# The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

PUBLISHED MONTHLY.

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ST. JOHN, N. B., JULY, 1895.

\$1.00 PER YEAR.

G. U. HAY, Editor for New Brunswick.

A. McKAY, Editor for Nova Scotia. J. D. SEAMAN, Editor for P. E. Island.

#### THE EDUCATIONAL REVIEW.

Subscribers should promptly notify the REVIEW of change of address, giving old as well as new address. Communications from New Brunswick should be addressed EDUCATIONAL REVIEW, St. John; from Nova Scotia and Newfoundland to W. T. Kennedy, Academy, Halifax, from Prince Edward Island to J. D. Seaman, Charlottetown.

BAHNER & CO., PRINTERS,

St. John, N. B.

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The committee to whom is entrusted the task of reading and estimating the manuscripts for a school history of Canada will meet in Quebec, July 25th. It is understood that a number of competitors have retired from the contest, and that the task of selecting will be from a limited number of manuscripts.

The example of the town of St. Stephen in school matters has always been potent for good. At this time when complaint is being made regarding low salaries, the St. Stephen board has approved of a progressive scale of salaries for its teachers, which appears in another column. It will be noticed that the minimum is the salary now paid the rank and file teachers, and it increases for five years, always providing the work of the teacher is satisfactory to the school board, principal and inspector.

There can be no doubt of the wisdom of this step as well as of its economy. Teachers will not only be encouraged to make their best effort, but will be induced to continue in the service of the Board.

Few, if any, vocations, save that of teaching, deny increased remuneration with increased experience, and

in none is it more deserved. There are indications, somewhat far apart it must be confessed, that the work of the teacher is becoming better appreciated, and the recent action of the St. Stephen Board is surely one of them.

Would it not be possible to lessen the number of departmental examinations in New Brunswick? During the first week in July there will be examinations for admission to Normal school,—first, second and third class; junior and senior leaving, and university matriculation examinations. If some of these could be united or an arrangement on a simpler basis made, it would be a great boon to teachers and students.

ARE our normal schools in these lower provinces doing the work of superior and high schools, and neglecting, or doing superficially, the work of preparation for teaching? In the case of one, at least, a decided affirmative was given to this question recently by a gentleman who ought to know.

On the 20th of June the canal between the Baltic and North Seas was opened with probably the greatest naval display ever witnessed. From eighty to one hundred war vessels, representing the principal navies of the world, took part. These passed through the canal from its western end at the mouth of the Elbe to Kiel Harbour on the Baltic. The beginning of the canal was made eight years ago by the Emperor William, and now his grandson, the present emperor of Germany, has opened it with imposing ceremonies. It is sixty-one miles long and cost nearly \$40,000,000. It will be of immense importance to Germany in case of war; and its advantages to commerce will be much greater. Thirty-five thousand vessels annually pass round Denmark, and in the rocky channels of this dangerous. voyage nearly 3000 vessels have been lost and 3500 others badly damaged since 1858.

On the 20th of June Queen Victoria completed the 58th year of a reign exceeded by only one English sovereign—George III, who ruled 60 years. But during the last ten years of his reign, the administration

was carried on by the Prince of Wales as regent. He my III reigned 56 years, but his administration was a weak one. So that Queen Victoria's rule will pass into history as the longest as well as the most prosperous to England of all its sovereigns.

Dr. RAND has retired from the chancellorship of Mc-Master University, Toronto, and hereafter will assume the less responsible duties of a professor in that institution. Rev. O. C. S. Wallace, who, like Dr. Rand, is a native of Nova Scotia and a graduate of Acadia University, has been offered the chancellorship.

The story of Dr. Rand's career is too well known to our readers to need repetition here. He superintended education in Nova Scotia and New Brunswick at the inception of the free school system in each province during the most critical period in their educational history. The intervening years have given proofs of the wise and substantial character of his administration His crowning effort as an educational leader has been directed to the founding and management of McMaster University, which he undertook five years ago, and which, with characteristic energy, he has placed in such a position as to win for it and for his work warm expressions of recognition from the highest educational authorities in Ontario. Dr. Rand's many friends hope that there are many years of usefulness in store for him, and that his health will have materially improved when he emerges from his chosen summer retreat in his native province.

## UNITED COUNTY INSTITUTES.

The Board of Education has approved of the idea of uniting the St. John and Charlotte County Institutes for this year, and holding the combined session in St. John during exhibition time.

This may prove the entering wedge for enlarged county institutes, at least certainly all will hope that at some future time a like approval may be granted to enable the St. John teachers to return the visit at St. Stephen.

County institutes have a large field for usefulness, and if this can be increased by increasing the attendance at them, it should be done. If all the teachers in both counties attend, the attendance will be larger than at any provincial institute ever held.

Nobody has said a better thing in fewer words than the foremost of English novelists of the day, George Meredith, when he writes: "He is the teacher who shows where power exists: he is the leader who awakes and forms it."

#### TALKS WITH TEACHERS.

The question of corporal punishment has again come into prominence in connection with a case in Charlotte County. The case first came before a magistrate, and was by him sent up to the County Court, where the Grand Jury threw it out. It was claimed by the plaintiff that the punishment was excessive. The defendant claimed that the severity of the punishment was partly accidental, and due to the child's action in seeking to evade it. This view of the case prevailed with the Grand Jury. The Judge gave some very good advice in the matter, and while upholding the teacher's right to administer corporal punishment, condemned the unreasonable exercise of the prerogative. He stated at the same time that the failure of the trustees to hold an investigation was no bar to bringing an action.

This last statement introduces a new phase in such cases. It has always been held necessary for school beards first to investigate, though with what object it is difficult to determine, except that it might be to allow had feelings to calm. The trustees may inquire into the matter and may pass an opinion, but they seem to have no further jurisdiction in the matter. They may censure the teacher, but they cannot dismiss him except for gross neglect of duty or immorality, under neither of which heads would excessive punishment come. The Board of Education and its officers have no powers in the matter except to see that trustees inves-There then seems to be no resource but the courts. It seems as though there should be some other channel through which such cases could be settled, as teachers are often forced into court for reasons outside the punishment complained of.

It is the teacher's undoubted prerogative to administer reasonable corporal punishment, and no school board nor court can take away the right. It is true that some well meaning people object to it entirely. It is satisfactory to know that the necessity for its infliction is becoming less year by year. Few teachers administer it except for offenses against morality, such as truancy, untruthfulness, profamity, or gross disobedience. The teacher who administers it for lack of ability to perform assigned work, does wrong, and cannot defend such action, and more harm is done than good. If the teacher cannot promote advancement in knowledge without the use of the rod, his usefulness is not of a very high order.

In graded schools, all cases requiring suspension and severe corporal punishment, are supposed to be first submitted to the principal. This is an excellent rule:

for the generality of cases, but I think there are even exceptions to it. Should there be a violent outbreak on the part of a pupil, such as open resistance or bad language in the presence of the school, then such pupil should be suspended or punished at once, and reported to the principal as soon after as possible.

If I were a principal, I would not be anxious to have petty insubordination referred to me; and if I were a teacher, I would consider my authority weakened by the necessity of making too frequent reports to the principal. The teacher who possesses tact will manage his own department in as far as possible.

For the REVIEW.]

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#### A Hint for Vacation.

If, during your holidays, you want to get a thorough and complete rest, a rest of the very best kind for both body and mind, a rest which will give the school-room when you return to it an air of novelty, then do something which will enable you to look at life and at those problems with which you are so familiar from the standpoint of somebody else. Let me illustrate: If you are living at a farm-house, do not spend all your mornings in idle lounging, or even in reading and study, and your afternoons in making or receiving calls: do not occupy yourself wholly with scientific rambles, with hammer and vasculum, over the hills and by the shore, but identify yourself with some department of the farmwork. Take charge of the henery, or a section of the dairy, or of a part of the harvesting. Do not play at it, but work at it. Devote hours each day to it, and make it your business. Put so much of yourself into it that you will feel elated with success or dejected by failure. Get hold of some of the farmer's interest in the weather or of his wife's interest in the price of eggs and butter. Look at things for a while through their eyes and from their stand-point. Make their stand-point your own, and soon matters which were either unknown or which seemed trivial, will assume dignity and importance. Many things of former consequence will be quietly pushed into the back-ground. You will then be learning one of the grandest lessons which a human being can learn, namely, to look at facts and fancies, the real and the ideal, from the stand-point of some other person. If you are living at home find yourself some work entirely different from teaching. Get interested in it until you can look at circumstances from the point of view of a person habitually engaged in it. The American students who spend their vacation as hotelwaiters at fashionable watering places find their studies when resumed, possessed of more freshness and interest than do their wealthier fellows who were possibly guests at the tables at which others waited. Verily, life has its compensations, and after some of these we ought to seek during holidays, and we ought to seek in the natural way.

For the REVIEW.

#### School-Room Chats.

After voice and mood in verbs and teachers comes tense. Tense means time. Time has three principal divisions,—past, present and future, and these, with their sub-divisions, give verbs quite a number of tenses. But all that this world of ours has ever seen accomplished, it saw accomplished in the present tense; and I wouldn't give a fig for the teacher of the "yes, I'm going to" and "oh, that I had" style. No arm is long enough to reach forward into to-morrow or back into yesterday. Not until "to-morrow" becomes "to-day" is it ours to use or to abuse. Time, like a running brook, is passing before us. We can drink neither further up nor down than where we happen to stand.

Time is the most valuable gift which rational beings enjoy. On its use depend both character and prospects. And just think of it! nearly one-fourth of the child's time for six, eight, or ten years is placed at the disposal of the teacher. This very day you have probably had the time of two or three scores of boys and girls in your hands. What did you do with it? Could you have done better? Are we ever justified in doing anything less than our best?

In the class-room have a time for everything. This can be done without being the slave of a time-table or abruptly sawing off a subject at the moment of most intense interest. The root, stem and leaves of a plant are quite distinct although the one merges into the other. Let the different parts of your work be somewhat similar. And it is a good plan to have a couple of minutes rest at intervals of half an hour or so. The child's brain must not be kept under a strain for more than twenty or thirty minutes at one time. After that it responds only to a decided effort of the will. Four hours of continuous effort will accomplish far less than the same time interspersed with rest, play and singing. This applies to private study no less than to class-room work.

In opening and closing school be punctual. If your influence and example are such that habits of punctuality become natural, and the only natural thing, to your pupils, you have conferred upon them a lasting benefit with a money value.

In closing school be no less punctual than in opening. Children often have juvenile society meetings to attend, or an appointment with friends or parents for a drive, a walk, or a visit. If class-work should be continued beyond the closing hour, a timid little girl may not ask to go lest the teacher should think her lacking in interest in the lesson, and a pleasant outing may be lost to the child. Their plans and engagements mean just as much to them as ours do to us.

The Educational Aspects of the National Council of the Women of Canada.

This Council of Women which held its second annual meeting in Toronto in May, might be called the Canadian phase of the "Woman's Movement," a movement which seems destined to assume large proportions, and to exercise marked influence on these closing years of the nineteenth century.

There are several reasons why this subject should claim attention in an educational review. In the first place, no movement so wide spread, so influential, and apparently so spontaneous, ought to be ignored by those who are moulding and directing the minds of the rising generation.

Then, the movement is itself an education—a drawing forth of woman's power; but chiefly it deserves the careful attention of educationists, because many of the subjects taken into consideration are educational topics.

Before entering upon the details of the Toronto meeting, one or two general remarks ought to be made in order to answer objections which are often heard.

This movement, as interpreted by its most thoughtful and earnest promoters, does not overlook the distinction of sex. Andromaniacs and extremists are always to be found, but well-balanced, well-educated minds cannot fail to perceive that the imprint, by the Divine hand, of sex, is on all earth's creatures, even on the tiniest trilobite encased ages ago in its rocky tomb. "Everywhere," to borrow Professor Drummond's phraseology, "everywhere are the strugglers for life, and the strugglers for the life of others."

Again, it need not be feared that this movement will weaken the bond of sympathy or social intercourse between men and women. Rather by developing woman's intellectual nature will it increase their mutual points of interest.

But we turn now to Toronto. The hall in the normal school, where the meetings were held, was distinctly a woman's council-chamber. Tasteful hands had draped flags and arranged palms, ferns and flowers in profusion, while two little girls in white dresses acted as pages and flitted about the hall with messages and notes.

The delegates, over one hundred in number, came from twenty-one local councils and federated societies. They were sensible, business-like, non-aggressive looking women; quietly, rather plainly dressed. From British Columbia, from the Maritime Provinces, from Quebec, and from other parts of our broad Canada, they had come at their own expense to take counsel with each other on various subjects—schools, factories, libraries, charities. On the platform were the presi-

dents of local councils, or their representatives—leading women selected not for their social position, though that was self-evident, but for their intellectual and business capabilities as evidenced by work done in their local councils.

The President, Lady Aberdeen, is a woman of commanding presence, powerful intellect and great executive ability, yet withal intensely feminine, as shown by a winning sympathetic smile and a certain quiet, deliberate way of addressing an audience.

Silent prayer opened the meeting. After the roll call, the President stated, in her reply to the address of welcome, "that the special object of the Women's Council is not to right any particular wrongs, but to keep in mind a high ideal of education and culture in every city where it is formed."

Reports from the local councils occupied the morning. In the afternoon three educational topics were discussed. The first, "Manual and Technical Education," was thoroughly handled from one point of view. Mrs. Wood's (of Montreal) paper gave a full and clear account of the development of this form of education in Great Britain and on the continent. The Finsbury College, London, and a number of agencies in England tending in this direction, were mentioned. Reference was made to the progress of manual training and household instruction in France, Germany, Italy and other European countries, and to the attention given to the subject by the great thinkers of the day.

Mrs. Macnaughton, of Montreal, followed with a paper on the same subject in reference to Canada. She spoke of the paucity of instruction in this direction in every part of the Dominion, as with the exception of recent modifications in the Ontario school law, no such course is laid down in the school curricula of the various provinces. She also said that on the artistic side Canada was lamentably deficient, but that steady improvement was being continually made. Mrs. Stevenson read a breezy paper on the same subject. The gist of it was that "women's brains were being educated at the expense of men's stomachs."

One of the St. John delegates (the writer of the present paper) was almost tempted to give another view of the subject. The time did not, however, seem opportune for opposition. The subject will doubtless come up again for consideration.

The next topic was the "Duty of Parents" as regards education and co-operation with teachers. Miss Hendry, of Hamilton, read the first paper. She took strong ground in favor of combination between parents and teachers for the benefit of the children. The parent should give the teacher some idea of the child's

AM S'AFETY A FILM ...

disposition when it enters school. She should keep an oversight on the child's progress through school, and she should follow the reports furnished by the teacher. She should co-operate with the teacher in the matter of discipline. Mrs. McLagan, of Vancouver, followed with a paper from one of her local council on the "Influence of an Educated Mother in the Training of her Children," in which it was shown how the child's development could be followed and guided by an intelligent mother, whose contact with her children gives her unequalled opportunities of influencing them. Other papers and several good speeches by Mrs. Drummond, of Montreal, Mrs. Boomer, Mrs. Avery, of Canton, Ohio, followed. One speaker remarked, that even the appreciative tone in which a parent spoke of a teacher had its effect upon the child.

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The next subject was "Children's Literature." Lady Schultz's paper was read by her delegate, Mrs. Culver, of Winnipeg. It condemned all stories and fairy literature until at least ten years of age. This paper called forth a clever response from Agnes Maule Machar, of Kingston, a well known Canadian writer (Fidelis). Mrs. E. Smith, of St. John, who followed, made a bright, spirited speech in favor of fairy tales, her voice being distinctly heard in every part of the hall. This advantage she probably owed to her former training as a school teacher. A paper on "Children's Amusements" closed this day's sessions and the discussions on educational subjects.

The next day was devoted to papers and discussions on various topics—the hours of work in factories—women on boards of philanthropic institutions—women inspectors of factories—the purity of the press—the duty on opium, a question of vital importance in British Columbia—the law regarding bigamy. There was an earnest discussion as to opening the meetings of the national council with silent or with audible prayer. It was decided by vote to continue the practice of silent prayer.

Three interesting evening meetings were held. The first was opened by Lady Aberdeen with a noble speech, and was then addressed by the Governor General, the Hon. G. W. Ross, Minister of Education, the Rev. Professor Clark, of Trinity College, the Rev. Father Ryan and the Rev. D. J. MacDonnell. On the second evening delegates from England and the United States made addresses, also from France, Germany and Sweden. An interesting, well-educated Indian girl, Pauline Johnson, spoke on behalf of her people and Lady Tilley's paper on "Quiet Hours" was read. The last evening was given to art and music, and thus closed these days of interest. They will long be remembered by those

who took part in them as days of growth and expansion, intellectually and morally.

The contact of mind with mind cannot fail to elicit sparks of light which may help in some small degree toward that fuller day to which we know the human race, both man and woman, is slowly but surely progressing.

Frances E. Murray.

For the Review.]

St. John.

#### "How do You Analyze This?"

The above is a question often put to teachers by fellow-teachers and by pupils. And probably more attention to the analysis of English sentences might with advantage, be given in most schools.

There is perhaps no piece of English poetry better suited for careful study than Gray's "Elegy Written in a Country Churchyard." Almost every stanza affords a good exercise in analysis—to say nothing of its merits. But what do the readers of the Review think of the first stanza, as given by a teacher in one of the Atlantic Provinces?

Provin	ces 1					
A	Now fades the glimmering landscape on the sight.	Principal.				
+ B	All the air a solemn still- ness holds;	Prin., co-ord. with A.				
×C	But all the air does not hold a solemn stillness,	Prin., co-ord with A.&B.				
$C^1$	Where the beetle wheels his droning flight,	Subord.—Adv of place.				
2c1	Where drowsy tinkling lulls the distant folds.	do. do.				
$3c^1$	Save that, from yonder ivy- mantled tower, the mo- ping owl does to the moon complain of such.	Subord— Adv of reason.				
C <sub>3</sub>	As molest her ancient, soli- tary reign.	Subord,—Att. to "such." —Anon.				

#### "DON'T LOOK FOR FLAWS."

"Don't look for flaws as you go through life;
And even if you should find them,
It is wise and kind to be somewhat blind,
And look for the virtue behind them;
For the cloudiest night has a tint of light
Somewhere in its shadow hiding;
It is better by far to hunt for a star
Than for spots on the sun abiding."

-Primary Education.

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For the REVIEW.]

### Afternoon Walks Among the Wild Flowers.

To the Editor of the Educational Review

DEAR SIR Some of us had a pleasant time gathering flowers on an intervale of the East River, about a mile and a half from New Glasgow, N. S., and I thought you might like to know what flowers are found in this region. I am sorry that it is too late for the Review though, as the flowers are quite common, the report would probably be superfluous at any time. (The date is June 4th). The sloping banks above the intervale were full of choke-cherry trees in full blossom. Under the trees the trilliums were all flowering, but the Dientra (Dutchman's breeches) had passed its time of bloom, as had also the dogtooth violet. Purple and yellow violets were blooming their latest. The Indian turnips were just lifting their hoods. (Jack in the pulpit can look very impressive!) The grass of the intervale was mixed with bell-wort (I rularia sessilifolia) and Landwort (two varieties). The wild yellow lily (L. Canadense) is nearly three-quarters of a yard high already, and the flower buds are forming. We found one solitary white orchid; it has the habenaria look, but it has no fringe. The yellow pond lily buds were just showing above the water in the "gullies." The earliest opened last wear on June fifteenth. The bloodroot (Sanguinaria) ceased blooming long ago; we found some with very large seed-vessels. We found some Rhodora in full bloom a week ago in a swamp; and we know where to look for Clintonia borealis. I almost forgot to mention the beautiful early meadow rue it has not yet begun to bloom.

I am not attempting a list of the spring flowers; I give only those we saw in two afternoons.

New Glasgow, N. S.

M. Cavanagh.

For the REVIEW.]

#### The Telling Amenities.

When so much time, thought and ingenuity are being expended in devising methods for improving the minds and manners of the rising generation, it might be in order to suggest that some fraction of our zealous interest would not be misplaced in another direction.

However well informed a teacher may be on the several branches of studies mentioned in our Course of Instruction, I do consider it imperatively necessary that he or she have some slight conception, at least, of the 'small sweet courtesies of life."

I have heard of teachers whose ignorance in this particular was positively appalling, though I trust they are exceptional.

Could anything be more remiss than the young woman who, when the noon-tide hour arrived, dismissed

her scholars and tripped blithely off to dinner, leaving her late visitor, the inspector, to suffer the pangs of starvation, and indulge in the satisfying (i) reflection, that there is a hotel some twenty or thirty miles away, where several hours hence, he may regale his inner man. However narrow her life or limited her experience, it is difficult to imagine a teacher, so utterly and only a teacher, as to have no apparent realization of the social side of existence.

Thoughtfulness and consideration for others, with a degree of discretion and a modicum of tact—but above all, some knowledge of the small amenities of life—are absolute essentials to a well equipped teacher.

And no teacher has a right to throw discredit on her profession by an act of wilful discourtery

Fidelweiss.

Woodstock N B

For the REVIEW

#### Tails.

Some years ago I read a short article, giving the results of some observations that had been made of the tails of dogs and cats. I do not remember who the writer was, but having seen nothing since along the same line, I venture to give my recollection of the article with the results of my own observation since.

The article which dealt only with individuals that were speckled, or of mixed colors, was in substance about this. The tip of the dog's tail is white, that of the cat's black. In either case exceptions are extremely rare.

I do not think I have known exceptions to the rule, as applied to dogs. If a dog has any white on him at all, he is almost sure to wear part of it on the tip of his tail. A few days ago, however, I saw a cat of mixed colors, having the end of the tail white, which is I believe, the first exception I have seen. Grey and black cats invariably have the tips black.

It would be interesting to know the observations of others. Teachers can command the use of many pairs of eyes in observing along this line.

How is it accounted for? Possibly, evolution will explain. In the case of the cat, she is known sometimes to wave her tail from side to side, while on the watch for prey. In the semi-darkness, the white tail would be seen and the mouse alarmed. The "survival of the fittest," therefore, doomed the cat's white tail.

Why the dog generally has a white, tail I leave for some others to explain. It is not a mere accident.

Dalhousie, N. B., May 1895.

F. A. D.

Corunna has an 1,800 year old lighthouse.

For the REVIEW.

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Concentric Instruction.

[Abstract of Dr. Hall's paper before the Dominion Educational Association, Toronto.]

The present century is distinguished by the activity exhibited in the sphere of scientific and practical pedagogy.

At the present time educational thought and activity are being directed to child study, the unity of the subject-matter of instruction, and the adaptation of the subject-matter to the present condition and easy progress of the child. This trend in educational thought and activity is due chiefly to the influence of a few great men who wrote and taught during the first half of the present century.

The first of them, Pestalozzi, said: "I have clearly exhibited the highest principle in acknowledging observation as the foundation in all knowledge."

Fræbel "was dissatisfied with the disjointed and scrappy character of common school education." Herbart, the third of these, has directed the attention of educators to the study and observation of the child, to the proper order and connection of the subject-matter of instruction, and to the adaptation of this subject-matter to the present requirements of the child. The application of these principles to practical school work has already resulted in animating systems of education and in bringing order out of chaotic and congested courses of study.

In accomplishing this work Herbart has extended and utilized the essential principles embodied in the teachings of Pestalozzi, Freebel, Rousseau, and others.

By him the sense-perceptions of Pestalozzi have been extended and assimilated with perceptions already present in consciousness.

The apperception has become the guide by which intelligent teachers are directed in the selection and presentation of the subject-matter of instruction. Even a partial recognition of this principle requires that the subject matter be graded, related and unified.

The material of study begun in the home should be continued, enriched and unified in the school.

In the selection and arrangement of this material attention is directed to the objective and practical side of education, as well as to the subjective and psychological. These home subjects consist of the beginnings of knowledge in language, moral and religious instruction, domestic and social organizations, varying and limited conditions, food, shelter, clothing, commercial and industrial ideas, vegetable and animal life. Indeed the home and its environment form "a world of its own." If these home subjects become the material of instruction in the schools, there need be no groping

after the "central" subject or "core" of study. The central subject is that which arouses and develops are many sided interest in the child, and around or to which the others most naturally adjust themselves.

This rounded course of home studies, selected, arranged and presented in conformity with the present attainments of the child, will cause him to exercise all his faculties, sustain a real interest in the work, and render educative instruction possible in the school.

Under these conditions the child is a questioner and investigator. He examines and tests everything within his reach and is therefore actively engaged in learning.

When the child enters school he frequently finds the subject-matter of instruction disconnected and unrelated with his home knowledge. He is unable to apperceive the new material, and soon becomes accustomed to chatter and imitate rather than question and investigate. The change that takes place in the interest, activity and naturalness of the child, after he enters school, is due chiefly to the disconnected character of the subjects of study.

As the child is unable to understand the work, the teacher is compelled to do for him what he would do for himself under proper conditions. The most abnormal results follow, the child becomes the passive recipient of material that he is unable to assimilate or understand. The desire for real knowledge diminishes and the use of words usurps its place.

Disinclination for real knowledge soon changes into aversion, and the active, earnest child becomes a morbid, dull recipient of disconnected, borrowed knowledge. Some maintain that knowledge and activity are closely related, and that the child's spontaneous activity is the force that sets the mechanism of the senses in motion.

Among the various home-studies, elementary geog phy is especially valuable on account of its human side or nearness to the child, and also on account of its relation to or source of relative subjects. In this study take the child to nature and give him an opportunity of seeing the objects of study with his own eyes, of handling them with his own hands, and of expressing the ideas received in his own words. In the study of this central subject what a number of related subjects come trooping along, as soil, climate, vegetation, animal life, food, clothing, shelter, industries, common and social life. These subjects are related to or a part of the central subject, and those who study elementary geography by studying nature must incidentally gain much knowledge concerning these related science subjects. The home studies are especially rich in material suitable for exercises in reading, language, history, literature, writing, drawing and music.

The descriptions and narratives in which the children are interested make excellent material for language and reading lessons. Let them write their ideas before the interest is abated and both exercises will be pregnant with thought.

Another benefit arising from the use of unified material is the increased value it gives to expression in education. By using subject matter that is connected and therefore apperceived by the child, the value of expression is thereby increased. The related material is more easily learned and understood than the unre lated; it is more easily recalled and retained by the child, and therefore is more valuable to the possessor This unity of study-material will develop unity of thought, and finally tend to the development of a strong personality and character. Before any marked change from the condition of elementary education can be expected there must be a more general recognition and appreciation on the part of teachers and parents of the aims of education, or the distinction between education instruction and fact-collecting, or wool-gathering. When this distinction is fully appreciated the teacher's sphere of usefulness will be enlarged; he will be requested to present the material of instruction so as to fully develop the child and better fit it to meet the practical issues of life. The ability to recite a lesson, to reproduce words or ideas from a text-book, is only one test of intellectual power, and probably one of the most imperfect.

That knowledge is power is only conditionally true. The time has come when the common-sense world judges an educated man by other and higher standards than the number and size of the books he has studied, and this common sense is reaching forward to judge the aims and results of the work done in the common school.

The failure to produce the best possible results in the common school is due partially to the multiplicity, size and scrappy character of the material in the text-books.

The text-books will be improved as the requirements of the child are recognized and better understood. They will then be written from the standpoint of its needs instead of the point of view of the adult. The necessity of greater unity in the subject-matter of instruction has been recognized since the time of Comenius. Recently this principle has received practical recognition in the best schools. Educators and teachers are studying the child with the view of more fully understanding its needs and more intelligently supplying them.

There have been, and will be, difficulties in making concentric instruction a practical working principle

suited to the conditions of every school, but by patience, industry and a noble purpose, greater difficulties have been evercome

Every teacher needs the inspiration that arises from a sincere desire to improve the condition of his school and to avoid educational mechanism and paralysis.

The principle of correlation, as advocated by Herbart and his followers, will furnish this inspiration and solve many of the problems connected with common school work.

For the REVIEW

#### Labor Saving Reforms

The paper read before the Dominion Educational Association by Dr. MacKay, Superintendent of Education for Nova Scotia, advocates several practical reforms, which if adopted, would turn into useful channels a vast amount of energy which is now largely unproductive. It seems to be useless to adopt reforms before the people are ready for them; yet this waiting is painful to those who see the future, and who realize the enormous loss entailed by clinging to the unscientific past.

If we cannot at once introduce reforms, we may, at least, help to break down unreasonable prejudices, and thus prepare for the time when a day's work will produce double the result that it does at present when one half of the carbon in our furnaces will not go off in troublesome smoke, when children of ten will be better equipped for life's work than children of to-day at fourteen.

Dr. MacKay showed that it was the special function of the Dominion Educational Association to assist in carrying out such reforms as needed the united action of all the provinces, and the co-operation of the various dependencies of the empire.

I. The adoption of metric weights and measures "would lessen the tangle of unnecessary mathematics now forced on youth," and thus make possible a desirable accuracy and rapidity of computations in every day life.

After showing its advantages in the world of trade, he recommends the appointment of a committee to act with other similarly appointed committees, in securing the adoption of the metric system simultaneously over large areas.

2. The present system of spelling requires, even of those who learn it most easily, an enormous amount of memory work. Phonetic spelling requires no effort of memory, for to pronounce a word correctly is to spell it correctly. In the present arbitrary system, the exercising of the memory upon such hap-hazard and unreasonable combinations of letters as we find, produces an injurious mental effect. The present system wastes, on

an average, two years of the life of every person who becomes fairly proficient in it. It presents such obstacles to the young learner's progress, that many either turn aside or fail to advance beyond the necessary elements of an education. It robs of its destiny the language which in all other respects is best fitted to begome universal. It repels foreigners and injures commerce. To print its silent letters costs millions of dollars every year. It disguises the historical development of our speech. It is, in short, one of the great hindrances to progress of civilization—like the spelling of the Chinese, though not so bad. "No wonder we have no Shakespeares in these days of spelling drill. No wonder so many geniuses arise outside the ranks of the school-trained." A large majority, if not all of the greatest scholars of the age, who have studied the question, are in favor of reform spelling. The difficulties of its introduction would not be serious, even to those who have finished their school career.

3. Many of our present letters are unnecessarily complex. With logograms for the most frequently recurring words, and with much simpler forms for letters, the labor of committing our thoughts to writing would he very greatly reduced. What might thus be saved in time and material would practically be so much added to human life at its best.

These improvements must be brought about by the united action of all the provinces of the Empire and all the states of the Union. "Evolution, in the future, is going to do business on improved principles as compared with the past. It will prevent, under the reign of science, the reproduction of the unfit, and so save all the loss of energy involved first in the rearing of the unfit; and secondly, in the destruction of the unfit. Under the guidance of the higher reason of man, evolutionary change may be hurried on with tenfold the old rapidity, and with an hundred fold less cost to existing organisms."

A writer in the "Pall Mall Budget" says: I hear that a respectable north-country merchant has invented a means for getting to Australia in twelve hours—a means so simple that I fancy it must have occurred to a good many people already. Everyone knows that the world spins round on its axis once in twenty-four hours. Whence it is clear that, if you hang yourself up somewhere and wait, in twelve hours Australia will be under your feet, and you will only have to step down in order to be comfortably there. The good merchant proposes to send passengers up in a well-appointed balloon, where they will wait until Australia comes round. It is an admirable scheme. Can your pupils explain why this scheme would not work?

#### Hope Long Deferred.

Year by year, and day by day,
She lived in hope of brighter pay;
She saw the city prosperous grow,
She saw the school-house overflow,
With hosts of children large and small—
And patiently she taught them all.
And as the seasons swiftly flew
She sometimes taught their children too!
Through weary months of busy days,

get to

The schoolma'am hoped

She did all that a woman could;
Her arguments were sound and good.
She drew petitions up so fine
That all the people ran to sign.
The common council all agreed
That she should have it, yes, indeed.
The board of education made
Long, smiling promises of aid,
While out of all the tangled maze

a get

The schoolma'am hoped

At last it seemed the way was cleared;
At last the needed funds appeared.
But still the board could not decide
Just how these funds should be applied.
Raise by experience? Or by grade?
So still they wavered and delayed.
They weeded out a girl or two
Who didn't have enough to do
These surely were the halcyon days
raise!

get o

The schoolma'am hoped

But weary decades came and went,
Until her faithful life was spent;
And now across her lonely grave
The long green grasses gently wave.
Her tombstone, in its ancient place,
Stands up, yet lies upon its face.
For though it says she has gone higher,
I know her soul must still aspire,
And lingering, long for Gabriel's days,
raise!

gets

When every schoolma'am

-Florence May Alt.

- Lo Line

All the best cultivation of the child's mind is obtained by the child's own exertions.—Dr. Temple.

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#### A Geographical Pic-nic.

One (lake in southern Oregon) while (cape in Maine) and (cape in Labrador) were visiting their cousins (island east of Philippine) and (river in Virginia) they decided to spend the day in the (lake in southern Canada.)

(Island east of Philippine) said they must wait till the next day so that she would have time to prepare a lunch.

(Cape in Maine) was afraid it would be (lake between Canada and United States), but (river in Virginia) said, "Never (cape in North Carolina) it will be bright and (lake in California);" and so it was, not a (mountain peak in Wyoming) was to be seen. After starting, they decided to go by and get their friends (river in Asia) and (cape in eastern Greenland),

On their way they met a (river in northern South America) with a load of melons and (river in Virginia) bought some for their lunch.

When they reached the pic-nic grounds, the girls gathered flowers while the boys fished, but soon all were ready for the nice lunch (island east of Philippine) had prepared. (Cape in Greenland) had caught a (river in northern Canada) and roasted it by holding on sticks before the fire, but (island east of Philippine) had forgotten (lake in Utah) and they found the cold (river in Montana) and ham (islands in the Pacific) to be more to their taste.

All were enjoying their lunch when (river in Virginia) remarked they needed something to drink, whereupon (island east of Philippine) remembered that she had put in a jug of (river in Montana), they all now declared that nothing was lacking.

The afternoon was spent so pleasantly, that no one noticed the approaching storm, until warned by distant (bay east of Michigan), then all saw what they had not observed before, that (one mountain peak in Wyoming) after another had gathered until they looked quite threatening. Hurried preparations were made, and by driving very fast they reached (bay north of Baffin land) without being caught in a storm, and all when bidding each other (cape in southern Greenland) united in saying they had had a (river in Utah and Colorado) time, and hoped it would not be (island south of Connecticut) before they could spend another day in the (lake in Canada),—Popular Educator.

At a meeting of teachers at Kalamazoo, Dr. John M. Gregory, state superintendent of schools in Michigan, began his remarks with: "It is easy for a teacher to talk too much. Probably every teacher here talks twice as much as he ought; some possibly ten times.'. He then enumerated the kinds of over-talking and pointed out the injury. He then added, "The teacher who has learned to talk only as much as is necessary and just what is necessary has no more to learn."

#### Where Are the Old Times?

Oh, the old school exhibitions, will they ever come again,

With the good old-fashioned speaking from the girls and boys so plain?

Will we ever hear old "Iser," with its rapid roll and sweep,

And, "Pilot, 'tis a fearful night; there is danger on the deep?"

Sweet Mary doesn't raise her lambs like Mary of old; Their fleece is not "as white as snow;" they're wandering from the fold.

The boy upon "the burning deck" is not one half so fine:

He was not "born at Bingen at Bingen on the Rhine,"

The girls don't speak in calico, the boys in cotton jeans; They've changed the old-time dresses 'long with the oldtime scenes;

They smile and speak in ancient Greek, in broadcloth and in lace,

And you can't half see the speaker for the collar 'round his face.

Oh, the old school exhibitions! They're gone for evermore!

The old school-house is deserted, and the grass has choked the door;

And the wind sweeps round the gables, with a low and mournful whine

For the old boys "born at Bingen - at Bingen on the Rhine!"

— Atlanta Constitution.

#### The Bible as Literature.

Charles Dudley Warner writes in Harper's Monthly as follows regarding Bible study: "The ignorance of the Bible among students in our public schools and colleges furnishes a curious illustration of the inadequacy of our educational machine to meet the requirements of life. Wholly apart from its religious or from its ethical value, the Bible is the one book that no intelligent person, who wishes to come into contact with the world of thought and to share the ideas of the great minds of the Christian era, can afford to be ignorant of. All modern literature and all art are permeated with it. There is scarcely a work in the language that can be fully understood and enjoyed without this knowledge, so full is it of illusions and illustrations from the Bible. This is true of fiction, of poetry, of economic and philosophic works, and also of the scientific and even agnostic treatises. It is not at all a question of religion, or theology, or of dogma, it is a question of general intelligence. A boy or girl at college, in the presence of the works set for either to master, without a fair knowledge of the Bible is an ignoramus, and is disadvantaged accordingly."

#### "His Greatest Need is Self-Respect."

Tommy Murphy was unquestionably a bad boy.

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He had been born in a low home, of the most material of parents, and had been utterly destitute of that indefinite commodity termed "early training," And yet, no one thought of this when he came to school. He only brought his own individual world with him as we all do, but someway, his world failed of the recognition which was given to others. He was branded as a "mean boy;" ugly, stubborn, and rude, and between his world and that better world which he had never seen- from objective rather than subjective reasonsthere hung a dense curtain of frowns, harsh words, and pedagogical compulsions and leather straps which his faith was, as yet, too feeble to penetrate. Of course, he was neither bright nor studious. He could not have been bright from the facts of his birth, and he had never been given any motive for being studious, except that lowest of all motives—fear of punishment—and, unfortunately for his teachers, Tommy was not a coward.

And so his school days passed on. He was retained as long as possible in one grade, and was then reluctantly passed on to the next, his "yellow passport" of ignominy going with him, until his eleventh year, when his teacher told me that she was obliged to "strap the boy once in four or five weeks to keep him decent." She said it was all she could do. I had no reason to doubt her assertion, though I could not refrain from pitying the boy and wishing that she were as addicted to the study of practical school-room psychology as she was to the use of "straps."

But, fortunately, for Tommy at this time, a new teacher was appointed to take charge of his room. She was small and frail looking, but possessed of that combination of wisdom, sympathy and tact, which knows no fear in the school-room.

Of course, she was informed from many sources of the notorious "case" which she would soon be called upon to "manage." Each of his preceding teachers considered it her duty to inform Miss L—— in detail of his misdemeanors during her particular reign and closing the account with a remark like this;—

"I do not want you to think that I wish to injure Tommy, but I thought it was no more than right that you should know what to expect, so as to be prepared."

Ah, that "yellow passport!" Who can estimate the number of children's lives that have been blighted by those same words, so sweetly spoken? For it is but rarely that they fall into Wisdom's ears.

But Miss L—— smiled and said, "We shall see. I trust he is human." And then came the first day of

the new term. Tommy more than maintained his reputation, for, as he said to the boys, "She ain't big enough to lick a feller like me. I'd fight first and I guess she knows it."

But she had been studying him. He certainly did look ugly—low forehead, overhanging brows, deep set eyes and round, stubborn head—but the more she studied him the more thoroughly she became convinced that the greater part of that look came from habitual expression, rather than from the gifts of nature, and she fell to wondering how that face would look if it should wear the light of happiness upon it.

He was making spit balls. She was looking at him, but at that particular time she cared more for the boy than she did for the balls,

"Poor fellow," she thought, "he has been strapped at school and beaten at home, until from the world's thinking no good of him, he has come to think no good of himself. It seems to me his greatest need is self-respect."

Just then Tommy looked up. He caught the expression of her face.

There was no frown there—no expression of weakness either, as though she were afraid to attack him.
But someway, he wasn't quite used to that kind of a
look, and it rather dampened his ardor for spit balls.
They slid into his desk and did not appear again
that day.

In the afternoon she placed the spelling words toward the top of the board. Several children raised their hands, when the study period was over, to erase them.

"They are rather too high for you," she said quietly, "I think we shall have to depend upon Tommy to do that for us."

Master Tommy was bending a pin for the toe of his shoe at that particular time, and had not one word of his lesson, but he was so surprised to hear his name spoken in such a way, that he dropped the pin. "Depend upon him!" No one had ever depended upon him before, in all his short life!

And then she began to interest him in his work. She began in his own world, with ant hills and oriole's nests, and gradually pushed aside the curtains which had concealed from his sight that better way of life. She gave him new motives and kept his mind well filled with new thoughts.

She was constantly curbing his nature, but she did not once draw the reins so tight that he knew it. She was always his friend, and reposed all the confidence in him that she could, never going so far as to give him the chance to betray any trust. To be sure, he frequently made trouble; she punished him by denying him some pleasure—he was fond of sports—but he was always led to see the justice of his punishment and treated like a rational human being, which many of his class are not.

Gradually there came fewer complaints from the play-ground and halls, and when June came the principal congratulated Miss L—— upon the improvement manifested in Tommy's looks and deportment. There was a suspicion of tears in her eyes as she said, "I shall be sorry to part with Tommy. We have been good friends. I thought it was self-respect that he most needed."—Primary Education.

#### Can You Do Better?

The following list of words were pronounced to 291 school teachers. The number following the word shows the number of teachers out of 291 that missed the word. It would seem that there is plenty of room for improvement on spelling for the majority of teachers:

alacrity, 86. accommodate, 140. alphabetical, 38. collegiate, 46. censurable, 93. coalesce, 141. christening, 45. debility, 9. extolled, 129. elementary, 20. emissary, 141. favorites, 14. February, 31. grammatical, 50. homily, 90. incomparable, 84. Ithaca, 133. limiting, 11. liberal, 7. legality, 23. marriageable, 98. moneys, 106. mercantile, 81. nullify, 54. obsequies, 78. prejudice, 112. permissible, 180. quarantine, 82. phosphorescence, paroled, 93. possessed, 51. rheumatic, 32. resistance, 30. sensible, 40. sustenance, 95. sewerage, 57. subordinate, 22. susceptible, 93. Tammany, 18.

apothecaries, 67. avaricious, 84. affirmation, 60. committees, 110. consoled, 14. ceremonial, 52. consensus, 230. differentiate, 129. economic, 70. effervescent, 106. embarrass, 169. feminine, 33. financial, 30. guarantee, 85. inseparable, 77. intelligent, 36. inflammatory, 170. legislature, 44. lathes, 53. mirrors, 22 matinee, 68. medicinal, 42. nutritious, 92. omitted, 41. pluralities, 28. parliamentary, 132. professor, 51. pitiless, 44. partisan, 57. Poughkeepsie, 41. regretting, 60. requirement, 25. suffrage, 118. soliloquy, 125. Susquehanna, 59. suburbs, 82. sinecure, 128. Tennessee, 53.

#### Games in School-Room.

MAKING SUNSHINE.

Touche

"Where is the sun, I wonder, He has hidden himself away, What shall we do without him, All through the dreary day?"

School

O. we'll tell you how we'll help you,
We'll all be good and gay,
Each child a real little sunbeam,
A bright little dancing ray.

"Then our room will be full of sunshine, From early morning till night, And we'll all be good and happy, Helping to make sunlight."

Girls.

" My mamma says be kind and true. Learn each lesson given you. Then you'll be a sunbeam too."

Boys:

" LL be brave and manly and good as gold, Always ready to do as I am told, Then LL be a sunbeam too."

Ciele

"My mamma says children must help each other, Be always kind and love one another, Then THEY'LL be sunbeams too."

School:

"Come out of the clouds, pretty sunbeams, Come frolic and dance and play, We'll help you to shine in our school-room, We're sunbeams ourselves to-day."

-- Primary Education.

#### The Three Kingdoms.

A primary exercise designed for three purposes:

- To impart scientific knowledge and general information.
  - II. To cultivate the attention.
  - III. To stimulate quick thinking.

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 handker-chief, 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 they belong, 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 boys' 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, calling on some child to tell what kingdom it represents. If he fails to answer, call upon others in rapid succession, and have some child 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 Drops; 34, Crackers; 35, Coal; 36, Cheese; 37, Pearls; 38, Broom; 39, Beeswax; 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, Peanuts; 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.—Mary P. Anderson, in Popular Educator.

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### Which Wins the Day?

A gloomy frown and a merry word
Went out for a walk one day;
And they spoke to all they chanced to meet—
The sick, the sad, and the gay.

The sick man smiled at the merry word,
And the sad one looked less sad,
And the gay one laughed till his jolly tune
Made all the echoes glad.

To the gloomy frown scarce a glance they gave, But hurried to pass him by, Afraid, if they looked at his face too long, They'd echo his dismal sigh.

And ever it's so as we journey on,
And meet them along the way;
We turn from one with a shiver and sigh:
The merry word wins the day.

- Mary M. Anderson, in Little Men and Women.

#### How we Came to Have Buttercups.

Did you ever hear of the pot of gold hidden at the end of the rainbow? Some people think it is there now, but they are mistaken, for a long time ago somebody found it. How he happened to find it, nobody knows, for a great many people have searched for it in vain, and have never even been able to discover that the rainbow has any ends at all. The man who found it was very selfish and did not want anybody to know, for fear they might want some of his money. So one night he put it in a bag, which he slung over his shoulder, and walked across the fields toward a thick wood where he meant to hide it.

In the bag was something besides the gold—something so small that the greedy man had not noticed it. It was a hole, and, as he walked on, one by one the gold coins fell out into the grass. When he reached the wood and found all his money gone, he hurried back to search for it, but something strange had happened. It was a midsummer night, and the fairies were having a dance out in the meadows. They were good, loving, little people, and despised selfishness above everything. One little fairy spied the glittering gold among the grasses. She had seen the greedy man passing by, and knew he would soon be back to hunt for his treasure. "It will do him no good," she said, "if he hides it away, and neither will it help anybody else. I will change it into something that will give joy to rich and poor."

When the greedy man reached the meadow he could see no gold money, but in its place were bright, yellow flowers—buttercup gold for the children.—Buttercup Gold and Other Stories.

<sup>\*</sup>The naturally solid state of water in the Polar Regions may help the children to think of water as a mineral.

#### Arithmetic in the Higher Grades.

There is a wholesome tendency in the modern school to reduce the time heretofore given to arithmetic. The multiplication of subjects in the curriculum necessitates a surrender of topics that have been honored with no little attention in the past. Arithmetic is as vulnerable in this particular as any other of the common branches of study, and will be one of the first to feel the pruning knife of criticism. With the diminution of time allotted to this subject there must be a corresponding increase in the excellence of the methods of instruction.

The elementary arithmetic must equip the pupil with the fundamental facts and processes. Moreover, the instruction must be of such a character as to free the pupil from the thraldom of authority. It must adopt the methods of the laboratory; object teaching is as indispensable in this department of education as in the natural sciences.

The methods employed in higher arithmetic have too often been a mere repetition of the work in the lower grades. Such processes ignore the increased capacity of the pupil to generalize and thereby to unify his knowledge. Instruction in the more advanced grades should minister to the native tendency of mind to find those comprehensive unities by which it saves itself from the burden of countless particulars. Few subjects present a finer opportunity for the formation of this habit than this much abused subject of advanced arithmetic.

As the successive stages of growing consciousness return unto the simpler stages to develop and enrich them, so every advance in the development of the science of arithmetic should reveal the deeper significance of all that has preceded. The common fraction adds a relative unit to the standard unit of the integer. This added element must never be permitted to escape scrutiny. *President John W. Cook.* 

#### A Talk to our School Girls.

A few days ago, our social editor was describing very prettily the easy manners and politeness of our boys and our girls in the schools of to-day. Said he: "Take the young men of our own high school for example. They meet a lady, young or old, on the street, and how nicely they tip the hat and give her the walk." A good natured gentlemen who lives in the second ward, and who has to pass down Third street on his way home at the noon hour, said: "Young man, let me relate to you a little experience. I don't want to complain, for if there is anything dear to my heart, it is the school boys and school girls of our own Wabasha. I have known them since infancy, and I love them, boys and girls alike, and anything I may say, will not be said in a

spirit of fault-finding. I meet the school boys and school girls on their way home from school; of the boys I have nothing to say. The young ladies walk in groups of two and threes and fours, and they turn neither to the right nor the left, but walk on as if the world and all in it belonged to them. The result is, that I and other business men have either to leave the walk or take another street. I would willingly give the entire walk to any lady if she needs it, but they should have some respect for the rights of others, and make at least an effort to share the walk. I know the poor dears are not selfish, but instead, thoughtless." Our editor was astonished and somewhat crestfallen, and all he could say was, "Well, is that sof" And now, girls, we ask the question of you: "Is that so!" Must the bread winners of the city be turned out into the street while the school girls monopolize the whole walk! Is this true politeness! We are all ready and willing to give you the entire walk, but do you want it, and is it to your best interests that this element, of selfishness be cultivated! Ex. Co. Supt. Keating, Wabasha Herald.

#### Teachers' Wages.

There is no profession so exacting, none which breaks men down so early, as that of faithful teaching. There is no economy so penurious, and no policy so intolerably mean, as that by which the custodians of public affairs screw down to the starvation point the small wages of men and women who are willing to devote their time and strength to teaching the young. In political movements thousands of dollars can be squandered, but for the teaching of the children of the people the cheapest must be had, and their wages must be reduced whenever a reduction of expenses is necessary. there is one place where we ought to induce people to make their profession a life business, it is the teaching of schools. Oh, those to be taught are nothing but children! Your children, my children, God's children, the sweetest, and dearest, and most sacred ones in life, At the very age when angels would be honored to serve them, that is the time when we put them into the hands of persons who are not prepared by disposition to be teachers, and who are not educated to be teachers, and who are continuously bribed, as it were, by the miserable wages that are given to them, to leave their teaching as soon as they acquire a little experience. It is a shame, a disgrace to the American Christianity.-Henry Ward Beecher.

In Eastport, Me., children are compelled to go to school. The police act as truant officers.

#### Closing Examinations.

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Cannot the system of which this country is so justly proud be so altered that the strain and anxiety of school examinations shall not come just as the trying heat of summer begins? There can be no defense of a policy that crowds so many reponsibilities and probationary trials into a heated term when the well seasoned adult mind becomes as nearly dormant as considerations for the safety of life and property will permit. It is a serious question whether either teachers or pupils should be subjected to the drudgery of school life when the chief end of present existence with the rest of the world, is to find protecting shade and cooling breezes. It is sheer cruelty to overtax the mental as well as the physical powers of children under such circumstances, and it is wanton torture to impose the most difficult burdens of the year. It is impossible to overvalue the possession of a good education, but if the search for it leads to an early death, to health permanently impaired, to shattered nerves or permanent mental disabilities, the price paid is entirely too high. Give the teachers and children a chance. Give them their hardest work when it can best be endured and pursue that sensible course which will insure us a sturdy as well as an intelligent citizenship. The doctors and the undertakers have too big a share in the results of our present educational methods.—Detroit Free Press.

During the vacation renew your botanical acquaintance with the plants and flowers; hunt up your geological friends, the rocks and metals; study animal life; become intimate again with the birds; think on these things; consider the air, the water, how things grow, the purposes of the Creator respecting them; get close to Nature; give heed to her teachings; read a good book while you swing in a hammock, or rest under the shade of a great tree, or look out upon the ocean.—New Education.

Vertical writing, as it is called, has come to stay. It may not meet the approval of those who have been exceptionally successful in teaching and perpetuating the sloping hand, but it is growing in favor with remarkable rapidity. The walk and conversation of mankind may not be more upright than before, but there is certainly a tendency, even among old writers, to make their handwriting more upright. It is insensibly modifying the penmanship of to-day.—New Education.

An antidote to cheap, superficial method training for mere show is the crying need of the times. We have been led widely astray by the luring phantom of a royal road to learning. No such road exists save the truly kingly road of work.—*Professor Bryant*.

#### The Art of Teaching.

To teach mankind some truth

So dearly purchased—only then I found

Such teaching was an art requiring cares

And qualities peculiar to itself;

That to possess was one thing—to display

Another.

—Browning.

#### Teachers' Salaries.

At a recent meeting of the St. Stephen, N. B., school board, G. W. Ganong, Esq., one of the trustees, proposed the following resolutions:

First. That the salaries of the teachers of the high school and grammar school shall stand as they are.

Second. That the minimum salary of female teachers holding first class certificates, shall be at the rate of \$260.00 per year, or \$130.00 per term, as at present.

That after two years' active service at this salary, during which time the school shall have been conducted to the entire satisfaction of the board of trustees, the principal of the high school, county inspector, and other school officers, an advance of \$10.00 per term will be paid for the third year, on condition the school shall have been conducted continuously and satisfactorily to above officers, the advance to be paid after the year shall have been completed.

That for the fourth year's active service, a further advance of \$10.00 per term, shall be paid on conditions and in manner above.

That for the fifth year's active service, a further advance of \$10.00 shall be paid on conditions and in manner above, thus making the salary \$160.00 per term, which shall be the maximum salary.

That should a teacher be engaged as supply, and afterwards continued on the staff, the term so supplied shall count as if permanently on the staff.

That the conditions before stated shall, for the future, apply to all teachers at present on our staff as respects their relative terms of employment up to this date, including assistant teachers.

That the board of trustees shall not hereby bind themselves to pay any amount in excess of the minimum salary in any year, and that no contract shall be made with any teacher in excess of that amount.

The living question is thus stated by President Cook of the Illinois normal school: "I mistake the temper of the times, if there is not a growing conviction that the only way to have a school is to have a teacher."

The two pillars of school education are good behavior and intellectual training. The good school by its discipline secures obedience to order and habitual respect to the rights of others, regularity, punctuality, silence, industry, truth-telling, courtesy, a kindly fellow-feeling for others—these are the elements of good behavior as found in schools.

What is a school and what is it for? The idea is indefinite in the minds of many that it is both public and private. It is a public institution in the fact that it is supported by the public fund—yet it is often used to promote private ends. Who should teach in it? The idea that a town or district must supply its own teachers so as to keep the money spent at home must give way; the child's needs should be supplied with the best teachers, no matter where they come from—No one should be considered to hold a mortgage on a situation in any school on account of long service, infirmity, family needs, political, or sectarian relations. The teacher's continuance in service should rest upon a strictly professional and business basis—politics should not enter into the matter. N. Y. School Journal.

#### QUESTION DEPARTMENT.

F. W. W. Divide the frustrum of a pyramid 12 feet long, 4 feet square at one end and 1 foot square at the other into two equal sections (by a plane parallel to the base).

Let z feet = the height of the portion added to the frustrum to complete the pyramid.

Then 
$$\frac{1}{2}:2::x+12:x$$
  
 $x=4$ 

Then the part added to complete the pyramid =  $1\frac{1}{3}$  cubic feet. But the frustrum = 84 cubic feet.

Half the frustrum + the added part is a pyramid  $=43\frac{1}{3}$  cubic feet.

Comparing this and the added part we have the proposition,

$$1\frac{1}{3}:43\frac{1}{6}::4^3:(12.74)^3$$
 nearly.  
... the required height =  $12.74-4=8.74$  feet nearly.

Moncton. Please give your opinion on the following if space will permit:

$$\frac{1}{1}(\frac{3}{4} + .01 - .036) \times \frac{3}{8}$$

Which do you consider the better way, to work it as wholly decimal, as

$$(.75 + .01 - .036) \times .375$$

or to work it as fractions:

$$\left\{ \left( \frac{3}{4} + \frac{1}{1000} \right) - \frac{36}{10000} \right\} \times \frac{3}{8}$$

and all similar questions. Which method do you recommend to be given to pupils, and why?

I much prefer the latter way, especially as your fraction may sometimes be a recurring decimal.

The latter way is to be preferred for the reasons you state; but on inspection of such a question, the working it by decimals, or by vulgar and decimals combined, may be preferred. Thus in the above question it is better to reduce the terms within the parenthesis by decimals and then find  $\frac{3}{8}$  of the result.

A. M. S. The best work for the study of our birds is Coucle Key to the Birds of North America. \$7.50. (Estes & Laureat, Boston)

N. McL. A runs a mile race with B and lower, had his speed been a third greater he would have won by 22 yards.

Let 
$$x$$
. Be speed  $y$ . As  $y$ .

If A's speed becomes a third greater at will  $\frac{1740}{x}$ . Then  $\frac{1740}{x}$ .  $\frac{1760}{4y}$ .

Ratio of A: B = 22: 29

A. P. (1) Hamblin Smith's Arithmetic, page 184, Ex. III, 4.

Solved May, 1895

(2) A man has \$400 he wishes to invest in stock. He wishes to buy 100 animals. He buys cows at \$20, sheep at \$4 and hens at 20 cents apiece. Find the number of each

Let 
$$x$$
 number of cows  
 $y$  sheep  
 $z$  hens  
Then  $20x + 4y + \frac{z}{5} - 400$   
 $-x + y - + z = 100$   
 $-100x + 20y + z = 2000$   
 $-99x + 19y - 1900$   
 $-99x + y - 100$   
Let  $x - 19$ , then  $y = 1$  and  $z = 80$ 

EMERALD. Three circular flower beds, each bounded by a line 355 inches in length, are situated so that their circumferences are in contact. Find the area of the triangular space lying between and not included within the beds.

The lines joining the centres of the circles will form an equilateral triangle whose sides will each be 113 inches and whose area will be 5528-997 sq. inches.

Find the area of the three sectors within the triangle  $\frac{1}{2}$  area of one of the circles = 5014/386 sq. inches.

Then 5528.977 - 5014.386 - 514.59 square inches = required area.

(2) 40% of a mixture of wine and water is wine. When 10 gallons of water are added the wine is 35% of the whole. How many gallons are there in the mixture?

40% of the mixture - 35% of the mixture + 35% of the 10 gallons.

... 5/ of the mixture - 35% of the 10 gallons. ... 100/ of the mixture - 70 gallons. (3) The true discount on a sum of money for 1 year at 6% is \$2.50 greater than the sum of the true discount (for the same time) of half of it at 8% and the other half at 4%. Find the sum.

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 $\frac{$25}{702}$  : \$2.50 :: \$106 : \$7441 ·20 ... : \$7441 ·20 = sum required.

(4) I invest in Toronto 6 debentures selling at 6% discount, and \$500 less in Toronto Bank stock, selling at 5 premium and paying yearly dividends of 10%. The income from Bank stock is \$100 more than from the debentures. Find the amount of Bank stock.

\$94 gives \$6. That is

If the same amount had been invested in both kinds of stock the difference of income would have been

$$$100 + $\frac{1000}{21} = \frac{$3100}{21}$$

The difference of income from \$1 in each kind of stock is

$$\$ \frac{2}{21} - \$ \frac{3}{47} = \$ \frac{63}{987}$$

If a difference of  $\$\frac{63}{987}$  arises from \$1  $\$\frac{3100}{21}$  will arise

from \$4700 = debentures. \$4700 - \$500 = \$4200 Bank stock.

A Constant Subscriber. — Please translate the mottoes given below, which were on some cards sent me some time ago:

- (1) Herzlechen Gluckwunsch.
- (2) Votos sinceros par el ano nuevo.
- (3) Viel Gluck zum neuem Jahr (or Jahre).
- (4) Frohliche Weihnachten.
- (5) Sirsnigs sweizinajums ufeeswehtischanas seenu!
- (6) Die hand unseres Gottes ist zum Besten über Alle, die ihn suchen.
  - (1) Hearty congratulations.
  - (2) Good wishes for the new year.
  - (3) May the new year bring you much happiness.
  - (4) A merry Christmas.
- (6) The hand of our God is upon all them for good that seek Him. Ezra. viii. 22.

C. E. L. questions the propriety of the expression (in May Review): "2 parts × 3 months = 6 months," etc., as being a violation of the arithmetical axiom—the multiplier is an abstract number. He is partly correct. The expression was used as a contraction for the expression: "Two parts lent for three months would be equivalent to one part lent for six months," and only in such cases, if at all, is it justifiable.

J. F.—Would you do me the kindness to secure in the columns of the EDUCATIONAL REVIEW an article upon the backward and forward motions of the planets? I should like much to read a minute explanation showing why the times of apparent backward and forward motions are so unequal in duration.

#### SCHOOL AND COLLEGE.

The school house at Dawson Settlement, Albert County, recently built, adds one to the list of good houses in that County. The main room has the approved seating for sixty-five pupils. There is also a large class-room.

The stock of apparatus in the Hammond Vale school has lately been increased from the proceeds of a concert. Miss Annie McAfee is the teacher. New furniture has lately been procured by the schools in the following districts of Kings County, N. B.: Jordan, Mount Gibbon, Perry Settlement, Jeffries' Corner, Lisson, Springfield No. 8, and Cornhill East, No. 13. The house in Cumberland Bay, No. 5, Queen's County, has been thoroughly repaired inside and out, and now has the appearance of a new house.

Inspector Steeves has spent most of the month of June in Albert County.

In the report of the proceedings of one of Inspector Roscoe's school board meetings, we find the following: The three R's are receiving their full share of time, and much more attention is being given to calisthenics, music and Nature lessons. The advantage to the schools from the last three subjects is being felt and appreciated in many schools. The question of enlarged school sections, so as to include several schools under the management of one board of trustees, was referred to again, and commended to the attention of the Board. This system will secure one central school, superior to the rest, within a radius of a few miles, to which all the high school pupils can come and receive instruction near enough to board at their own homes—the other schools in the group to be devoted to the pupils of the common school grades.

The supply of teachers for the coming term will probably exceed the demand in New Brunswick.

The primary school at Welchpool, Campobello, has outgrown its accommodations. A meeting is to be held to provide for this. At Wilson's Beach an assistant will be employed. There is no decrease in population on Campobello.

The pupils of Prosser Brook school in Albert County, have, under the direction of their teacher, Miss Kate E. Steeves, procured a very fine Canadian flag.—Other substantial improvements are being made by the trustees.

Mr. Wm. Brodie, principal of the St. Andrew's grammar school, has been granted a six months' leave of absence. It is understood that Mr. Brodie will spend part of his deserved vacation in a voyage across the Atlantic.

The St. John grammar school cadets will hold their summer camp at Bayswater.

Mr. Jas. Barry and family will spend the summer vacation at Hammond River, Kings Co., N. B.

Mr. W. H. Parlee, St. John, will spend part of his holidays in New Hampshire.

Miss Landers, the efficient teacher of elocution at Mt. Allison, Sackville, has resigned in order to enter into a partnership, the announcement of which may be expected later. Miss Louise Webster, of Ottawa, has been appointed to the position vacated by Miss Landers.

Mr. F. W. Sprague, B. A., who has taught the grammar school at Shediac the past year with much success, has been appointed to a position on the academy staff at Mt. Allison, Sackville.

Miss Ada MacDonald, one of the teachers in the Winter street building, St. John, was married this month to Mr. Clarence Allan. The Review extends congratulations.

We regret to learn that Inspector L. S. Morse, of Digby, N. S., was thrown from his carriage recently, and received injuries that may confine him to his house for some weeks. A drive of forty miles after the accident tended to aggravate the injuries, but his many friends hope that there will be no painful result, and that he will rapidly recover his wonted health.

The final examinations for license in New Brunswick were held during the second week in June.

The preliminary examinations for normal school entrance, etc., will begin on Tuesday, July 2nd, at 9 a.m. The stations and examiners will probably be the same as last year.

The Review extends its congratulations to Mrs. H. M. Baker, nee Miss Lydia E. Williams, formerly of the Victoria school staff, St. John. The ceremony took place at the residence of Mrs. Potter, the bride's sister, Georgetown, New Mexico, and the happy pair will make their future home in Chicago. Mrs. Potter was also a St. John lady. Miss. Abbie Williams, formerly of the Leinster street school.

#### BOOK REVIEWS.

THE GREAT DOMINION: STUDIES OF CANADA, by Geo. R. Parkin, M. A., Hon, LL, D., University of New Brunswick, Cloth; pp. 251. Publishers, MacMillan & Co., London and New York. This is Mr. Parkin's latest book, published in "MacMillan's Colonial Library" Series. The author is so well known to readers of the REVIEW that it would be superfluous to mention him and his work, especially as his portrait and a sketch of his life appeared in the REVIEW not long ago. The writer delights to recall the days when he was associated with Mr. Parkin in educational work in New Brunswick. His enthusiasm, the broadness of his work, the stimulus which he gave to his pupils, which they and others still feel and which animates their work now, would place him in the foremost rank of educators anywhere. The influence which Mr. Parkin has exerted in later years in helping to make Canada known to the English speaking world, has been of that stimulating character which appeals to his larger audience in equally significant tones. His work on Imperial Federation, of which he is the acknowledged apostle in Canada, is a masterly presentation of principles, which, if they cannot as a whole be carried out in practice, will lead to a closer unification of Britain and her colonies. His book, entitled "Round the Empire," and his large map of the British Empire of the world, are of marked utility for the British and colonial student everywhere. A competent critic, in summing up the advantages of the book well remarks, that it "focuses the Empire for us." His latest work, now before us, was undertaken at the instance of the London "Times" two years ago. This great journal wished to present its readers with a series of sketches on the resources and present position of Canada with conditions of life in this country. It chose Mr. Parkin for the work; and these sketches, revised and with maps and further additions, are now presented to the public in permanent form. The treatment of the subject from a Canadian standpoint by one who has been familiar from boyhood with the possibilities and conditions of life in Canada cannot fail to prove of substantial advantage not only to the Canadian public at large, but especially to Canadian boys and girls. Every page is full of interesting information on Canada such as every Canadian should know. If Mr. Parkin's map of the Empire were hanging on every school wall, if his books stimulating, patriotic, instructive - were in every school library in Canada, their influence in fostering patriotism, attachment to the mother-country and its institutions, love for our own Canada, its capabilities and possibilities, cannot be estimated.

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A NEW BOOK ON CANADA, by Dr. Bourinot, will shortly be issued. It is entitled, "How Canada is governed," and gives in plain, simple, language a short account of the executive, legislative, judicial, and municipal institutions of the country, together with a sketch of their origin and development. The book will be illustrated with numerous engravings and autographs, and being the work of so eminent an authority as Dr. Bourinot, will be indispensable to those who wish to be well informed about the affairs of the Dominion.

ELEMENTARY CLASSICS: Xenophone's Anabasis, Book VIII by G. H. Hall, M. A., assistant master at Westminster school; Ond a Tristia, Book I, by E. S. Shuckburgh, M. A., late Fellow of Emmanuel College, Cambridge. Edited with explanatory notes, vocabulary, (in Xenophon with illustrations and maps additional). Price of each 1s 6d. Publishers, MacMillan & Co., London and New York. The typographical excellence of these convenient little books, the excellence of the notes, illustrating\_difficult passages in the text and giving information on historical and geographical points, will prove of the greatest advantage to the student, enabling him to renew his acquaintance pleasantly and profitably with these well known authors.

AGRICULTURE, PRACTICAL AND SCIENTIFIC, by James Muir, M. R. A. C., etc., Professor of Agriculture in the Yorkshire College, Leeds. Cloth, pp., 343; Price 4s 6d. Publishers, MacMillan & Co., London and New York. The arrangement of this work seems especially excellent for those who would gain a good ground work in the study of agriculture on a scientific basis. The introductory chapters are devoted to a concise yet adequate account of plant growth, plant food, and the properties of soil and how formed. The scientific and practical then go hand in hand as the various subjects of drainage, manuring, implements, cropping, etc., are taken up. There seems to be no subject in the whole domain of agriculture that is not treated, and this is done so clearly, and the directions for scientific farming given so explicitly, that the intelligent farmer and the student of agriculture may regard this as a book worthy of their fullest consideration. The tables are suggestive, furnishing data regarding soils, temperature, cropping, etc., while the illustrations add much to the practical value of the work.

#### The July Magazines.

The "Atlantic Monthly," for July, contains the first of Dr. John Fiske's promised historical papers. The subject treated in this issue is the Elizabethan Sea Kings. Such picturesque historical characters as Raleigh, Drake, and others of their time become doubly attractive when described by so charming a writer as Mr. Fiske.... Prof. Sully will continue the discussion of "Fear" in the next of his Studies of Childhood, to appear in the July Popular Science Monthly. He shows that fear of animals and fear of the dark are closely related, the dark being being often regarded as peopled with dreadful animals, or as being itself a monster.



#### CANADA'S INTERNATIONAL EXHIBITION.

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