolishes Roman Catholic schools in the Territories

in everything but in name, and expressly takes away from the Roman Catholics the control they formerly had by law over their own schools. Religious teaching is prohibited except during the last half hour of the day, precisely as provided by the Manitoba School act, and all text books must be approved by the Council of Public Instruction, which consists of eight members, two of them Roman Catholics, who, however, have not the right to vote in the Council. Under the new regulations of September last, the Ontario school readers are made obligatory in the Roman Catholic and French schools.

Literature, Historical Notes, etc.

(Continued from last month.)

Southey wrote verses before he was 8 years of age. His maternal uncle was an idiot, and died of apoplexy. The mother of Southey had paralysis. Cowper was attacked with melancholia at 20, which continued a year; at another time it returned with greater force. He himself tells of his attempts at suicide; he bought laudanum, keeping it in his pocket, when later a feeling pressed him to carry it into execution: but soon another idea came to him, to go to France and enter a monastery; then the suicidal impulse came again, to throw himself into the river—an inhibitory feeling from taking the laudanum—but he would have succeeded in hanging himself, had not the thong to which the rope was fastened broken. After suicidal ideas left him, he relapsed into religious melancholia, thinking he had committed the unpardonable sin. He was confined in an asylum eighteen months. Keats was an extremely emotional child, passing from laughter to tears; he was extremely passionate, using laudanum to calm himself; sometimes he fell into despondency. He prophesied truly that he would never have any rest until he reached the grave. The attacks of critics agitated him almost to insanity. His nervousness was very susceptible, so that even "the glitter of the sun" or "the sight of a flower" made his nature tremble. Coleridge was a precocious child, self-absorbed, weakly, and morbid in imagination; this morbidity was the cause of his running away from home when a child and from college when a student; he enlisted as a soldier, and again went to Malta for no reason, permitting his family to depend upon charity. When 30 years of age his physical suffering led him to use opium. Subsequently he had a lateral curvature of the spine (De Quincey.) There were many morbid symptoms in the family. Burns says: "My constitution and

frame were *ab origine* blasted with a deep incurable taint of melancholia which poisons my existence." Dickens died from an effusion of blood upon the brain; he was a sickly child, suffering from violent spasms; when a young man he had a slight nervousness which increased with age, and finally was attacked with incipient paralysis. George Eliot suffered from melancholic moods, and from her thirtieth year had severe attacks of headache. As a child she was poor in health and extremely sensitive to terror in the night. She remained a "quivering fear" throughout her whole life. Wellington was subject to fainting fits; he had epilepsy and died from an attack of the disease. Warren Hastings was sickly during his whole life; in his latter years he suffered from paralysis, giddiness and hallucinations of hearing. During the time of his paralysis he developed a taste for writing poetry. Carlyle, the dyspeptic martyr, showed extreme irritability. He says in his diary: "Nerves all inflamed and torn up, body and mind in a hag-ridden condition." He suffered from a paralysis in his right hand. Carlyle's antecedents were conspicuously of a nervous kind. Bach died from a stroke of apoplexy; one of his numerous children was an idiot. His family suffered from nervous diseases. Handel was very irritable; at the age of 50 he was stricken with paralysis, which so affected his mind that he lived in retirement for a year.

Nisbet says: "Pathologically speaking, music is as fatal a gift to the possessor as the faculty for poetry or letters; the biographies of all the greatest musicians being a miserable chronicle of the ravages of nerve disorder extending, like the Mosaic curse, to the third and fourth generation." Newton in the last years of his life fell into a melancholia which deprived him of his power of thought. Newton himself in a letter to Locke says that he passed some months without having "a consistency of mind." He was also subject to vertigo.

Tacitus had a son who was an idiot. Beethoven was naturally bizarre and exceedingly irritable. He became deaf and fell into a profound melancholia, in which he died. Alexander the Great had a neurosis of the muscles of the neck, attacking him from birth, and causing his head to incline constantly upon his shoulders. He died at the age of 32, having all the symptoms of acute delirium tremens. De Balzac (Honoré) died of hypertrophy of the heart, a disease that can predispose one to cerebral congestion. The eccentricity of his ideas is well known. Lamartine says he had peculiar notions about everything; was in contradiction with the common sense

of "this low world." His father was as peculiar. Lord Chatham was from a family of original mental disproportions, of peculiarities almost approaching alienation. Lord Chatham did not do things as others; he was mysterious and violent, indolent and active, imperious and charming. Pope was rickety. He had this hallucination: One day he imagined an arm come out from the wall, and he inquired of his physician what this arm could be. Lord Byron was scrofulous and rachitic and clubfooted. Sometimes he imagined that he was visited by a ghost; this he attributed to the over-excitability of his brain. He was born in convulsions. Lord Dudley had the conviction that Byron was insane. The Duke of Wellington died of an apoplectic attack. Napoleon I. had a bent back; an involuntary movement of the right shoulder and at the same time another movement of the mouth from left to right. When in anger, according to his own expression, he looked like a hurricane, and felt a vibration in the calf of his left leg. Having a very delicate head, he did not like new hats. He feared apoplexy. To a general in his room he said: "See up there." The general did not respond. "What," said Napoleon, "do you not discover it? It is before you, brilliant, becoming animated by degrees; it cried out, 'that it would never abandon me;' I see it on all great occasions; it says to me to advance, and it is for me a constant sign of fortune."

It is said that geniuses lose their national type. Humboldt, Virchow, Bismarck, and Hemholtz do not have, according to Lombroso, the German physiognomy. Bryon did not have the physiognomy or the character of the English. And the great thoughts of genius often come spontaneously. Socrates says that poets create, not by reflection, but by natural instinct. Voltaire said, in a letter to Diderot, that all manifestations of genius are effects of instinct, and that all the philosophers of the world together could not have given "Les animaux malades de la peste," which La Fontaine composed without knowing even what he did. According to Goethe a certain cerebral irritation is necessary to poets.

So, too, geniuses are inclined to misinterpret the acts of others and consider themselves persecuted. These are well-known tendencies of the insane. Boileau and Chateaubriand could not hear a person praised, even their shoemaker, without feeling a certain opposition. Schopenhaur became furious, refused to pay a bill, in which his name was written with a double "p." Unhealthy vanity is also common in the ambitions of monomaniacs.

Practical Hints and Examination Papers.

THE THREE KINGDOMS.—There are three kingdoms,—the Animal Kingdom, the Vegetable Kingdom, and the Mineral Kingdom. Everything that you can mention, that is matter, belongs to these kingdoms.

The Animal Kingdom includes all animals,—everything of animal growth, as fur, feathers, hair, horn, wool and silk, and all articles manufactured from animal substances.

The Vegetable Kingdom is made up of plants and their tissues and products,—as wood, grain, cotton, linen, rubber, etc. Articles manufactured from these materials also belong to this kingdom, as a handkerchief, rubber doll, or sheet of paper.

The Mineral Kingdom includes all rocks, minerals, precious stones, ores, and everything made of the metals, as knives, pens, pins, needles, nails and screws.

Pick up various familiar objects from the desk, as a pen, pencil, crayon, tablet, knife, string, etc., and let the children tell to what kingdom each belongs, and give the reason for their answers; for example—“The tablet belongs to the Vegetable Kingdom; for it is paper, and the paper was made of rags and the rags were made of cotton which grew on a plant.”

Decide to which kingdom all the things in the room belong. Many will belong to more than one, as for instance, the desk which is made of wood (vegetable); put together with screws or nails (mineral); and covered with felt or leather (animal).

Let each child in turn hold up some article from his desk or pocket and tell to which kingdom it belongs. The boy's pockets will prove mines of inexhaustible treasures, and the exercise will bring to light buttons of brass, vegetable ivory, and horn,—representative of the three kingdoms,—marbles, coins, apples, candy, nuts, nails, fish-hooks and perchance a grass-hopper, frog or other living subject of the Animal Kingdom.

Having made the subject thoroughly understood, develop it into an exercise for cultivating attention and quick thinking.

Mention the name of some familiar object, and calling on some child to tell what kingdom it represents, give him five seconds for the answer. Mark the time by counting the seconds aloud. If he fails to answer, call upon others in rapid succession, and have your monitor write on the blackboard the names of all who fail to answer.

Beginning with easy objects, work up to more difficult ones, each of which may be developed into a little lesson by itself, if deemed practicable by the teacher. In this way, much information can be given in a short time, for little minds absorb eagerly and quickly when thoroughly aroused.

The following list of objects is given as a sample :—

1, Tea ; 2, Coffee ; 3, Silver Dollar ; 4, Paper Dollar ; 5, Lard ; 6, Olive Oil ; 7, Cotton Thread ; 8, Linen Thread ; 9, Silk Thread ; 10, Scissors ; 11, Basket ; 12, Mustard ; 13, Mosquitoes ; 14, Walnuts ; 15, Leather Shoes ; 16, Silver Fork ; 17, China Plate ; 18, Butter ; 19, Diamonds ; 20, Oranges ; 21, Eggs ; 22, Cider ; 23, Stove ; 24, Pepper ; 25, Amethyst ; 26, Rice ; 27, Muff ; 28, Chalk ; 29, Blackboard ; 30, Bread ; 31, Figs ; 32, Mirror ; 33, Peppermint Drop ; 34, Crackers ; 35, Coal ; 36, Cheese ; 37, Pearls ; 38, Broom ; 39, Bee's-wax ; 40, Strained Honey ; 41, Bee-Bread ; 42, Queen Victoria's Crown ; 43, Needles ; 44, Hemp Cord ; 45, Rubber Cord ; 46, Carpet Tacks ; 47, Sardines ; 48, Pea-nuts ; 49, Teapot ; 50, Ostrich Plumes ; 51, Chocolate ; 52, Tapioca ; 53, Oysters ; 54, Oyster-shells ; 55, Opium ; 56, Ruby ; 57, Chamois Skin ; 58, Steel Pen ; 59, Quill Pen ; 60, Coral ; 61, President of the U.S. ; 62, Velvet ; 63, Velveteen ; 64, Door-knob ; 65, Salt ; 66, Nutmeg ; 67, Gelatine ; 68, Kid Gloves ; 69, Thermometer ; 70, Dried Beef ; 71, Water melon ; 72, Washington's Monument ; 73, Foot-ball ; 74, Lacquer-box ; 75, Varnish ; 76, Rubber Comb ; 77, Tortoise-shell Comb ; 78, Soda ; 79, Wine ; 80, Water ; 81, Satin ; 82, Muslin.

GEOMETRY AND EUCLID.—The difficulty in the way of the Drawing Society is that thousands of English parents have an indistinct idea that geometry has something to do with Euclid, and that the study of Euclid forms an integral part of a classical, and consequently costly, education. So it undoubtedly does, and should do; only so far as the art education of the great army of school children is concerned, it would have been far better if the elements of Euclid had never struggled out of the Cimmerian gloom of the dark ages, or had never been filtered into the schools of the West by the Arabian mathematicians of Spain. In Continental schools Euclid is never heard of ; but practical geometry based on the Euclidian postulates, axioms, and propositions is taught to the poorest child in the humblest school, precisely as the rules of spelling and the first four rules of ciphering are taught. The simple problems which a French, or German, or Italian juvenile has to solve before he is set to make freehand drafts of barrels and jugs and chairs are not a whit more difficult than the multiplication table, and are a great deal pleasanter, since practical geometry has the property of becoming, as the student progresses, as enchanting as the "Arabian Nights." Let training in practical geometry be concurrent with the practice of freehand drawing, and the result, we should say, to the National Drawing Society, as well as to the cause of education in general, will be brightly successful.

A NEW HISTORY METHOD.—Those who have read Thos. Hughes' familiar story of college life,—Tom Brown at Oxford—will, doubtless, notice the origin of this novel and comprehensive plan. For it is not original, being borrowed from the "servitor" Hardy, Tom Brown's sterling friend. Being more applicable to the story of wars, I shall

illustrate by using a few of the historic incidents of 1777. Draw a large map of the disputed territory on a spare corner of the board, and see that the pupils are each supplied with a sheet of paper, mounted on cardboard, a dozen pins with different colored heads and inks of corresponding shades. To represent Washington and Howe at Boston, stick a blue-headed pin on Dorchester heights, and a red-headed one within the city. When the latter General evacuates, remove his pin representative to Halifax, and trace his course thither with red ink or crayon. At that place also, stick another pin of similar shade, to represent the Admiral who here joined General Howe with reinforcements from England. Then, as the war proceeds with the attack on Ft. Moultris, with another pin represent Gen. Clinton, and trace his course by sea to his new position off New York. Thither also bring the two pins from Halifax, and Washington from Boston, tracing his line of march with blue, and theirs with red. Thus proceed with the entire account, taking care to have only similar colors on a side. Black, and shades of blue and purple for American leaders, and reds and browns for the English. Use the board map at times of recitation, moving the pins and tracing movements as the recitation demands. Have the pupils reproduce this work, from memory, upon their individual maps, drawn by themselves upon the sheets of mounted paper, but of course, always subject to your criticism and correction. The colors, pins and large maps furnish a more stimulating study, and better knowledge of the geographical positions of armies than do the tiny black and white maps crowded into their text-books. For intermediate grades this is especially commendable, as it gives the heroes an air of reality and inspires the pupil with a desire to see how the game will end.

This work once well begun, demands no more time or elaborate attention than any conscientious teacher is willing to give in making easy this study, which is so difficult for so many. When possible have bright side-matter with these recitations. Short "pointed" stories illustrating the strong characteristics of leaders or their men, are best. The writer is confident that those who try this method will be more than pleased with its success, and thank Hardy, the servitor, and his imitator for putting the plan within their reach.

A FIRST LESSON ON MINERALS.—Introduction. To the mineralogist, as he looks at a mineral, certain questions present themselves: What are its form of crystal, its hardness, cleavage? The sole object of the questions is to identify the mineral. These questions become with him a working instrument by which he classifies his collection. With young children we may employ such questions to develop the faculties of observation, discrimination, and description. With older pupils, whose knowledge of qualities is somewhat well established, the questions, in addition, become a means to the acquisition of knowledge. That is to say, with lower grades we must make the instrument; with older grades use it mainly.

To select the qualities that shall compose a scheme of questions so as to touch the entire field, we must make use of several minerals. I would therefore advise the teacher to have these upon his table :

Steatite, gypsum, calcite, fluorite, apatite, feldspar, quartz, topaz, corundum, hematite, magnetite, pyrite, galenite, azurite, serpentine, graphite, coal, rock salt (halite), mica, zincite.

Let these specimens be two or three inches in diagonal measurement, so as to be clearly seen.

If pupils become ambitious to own their minerals, the teacher can furnish them with cubic-inch specimens at a cost of about a cent apiece. They should be taught to keep their minerals nicely labeled in a box with compartments: the making of a box to hold them is to be encouraged for many reasons.

As just said, with young children the first lessons are devoted to making a list of test questions to be afterward used in studying the minerals. The following lesson is given as a suggestion; it is not to be followed absolutely, but to be varied according to class and teacher, and to the knowledge the pupils already possess in related sciences :

The Lesson.—(The pupils are assembled before the teacher; the minerals are lying upon the table.) Now, children, what have I said we shall take up for our study to-day? "Minerals." Yes; I see your eyes are upon the minerals I have here; you want to know more about them, I am sure. I will hold them up so you can see them clearly. I will pass some of them down this row and down this. Do not hold them too long; take them in your hands, look them over a little, and pass them on. Think what you see, so that you can tell me afterward. I will give you a few moments to make observations. Everyone must try to see at least three things to tell me about them.

(These pupils of whom I am speaking are not novices in this kind of work. In any public school it would be difficult to find any who are. They know they are to look for descriptive qualities. And soon their bright eyes and willing hands have scrutinized and tested the several objects and they are ready to report. There are some qualities, such as color by eye and weight by hand, which all will at once notice. Others are not so apparent. When all the qualities are brought out the teacher will re-arrange them in logical order.)

Well, now, pupils, we are ready. Master George may rise and tell us what he has observed. "They are hard and heavy and of different colors." Instantly several hands are raised. What is it, Charles?" "This mineral that I have seems to be soft." Why do you think it is soft? "It comes off on my hands and on my clothing. I can scratch it with my finger nails." Several others declare the same thing. (Evidently George has not seen all the minerals.) Charles, you may pass your mineral to George and let him examine it.

Soon another hand is raised. "This mineral does not look like that one, and does not come off on my clothing, but I can scratch it."

Ah, indeed! hold it up so we can look at it. No, it does not look like the other. This is of what color? "White." Yes, snowy white. What color is the other? "Gray." Yes, gray or greenish gray. Are there any other soft minerals? "I have one here; it is black and soft enough to come off on my fingers." Yes, indeed that is what we call graphite. Have you any others that we may call soft? Similarly a piece of serpentine is classed with the soft minerals, though a little harder than any of the other soft minerals, and this is a green mineral.

Now what may we say of the others? "They are hard." Are they equally hard? This is not so easy to settle by methods yet tried, but at suggestion of teacher, using point of knife and drawing one mineral upon another, it is settled that they vary in hardness. A pupil responds. "Some are softer, some are harder, and they are of different colors."

Tell me what colors you see? "I see white, gray, black, blue, green, red, brown, and yellow." A hand is raised. "What is that one that looks like brass?" That is what we call pyrite. It has iron in it. You will learn more about that by and by. Another hand. "Please, will you tell us what the names of the others are?" Certainly! This blue one is azurite; it has copper in it. This green with smooth sides is fluorite, and the deeper green and this brown are apatite. "What, sir?" Apatite. "Apatite?" (A general smile followed by a laugh as the teacher continues.) Ah, I see, you are thinking of a different kind of appetite from what I mean (that which you have in the morning and occasionally through the day); this is a very different affair, and is spelled differently. This white is topaz; this glassy-looking is quartz; this black is magnetite; this brassy-looking is pyrite. But we will not stop longer on that. What shall we say that these minerals differ in, softness or hardness? After some discussion the term hardness seems to be more applicable, and after bringing out the weight to which George referred, the teacher writes upon the board:—

hardness
color
weight.

Now see if there is anything else you can tell me about your mineral. Try to find one thing, each, to mention. A hand is raised; you may tell me. "This mineral which I have has straight smooth sides and sharp corners." Exactly. I thought some one would notice that. Let me look at it. Yes, this which we call calcite has smooth sides all about it. See, all of you; look closely. Now let me compare it with that one. Hold it up, that piece of quartz. Has that one flat, smooth sides like this? No; it has not. Now there is something peculiar about minerals in this respect. Some, when you strike and break them with a hammer, will split off with these flat smooth surfaces and some will not. We will have to learn a name for that. Where minerals split with smooth flat surfaces we

call it *cleavage*. What is it? "Cleavage." Yes, because it cleaves or splits thus. And the other, where it does not break with a cleavage face we call by a name you already know—*fracture*. Now we will write these words under the others on the board.

Who can mention something we have not yet spoken of? You may tell me. "This soft mineral feels slippery, the others do not." It is agreed to put the word *feel* in our column. Other opportunities are given and here are some of the answers. "I can see through this one." "This brassy looking one seems to shine." "Mine breaks off easily." The teacher tries words suggested by pupils and finally arrives at *transparency*, *luster*, *tenacity*.

He crumbles a piece of the dark hematite with a hammer to show that its powder is red while its surface is nearly black, and of the yellow pyrite to show that its powder may be colorless. Then he draws the two minerals across a piece of white unglazed porcelain, to show the powder in that form, for which he uses the word *streak*. He brings a magnet near the piece of black iron ore; the needle is attracted, hence the name magnetite. The teacher shows also a few crystals such as the collection may happen to contain and explains how, when found thus in the earth with smooth faces, the forms are called *crystals*. Finally he arranges the qualities the class have designated in a column, thus:

weight	streak
hardness	luster
cleavage	transparency
fracture	feel
tenacity	form of crystal
color	magnetic property.

We have now in the list of qualities something more than a lesson on physical properties in general. We have made a test-list of properties for minerals, by which to study and identify them. A mineral that has a certain form of cleavage and degree of hardness will be calcite. A mineral with cleavage in three directions, but cubical, with a certain hardness, weight, metallic lustre, will be galena. The study will bring, besides mental training, special knowledge of the science.

Correspondence, etc.

GRAMMAR FOR THE JUNIOR CLASSES.

To the Editor of the EDUCATIONAL RECORD:

DEAR SIR,—The study of elementary English grammar is one which many teachers find most difficult. Grammar is often regarded with a certain amount of dread and the subject is very frequently shirked.

Many persons, teachers included, ask what such young children can learn of grammar? They anticipate a great difficulty, and very seldom make any attempt at clearing it out of the way. How often we

teachers forget that Rome was not built in a day. We expect too much from the little ones, and instead of getting the information out of them by questions we tell them the whole thing, usually beginning at the definition and ending in a fog.

Let us suppose that we have a class of little ones in the second grade, that is, between the ages of eight and ten years, and that we are about to teach them how to distinguish a noun from any other part of speech.

Shall we tell them that a noun is the name of any person, place, or thing, or give them any other suitable definition and make them recite it? Remember, it is our duty to educate, not to cram our pupils. The question then for us to decide should be—what shall we make our pupils tell us, rather than what shall we tell them. In dealing with these very young children I have always been able to secure attention and interest by making them do the work for themselves, and even the dry, much abused grammar lesson has been interesting.

Of course the pupils must have something told them, but I usually begin by asking a question which every one can answer.

Perhaps I may take up a piece of chalk and ask what it is, and thus I shall elicit the fact that chalk is the name of the substance I am holding. The same can be done with many articles familiar to the class, who will all be pleased to tell the *name* of anything I touch. The next step follows naturally, viz., point out the fact that it is the name and not the thing that is the noun. This can easily be explained by telling them some story, such as that of the boy who said he had a *noun* sticking into him—he meant a pin of course. To some this kind of teaching may seem very ridiculous, but we must remember that little ones will always remember a story, and this will help them to understand its application. What we have to do is to make them understand, and if telling them a ridiculous story will help them, we are justified in telling it.

The children will now comprehend that it is the *name* and not the *thing* that is the noun, and we can proceed to tell them that whatever is a *name* is a *noun*, and that they must always ask themselves "Is this word a name?" and satisfy themselves that it is before they parse it. I think too that every child should be compelled to parse in this way.

The word book is a name. Therefore the word book is a noun. This method teaches them to reason for themselves, and it also shows them that only those words which are names can be nouns.

When they have mastered this they will be able to go on to the distinction between different kinds of nouns.

This will be a little more difficult, and the teacher will have to be very careful indeed when explaining the meaning of the word "common" as applied to nouns. But the first step must be thoroughly mastered by all the pupils before attempting to go further.

Example after example should be given, using every kind of noun.

For instance, *walking* is a healthy exercise, *to be honest* is my desire, the boy said *good night*, etc.

My advice to young teachers is, teach thoroughly, don't teach too much at one time. Do not be discouraged, if one half of your class fail to understand your first lesson. We must expect that always. Remember, anyone can teach a sharp pupil, but it requires a teacher to educate a dull one, and not unfrequently the dull pupils do the school the most credit. Above all, study your pupils, and study your subject thoroughly; both need your attention all the time.

An honest teacher never has any time to kill, the days are all too short. Only those teachers who waste their time in hearing their pupils "say their grammar" or "read their lesson," are killing time, and this the true teacher never does.

PROGRESS.

DR. SHAW AND THE NORMAL SCHOOL.

To the Editor of the EDUCATIONAL RECORD :

SIR,—In the January issue of the RECORD there is a report taken from a Montreal daily paper of a recent meeting of the Protestant School Commissioners, at which a reference was made to the Normal School, which requires a word of explanation. At a meeting of the Board some weeks ago Archdeacon Evans sought some favor for a young woman who had failed in the Christmas examinations in the Normal School. Alluding to the severe thoroughness of examinations there, he remarked, "If a student get 49 $\frac{3}{4}$ out of 50 he would be plucked." Sitting next the Archdeacon I added in an undertone, "Oh, they slaughter them down there." Alas, the newspaper man was at hand, and my remark made in conversational pleasantry and with no evil intent, was published to the world in a most matter-of-fact style, as a most serious and deliberate utterance, and the Principal of the Normal School takes offence and indicates his work in a letter to the *Witness*, which reappears in the RECORD.

Let me say, first, that both the Archdeacon and myself meant our remarks to be complimentary and in no degree derogatory to the Normal School. We might make the same remarks, say, about the civil service examinations in London, and only mean thereby what would be to their credit. Second, the figurative language in which I meant to be complimentary I wish to retract, if for no other reason than that it causes offence. Third, I need scarcely say that in the Normal School, to which I am very directly related, I have, with educationists generally in this Province, the greatest satisfaction and positive pride. I am satisfied with both the thoroughness and impartiality of its work, and that the victims—no, I mean those who fail, deserve their fate.

WILLIAM I. SHAW.

VERTICAL HANDWRITING.

[As a subject which is full of interest to many of our teachers at the present moment, the following has been sent to us for insertion in the

RECORD. We trust that its appearance will lead our correspondent to put in "black and white" her own opinion about the matter.]

To the Editor of the EDUCATIONAL RECORD :

SIR,—Will you please insert the following article taken from the *Educational Journal*, and oblige, yours, &c.,
D. M. A.

There is perhaps some ground for the complaint that the art of penmanship is neglected or badly taught in many of the schools of the day. Not infrequently we hear newspaper growls from parents and business men who cling to the old-fashioned notion that one of the uses of the art is to enable the writer to convey ideas on paper to the party addressed, and that to this end it is desirable that in addition to any other excellencies it may have it is well that one's handwriting should be legible. Editors and printers may perhaps be excusable if they share largely in the prejudice in favor of legibility. We live in a busy and practical age, and no doubt speed and a business-like look are very desirable qualities in a written communication; but there is, nevertheless, some ground for the opinion that unless the communication can be deciphered without too great an expenditure of time and effort, its usefulness is a good deal impaired.

In the field of penmanship, as in every other department of human activity, the iconoclast and the innovator are at work. A determined assault is just now being made on the old-time and most sacred dogma, that the true and only artistic penmanship is that which slants gracefully to the left at a certain uniform angle. Who that has left his school-days behind by a score or half-score of years can recall without a tremor the scoldings and sarcasms and perhaps flagellations which used to be the penalty of a failure to give his letters the orthodox slant? No matter how much easier and more natural it might seem to be to make his down strokes and the axes of his curves at right angles to the lines which formed their bases, he was taught that no one but a dunce or an idiot would ever form his letters in that way.

And now, lo, and behold! a race of innovators has sprung up, who declare that the old slant is all a mistake, and an unnecessary weariness to the eye and the muscles of the wrist and arm, and that the upright or vertical method is the only natural and easy way in which to combine speed with legibility in writing. In our own columns, some months ago, Mr. Newlands demonstrated to his own satisfaction, and we dare say to that of a good many of our readers, that the vertical system effects a real saving in space, time, and effort; that it is almost a guarantee of legibility; in a word, that it is, *par excellence*, the natural, easy, and speedy mode of writing. In the current number of the *Popular Science Monthly* the same view is boldly endorsed and advocated by a clever writer, from whom we learn that this system is already in use in many places, and that in particular the reform is meeting with great favor in England. We are even told that, in view of its superior legibility, the examiners in all

branches of the Civil Service require the use of the new style by the candidates, and that many English schools have adopted it to the exclusion of the old slanting style. On the continent, too, Austria and Germany are taking up the innovation, many of their schools having adopted it with great success and satisfaction.

It is easy to be wise after the event. Now that our attention has been directed to the matter, cannot we distinctly recall the fact that the most legible of the letters and other manuscripts we receive are written in unpretentious vertical characters. Do not we remember, too, that in many cases at least, those within our observation whose business requires much and rapid penmanship, as in the case of writers for the press, have fallen undesignedly into the use of an upright system. Certain we are that the most legible MSS. we receive for the printer are written in the vertical style, though probably in the great majority of cases the writer has never given the matter a thought, or, if he has, has—not without some qualms of conscience—back-slidden into the habit almost in spite of himself and in violation of all the teachings of his boyhood.

We commend this question to the careful and experimental consideration of our readers. Perhaps we should add, in these days of suspicious newspaper puffs, that, though our attention has been called to the matter by the advertisement which appears in our columns, the advertisers have asked no commendation or comment from us, and this article is written without their knowledge, as a spontaneous expression of the views we have reached, without any profound investigation or expert knowledge of the subject.

PRAYER FOR SCHOOLS.

To the Editor of the "Witness":

SIR,—A considerable number of years ago it was the custom to observe annually in Montreal a day of prayer for schools and colleges on the same day that was chosen for the purpose in the United States. In those days it was not unusual—indeed, one may say that it was quite the expected thing, for the prayers of that day to be answered in American colleges by speedy revivals in which the zeal of Christians was quickened and the unconverted were led to give themselves to God. In Montreal, if I remember right, the day was observed at first with enthusiasm, but afterwards with so much formality that the custom of holding services upon it died a natural death. I do not remember that any special effort was made at that time to hold meetings among students, but I remember attending meetings held by ministers in the old American Church at the corner of Victoria square and St. James street, or in old Zion, for the purpose of praying for students. Montreal now educates ministers for the province, for the Dominion, and for the world. Not less important for the coming of the kingdom, it is training doctors, scientists, engineers, literary and business men and women who, if they are to

use their influence for God effectively, must, statistics tell us, be converted before they become involved in the business of life. The experience of the ages tells us that God does answer prayer, and I am sure that if an annual day of prayer was appointed, say by the Ministerial Association, prayer would ascend from many earnest hearts, even though schools and colleges did not observe the day by formal meetings.

Special prayer might at this time be made that God would raise up an earnest Christian principal for McGill, whose influence would be all for righteousness.

IN EARNEST.

Books Received and Reviewed.

[All Exchanges and Books for Review should be sent direct to Dr. J. M. Harper, Box 305, Quebec, P.Q.]

The *Scientific American* is a paper which no progressive household with boys in it can be without. It is a perennial report of the engineering progress of the times. The *Magazine and Book Reference* issued by the New York Society of Pedagogy is specially prepared in the interests of the teaching profession. *The University Extension World* should be read by every student who seeks help in the process of self-teaching. *Current History* is sustaining its reputation as a teacher's compendium of the world's events. Report of *Los Angeles Public Library* has been received. *Education* for January is one of the best that has been issued. *The Strike at Shanes*, as a sequel to *Black Beauty*, recommends itself to every member of the Society for the Prevention of Cruelty to Animals; the report of the American Humane Society, which accompanies it, should be widely spread. The January number of the *Presbyterian College Journal* sustains the character of its predecessor. *The Kindergarten News* improves with every issue; the February number must have a good effect among our kindergartens. *The Student* comes all the way from Portland, Oregon, and is highly creditable to its editress and publisher. *The Magazine of Poetry* has issued a syllabus for a series of prize poems. With the October number it completed its fifth year of publication.

PROGRESSIVE FRENCH READER, edited by Messrs. Curtis and Gregor, and published by Messrs. Drysdale & Co., Montreal, as a sequel to their former work, cannot but meet with commendation from those engaged in the teaching of the French language. We believe that the compilation will be of the greatest service in making the study of French more and more interesting to the English youth of our country.

THE ELEMENTS OF SOLID GEOMETRY, by Dr. Arthur Latham Baker, of Rochester University, and published by the Messrs. Ginn & Co., Boston. The main object of this volume has been to unify the subject and to improve its notation. The diagrams are an

improvement on those of former text-books, while the practical examples which follow the various theorems make the text-book a practical one.

THE BEGINNER'S GREEK COMPOSITION, by Messrs. Collar and Daniell, and published by the Messrs. Ginn & Co., Boston, Mass. This text-book, with its examples mainly based on the text of Xenophon's Anabasis, is one of the best little works on the subject we have seen. The Natural Method applied to the study of Greek Composition would be a better title for the book, and the character of the work involved in such a title is the highest recommendation to be bestowed upon it. The classical master is sure to take to it, as a necessity long felt in the school. The discovery of Bryce is further developed by the editors to the benefit of our classical schools, and they deserve the praises of our teachers.

THE FOOD OF PLANTS, by A. P. Larue, M.A., B.Sc., Fellow of King's College, Cambridge, and published by the Messrs. Macmillan, London, England. A text-book of sixty pages is something unusual, and yet, as an introduction to agricultural chemistry for beginners, this is all that the best of our farmer's boys would need to learn in school. Written by a practical scientist, who feels that science can be taught only in the laboratory or the field, the book bears its own recommendations in every page.

UN MARIAGE d'AMOUR, by Ludovic Halévy, edited by Professor Solial, A.M., of Chicago, and published by Messrs. Maynard, Merrill & Co., New York. The editor of this work is a gentleman well fitted for the task of an editor. His book is one which the student of the French language will highly appreciate. To find anything more concise than his notes on the prepositions *à*, *de* and *pour* would be difficult. The editor may be assured that his "little help" will prove useful and profitable to all lovers of the language of "la belle France."

FIRST YEAR AT SCHOOL, by S. B. Sinclair, B.A., of the Normal School, Ottawa, and published by Messrs. Warwick & Sons, Toronto. There are hints in this book which our elementary teachers would highly prize. Mr. Sinclair is a practical educationist, and there is nothing advocated in his book which has not been "tried in the fire" of an everyday experience in school. It would be an excellent *vade mecum* for our teachers to have, especially those who have not had the advantage of a Normal School training.

MODERN PURE GEOMETRY, by R. Lachlan, Esq., M.A., Fellow of Trinity College, Cambridge, and published by the Messrs. Macmillan & Co., London, England. There is not much demand for a text-book of this character in the ordinary B.A. course of this country, where Euclid and Galbraith and Haughton is as far as the graduate goes. The student for honors, however, would find this book an excellent incentive toward the study of pure mathematics. In this work are to be found in the concisest form of reasoning all that a student need

ask for in regard to the properties of lines and circles, and of conic sections treated geometrically. The method of projections is not neglected, while reciprocation, harmonic properties, and curvature receive due attention. The theorems and problems introduced as examples are excellent, and the book as a whole is worthy the highest commendation.

LA PRISE DE LA BASTILLE, by Michelet, edited by Prof. Jules Luquiens, Ph.D., of Yale University, and published by Messrs. Ginn & Co., Boston, Mass. With Carlyle and Michelet, the teacher can hardly fail to make the taking of the Bastille an interesting topic to the most listless student, and with Prof. Luquiens and his little book, there is sure to be the deepest interest provoked in a class studying the opening scenes of the French Revolution.

SEMITIC PHILOSOPHY, by Mr. Philip C. Friese, and published by Messrs. Griggs & Co., Chicago. This book as a treatise showing the ultimate and scientific outcome of original Christianity in its conflict with surviving ancient heathenism, must be welcomed by the reader who would understand the doctrine of the Kingdom of God. The author is a writer who speaks from an inner experience, and his interpretations are the outcome of the most careful investigation. This is a book that will help the thinking world.

PRIMER OF PHILOSOPHY, by Dr. Paul Carus, and published by the Open Court Publishing Co. No one may waver in purchasing anything which Dr. Carus writes; and his primer is sure to have a welcome from the student who seeks recreation and self development in the realms of thought. The college student cannot fail to find this text-book an excellent helpmate. There is nothing obscure, nothing that is sought to be obscured. Next to Masson comes Carus, is sure to be the verdict of the student of philosophy after he has read the introductions of both, and higher praise cannot be given to either author.

OUTLINES OF RHETORIC, by Prof. John F. Genung, of Amherst College, and published by Messrs. Ginn & Co., Boston, Mass. We know of no text-book that would meet our wants in this subject as Prof. Genung's does. The principles of the art are not only carefully laid down in unmistakable English, but the illustrations are selected in the most judicious and unbiased spirit. With a text-book such as this in hand, there need be no apprehension that the English, pure and undefiled, of Addison may deteriorate in these latter days when everything is accused of deterioration.

COMPLETE GRADED ARITHMETIC, by Mr. George E. Attwood, and published by Messrs. D. C. Heath & Co., Boston, Mass. The teacher who would utilize arithmetic as a power to promote intellectual worth should procure a copy of this work and adopt some of the methods it suggests. With the minimum amount of labor, the results are all but sure to be commensurate with the maximum results of careful explanation.