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Editorial Notes.

WE REGRET that, owing to a misunderstanding which we need not take space to explain, the last number of the JOURNAL was delayed until quite too late. We fear that in spite of our best efforts this number may be a little late. Various causes, among them some loss of time consequent on the nearness of the printing office to the last great fire in the City, and necessary precautions taken in consequence, have kept the work back. Nevertheless we are still hoping to make our appearance within a day or two of the proper date.

"IN a multitude of counsellors there is safety." We should like very much to be able to draw out the ideas of the teachers of Ontario to a much greater extent than we have hitherto succeeded in doing, on Educational questions. The discussion on the question of age, mental and moral qualification, and just remuneration of teachers, which has been going on in our columns, and which is not yet concluded, for we have more letters to publish, will, we believe, result in good. We may not, for various reasons, be able to publish all the letters sent us, but we like to receive them, and to print as many as possible. Editors are of necessity compelled to be somewhat arbitrary in such matters. No disrespect to the Department is involved in proper criticism of its methods. On the contrary, we dare say that the responsible authorities are glad—and if they are not, they ought to

be—to have such subjects discussed. No government in a free country can legislate far in advance of professional public opinion. Those who help to form such opinion along right lines are benefactors. Nor is it against the interests of young candidates for certificates, to advocate the elevating of the standard, for whatever raises the level of the profession to a higher plane confers a real benefit upon all who purpose to engage in it. The indirect but sure effect of such raising of the standard must be to increase salaries and improve the position of the teacher in every respect.

THE Toronto *Mail*, a paper which, greatly to its credit, pays a good deal of attention to educational questions, had an editorial the other day, the general purpose of which was to deprecate the small and decreasing percentage of male teachers in the public schools. There may be, we believe there are, good reasons for regretting the fact, but we seriously question the validity of the reasons given by the *Mail*. They were based on the old and, in our opinion fallacious notion, that male teachers, simply in virtue of their sex, are better teachers for boys than female teachers. As if teaching ability and efficiency in discipline were not a question of individual capacity, irrespective of sex. The teacher does not necessarily know how to teach or to govern because he is a man. Which of us does not know women teachers who are as far superior to the average man teacher in both teaching and governing power as the most efficient men he knows in the profession are superior to the average woman teacher? It is time the old notion, that the tendency of being taught by women is to make boys effeminate, were exploded. Neither reason nor fact bears out the assumption. Personal character and qualifications, not sex, are the true criterion of teaching power.

WE ARE glad to be able to give, in this number, the first moiety of Inspector Dearness' excellent article on School Sanitation. We commend the paper to the attention of every teacher and every trustee into whose hands these numbers of the JOURNAL may fall. Notwithstanding all the great improvement which has doubtless taken place within the last ten or twenty years, we fear that there are yet very many schools in both country and city which fall below

even the most moderate standard in respect to ventilation, cleanliness, even civilized decency, in yards and outhouses. In all cases in which the teacher is conscious of inferiority or want in these respects and has hitherto been unable to obtain needful improvements, it might be doing good service to call the attention of trustees and other responsible citizens to this valuable paper. For this purpose, and for general reference, this number and the next, which will contain diagrams illustrating simple and effective methods of improving ventilation, etc., should be carefully preserved, and, if the trustees are not subscribers to the JOURNAL, as all ought to be, the two numbers should be placed in their hands. We shall be glad to send copies gratuitously to any address which may be sent us for that purpose.

IN AN address made by a prominent educator the statement is made that it is the duty of the teacher "to impart general ideas." Can this be done? In an educational paper occurs the expression, "Teach the child to think." Can this be done? In a lecture before a teachers' institute an educational editor repeated a dozen times the sentences "Teach accuracy." Can this be done? Do "general ideas," "power to think," "accuracy" pass from teacher to pupil? Has he a stock of these on hand, and is it his business to deal them out from time to time?—*The School Journal*.

Is this not a little hyper-critical? Is it not a part of all true teaching to lead the child step by step from individual to general ideas. Does not the teacher who, by judicious questioning and in other ways, causes the pupil to think, as every teacher who understands his business is constantly doing, teach the child to think? Does not the teacher who patiently leads the pupil to do his work, of whatever kind, carefully, to revise it when wrong, finding out and correcting errors, teach accuracy as a habit? The mother cannot give the child the ability to walk, but she can and does, by directing and encouraging its first feeble efforts, teach it to walk. The whole philosophy of education is the discovery and development of the best methods of teaching the young to use, and by use strengthen, their own powers and get better command of them. Yes, we venture to maintain that it is the very business of the teacher, not of course directly to impart, but to teach the pupil to acquire general ideas, thinking-power, and accuracy in mental operations.

Special Papers.

SCHOOL SANITATION.

BY J. DEARNESS, LONDON, INSPECTOR OF SCHOOLS.

GENTLEMEN,—It is appropriate that at a meeting of a country's health officers considerable attention should be given the questions that concern the hygienic conditions of the public schools. Through these schools every citizen must pass and that at a susceptible time of life. "As the twig is bent the tree's inclined" is no less true of the physical than of the mental bias received in childhood.

The title of my subject offers a wide and varied choice of topics, but time compels me to choose but a few for notice. To start with the child from the home raises at the outset the question whether the latter is contributing its due share to the promotion of the health of school children. With proper and sufficient food, sleep and recreation, we should not hear much of injury from over-pressure or multiplicity of studies, providing that pupils are not sent to school until they are at least seven or eight years of age. I am not one who believes in many or long school tasks to be prepared by home study. Instead of the note at the foot of the usual monthly school report requesting the parents to see that the child does his or her assigned home lessons in the evening it would be better to say: the teacher will guarantee five hours' active application to study daily in the school-room if the parent will secure that the child receive three nutritious meals, at least ten hours' sleep and one or two hours' recreation every day. Farmers know that it pays to care for and feed well the young stock on their farm; would that they were equally solicitous to see their children thrive well physically. At no other period in a person's life-time does he need more careful attention to his food, sleep and exercise than during his school days.

There is good reason to believe that Ontario has an educational system, taken all round, not surpassed in merit by that of any other country in the world; and what is a higher recommendation, we are not resting upon our distinction, but are still making progress. Yet I confess to the belief that we are moving pretty slowly along the line of physical education; in fact, the rising generation, however superior it may be mentally, scarcely promises to be equal, physically to the passing generation. Within twenty years I know that school seats and desks and blackboards are greatly improved, lighting is somewhat better, text-books are better printed, but convenient supply of wholesome drinking water is not more general, outdoor closets are not more healthful, and certainly in the improved substantial school buildings the artificial means of ventilation in vogue are not equal in efficiency to the natural means of those times, when an open fire-place sucked the fresh air through countless chinks in the log walls, while the children wearing thick hodden-gray coats, heavy woollen socks, often two pairs, and stout cow-hide boots, little heeded the sharp drafts that swept along the floor. We learned then without teaching to make a good use of recess. It is becoming the fashion now in some places to go to the gymnasium for recess. I think the substitution is a mistake. Precise gymnastic movements doubtless afford good training for will, eye, and voluntary muscles, but how do they benefit the involuntary muscular system. Let us have both—a good muscular development and a good digestion. If I may have but one, I prefer the good digestion. Cheerful spontaneous play is better for heart and stomach than gymnastics. As a preparation for the next session's lessons I greatly prefer the old-fashioned, jolly, rollicking, romping, spontaneous

fifteen minute recess to twice that time devoted to club swinging or precise extension motions.

Speaking of recess takes me to the yard, and when there we might, if time permitted, notice the site, the source and supply of drinking water and the outclosets. Respecting the last mentioned the necessity for sanitary improvement is greater than I have words to express at this time and place. I shall only appeal to those officers of the Provincial Board of Health who are present to move that body to have prepared a circular of plans and specifications for the construction, with directions for the sanitary maintenance, of these necessary buildings, and to put such circular periodically in the hands of every board of Trustees. Distribution of such circulars among all the school officers in the province and the consequent improvement of school premises would educate the people generally upon an important sanitary subject.

Lighting.—Have you not again and again heard the remark made—What a large number of children wear spectacles now! I have heard the increase accounted for on the ground that it is the custom now for parents to take short-sighted children to the optician or oculist to have their eyes fitted with glasses—and that formerly this was not the practice. There may be something in the opinion quoted, but the chief reason is doubtless that formerly there was less need to take children to the oculist than now.

Investigation both in Europe and America shows that the disease, myopia, is increasing alarmingly in all civilized countries, and two leading causes are inherited tendency and the unfavorable conditions of school-room life. It is argued that inherited tendency counts for much because the examination of children in the higher social ranks, and consequently on the average drawn through a large number of schooled generations, shows a larger proportion of nearsighted than the peasant and pauper classes of the same ages. In American cities white children show to a great advantage as compared with colored children in respect to nearsightedness.

In Europe some of the ablest scientists and sanitarians, as Virchon and Cohn, Conrad and Pflüger, have given attention to this evil. In the United States eminent men like Agrew, Loring, Cheatham, Prout, and Lucien Howe, have practically studied myopia in the school. of the cities where they respectively resides Ward McLean, in the *Popular Science Monthly*, (Nov. '77) summarized the study of the available literature on the subject, furnishing reports upon upwards of 40,000 cases, and deduced the following "irresistible conclusions:"

(1) That among youths who have never attended school and among children when they first enter school the percentage of nearsightedness is very small indeed.

(2) That very soon after entering school some children begin to show symptoms of the disease.

(3) That the number of children afflicted and the intensity of the disease gradually but surely increase through the entire school life, from class to class, from year to year, until when colleges and universities are reached in many institutions half the students are more or less nearsighted.

The report made by Drs. Fitch and Kimball, upon an examination of the eyes of the children in the schools of Rockford, Ill., as quoted at a meeting of the National Education Association, gave the following results:

	Boys Myopic.	Girls Myopic.
Children aged 7 to 8 years	.8%	3.1
9 to 10 "	3.5	5.9
11 to 12 "	2.5	5.5
13 to 14 "	6.3	13.0
15 and upwards	17.7	16.8

If it be conceded that the present conditions of school life tend to produce myopic vision the question naturally arises—are such conditions

as produce this evil necessary or irremediable? I think not.

Mere naming some of the conditions suggests a remedy, others are due to faulty architecture of the building, such as wrong arrangement of the windows of the schoolroom, causing front light or dim light. Windows and seats should be placed relatively so that the light may be admitted mainly backward from the left. In an ordinary rural schoolroom they may be massed on the sides in the rear half or two-thirds of the room, the nearest one to the blackboard sufficiently distant so as not to dim or obscure the writing on it by reflection.

Only those windows through which direct sunlight enters should be shaded. Shades should be of light color and the spring rollers bearing them, whether attached at the top or bottom, should always be attached to the sash, not to the frame, and be controlled by a cord that will not permit them to run the entire length of the shade.

Text-books ought to be on good paper, not bluish but unbleached, and the type large. I have not much fault to find with our Public School text-books, but the High School text-books are not all above criticism.

Those hard cheap lead pencils used so much now on the scribbling-book paper are ruinous to the eyes.

The position that nine-tenths of the pupils will assume at the desks, unless the teacher exercises constant supervision over, their attitude injuriously affects the eyes. I submit the question to the medical men here whether the engorgement of the cells supplying the ciliary muscles caused by the suspended position of the head may not lead to inelasticity of these muscles.

In spite of the utmost care on the part of the teacher to habituate his pupils to maintain a correct attitude, the wretched construction of some school desks or the seating of a child too large, or worse still too small, at even a well constructed desk will cause the child to strain and injure the eyes. Defective seating is chargeable too with malformation of the spine and other bones, and with various injuries to pupils to which I have not time to refer.*

Long home lessons, pored over with perhaps imperfect lamplight, cannot but injure the eyes, possibly in some cases contribute to myopia more than all the other causes combined.

To sensitive eyes bad ventilation is doubtless very irritating and injurious. Dr. Loring writes: "I am therefore of the opinion that bad air alone, acting as the primal cause, may set in train a series of morbid processes which may, and often do, affect not only the working capacity and integrity of the eye, but which may lead even to its destruction.

Dr. Loring's remark introduces the only other topic which I propose to take up in this paper, viz:

Ventilation.—Notwithstanding all that has been written and said respecting the necessity for the ventilation of inhabited buildings, progress in general education upon this subject seems to be very slow, in fact imperceptible. Usually the ill-effects of bad ventilation, which are cumulative and progressive, are so remote in time from their cause that the popular mind fails to connect them, and hence the ill-ventilation of schoolroom, church, or sleeping room, too frequently a contributing cause, is not thought of when mourning friends stand around the bier of one whose life has declined ere the usual years of adolescence had been counted. "The Lord gave, and the Lord hath taken away; blessed be the name of the Lord" are words not to be pronounced lightly over the grave of a child. I leave it to my hearers to give a name to the mistake that imputes to the Lord the sufferings and death of the little children whom he would have had to perform a miracle to save against our indifference or ignorance of the natural laws of health. Great tragedies, teaching us the deadliness of our own breath, stand out on the pages of history, such as the death of 123 British men and women from

*Dr. Bremner, Toronto, in the paper given before the Inspectors' section, and published in the Proceedings of the Ontario Educational Association, 1894, p. 198-201, shows how round shoulders, rotary lateral curvature of the spine, and lordosis are produced by defective seats and desks.

*See Dalton's Physiology, page 227, 4th Edition.

Book Notices, etc.

eight hours' confinement in the Black Hole of Calcutta, and the death of 260 out of 300 Austrians taken at Austerlitz and imprisoned for a few hours in a cave, and the 90 passengers of the *Lon Londerry* suffocated by their own breath while the captain during a six-hour storm kept the hatches nailed down. Very probably it was the same agent that caused the Black Assize at Oxford when "speading from the jail there arose such a damp that almost all were smouldered, the jurors presently dying and shortly afterwards Sir Robert Bell, Lord Chief Baron; all died in forty hours, the Lord Chief Baron and 300 more."

The connection between cause and effect was in these dreadful instances sufficiently immediate to prove the truth "that our own breath is our greatest enemy." Multiplied instances are constantly occurring all around us differing from those in degree, not in quality, but yet that difference is so great as to obscure the likeness. Our living-rooms, bedrooms, churches, halls, and schoolrooms are too often reservoirs of foul air. Foul air reduces vitality, weakens power to resist disease, in fact, causes disease, and disease leads to death.

Consideration of certain careful investigations will enable us to understand more intelligently the nature of the vitiation of air that occurs from repeated respiration of it. Samples of outdoor air taken at numerous places, at various elevations and at all hours of day and night, show on analysis a composition, varying within a very small range of:

Oxygen	- - -	20.96 per cent.
Carbon dioxide	- - -	.03 "
Nitrogen	- - -	79.01 "

besides vapor and traces of other gases.

In bad localities of large smoky cities it has been found that oxygen fell from 20.96 per cent. to 20.80 or 20.70, and the carbon dioxide went up from .3 to .7 or .8 percent. Dr. Angus Smith found the average of 339 analyses of coal mines' air to be 20.26 per cent of oxygen and .78 per cent. of carbon dioxide; in places where some of these samples were taken, caudles went out, and men could not remain longer than ten minutes at a time.

Even this bad mines' air is pure when compared with breath as it issues from the lungs. Pettenkofer's extensive researches and analyses are generally accepted. He showed that expired air, dried, contains:

Oxygen	- -	15.56 per cent., decrease of one-fourth.
Carbon dioxide	- -	4.84 per cent., increase of 140 fold.
Nitrogen	- -	80.10 per cent., slightly increased.

Death would quickly ensue in an atmosphere containing 20 per cent. of carbon dioxide,* but it is uncertain what proportion of carbon dioxide may be endured for the space of a few hours; Forster remained ten minutes in a room charged with four per cent., and Pettenkofer remained hours in a room with one per cent. liberated by the action of sulphuric acid on bi-carbonate of soda. But while he writes that he could remain hours in the artificially charged air, he is careful to state that air contaminated with one per cent. of carbon dioxide, due to the respiration of human beings, would be almost intolerable.

(Concluded in next issue.)

WORTH WHILE.

'Tis easy enough to be pleasant,
When life flows along like a song,
But the man worth while is the one who will smile
When everything goes dead wrong;
For the test of the heart is trouble.
And it always comes with the years.
And the smile that is worth the praises of earth,
Is the smile that shines through tears.

- A non.

Latin at Sight, by Edwin Post. Boston: Ginn & Co.

An excellent collection of passages for sight translation, and admirably suited for classes preparing for matriculation.

.

The First Latin Book, by Wm. C. Collar and M. Grant Daniell. Boston: Ginn & Co.

We can hardly imagine a better book for young boys. As far as we know the similar book of Lindsay and Rollins alone comes into comparison. The *colloquia* will lend additional interest to the present book.

.

Outlines of Rhetoric, by J. F. Genung. Boston: Ginn & Co. Toronto: Wm. Briggs. pp. 331.

This volume aims to do for the elementary teaching of rhetoric what the author's larger volumes did for the advanced work. Commonsense treatment of essential principles of composition in chapters dealing with the choice of words, phraseology, the qualities of strength, vividness, and grace, the sentence, the paragraph and the whole composition, ample illustrations to make clear these principles, and a large amount of material prepared for classroom use to enforce the teaching, constitute the volume, which is a decided help to every teacher of elementary rhetoric. If you teach rhetoric, buy a copy.

.

Hale'vy's *L'Abbe' Constantin*, edited by T. Logie, Ph. D. Boston: D. C. Heath & Co., pp. 156.

This new edition of Hale'vy's charming story is very welcome. Foreign readers of French novels are prone to neglect the finer sides of French life and draw their views of French character from writers of a school that Frenchmen themselves condemn. Hale'vy is wholesome reading, and an edition of his best novel, with some account of the author and with explanatory notes on difficult expressions, as the work before us is, will do much good in the school-room.

.

Der Rittmeister von Alt-Rosen, von Gustav Freytag, edited by J. T. Hatfield, Ph. D. Boston: Ginn & Co., pp. 201, price 75 cents.

Freytag's *Ahnen* form the most celebrated series of historical romances in German literature devoted to the chief epochs in Germanic national life. The present volume, "The Captain of the Old Rosen Brigade," outlines its figures from the background of the Thirty Years' War. The German is at times not easy reading for beginners, but satisfactory notes and sufficient historical apparatus in the introductions make the volume admirably suited for college classes.

.

Fables and Rhymes for Beginners. The First Two Hundred Words by John G. Thompson, Sup't of School, Leominster, Mass., and Thomas E. Thompson, Master of John R. Rollins' Schools, Lawrence, Mass. Boston, U.S.A.: Ginn & Company, 1894.

AN admirable book for beginners. The paper is good, the type large and clear, and better still, the plan is excellent. In order to read the whole the pupil needs to be able to recognize only two hundred words, most of them of one syllable. To read the first fable only forty are necessary, and an ample series of blackboard exercises is provided for the teaching of these. Then by the addition of a very few new words in each case, the child is led on by easy gradations, till the whole book is mastered.

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Two books worthy of notice are "Promissory Notes, Drafts and Cheques," and "Joint Stock Company Book-keeping" by J. W. Johnston, one of the Principals of The Ontario Business College, Belleville. To many the author's name is a sufficient guarantee.

The former contains forms of nearly all business papers in general use, and extracts from

the laws which govern them, and is a most valuable book for teachers and business men.

The latter contains a digest of the law affecting joint stock companies, the manner of forming them, and a complete elucidation, in a practical form, of joint stock company book-keeping, in a complete and simple form useful for directors, shareholders and accountants of joint stock companies. For these two books we feel grateful to the author.

THERE are few things more noticeable than the effort teachers are making to know more about teaching. Send postal for Teachers' Helps, a catalogue of 400 Books, and Aids for Teachers, to E. L. Kellogg & Co., of New York. To anyone answering this advertisement, and sending 10 cents, a copy of Lang's "Comenius" will be sent with the catalogue.

For Friday Afternoon.

GENTLEMAN JIM.

In the diamond shaft worked Gentleman Jim,
Handsome of face and stout of limb,
Coarse in dress; but something in him,
Whether down in the coal mine, solid and grim,
Or wandering alone in holiday time,
Won the love and respect of all in that clime.

He had no sweetheart, he had no wife:
Some mighty sorrow had dimmed his life—
His earnings hardly won and small,
Were aye at the orphans' and widows' call—
Of those who had perished in shaft or winze,
He was the friend of all living things,
And moving alone in those toilsome ways,
He wore the demeanor of gentler days.

In April last when the mine fell in,
Beneath the timbers stood Gentleman Jim;
With a giant grasp he flung two of the boys
Clear of the danger—with deafening noise
The shaft gave way on every side;
The boys were safe, but Jim—he died;
Died as men die, and will die again,
Giving their lives for their fellow-men.

When rocks and timbers were cleared away,
And Jim borne up to the light of day,
They took from his bosom, stained with blood,
Two withered leaves and a withered bud
Pinned on a card. "Toute a toi—Marie,"
Was written beneath them; beneath it he,
On this relic his heart for years had worn,
Had written, "All withered—except the thorn."

What life romance, what story of wrong,
This man had locked up in his soul so long,
None who loved him may ever know;
But the tale of his glorious, chivalric deed
Shall not perish as long as men hold this creed:
That the hero whose blood for his kind is shed
Wins a deathless fame and an honored bed;
A monument grander than sculptor ere gave,
In the glory that hallows the martyr's grave.

-Daniel O'Connell.

SUNBEAMS.

See the merry sunbeams
Dancing on the grass,
Kissing shrub and flower
As they quickly pass;
Lighting up dark corners,
Making them so bright,
Going hither, thither,
Bringing warmth and light;
Dancing for the baby,
On the nursery wall,
How he often wonders
Why they never fall;
Then through field and meadow
See them speed away,
Spreading life and gladness,
Making bright the day.
Happy little sunbeams,
May I be like thee,
Bringing joy and pleasure
Where I chance to be!
Doing deeds of kindness,
Loving, gentle, free,—
Pray, dear little sunbeams,
Help me be like thee.

-Alice Lotherington, in *The Child Garden*.

The Educational Journal

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AND THE ADVANCEMENT OF THE TEACHING
PROFESSION IN CANADA.

J. E. WELLS, M.A., EDITOR AND PROPRIETOR

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Editorials.

TORONTO, JANUARY 15, 1894.

*"THE HERO OF UPPER CANADA."

"HISTORY," says Carlyle, in a paragraph which we quoted last week, "is evidently the grand subject a teacher will take to." Of course a man of one subject or one line of reading is no more to be admired than a man of one book. The teacher who would have a well-balanced education must aim at variety and comprehensiveness in reading. But amongst the multiplicity of subjects which claim the attention of the teacher who would be thoroughly intelligent and efficient there is certainly none which should rank higher than history. And among the many forms and kinds of work of a historical character, a well-written biography is probably the most pleasing as well as the most profitable. Primers and compends of history, such as the text-books generally used in the schools and colleges, are necessary, perhaps—we are not even sure of that—but no one will ever become even tolerably versed in history, much less in teaching it, who confines himself to these as his sources of information. The teacher who limits his historical reading to such compends,

*"Life and Times of Major-General Sir Isaac Brock, K.B.," by D. B. Read, Q.C. Toronto: William Briggs, Wesley Buildings.

cannot hope either to enjoy the study himself, or to arouse any enthusiasm in his pupils, whereas he who has read widely and familiarized himself with the personalities which have had most to do with shaping the history of their respective times and countries, and with their environments, political, social, and material, must be dull indeed if he cannot manage to keep the enthusiasm of the history classes usually up to the boiling point. He will always have at hand a fund of illustrative anecdote and incident which will enable him to give to the events narrated that air of reality which is so important a factor in keeping up the interest of the young.

In the study of history as of every other subject, and probably even to a greater degree than in most other subjects, it is of the utmost importance to begin aright, that is, at the right place and in the right way. We are persuaded that the prevailing methods, or as we probably should say, the methods which have until recently been almost universal and which are still far too much in vogue, are responsible for much of the difficulty experienced in making history a popular and successful branch of study. Following the lead of most of the text-books, the child begins with far-off times and with people whose habits of thought and life, as well as their everyday surroundings, are strange to him; whose doings he therefore finds it difficult to clothe with that atmosphere of reality which is essential to his comprehending and profiting by their study. In history, as in geography, the only philosophic and proper point of departure is the child's own door-step, or that of the school-house.

There is scarcely a town or village in the country which has not some points of historical interest; some traditions, more or less reliable, of persons and events, well calculated to capture the attention of the child-mind. The skilful teacher will commence with these. He will acquaint himself thoroughly with the persons and localities which can be of most service to him in unfolding the history of the surrounding country. He will go on from these to other persons and places most closely connected with the past history and present condition of the Province. He will gradually extend his sphere of observation and inquiry so as to take in the whole Dominion; thence he will naturally and necessarily go abroad to the neighboring Republic and the Mother Country; thence on to France, and so step by step, if time permits, till the whole world is taken in. It will not often be that he can proceed so far, nor is it really

necessary to do so. The main point is to have awakened an intelligent spirit of inquiry, set the inquiring mind on the right track, and shewn it how to proceed. The awakened historical impulse will do the rest, and will have the whole lifetime in which to do it.

These remarks are suggested by the examination of a new and handsome volume which has been placed on our desk by that enterprising publisher, who is doing so good service to Canadian literature, William Briggs, Wesley Building, Toronto. The title of the book is "Life and Times of Major-General Sir Isaac Brock, K.B." The author's name, "D. B. Read, Q.C." a well-known Canadian historical writer, author of "Life and Times of Governor Simcoe," "The Lives of the Judges," etc., is a guarantee that the work of preparing the biography has been well and conscientiously done. The book is a handsome octavo of about 270 pages, well printed on good paper, handsomely bound in cloth, and in every way attractive to the eye of the reader. It is hardly necessary to add that the narrative throughout is such as can hardly fail to prove deeply interesting to every Canadian reader, not only by reason of the simple yet graphic style in which the story is told, but especially by reason of the unsurpassed bravery and force of character of the "Hero of Upper Canada," whose life history it contains, and the clear details it furnishes of the many deeds of heroism performed by the dauntless little bands who, under his direction and stimulated by his example and spirit, made so successful a defence of their country against vastly superior numbers.

The book is written by a patriotic Canadian, and it would be too much to expect to find it free in all respects from the influence of patriotic bias, however sincerely the author may have striven to be impartial. The true historian makes it a matter of conscience to be judicially truthful and to strive to do full justice to both parties in all respects. That Mr. Read has fully succeeded in doing this in his account of the causes which led to the war of 1812, and in some of the details of the struggle, would perhaps be too much to affirm. At any rate it is no disparagement of his work to advise every teacher who can do so to compare this part, and in fact all parts, with records from the other side of the line. This is the spirit in which history should be always read. One of the chief benefits to be derived from its proper study will be lost, if the student is not carefully taught to exercise the impartial, judicial, truth-loving spirit, by gathering his material

from every quarter, and especially by being always ready to "hear the other side."

The author and publishers of this work have done a great service to all classes in Canada, and above all to teachers and students of Canadian history, in putting this volume within their reach. We wish that every teacher in the Provinces could and would read it, and, now that it is available, it would scarcely be too much to say that everyone engaged in teaching Canadian history should make it a point to read it, in order that he may be better fitted for his work.

THE ABOMINATION OF DESOLATION.

A QUOTATION from an address delivered some time since by Professor Huxley to working-men, on the subject of technical education, has been going the rounds, in which the distinguished man of science says some strong things in regard to what he regards as "the abomination of desolation," in Education. By this he means the stimulation of children and young students generally to ruinous mental exertion by excessive competitive examinations. Referring to the witticism of someone who has said of early risers that they are "conceited all the forenoon and stupid all the afternoon," the Professor applies the expression to the unhappy children who are pressed forward too rapidly under the influence of the competitive examination. "The freshness and vigor," he says, "which should have been stored up for the purposes of the hard struggle for existence in practical life, have been washed out of them by precocious mental debauchery, by book-gluttony and lesson-bibbing. The faculties are worn out by the strain put upon their callow brains, and they are demoralized by worthless childish triumphs before the real work of life begins." That there is a great evil to be removed in this matter, we have often tried to show in the past. But, in our humble opinion, Professor Huxley not only carries his denunciation to an extreme, but fails to bring out the real evil in the system he deprecates. His language seems to imply that, in his opinion, the demands made upon the "callow brains" of children should be few and small, lest they suffer permanent injury. It is, of course, quite possible to stimulate clever and ambitious children to excessive and injurious mental exertion, just as it is possible for them to suffer physical injury from too great bodily exertion on the playground or in the gymnasium. But the one fact is no more valid as an argument against vigorous exertion of the brain than the other against vigorous bodily development.

We cannot accept the view, which seems to be that of many physiologists, that the culture and development of brain power should be left until the physical powers shall have been fully matured. On the contrary, we believe that the indications which are our safest guide to the plans and intentions of nature, are no less in favor of vigorous mental, than of vigorous physical, exertion, as the condition of healthful growth and development. We believe that the dulness which we so often encounter in childhood and youth is more frequently the result of too little brain exercise and stimulus than of too much of it. The child whose mind has not been left to stagnate in its early years will take just as much delight in feats of mental as of physical gymnastics, under proper direction and encouragement, and will derive no less benefit therefrom. We see no reason to doubt that the one is as truly the order of nature and so the law of healthful growth as the other.

It is the abuse, not the use, of the written examination which is to be deprecated. Examinations of the right kind and within the proper limits we regard as simply indispensable to the best teaching. But there are examinations and examinations. The examination which appeals to memory of book-work, or even of facts, puts a premium on cramming and is only evil and that continually. It tends to produce mental dyspepsia, and so to weaken rather than develop intellectual power, which is the end and the proof of all educational work. The examination which simply tests a pupil's real understanding of the subject, and, incidentally, his ability to think clearly and to reason soundly, is an educational instrument of the highest excellence and usefulness. Of course even this, like every other good method, may be carried to an extreme, and induce a state of brain tension that will prove injurious, mentally and physically.

We have had much to say in the past, and may find it necessary to say much in the future, in deprecation of the written examination as it has been used in Ontario. When, as has too often been the case, the questions asked are of such a nature that the student is tempted to postpone his preparation and rely upon one great effort at the last; or when, as we have often found in practice to be the case, it is of such a nature, and is so relied on to determine standings, prizes, etc., that the student's whole work is carried on with a view to it as the aim and end of all his studying, its effect is baneful. A great improvement in the character of our various public examinations has been, and is still going on. When they are finally wrought into such shape as simply to be effective tests of the pupil's real knowledge of principles and his power to apply them intelligently, it may become not only unobjectionable but indispensable.

However, what we set out to protest against just now is the idea that it is injurious for children to be called upon for real mental exertion. It is only by putting forth their best powers at reasonable intervals, that those powers can be properly developed. We have full faith in the

ability of the judicious teacher, who knows how to apply such stimulus and at the same time, to remember the brief limits within which the child's power of attention becomes exhausted, and the need of frequent and abundant relaxation, to make genuine mental exertion not only profitable and healthful, but delightful, to the average pupil.

CAN IT BE TRUE?

SURELY there must be some mistake in the statement which appeared in the *Globe* a few days since, to the effect that Mr. A. F. Jury and Mr. Phillips Thompson, two well-known and able exponents of trade-unionism and socialism, had been invited to address the members of the Political Science Association in connection with Toronto University, and that the Council of University College had refused to permit the students to hear them. We find it very hard to credit the statement. Both the men named are men of good character, and could be relied on to discuss the subjects assigned them with moderation as well as with ability. Both are influential citizens within circles of considerable width. What are the University authorities afraid of? Cannot they, with the surpassing advantages they possess, in their scholarly *prestige* and their constant opportunities of impressing their views upon their students, afford to give free hearing to the arguments of men neither of whom has enjoyed even a college training? Grant that one of them is a leader of trade-unionism and the other an advocate to a certain extent of socialistic principles. There are at present several representatives in the British House of Commons who hold and fearlessly advocate somewhat similar views. Cannot truth be trusted in a fair field, with learned professors for its champions, against two men who have learned to do their own thinking without the help of university training? It is to the credit of the students that they wish to hear "the other side" of theories which are no doubt discussed and condemned in the College lecture rooms, as presented by those who honestly believe and advocate the banned opinions. The day is past, or ought to be, when, in a free and enlightened country, university or any other authorities should wish or attempt to control, otherwise than by cogent argument, the opinions, whether political, sociological, or theological, of the students under their instruction. The teaching and influence of a school of learning should be, above that of any other institution, on the side of the freest investigation and the most open and unfettered discussion of all questions relating to the pursuit of truth. Its very atmosphere should be impregnated with the spirit of truth-loving inquiry. The motto it should leave most deeply impressed upon the minds and the hearts of those who are for many years under its teaching should be: "Seek reverently but fearlessly the truth, the whole truth, and nothing but the truth in all things, at all times, under all circumstances." We hope to hear that there has been some misapprehension about the matter.

English.

All articles and communications intended for this department should be addressed to the ENGLISH EDITOR, EDUCATIONAL JOURNAL, Room 20, 11½ Richmond Street West, Toronto.

PICTURES OF MEMORY.

J. A. FREEMAN, ESQ., B.A., HEAD MASTER HIGH SCHOOL, WATERDOWN, ONT.

PLAN OF LESSON.

- | | | |
|--------------------------|---|---|
| FIRST PICTURE
TITLE? | { | <ol style="list-style-type: none"> 1. The details and coloring. 2. The artistic arrangement. 3. Language (a) Picturesque epithets; (b) Appropriate words; (c) Poetical forms; (d) Figures; (e) Repetition of "not for." |
| SECOND PICTURE
TITLE? | { | <ol style="list-style-type: none"> 1. Relation to foregoing picture. 2. Life of the children together and description of each. 3. Reason for time, "long ago," and effect of repetition of "summers." |
| THIRD PICTURE
TITLE? | { | <ol style="list-style-type: none"> 1. Relation to preceding. 2. To what is death likened? 3. Account for season, time, and place. 4. What is relation of death to the hereafter? Point to all expressions relating to 1, 2, 3 and 4. 5. Quote expressions that rob death of its dread. |

GENERAL QUESTIONS.—1. What is the relation of the first four and the last four lines to the remainder of the poem? Express each in a single word. 2. Quote, with reasons, the parts you consider most beautiful. 3. Give parallel passages for different parts. 4. What lessons can be drawn from the poem? 5. What are its poetic merits? 6. Illustrate Harmony and Melody. 7. Themes for composition. 8. Reading. 9. Memorizing. 10. Supplementary reading of passages furnishing similar treatment. A surprising parallel more beautiful, if possible, than the present poem, is the death of the little sister in Whittier's *Snow-bound*.

In dealing with a poetical selection, if not too long, certainly if of the length of the one before us, it is advisable to read it over, as a whole, with the class, that they may get a grasp of its general meaning. Then I would assign a part for home preparation, requiring them to write out its substance in their own words. The advantages of this exercise are several. It throws the pupils on their own resources, gives them greater familiarity with the details than they would otherwise get, and is an excellent practice in composition. It should be the aim to assign such a lesson as shall possess unity, a picture, or some complete part of one, or some finished incident. To select it, a very good way is to read a part of the poem, asking the pupils to stop you when you have completed the description of such picture or unity. In the present case they will have no trouble in fixing upon the first stanza as such a limit.

After dealing with the home-work, draw from them some suitable title for the picture, then obtain from the class the details that go to make it up. Next, after impressing upon them the relation between poetry and painting—that the poet does for the ear what the painter does, with brush and colors, for the eye—call attention to the richness and profusion of coloring, the gold and green, the red, the white, the pink and yellow. Continuing the same line of thought—the relation of poetry to painting—have them give the artistic grouping of the different details. Most of them suggest their own position. In the foreground is the lowland, sprinkled with violets, pinks, and cowslips; in the background is the airy upland,

with its gnarled oaks, its vines and berries, and, skirting the whole, the fragrant hawthorn hedge with its swaying lilies.

Then might follow the critical consideration of the language. Draw from them the picturesque epithets and phrases, and their explanation, such as "gnarled oaks," "dark with mistletoe," "violets golden," "milk-white lilies," "fragrant hedge." An important exercise also is the consideration of appropriate words, as, for instance, "sprinkle," which expresses profusion and absence of arrangement; "stealing," which suggests the quiet, subtle, unseen, unfelt theft by the lilies of the sunbeams' gold. And in addition to the appropriateness of the word "coquetting," notice also the perfection of the rhythmic harmony of the line. The better to aid the class in understanding the fitness of their use, suggest to them other words, and have them point out why the one chosen is to be preferred. Then there are a few poetic forms—"olden" is varied from "old" of the preceding line, and being fuller in form and sound is more dignified and suits the requirements of the metre; for the same reason the form "seemeth" is preferred to "seems."

Further, the poem abounds in figures of speech. It will be impossible to deal fully with all, and I shall content myself with suggesting some of the thoughts that arise out of the metaphor of the opening lines, in which the mind with its array of memories is likened to a picture-gallery. Have them describe to you some picture they have seen, on the walls at school, if you are fortunate enough to have them, or in their homes, and when they have given you their details and beauty, their coloring and harmony, let them tell you of other pictures that do not hang upon those external walls, a picture of some day that has fixed itself lastingly in the child-mind; a holiday, an excursion, some scene of the old home that will linger always with them. Where is it they have stored them? Those visible pictures are hung on outer walls; on what walls are these pictures hung on which the mind's eye feeds? And further, what profusion is suggested by the words, "of all the beautiful pictures?" They are as many and as varied as their days, with every shade of color, from the radiant tints of morning to the soberer tints of evening. Again, upon those external walls hang pictures upon which no price is ever set, pictures of unsurpassed beauty, rare originals, never to be duplicated, for the hand that gave them their life, perhaps, is long since cold in death. And have we not our original memory-pictures, which we would relinquish for no gain, pictures "painted in the colors of the heart"—rare portraits—faces, it may be, of the living, long parted from us; it may be, as in the poem, of the dead—dream-faces—that yet remain with us, with "the light that never was on land or sea," the immortal beauty shining from the unbarred gates still lingering about them.

Then, there is to be considered the effect of the repetition of "not for." You will notice that in the description of the forest every alternate line begins with this negative, except the eleventh and the fifteenth, where "nor" is substituted for it. The effect of this is to keep the mind in suspense, to caution it, at the mention of each of the details, not to accept it, beautiful though it be, as a part of that perfect picture that "seemeth best of all." Similar to it is a principle in music called the Chord of Unrest. It is as though the spirit of music were striving to express itself as it desires, but is constantly thwarted by other chords that intrude themselves. Again and again is heard the suggestive note, and it will not rest until it triumphs and is fully satisfied.

Such is the effect of the negative so often repeated. At length the Chord of Unrest is satisfied. The ear has been prepared for the word-picture that is to follow. Still we see the dim old forest, still the flowers and vines, the hedge and waving lilies, but all these beauties recede into the background, and form but the

setting of the real gems—those childish forms, that have endeared the poem to the hearts of thousands. And what do we know of them? There are but few lines of description, yet those few are so suggestive as to carry the imagination far beyond the meagre words and phrases. In the first line we gather the age of the little brother, the second has a few words of personal description—"with eyes that were dark and deep." Of what character are these also indicative? Whittier has two lines excellently amplifying the word "deep."

"The eyes' deep enchantment, dark, dreamlike,
and clear,
In the glow of its gladness, the shade of its
tear."

So we can picture him, sitting, deeply pensive, often startling one with his quaint fancies, and his thoughts and questions on subjects far beyond his years; yet also entering into childish pleasures with his sister, his face beaming with joy and reflecting every shade of emotion. Then amplify with them other questions—their life together, his slow illness, his bearing through it, its effect on his physical beauty, his resignation and death.

It is an excellent exercise to give such headings, and let them search for everything bearing upon them. Then when they have discovered all they can alone and with your assistance, let them take the headings again and enlarge upon them as their imagination directs, along the lines the words and expressions suggest. For instance, the line, "his feet on the hills grew weary"—we can fancy how the excursions grew fewer and fewer, the rests more frequent, how the sister hung about him, watching his every move and anticipating his every wish; how she gathered for him the flowers and mosses that she knew he loved, and all the beautiful days of that last, never-forgotten autumn, how she surrounded him each moment with the marks of her untiring devotion.

Hitherto all the interest has seemed to centre about the brother, yet through and beyond him we catch glimpses of another life, no less interesting in the thoughts it arouses—a life full of beauty, purity, and unselfishness. It is he who has seemed to usurp the foreground, but where, in our mind-picture, will our thoughts place her whose arm supported his weary steps, whose hand prepared that "bed of yellow leaves," and caressed his pale arms and cheeks, whose neck received that last embrace, and whose face lay close to his when the immortal radiance fell upon it. I will only mention here a few topics which a careful consideration of the poem suggests—her age compared with his, her relation to him as protector, her unselfish watchfulness, her unmentioned grief.

Now we come to the time of their life together—"the summers of long ago." Why is it laid in the distant past? Is it necessary to have it so to be in harmony with her memories of him? Would it be possible to speak of him as she does in the first bitterness of parting? A reference to Tennyson affords a perfect answer. In his first agony at the death of his friend, Arthur Hallam, he wrote that inexpressibly sad poem, "Break, Break, Break." But as time applies its healing balm, and looking around him he sees the death of winter give place to the living hues of spring, the flowers and bird-song, he thus applies the lesson to himself:

"and in my breast
Spring wakens too, and my regret
Becomes an April violet,
That buds and blossoms like the rest."

Washington Irving, too, has expressed the same thought in scarcely less beautiful prose: "The love which survives the tomb is one of the noblest attributes of the soul. If it has its woes it has likewise its delights, and when the overwhelming burst of grief is calmed into the gentle tear of recollection—when the sudden

anguish and the convulsive agony over the present ruins of all that we most loved has softened away into pensive meditation on all that it was in the days of its loveliness—who would root out such a sorrow from the heart? Though it may sometimes throw a passing cloud over the bright hour of gayety, or spread a deeper sadness over the hour of gloom, yet who would exchange it even for the song of pleasure or the bursts of revelry? No, there is a voice from the tomb sweeter than song. There is a remembrance of the dead to which we turn even from the charms of the living."

And finally, what is the effect of the repetition of the word "summers?" The reason of its use will be discovered in considering the perfect harmony between sound and sense in this and the preceding two lines. In describing their joyous, careless life together, there is an airy lightness and nimbleness, but in the last line the vowel sounds become fuller, the syllables more prolonged, and the words seem to linger, and pause, and linger, in harmony with the pensive thoughts into which the mind falls in its contemplation of the distant past.

Now we have come to the third scene, the climax of the poem. Again there is the old forest, but this time with the frost-crowned glory of autumn about it; again the children, but one with the light of immortal beauty upon his face. To what, then, is death likened—and why? As the child, weary with its long day's play, comes at evening to his mother's lap and to his soft bed, to rise in the morning, refreshed for new pleasures, so the little brother comes, at the close of the short day of his little life, now grown so weary, to rest his head on the lap of Mother Nature, to awaken into a new day with all the weariness dropped from his wasted limbs, and wander, with feet that never tire, about the Everlasting Hills,

Further, what is the reason for the season and place? Autumn is the time when nature prepares her for winter's death, to live again in the renewed glories of spring, so the child, too, is to burst the brief bonds of death and emerge perfectly restored into the fadeless beauties of the eternal springtime. As to the place, it was fitting that, amid the scenes that had made such a part of his life, surrounded by all that suggested recollections of it, he should pass

"beneath the low, green tent
Whose curtain never outward swings!"

and sink to sleep, like a tired child at even, on his Mother Nature's breast.

The final thought suggested by this scene is the relation of death to the hereafter. It is a theme that many writers have dealt with in a similar manner. Tennyson, in one place, speaks of death as but the shadow of the dawning:

"Be near me when I fade away,
To point the term of human strife,
And on the low, dark verge of life,
The twilight of eternal day."

Again, in his last days, when all the companions of his earlier and later years had emerged from the "twilight," and he was almost face to face with his "Pilot," his thoughts no longer revert to the long-severed associations, but are carried forward to a near re-union, and he leaves to us these few lines so fitly closing his life:

"When the dumb Hour, clothed in black,
Brings the dreams about my bed,
Call me not so often back,
Silent voices of the dead,
Toward the lowland ways behind me,
And the sunlight that is gone!
Call me rather, silent voices,
Forward to the starry track
Glimmering up the heights beyond me,
On, and always on!"

Longfellow, in his *Resignation*, has made death nothing more than a step through an open door.

"There is no death! What seems so is transition,
This life of mortal breath
Is but a suburb of the life elysian
Whose portal we call death."

And Whittier has used the exact metaphor of the poem:

"And when the sunset gates unbar
Shall I not see thee waiting stand,
And, white against the evening star,
The welcome of thy beckoning hand."

In conclusion, let me quote that beautiful parallel, and, in parts, almost prose translation of this last stanza, the death-scene of little Paul in Dickens' *Dombey & Son*:

"Now lay me down," he said, "and Floy, come close to me, and let me see you!"

Sister and brother wound their arms around each other, and the golden light came streaming in, and fell upon them, locked together.

"How fast the river runs, between its green banks and the rushes, Floy! But its very near the sea. I hear the waves. They always said so!"

Presently he told that the motion of the boat upon the stream is lulling him to rest. How green the banks were now, how bright the rushes! Now the boat was out at sea, but gliding smoothly on. And now there was a shore before him. Who stood on the bank!

He put his hands together as he had been used to do in his prayers. He did not remove his arms to do it; but they saw him fold them so behind her neck.

"Mamma is like you, Floy. I knew her by the face! But tell them that the print upon the stairs at school is not divine enough. The light upon the head is shining on me as I go!"

The golden ripple on the wall came back again, and nothing else stirred in the room. The old, old fashion! The fashion that came in with our first garments, and will last unchanged until our race has run its course, and the wide firmament is rolled up like a scroll. The old, old fashion—Death!

Oh thank God, all who see it, for that older fashion yet, of Immortality! And look upon us, angels of young children, with regards not quite estranged, when the swift river bears us to the ocean!"

WINTRY DAYS IN OUR SCHOOL-ROOM.

M. A. WATT.

I.—ONE DULL DAY IN DECEMBER.

MISS CHEERY was intending to teach her class a lesson in grammar that afternoon, but it rained at noon, a soft, drizzly rain, and it was so dark and dull, and the children looked so limp and careless and weary as they took their seats that Miss Cheery saw she must lay aside "Case" for one more day. What was she to do to replace it? Tell an entertaining and instructive story? That might do, but the children looked too lazy to listen intelligently, and beside, she wanted them to *do* when they looked so idle; they must *work* to cure idleness. She walked backwards and forwards before the class, raised the blinds, turned the flowering geranium towards the children, then briskly she faced the class, her mind made up.

"We are going to be very pleasant this afternoon because it is so dull outside. We will do something I know you all will like. So you may hunt out your favorite lesson in your reader, and then I will tell you something else to do."

Miss Cheery looked as if she had something pleasant to think about, and the children brightened up and got out their books quickly.

"Sarah and Jennie, get some papers ready, one for each pupil, and Tom, see that everyone has a sharp lead pencil."

The papers (semi-blank leaves from old copy and dictation books, kept for such special times) and lead pencils were soon in place.

"Read your lesson, boys and girls, until you see a picture that you think you could put on paper, so that I could see it as well as you.

Put it as clearly on the paper as possible, then write the verse you have taken, or a sentence that explains your picture, then write your name as well. Give your paper to me when you are done."

"O, goody, goody," whispered Jack Brown to himself, as he read with intensity the lesson about whale-fishing, and Miss Cheery smiled to see the same earnest pleasure on every face. No, not every face, for there was little Leonard Smith, frowning and pouting; what was the matter with Lenny? Miss Cheery waited to see him begin his work, but no, he seemed incapable of effort.

"Come to me, Lenny," she said, and the little fellow came and confided to her that he "couldn't see any pictures except those in the book," could not form any mental vision that he could express visibly. He was evidently sincere in his opinion of his own powers, though he showed in the conversation they had about his favorite "Grey Swan," that he understood the story, and found a meaning in each portion of it. When asked what stanza seemed to him to have the most picture in it, he said the last one, and that is the one illustrated in the book. Miss Cheery pursued the subject still further and the little fellow said, at length:

"I think I could make a picture about 'I stood on the 'Grey Swan's' deck,' Miss Cheery."

"That is fine, Lenny, try that, then." But when his paper came in it showed his discouragement, and the lack of some quality in him. He had made some lines of the new picture, but it had ended in his copying the illustration in the reader! (Oh, Lenny, Lenny, how like too many of us grown-ups you showed yourself by that deed!) He could not do such fine work as the engraved illustration, and so he did some poor copying that was worse than even bad originality, but lacking the originality.

Miss Cheery rolled up the little bundle of papers, not daring to risk her self-control by examining them before the class, who were all alive and ready for a motion-song before they changed their work. The sun did not shine out, but the merry eyes and smiling faces made sunshine in the room sufficient to carry them through until dismissing time. Miss Cheery promised to tell who had done superior work, and also promised that they should try again, advising them to practise drawing so as to be ready to do better than they had already done.

That evening Miss Cheery sorted the illustrations, (I wish you had been there, but you can easily secure similar ones by trying it in your own class) and before giving the work to her class again she mentioned those whose work showed thought and good execution, criticizing, however, in a friendly manner on such grounds as proportion, say of the size of men to houses, faces to bodies, whales to ships, men to ships and to whales, also referring to the peculiar anatomy of the human form divine, as portrayed by the young artists. Certain pupils had indulged in colors, so the importance of correct form was impressed, "form perfect before coloring" being given as a rule.

One other day, recently, Miss Cheery's class illustrated a composition, and after New Year they are going to try again at illustrating a favorite lesson, and Miss Cheery says she thinks she will let the best ones put it into their best drawing books! So they are all thinking and seeing pictures, and are noticing shapes of boats and ships, because so many like "The Wreck of the Hesperus," and "The Capture of the Whale," and "Casabianca," though Jack Brown likes "Bingen on the Rhine" best, and he is studying soldiers and how to bend a man's knee, to illustrate the first stanza, where the "comrade bent to lift him." As for Lenny, Miss Cheery expects great things of him after New Year!

II.—A SNOWY AFTERNOON IN JANUARY.

The soft flakes were floating, fluttering, falling through the air, and the children's eyes were directed toward the windows with eager

pleasure. Miss Cheery seized upon this interest to introduce them to a composition exercise upon the hackneyed subject of "Snow." Did she go to the board and write the word, saying in stern decision, "Write a composition on 'snow,' ten lines, and get it done in twenty minutes, or stay in till you do?" No, she didn't. She acted like any lady might in her own parlor; she looked at the snow with the rest, and remarked on its beauty, leading them to notice its peculiarly lazy, reluctant motion, and the darkness of the upper air, while she listened to the remarks of sundry bright children, as politely as if they were uttered by grown-up persons. "How would you like to tell about your thoughts of the snow, to-day?" she asked the children, and a cheerful response being given, pencils were soon busy. While the work was going on more than one child looked up into the snowy sky with a rapt gaze, unchecked by Miss Cheery, who was busy hunting up J. G. Holland's "First Snowfall," which she read to the children when they got through.

I read some of the papers that evening while sitting in Miss Cheery's room, and I was struck with the freedom of thought, the child-like comparisons, the originality of the ideas that characterized the compositions, "Snow-pictures are made by lying down in the snow, with your arms out," "What I think when I see the snow falling is that I shall have a good time sliding," were common expressions of the matter-of-fact, but some verged on the poetical; the roofs in the neighborhood were said to be "ivory." One girl wrote, "The buds on the chestnut trees are afraid of the snow-flakes; I think I hear them say, 'O, you little snow-flakes, go away, you will freeze me,' but the little flakes of snow do not listen to the buds." Another wrote, "The snow-flakes come riding down, slow and steady, slow and steady, as if they hated to leave the sky and reach the black earth;" and one paper ended up with the information in a boyish scrawl, "The icicles hang from the snow-man's ears to-day, you bet." Many referred to the shapes of the crystals, and some had made drawings of the six-pointed stars, they having asked and received permission to go to the window to see the flakes more closely. I asked Miss Cheery if she insisted on paragraphing and such points, but she said, "No, not in a thought and imagination exercise like this. I let them put down what they think; their thoughts are so easily checked when trammelled by rules. But I have another exercise, not new by any means, nor yet original with me, that I use with variations to teach paragraphing. Come in again, some of these days, and I will show you the children work along that line."

CORRESPONDENCE.

N. McJ. The examinations in Senior Leaving, Grammar, in French, and German are taken from no book, but preparation should be made from the H. S. French and H. S. German grammars and Lessons in French. No limit to the study can be stated, as none is fixed, but by procuring copies (Education Department) of past examination papers you will get an excellent idea of the aim and extent of the work. Preparation in English, in Grammar, Rhetoric, etc., can be made from the H. S. Grammar, Earle's Philology, Lounsbury's English Language, Bain's Rhetoric, (consult also Alexander and Libby's "Composition from Models"); for the Shakespeare use Rolfe's ed., with Hudson's Life, Art, Characters of Shakespeare. For Chaucer the Clarendon Press ed. and Pollock's Chaucer Primer. (I speak for examinations of this year; next year's are changed.)

SENIOR LEAVING, 1894.

Metinks my moiety, north from Burton here,
In quantity equals not one of yours:
See how this river comes me cranking in,
And cuts me from the best of all my land,
A huge half-moon, a monstrous cantle out.
I'll have the current in this place damm'd up;
And here the smug and silvery Trent shall run

In a new channel, fair and evenly;
It shall not wind with such a deep indent,
To rob me of so rich a bottom here."

Analysis of ll. 1-5 to show clauses: first sentence "Metinks (that) . . . yours," complex, having the noun clause "(that) my moiety . . . yours," in subjective relation to "(me)thinks;" second sentence "See how . . . out" complex; principal clause, "(you) see;" noun clause, object of "see," "how . . . out." "Here," in l. 1, is an adverb, in adverbial relation to "Burton (which is) here." "Here" (l. 7) is in adverbial relation to "run." "Here" (l. 10) is adverbial modifier of "no." "Me" (l. 1) is indirect object of "thinks" (=seems); in l. 3 and l. 4 it is inserted as a vivid personal touch—the ethical dative of classical grammar; in l. 10 it is direct object of "rob."

By substituting "will" for "shall," l. 7. and l. 9, the speech is robbed of the imperative tone in which Hotspur speaks, and becomes a mere statement of future fact, in which the speaker's will is not involved. For the distinctions in the use of "shall" and "will," see the ED. JOURNAL, English Dept., Nov. 1, 1894.

"Metinks" is an impersonal verb—" (it) thinks (=seems) (to) me," intran., 3rd sing.; "me," the direct object, has coalesced with the verb. "North" is an adverb, in relation to "moiety (that runs) north." "Yours" (l. 2) is a possessive pronoun, objective, plural. "Damm'd up" (l. 6) the past part., forms with "have" the verb phrase, which may be aptly described as a causative passive verb phrase; "up," of course, is adverbial to "dam." "Fair" (l. 8) is an adverb (adjective form), modifying "shall run." "To rob" is the infinitive of purpose (gerundial infinitive), depending on "shall wind," with which the preposition "to" connects it.

INQUIRER. For P. S. Leaving examinations in Rhetoric, try Genung's "Outlines of Rhetoric," advertised in our columns.

By "descriptive title" an examiner means such a phrase as will explain the nature of the subject-matter of the passage over which it is placed. If you will quote passages from examination papers, I shall be glad to answer, as far as answer is possible, any questions asked.

NOVEMBER.

"WHERE do you get the pretty poems and beautiful descriptions of autumn scenes?" asks a teacher. And we reply, "Everywhere." Like Thoreau's arrow-heads, they are all about us, as soon as we open our eyes to see them. For instance, we are reading the new book "Marcella," by Mrs. Ward, and we find this: "The autumn evening was far advanced when Adonis Raeburn, after his day's shooting, passed again by the gates of Mellor Park on his road home. About him, as he trudged on, lay a beautiful world of English woodland. Beech woods of all kinds—from forest slopes where majestic trees, grey and soaring pillars of the woodland roof, stood in stately isolation on the dead-leaf carpet woven by the years about their carved and polished bases, to the close plantation of young trees, where the saplings crowded on to each other, and here and there amid the airless tangle of leaf and branch some long pleasant drive, cut straight through the green heart of the wood, refreshed the seeking eye with its arched and far-receding path. Straight in front of him and on his right, the forest trees, still flooded with the sunset, fell in sharp steps towards the plain. Through their straight stems glowed the blues and purples of that lower world; and when the slopes broke and opened here and there, above the rounded masses of their red and golden leaf, the level distances of the plain could be seen stretching away, illimitable in the evening dusk, to a west of glory, just vacant of the sun. The golden ball had sunk into the mists awaiting it, but the splendor of its last rays was still on all the western front of the hills, bathing the beech woods as they rose and fell with the large undulations of the ground."

This is an autumn picture taken from a popular novel; it is real geography, because it describes a part of the earth; and it is a season study.

—Educational Gazette.

Examination Papers.

ANNUAL EXAMINATIONS, 1894.—THE HIGH SCHOOL PRIMARY.

PHYSICS.

NOTE.—Give diagrams with every answer, if possible.

1. (a) Describe simple experiments which clearly illustrate the forces of *adhesion* and *cohesion*.

(b) Explain why the water rises when you put one end of a tube into water and suck at the other.

(c) Find the horse-power of a steam-engine which, in 9 hours, can raise, through a distance of 36 feet, a weight of 8,538,750 pounds.

2. (a) How would you conduct an experiment to show that *pitch* and *intensity* are entirely distinct from each other.

(b) Describe two experiments to show that sound can be reflected.

3. (a) What is the distinction between a noise and a musical sound?

(b) State any observations which lead us to believe that sounds of high and of low pitch travel at the same rate.

4. (a) Explain what is meant by the *radius of curvature* of a concave spherical mirror; and show how you would determine it experimentally.

(b) A beam of light, parallel to the principal axis, falls upon a convex lens: draw carefully the paths of a number of rays. Replace this lens, in succession, by a concave lens, a concave mirror and a convex mirror, and draw the course of the rays. (Four separate figures required.)

5. (a) Sunlight is projected against the side of a glass prism, and, on coming out, is received on a screen. Draw the path of the rays, and describe the appearance on the screen.

(b) Give two methods of showing that the prismatic colors can be re-blended into white light.

6. (a) Describe the gravity battery, and state for what purpose it is particularly suited. Why is it better than copper and zinc in dilute acid?

(b) Describe two experiments illustrating chemical action caused by the current, and state how this effect can be used to measure the strength of a current of electricity.

7. (a) Describe the arc electric light, and explain the action of the regulator.

(b) Explain by means of a clear diagram the construction of a telephone receiver, and give the use of each part.

N.B.—In these answers diagrams are not given where they would and should be exacted by the examiners.

1. (a) Lay a board 1 ft. square and $\frac{1}{4}$ inch thick, to the centre of which a hook is attached, upon the surface of water. Now to the hook attach a spring balance. Raise the board from the water, noticing the pulling force required. This will be found to be greater than the weight of the board. This attraction between the board and water is called adhesion.

There are many reasons for believing that all matter is composed of minute particles separated by small spaces. Since matter can and does exist in *masses*, there must be some attractive force holding the molecules together. When the molecules in masses are similar, the force holding together is cohesion. Fasten a wire to a stout peg. Attach to free end of wire a pair of spring balances, and pull. Eventually the wire breaks, the force holding molecules in proximity to one another has been overcome.

(b) When one sucks at the end of a tube placed in water the air of the tube is rendered less dense and consequently exerts less downward pressure than before. The air pressure outside the tube now becomes greater than the air pressure in the tube and forces the water up until the downward pressure of air and water in the tube equals the downward pressure of the air outside.

(c) 1 horse-power = 33,000 ft. pds. per min.

Raising 1 lb 1 ft high is 1 ft pd.

(1) No ft pls work done = 8,538,750 × 36.

(2) 1 horse power in 9 hours can do 33,000 × 60 × 9 ft. pds.

∴ horse power required = (1) divided by (2).

2. (a) Stretch two strings of same length, thickness and material between two bridges.

Increase the tension of one by screwing it up tighter. Pluck each by the middle the same distance sideways from its position at rest. Then each string has same amplitude and therefore the same intensity, but there is a difference in the sounds. One string will be found to be vibrating faster than the other.

(b) See textbook for one method by concave mirrors.

Another method: Take two tin tubes about 6 feet long and 3 inches diameter. Place two ends close together on the floor, and having the tubes inclined at various angles. Place a watch at the open end of one tube and an ear at the open end of the other tube. The watch can be heard ticking through the tubes when it cannot across the open air space between the watch and ear. This experiment can also be utilized to show that the angle of reflection equals the angle of incidence.

3. (a) If the ear receive a number of impulses in slow succession, so that it can distinguish each, the result is a series of noises; if, however, the impulses come in quick succession, so as to be continuous, and if pleasing, the sound is a musical one.

(b) Let two steamboats whistle at the same time. An observer who is equally distant from each may see the steam spring out at the same time from each whistle, and hear the sounds produced simultaneously, but one may be very shrill and the other very deep. As they were produced at same moment, reached the ear at same moment, and travelled same distance, their rates must have been same.

4. (a) The radius of curvature of a concave spherical mirror is the radius of the sphere of which the mirror is a portion of the surface.

To determine it experimentally, receive the rays of the sun reflected from a plane mirror upon a concave spherical mirror. Throw chalk dust in the space in front of the mirror. A cone of light may be observed and the apex of this may be located. The apex is the principal focus, and the distance from this point to the vertex of the mirror is one-half the radius of curvature.

(b) Figures for these are given in text-book.

5. (a) See text-book for figure.

A colored band of light falls upon the screen. This band is composed of minor divisions--red, orange, yellow, green, blue, violet.

(b) As the colored band emerges from the prism place another prism beside the first, inverted so that base of second is alongside the apex of the first.

Another method is to use a rocking prism for dispersion, then by twirling, the various colors are recombined into white light.

6. (a) For description see text-book.

It is well adapted for telegraph use.

In the gravity cell polarization cannot take place since free copper is deposited on the copper plate. In an acid solution hydrogen is set free which polarizes the copper plate.

(b) Send the current from several cells through a water containing a small quantity of sulphuric acid. This mixture contained in an inverted test tube. The ends of the wires end in platinum plates. A gas is given off which in contact with a flame explodes violently, thus showing it is neither water nor sulphuric acid. One or other of these has been changed chemically. This may be used to measure the strength of the current since the amounts of gas liberated in a fixed time will be proportional to the quantities of electricity.

In electroplating a current is sent through the liquid, both decomposing it and setting free the metal which is deposited upon the article to be plated.

7. (a) For description see text-book.

The regulating mechanism is illustrated in any good text-book of electricity.

(b) For construction and use of each part see text-book where it is fully described and illustrated.

CLOUDS.

How many teachers tell their pupils what clouds are? Is there not the better way--that of leading them to tell you?

Try the following plan here sketched in outline. The apparatus is extremely simple and can be obtained anywhere at any time.

Invert a dry tumbler, light a match, and after the sulphur has burned away hold the flame under the mouth of the tumbler.

What difference in the appearance of the sides of the tumbler? What is the dimness? What is formed when wood burns? What goes out of the chimney? Where does it go?

Dry the tumbler and breathe into it. What is the dimness? When we breathe out what passes away from us, and where does it go?

What comes from the spout of the tea-kettle? Where does it go?

Wet the inside of the tumbler with waer and leave it on the desk for some time. What has happened? Where is the water.

Does frost form on the window panes in warm or cold weather? Inside or outside?

If you heat the frost, to what is it turned? How did the frost come there?

If you heat water what becomes of it?

Does water on the roads disappear quicker in sunshine or darkness? Why?

How can steam be turned into water again?

When a great amount of water goes up into the air from the chimneys, and from persons breathing, and from the sun shining upon wet ground, and meets cold air, what will happen?

Does rain come in sunny weather?

Teachers may say: "But this takes so much longer than telling them." Of course it does? But if you are constantly telling them are you educating them? Training to observe and think is more important than stuffing the memory.

UNIFORM AND PROMOTION EXAMINATION, NOV. 29TH AND 30TH, 1894,

UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY.

ARITHMETIC.—CLASS II.

(All the work to be put down.)

1. Write down the following table of numbers, add upwards and crossways, and prove results by adding the totals:

946	586	944	1094	
289	320	275	901	
564	940	689	2037	
744	179	259	655	

2. Write in words--(a) 8006; (b) 37540; (c) 1010109; (d) 20060401.

3. Multiply (a) 7895469 by 6, (b) by 9; (c) multiply 9905 by 13, (d) by 308.

4. Find the difference between (a) 109642 and 98047; (b) 346895042 and 98765809.

5. A man buys 78 horses for \$5750. For what must he sell each so as to gain \$1170 on the whole?

6. There are 60 lbs. in a bushel of wheat. How many pounds of tea at 40 cents a pound can be bought for 6480 pounds of wheat at \$1.20 a bushel?

7. James goes east for 13 hours at 5 miles an hour, and Jane starts at the same point James does but goes west for 11 hours at 4 miles an hour. How far apart are they?

8. A man sells 36 hogs at \$2.00 each; 24 sheep at \$3.1; 4 cows at \$17.00 each; 8 horses at \$150.00 each. With the money he buys land at \$4.00 an acres. How many acres can he buy?

9. A man bought a number of horses at \$82 each. How many must he sell at \$96 each to gain \$196?

10. How long will it take a passenger train running 24 miles an hour to overtake a freight train running 16 miles an hour, but having a start of two hours?

Values--10 each. (Three marks off for each mistake in No. 1, and one mark off for each mistake in each part of No. 3, and three marks off for each mistake in each part of No. 4.)

CLASS III.

(All the work to be put down.)

1. Add from left to right and by columns.

$$\begin{aligned} 243 + 342 + 429 + 327 + 294 &= *** \\ 121 + 989 + 839 + 729 + 468 &= *** \\ 942 + 102 + 236 + 621 + 842 &= *** \\ 327 + 294 + 555 + 639 + 333 &= *** \\ 219 + 100 + 270 + 213 + 421 &= *** \end{aligned}$$

*** + *** + *** + *** + *** = ***
Prove by adding results.

2. Find the difference between (a) 90620546 and 890569700; (b) 10050068 and 8069089.

3. Multiply (a) 7986 by 6897; (b) 10400 by 60009.

4. Divide (a) 483025 by 685; (b) 16003008 by 63504.

5. If 35 be added to a certain number it will contain 53, 1367 times. What is the number?

6. Find the number of minutes between 7:15 a.m. and 9:30 p.m.

7. A farmer mixes 15 bushels of oats, 25 bushels of peas, and 35 bushels of barley. How many bushels of each would there be in 10 bushels of the mixture?

8. How many days are there between March 21st and Oct. 30th.

9. Divide \$84.98 among A, B and C, so that A may have \$2.18 more than B, and B \$4.42 more than C.

10. Find the cost of 6 boards 11 in. wide, 5 boards 9 in. wide, and 8 boards 8 in. wide at \$10 per M. (All the boards 12 ft. in length.)

Values--10 each. (Three marks off for each mistake in 1, 2, 3 and 4.)

CLASS IV.

(All the work to be put down.)

1. (a) Multiply 9057605 by 800976.

(b) Divide 876543219 by 98765.

2. Write in words (a) 10065900.069405.

$$\begin{aligned} (b) 3\frac{1}{4} - 1\frac{3}{8} \frac{1}{2} \\ \quad \quad \quad \times - \\ 7\frac{1}{2} \times 4\frac{3}{4} 9 \end{aligned}$$

3. Find the sum, difference, product, and two quotients, of 10.01 and .0091.

4. Define, and give an example of each--Composite number, prime number, factor, complex fraction, multiple, measure.

5. Find the price of 364 tons, 17 cwt. 3 qrs. and 10 lbs. of steel at \$40 per ton, by aliquot parts.

6. A man bought 290 bushels of a mixture of peas and oats for \$79.00. If the peas were worth 45c. per bush. and the oats 35c., find how many bushels of each there were in the mixture.

7. (a) Find without reducing, the difference between 16 acres, and 9 a., 1 rood, 20 rods, 25 yds. 1 ft.

(b) What part of 2 miles, 3 rods, is 5 ft. 11 in?

8. Illustrate by an example the difference between Bank Discount and True Discount.

9. Thos. Edwards bought from Samuel Henry, the day after Thanksgiving Day, a horse for \$65.50, and is to have six months' time at 7%. Write in full the Note (negotiable) that Edwards would give.

10. Find what is due on a note for \$140.60 at the end of 4 mos. and 26 days, at 6% per annum.

Values--10 each. (No value is to be given (a) or (b) in No. 1 and 3, unless absolutely correct; and a mistake in any part of No. 3, cancels the value of that part.)

ANSWERS TO CORRESPONDENTS.

J. C.—QUES.— Explain how, in case of drowning, the water enters the lungs.

Ans.—The contractions and expansions of the chest and abdominal muscles do not cease until death. After the air is expelled the walls of the chest and abdomen expand and the external pressure of the atmosphere on the surface of the water forces the latter into the partial vacuum in the lungs.

Primary Department.

PRIMARY GEOGRAPHY.

BY KATHRYN LIVINGSTON.

THE study of geography cultivates the child's imagination. It is developed at the earliest period and continues more active as the lessons advance. Yet, at the period the child begins to study geography, his mind demands *realities*—real objects,—and the question arises: "What means shall we use to give the child power to grasp, in the imagination, the unseen forms and objects which geography tells us of?" A class in geography may be from seven to ten years of age. No books are used, with the exception of a few reference books and geography stories.

How can we lead them to accuracy in observation and imagination? Their power to grasp ideas is limited, but the child has acquired many ideas from objects with which he comes in daily contact. Let the first lesson be a map of their own house and lot, or the school-house and grounds. If this be too difficult, take the school-room. Let it be drawn on the board—a half-inch to every foot. Let them observe the position of platform, desks, seats, and indicate the windows.

If Harry has blocks, let him construct an imaginary school-room with these blocks—one block representing a yard or a foot as the judgment of the teacher suggests.

If clay be at hand, let a model of the school yard be made, with the proper location of the building and place little twigs to represent the big trees in the play ground. The boys, carefully carrying out the programme, will be delighted to make a miniature fence of little strips of cardboard. The child must be made to understand that very *little things* represent very *big things* in geography.

After the children thoroughly understand and grasp this idea, lead them on to represent something, in which the school-house and grounds will be represented on a still *smaller* scale. Take as an illustration the street upon which the school-house stands. Let the various houses be indicated, the street, side-walks, trees, and in *this* map the school-house and yard will be still smaller. Then the pupils are ready to make a map of the village, town, or even city.

Let the principal public buildings be located and spend much time in carefully studying various maps of the country, and hence the map of the state means more to the pupils than so many black lines and little dots. There is now no inability to imagine objects about which they are studying.

Call the pupils' attention to the geographical objects around about them. Teach carefully the little hills and mountains that can be seen in the street gutter during a rain. Call the children's attention to the little rivulets, the diverging lines of water, the little lumps of sand between that are baby islands, the hills, the capes, and now and then a little miniature pond. The children grow intensely inter-

ested, and their exclamations of delight are frequent when some new feature is found.

Leading onward from this come the lessons in *real* hills, and from this, the mountains and ranges of mountains. Mould both hills and mountains in sand, or in putty, and compare them in size and height. From the hills and mountains thus moulded, draw forth their definitions. From a pond, picture in the imagination of the children, a lake.

From a level field, teach plains and plateaus. From a little ravine, teach valleys; from brooks, teach rivers.

The little ones will talk geography understandingly at an early age if so taught.

Having accomplished these drills, lead the children on to the building of continents. First, build it into the *mind* by means of the imagination, just as you build into the mind the idea of a river from the little hillside streamlet. Let an outline map be drawn, then prepare a board and clay, and mould the continent. Place different colors to represent the different heights of land; bright green upon the low-lands, the brown may be used for higher lands, the gray for mountains, and a little tip of white to represent the snow-capped peaks of the range.

In teaching the productions of a country, request the pupils to bring a little sugar for southern U. S., also a little rice. These may be placed over that part of the country where these are produced; then a little cotton, and kernels of corn, are placed here and there. Farther north is the little piece of iron, the coal and tin. To the east is the specimen of granite, marble, soapstone. This map is a delight to the children.

Then another map may be sketched in outline; the boundaries of states indicated, and upon each state is placed a drawing of some of the leading fruits or vegetables. California has a little bunch of grapes, Florida contains an orange (colored with crayon.) In the south, are bananas; in the north are peaches, apples, pears and various other fruits are indicated upon the map as well as vegetables. The drawings are not accurate, but the colored crayons serve to make a lasting impression and afford much interest and enthusiasm.

Make it a point to have an interesting *picture* back of every fact taught and every idea introduced, else your efforts will be in vain.—*Popular Educator.*

THE MULTIPLICATION TABLE.

KITTY sat out under the sweet-apple tree in the golden October noontime, crying real salt tears into her Primary Arithmetic.

"Now what's the matter, Kittyleen?" asked big brother Tom, coming out with his Greek Grammar under his arm. "I supposed you were eating sweet-apples and studying, and I came out to do so, too, and here you are crying."

"It's—this—dreadful—multiplication-table!" sobbed Kitty. "I can't never learn it, never!"

"Hard?" asked Tom.

"Oh, its awful! Harder than anything

in your college books, I know. It's the eights this afternoon, and I can't learn 'em, anyhow."

"Don't you know how much eight times one is?" asked Tom, picking up a small apple and beginning to eat it.

"Yes, of course. Eight times one is eight. I can say up to five times eight all right."

"Can you? Well, that's encouraging I'm sure. Let's hear you."

Kitty rattled it off like a book, "Five times eight is forty"—and there she stopped.

"Oh, go right on?" said Tom. "Six times eight is forty-eight."

"I can't," said Kitty. "I can't learn the rest. I've tried and tried, and it's no use."

"Do you learn so hard?" asked Tom. "Now hear this, and then repeat it after me as well as you can." And Tom repeated a verse of a popular college song.

Kitty laughed, and repeated the nonsense word for word.

"Why you *can* learn!"

"But that has a jingle to it. It isn't like the dry multiplication-table."

"Let's put a jingle into that, then.

'Six times eight was always late,
Hurried up, and was forty-eight;
Seven times eight was cross as two sticks,
Had a nap and was fifty-six;
Eight times eight fell onto the floor,
I picked it up and 'twas sixty-four;
Nine times eight—it wouldn't do,
I turned it over and 'twas seventy-two.'

"Did you make that all up, now?" asked Kitty, in wonderment.

"Why, yes;" laughed Tom.

"Oh, it's splendid! Let's see, how is it?" And she went straight through it with very little help. "Ten times eight is eighty. That one's easy enough to remember."

"And now," said Tom, when she had the jingle well learned, "say the table aloud and the jingle in your mind as you go along."

Kitty tried that, and a very few times made it a success. With the ringing of the first bell she was ready to start for school, with those "dreadful eights" all perfect.

"You're the best Tom in the whole world!" she said, with a good-by kiss. "And I don't believe there's another boy in college that could make such nice poetry."

Tom laughed as he opened his Greek Grammar.

—Selected.

CLOUDS, FOG, MIST, DEW AND FOREST.

WHITE, gray, and black clouds, large and small ones, and those covering the entire sky, have been watched and studied by the children. They have observed the moving clouds and questioned what moves them. We have talked of fog as it was seen next to the ground, moved by the wind. The children discovered how it wets clothing and forms in little drops on houses. That it becomes mist when it is dense and they can see the rain drops. During the autumn rains we have talked of rain-storms; later

we were all interested in the dew. Teachers and older pupils saw the beauty in the following:

DEW.

Forged in the night, a silver shield—
Glistens at dawn the dewy field,
To parry every golden dart
Aimed by the sun at earth's glad heart.
—Frank Dempster Sherman.

A lesson in science is bound up in the beautiful poetical expression of these four lines, waiting for the teacher who can find it and help her class to find it.

But the children are interested in frost now, and we have a little poem to teach them after they have studied window panes.

A FAIRY ARTIST.

O, there is a fairy artist,
Who paints in the long night hours,
Pictures of wee, wee children,
Of wonderful trees and flowers.

Pictures of snow-white mountains
Touching the snow-white sky.
Pictures of distant oceans
Where pigmy ships sail by.

The moon is the lamp he paints by,
His canvas the window-pane;
His brush is the frozen snow-flakes,
Jack Frost is the artist's name.

—Selected

BABY BYE.

Baby Bye,
Here's a fly;
Let us watch him, you and I.
How he crawls
Up the walls,
Yet he never falls!
I believe with six such legs
You and I could walk on eggs,
There he goes
On his toes,
Tickling Baby's nose.

Spots of red
Dot his head;
Rainbows on his back are spread;
That small speck
Is his neck;
See him nod and beck.
I can show you if you choose,
Where to look to find his shoes—
Three small pairs,
Made of hairs;
These he always wears.

Black and brown
Is his gown;
He can wear it upside down;
It is laced
Round his waist;
I admire his taste.
Yet though tight his clothes are made,
He will lose them, I'm afraid,
If to-night
He gets sight
Of the glowing light.

A MAN who has to teach a class for a competitive examination is no longer able to teach the subject as the subject presents itself to him. He has to teach it as he thinks the subject will present itself to the examiner, and the injury to the pupil is especially bad, because those who suffer most are the ablest pupils. It is the man who is going to succeed and who does succeed in a competitive examination, who suffers most from the effects produced by competitive examination. His whole idea of learning is lowered, its dignity vanishes, the whole bloom and the whole charm are rudely brushed away from knowledge. He looks at learning no longer as the greatest delight and the greatest honor of his life; he looks at it as a means by which he can earn marks; and love is not more ruined by being associated with avarice than is learning by being associated with mark-getting.—Mr. Balfour, Head of Education Department in Scotland.

Hints and Helps.

NICE (???)

LAURA K. SUTHERLAND.

ONE of the most abused adjectives of our language is "nice." Young girls, especially, make it their pet word to express any kind of approbation. Anything and everything that happens is described by that all-sufficient word, *nice*. A man who is pleasing in his manners, is a *nice* man—a pretty dress is a *nice* dress, a lovable girl a *nice* girl, a pleasant day a *nice* day and I have even heard a girl describe a cabbage salad as a *nice* cabbage salad. Think of it! Cabbage and *nice*!

"*Nice* implies a union of delicacy and exactness. In nice food, cookery, taste, etc., the sense of delicacy predominates. In nice discrimination, management, workmanship, etc.—exactness."

Lately a new sense has been introduced—that of *pleasing*.

Apropos of the misuse of the word I heard a very funny story of Canada's great humorist and cartoonist—Bengough—editor of *Grip*. He has evidently suffered from an overdose of this too prevalent adjective and suggests a remedy which is at least effectual.

It was while crossing the continent last summer by way of the Canadian Pacific that the conductor related the incident to me. All day we had revelled in the grandeur of the Rockies, and were now approaching the summit through the deep gorge made by the Kicking Horse river. This canon is one of the most magnificent scenic parts of that magnificent road. The river divides the Ottertail and Beaverfoot ranges and in places scarcely leaves room for the railroad. It is a very narrow stream but carries an immense volume of water and the force with which it descends has hewn out of the solid rock, steep walls, whose narrow limits seem to fret the torrent of angry waters rushing between them. Along one side of the tumultuous rush of waters—so near the edge that one starts back in fear—glides the train, disputing the right-of-way with the river. On the other—stern and majestic—rise the almost perpendicular sides of rugged Sir Donald. The passengers had come out to the observation car and were exclaiming in a variety of tones and language on the sublimity of the scene. The conductor who was standing near me, says, "Bengough came over the road with us last year and he got off a pretty good thing on the expressions used in describing this part of the road. He gave a lecture that night at a divisional town and in getting off some local hits on the railroad said: "Some of these canons will need some new adjectives coined to describe them. To-day in coming through Kicking Horse Pass, I felt the insufficiency of the English language as never before. We had been running through mountain scenery for a couple of hours, now in sight of glaciers, now in narrow valleys, with winding streams far down below the railroad. The passengers were *oh-ing* and *ah-ing* in different degrees of excited ecstasy—with the exception of one man—a stolid looking German.

At length he found it incumbent on him to say *something* and so looking down at the struggling torrent of water on one side and up at Sir Donald on the other, he rose to the occasion and said with conviction, "Well, this *is* nice!

The passengers, who had been holding their breaths at this, the climax of the scene, when they heard him apply the word *nice* to it, rushed at him in one accord and threw him into the river."

Just as the conductor had finished his story a pretty girl crossed over from the other side and pointing through the open side of the observation car said, "What mountain is that, Conductor?"

"Sir Donald," he replied.
She gazed on the splendor of coloring for a moment and then said serenely, "Isn't it pretty?"

"Yes, quite nice," said the conductor with the utmost gravity, and as she moved away I said; "Bengough's suggestion is a good one."

School Education.

HOW TO CONDUCT READING CLASSES.

"WE all know how tiresome reading classes are!" I heard a lecturer say once, at a teachers' institute. "At least, mine are," he added.

"Why, my reading classes are the most interesting I have," I answered in my heart, if not aloud.

In the first place, I hear my reading classes first thing in the morning, before my pupils are ready to go to sleep over their lesson if it is particularly dull. They prepare their lesson by marking or writing on their slates all the words they cannot pronounce, and get me to pronounce them for them. Then to make them feel a real interest, I talk with them a little about each verse they have been reading; for instance, we were reading to-day about the *Mammoth Cave*. I asked such questions as "Harry, did you notice just how many avenues wound themselves about through the great cavern?" "Olive, remember now how this great cave was first discovered." "James, do you recall how many were the arches and how large the pillars; the dimensions of the chambers; the river that runs through and for how many miles; the fish and grasshoppers without eyes?" etc., etc. I always succeed in interesting them. At night when my pupils sum up what they have learned during the day, I always find, with very few exceptions, that they remember more of their reading than of any other study. Some of my pupils can reproduce what they have read either orally or by writing, almost word for word.

My little readers I reward by letting go up head the one who has written up the most hard words and done it the best. There is quite a rivalry among them who shall learn the most hard words, and they can readily answer all the questions I may ask.—COUNTRY SCHOOL TEACHER in *School Journal*.

TALKING IN THEIR SLEEP.

"You think I'm dead,"
The apple tree said,
"Because I have never a leaf to show—
Because I stoop,
And my branches droop,
And the dull gray mosses over me grow!
But I'm all alive in trunk and shoot;
The buds of next May
I fold away—
But I pity the withered grass at my root."

"You think I'm dead,"
The quick grass said,
"Because I have parted with stem and blade;
But under the ground
I am safe and sound
With the snow's thick blanket over me laid,
I'm all alive and ready to shoot
Should the spring of the year
Come dancing here—
But I pity the flowers without branch or root."

"You think I'm dead,"
A soft voice said
Because not a branch nor root I own,
I never have died,
But close I hide
In a plummy seed that the wind has sown,
Patiently I wait through the long winter hours
You will see me again—
I shall laugh at you then,
Out of the eyes of a hundred flowers.

—Edith M. Thomas, in *St. Nicholas*

LET HIM FIRST BE A MAN.

OF many passages that shine like gold in a cabinet of less precious ores in Rousseau's celebrated *Essay on Education*, the following is one: "According to the order of nature, man being equal, their common vocation is the profession of humanity; and whoever is well educated to discharge the duty of man cannot be badly prepared to fill up any of those offices that have a relation to him. It matters little to me whether my pupil is designed for the army, the pulpit, or the bar. Nature has destined us to the offices of human life antecedent of our destination concerning society. To live is the profession I would teach him. When I have done with him, it is true he will be neither a soldier, a lawyer nor a divine. LET HIM FIRST BE A MAN; he will, on occasion, as soon become anything else that a man ought to be as any person whatever. Fortune may remove him from one rank to another as she pleases, he will always be found in his place."

W.H. Venable, LL. D

TEACHER-SUBSCRIBER.—QUES.—How can it be shown that two gases are set free when sulphuric acid acts on oxalic acid.

ANS.—Fit the generating flask with tight cork and delivery tube drawn to a fine point. When the gas is coming off freely set fire to it as it issues. The flame shows there is a gas which burns. Now pass the gas into lime water. The latter turns milky. Collect a bottle of the gas. Shake well with caustic potash solution, then transfer the gas to a clean bottle and add lime-water again. This time there is no milkiness. From which it may be inferred that the original gas coming from the generating flask contains two gases, one which burns but does not turn lime water milky, and another gas which does turn lime water milky.

School-Room Methods.

READING.

No. 5.

BY LITERATUS.

THE letter *w* is both a consonant and a vowel; a consonant before a vowel in a syllable, and a vowel after a vowel. In English it is never used as a vowel by itself. It begins about two and a half per cent. of the words in English. As an initial, assisted with *h*, it requires exceptional treatment; associated with *r* it is silent. The name this letter generally receives is double *u*. This name was at one time descriptive of its shape, when *u* was formed as *v* now is. But neither double *u* nor double *v* gives any aid to a learner in pronouncing a word in which it is used as a consonant. The best possible name for it is *woo*; the first part representing its function as a consonant, and *oo* its function as a vowel.

Exercise on *w* (*woo*):—First Part:—way, wax, was, we, week, web, wet, well, went, were, wig, will, word, work. Second Part:—wade, wait, waited, waiting, wall, walls, Walter, warm, warmed, warble, walk, walked, walking, wasn't, water, watering, waft, wave, waves, wee, weep, wend, went, west, wide, wild, wind, wink, wise, wiser, woe, wore, wove, woven, wonder, world, worlds, woman.

Y like *w* is used both as a consonant and as a vowel. Unlike *w* it is often used as a vowel alone. It begins a greater per cent. of English words. The name commonly given to it is *wi*. This name is as misleading as it would be to call the letter *b* by the name *de*. The proper name for the letter is *yi*. *I* is associated with it in its name rather than *e* because it is used as a substitute for *i* in a large number of words.

Exercise on *y* (*yi*):—yak, yam, yap, yard, ye, yean, year, yearn, yeast, yell, yelk, yelp, yerk, yes, yet, yex, yield, yoke, yolk, yore, yule.

The last letter of our alphabet begins about one-fifth per cent. of our words. It is commonly called *zed*. It would be as philosophical to call *b* *bed*, *d* *ded*, *p* *ped* and *v* *ved*, as to call *z* *zed*. The name of a letter should contain no unnecessary effect. Drop *d* and call it *ze*.

Exercise on *z* (*ze*):—zax, zeal, zend, zest, zero, zimb, zinc, zone, zulu.

THE SOCRATIC METHOD.

THIS translation from one of Plato's dialogues illustrates Socrates' method of instruction. He had probed and questioned Meno until he made him uncomfortable in the conviction that he was not so wise as he thought himself.

"Why, Socrates," said Meno, "you remind me of that broad sea-fish called the torpedo, which produces a numbness in the person who approaches and touches it. For, in truth, I seem benumbed both in mind and mouth, and know not what to reply to you, and yet I have often spoken on this subject with great fluency and success."

In reply Socrates says little, but calls to him

Meno's attendant, a young slave boy, and begins to question him.

"My boy, do you know what figure this is?" (Drawing a square upon the ground with a stick.)

"O, yes. It is a square."

"What do you notice about these lines?" (tracing them.)

"That all four are equal."

"Could there be another space like this only larger or less?"

"Certainly."

"Suppose this line (pointing to one of the sides) is two feet long, how many feet will there be in the whole?"

"Twice two."

"How many is that?"

"Four."

"Will it be possible to have another space twice this size?"

"Yes."

"How many square feet will it contain?"

"Eight."

"Then how long will the sides of such a space be?"

"It is plain, Socrates, that it will be twice the length."

"You see Meno that I teach this boy nothing, I only question him. And he thinks he knows the right answer to my question; but does he know?"

"Certainly not," replied Meno.

"Let us return to him again."

"My boy, you say that from a line of four feet long there will be produced a space of eight square feet; is it so?"

"Yes, Socrates, I think so."

"Let us try, then." (He prolongs the line to double the length.)

"Is this the line you mean?"

"Certainly." (He completes the square.)

"How large is become the whole space?"

"Why, it is four times as large."

"How many feet does it contain?"

"Sixteen."

"How many ought double the square to contain?"

"Eight."

After a few questions the lad suggests that the line should be three feet long, since four feet are too much.

"If, then, it be three feet, we will add the half of the first line to it, shall we?"

"Yes." (He draws the whole square on a line of three feet.)

"Now, if the first square we draw contained twice two feet, and the second four times four feet, how many does the last contain?"

"Three times three, Socrates."

"And how many ought it to contain?"

"Only eight, or one less than nine."

"Well, now, since this is not the line on which to draw the square we wanted, tell me how long it should be?"

"Indeed sir, I don't know."

"Now observe, Meno, what has happened to this boy; you see he did not know at first, neither does he yet know. But he then answered boldly, because he fancied he knew; now he is quite at a loss, and though he is still as ignorant as before, he does not think he knows."

Meno replies, "What you say is quite true, Socrates."

"Is he not, then, in a better state now in respect to the matter of which he was ignorant?"

"Most assuredly he is."

"In causing him to be thus at a loss, and benumbing him like a torpedo, have we done him any harm?"

"None, certainly."

"We have at least made some progress toward finding out his true position. For now, knowing nothing, he is more likely to enquire and search for himself."

— Pennsylvania School Journal.

No man can pass into eternity, for he is already in it. The dead are no more in eternity than they always were, or than every one of us is at this moment. We may ignore the things eternal; shut our eyes hard to them; live as though they had no existence—nevertheless, eternity is around us here, now, at this moment, at all moments; and it will have been around us every day of our ignorant, sinful, selfish lives. Its stars are ever over our head, while we are so diligent in the dust of our worldliness, or in the tainted stream of our desires. The dull brute globe moves through its ether and knows it not; even so our souls are bathed in eternity and are never conscious of it. — Farrar.

THE January *Review of Reviews*, in its "Progress of the World" (editorial) department, discusses present problems in public health administration, municipal reform in the United States, the movement for deep waterways from the great lakes to the Atlantic Ocean, the Nicaragua Canal question, the proposed arbitration of the boundary dispute between Venezuela and Great Britain, the payment of our government of damages to Canadian seal poachers, the prospect of civil service reform, the demand for a bank-note currency, the change in the Canadian Premiership, the disposition of English visitors to instruct Americans, and the recent action of the American Federation of Labor; among foreign topics receiving treatment in this department are the Armenian question, the war in China, the approaching Parliamentary contest in Great Britain, the London School Board election, South African affairs, the French in Madagascar, and the death of the Princess Bismarck.

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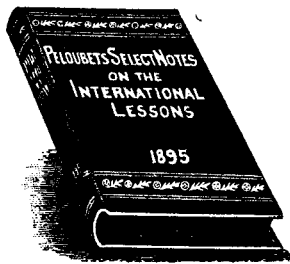
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16. First meeting of Public School Boards in cities, towns, and incorporated villages [P. S. Act, sec. 106 (1).] (*3rd Wednesday in January.*)
Appointment of High School Trustees by Public School Boards. [H. S. Act, sec. 106 (1).] (*3rd Wednesday in January.*)
21. Appointment of High School Trustees by Municipal Councils. [H. S. Act, sec. 12; Mun. Act, sec. 223.] (*3rd Monday in January.*)
22. Appointment of High School Trustees by County Councils. [H. S. Act, sec. 12; Mun. Act, sec. 223.] (*4th Tuesday in January.*)

February:

6. First meeting of High School Boards and Boards of Education. [P. S. Act, sec. 106 (1); H. S. Act, sec. 13 (1).] (*1st Wednesday in February.*)

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