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**PRINCIPAL DYER.**

The question is often asked "What is the subsequent career, after graduation, of college women?" Miss Frances M. Abbott has written for the November number of the *Forum* a valuable and interesting article entitled "A Generation of College Women," which is probably the most complete reply to this question that has yet appeared. Miss Abbott shows in her article what the career, after graduation, has been, of more than a thousand women who have graduated from Vassar College since its opening, thirty years ago. The facts, as set forth by Miss Abbott, would seem to unquestionably prove the value of a college education in the broadening of woman's activities.

The November number of the *Arena* closes its sixth year. Among the important contributions is a very suggestive paper by Professor George D. Heron on "The Sociality of the Religion of Jesus." Senator J. T. Morgan, who is recognized as one of the ablest thinkers in the United States Senate on international questions and constitutional problems, discusses the Silver Question; Ex-Governor James M. Ashley, an old-time Republican, Congressman, and Governor, writes on "The Impending Political Advance"; Professor Frank Parsons, of the Boston University School of Law, contributes a masterly paper on "Municipal Lighting." These are only samples of the contents which illustrate the ability and varied character of this number of the *Arena*. This magazine has steadily improved in the ability of its contributors and the quality of its articles, until it now stands in the front rank of magazines of its class. The courage which the magazine displays in handling living issues of great importance, and especially the high tone of the articles, often ethically radical, written by its editor, give it a special value for moral reformers. Its list of contributors is certainly attractive and promising.

With the November *Century* the magazine sets out on the second twenty five years of its career. The event is celebrated by a special artistic cover, a new dress of type of individual cut, an editorial apropos of "The Century's Quarter of a Century," and a table of contents indicative of the aims of the magazine as an encourager of literature and art, and as an advocate of progress in political, social, and intellectual things. The feature of the number which will doubtless appeal to the greatest number of readers is the opening instalment of Mrs. Humphrey Ward's new story, "Sir George Tressady." An excellent portrait of the author, from a photograph taken

during the summer for this purpose, precedes the first chapter. The story introduces the American readers to a fascinating feature of the best English public life, namely, the relation of politics to the English "country house." In none of her stories has Mrs. Ward touched upon the vital forces of the time with greater vividness. It will interest the thousands of Americans who are acquainted with the author's writings to know that "Marcella," as Lady Maxwell, becomes later on the potent feminine character of the story.

The November issue of *St. Nicholas* begins a new volume, and gives a foretaste of the features provided for the coming year. The frontispiece is a beautiful portrait of a child, drawn by that gifted artist, Cecilia Beaux. "A Famous French Painter," by Arthur Hoeber, is a sketch of the career and the personality of J. L. Gérome, several of whose pictures are reproduced in the article. Fanny L. Brent has a pretty story, "Riches Have Wings." "Reading the Book of Fate," by Louise Willis Snead, describes the fortune-telling and flower games played by the children of the south. "Launching a Great Vessel" is a deep problem in mechanics as well as an impressive sight, as the reader will learn from the interesting article on the subject by Franklin Matthews, illustrated by F. Cresson Schell. "Princeton: A Modern Puss in Boots," by Minnie B. Sheldon, is a story of a cat, and, incidentally, of a football contest. Laurence Hutton writes of his "Three Dogs." Two papers, by Helen Harcourt and Blanche L. Macdonell, describe the odd habits and the curious home of the trap-door spider. Two illustrated poems, first instalments of two new serials, etc., complete the number.

Canada is beginning in some things to set the pace for the world. One of the things in which she has forged to the front is in the publishing business; for what is claimed to be the greatest weekly newspaper in the world is the product of Canadian brains and enterprise. This is the *Family Herald* and *Weekly Star*, of Montreal. This paper can be found in every corner of Canada, however remote; and every week thousands of copies go from Canada into all parts of the world. It is a newspaper, an illustrated magazine, a household guide, a practical agricultural journal, rolled into one. It is a money-maker for the farmer, dairyman and stock-breeder; it is the delight of the mothers; it educates the young; it answers questions free on all possible subjects, from disease of the body to perplexities of the mind. Lately enlarged to sixteen pages of eight columns each, making one hundred and twenty-eight columns a week, nearly seven thousand columns a year, equal to about one hundred large volumes. The *Family Herald* has won a world-wide reputation for the magnificent pictures it occasionally gives to its subscribers. We hear from those who have had a view of it that it has one this year for yearly subscribers entitled "Little Queenie," that is simply superb. Every subscriber to the *Family Herald* is insured for five hundred dollars against railway accidents free of cost.

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# The Educational Journal

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## Editorial Notes.

"WHEN the Britisher found he was out-sailed in his own kind of weather, he didn't wish to play any more, took his yacht under his arm, and ran home. The historic 'America's cup' remains on this side of the Atlantic."—*American Exchange*.

The above strikes us as a very fair sample of the kind of thing which teachers and editors of teachers' papers would do well to avoid. It is an appeal to national prejudice. The writer refers to an incident upon which the opinions both of yachting experts and of others in both the United States and Great Britain are pretty evenly divided, and pronounces, or rather insinuates, in two sentences, a prejudiced opinion as if it were an historical fact. The incident, fairly treated, might have been made the occasion of a much-needed lesson in fairness and courtesy between nations.

THERE is a fine moral in the story for composition, entitled "Little Scotch Granite," in the Primary Department of this number. We hope all teachers who use the method therein described will read it. We have reason to believe that the bit of school history therein given is repeating itself daily in hundreds, perhaps in thousands, of Ontario schools. The heroism of the one boy of "granite"

honor in a hundred, who persists in reporting truthfully, is worthy of all commendation. But what of the ninety and nine? Did you ever seriously reflect upon the after effect, the effect upon life-character of the habit of lying—it is nothing less—which is thus formed and confirmed in the school? What a sum-total of untruthfulness is thus rolled up day by day, week by week, month by month! What a cruel injustice to the boy of granite! Is there not something radically wrong in the system which subjects any lad to such a temptation every day?

"FARMERS are born, not made." "A boy is not born a farmer by being born on a farm, nor yet a merchant or doctor by being the son of one." These quotations from Mr. Robson's paper on another page enfold an important truth. We have often pointed out what we deem a serious mistake on the part of those who argue that the way to put a stop to the lamentable crowding into the cities at the expense of the population of the rural districts, is to induce the sons of farmers to remain on the farms. We have tried to show that the more scientific and hopeful method is to try to induce those who have a natural taste for farm and rural life, whether born in city or country, to go to the farms, and, on the other hand, to encourage the removal to more congenial spheres of those who have no taste for agricultural pursuits. Along these lines alone is it possible to counteract the tendency city-ward which is so much deplored. If this view be sound, it is just as important that agriculture should be studied in the city as in the country schools.

THE educational authorities in Germany are said to have resolved to divide all aspirants for State education into two classes, according to ascertained mental abilities. To this end children are to be examined by medical experts. These will be required to report on the mental ability of each child. Those who are classed as "intelligent" by these examiners will be educated in the higher branches at the

expense of the State. As to the others, their education will be confined to the rudiments. This seems to us to be the essence of injustice and short-sightedness. From the point of view of the well-being of the individual, it is surely highly important that the faculties of the dull should be cultivated to the highest possible degree. They may be said to need such culture even more than the clever, who are likely to make good progress in any case. As to the general weal, it would not be hard to show that the greatest good of the greatest number will be better promoted by the uplifting of the many to the highest possible level than by the special cultivation of the few and the comparative neglect of the masses.

THE *Mail and Empire* is responsible for the statement that on Tuesday morning last, when the air was raw and almost wintry cold, and the ground covered with snow and slush, the children of the city schools, or of some of them at least, were compelled to form line out in the yards and stand shivering there until the order to march into the schools was given. "On re-assembling in the afternoon, whilst the soft, damp snow was falling rapidly, tiny boys and girls, some of them without warm clothing, and with worn-out boots and shoes, had to stand until they were wet through and pinched and blue with cold, before one of them was allowed to enter the warm school." One of the teachers, when remonstrated with for his seeming cruelty, said, in substance, that teachers have no alternative. Their hands are so tied with rules and red tape, that they cannot follow the dictates of their own judgment and common sense in such a matter. If this be so, it should be looked after by parents who wish to save their children from early graves. If school boards in city or country, or any higher officials, are responsible for such things, one can hardly help wishing that they should themselves be exposed, hatless and shoeless, and clad in thin, ragged garments, to like inclement weather for a much longer period, corresponding to their years, in order that they might know how it feels."

## English.

All articles and communications intended for this department should be addressed to the ENGLISH EDITOR, EDUCATIONAL JOURNAL, Room 5, 11½ Richmond Street West, Toronto.

### THE FACE AGAINST THE PANE.

THOMAS BAILEY ALDRICH.

If we were teaching this lesson to a class, or, rather, as we should prefer to say, studying it with a class, we should, we think proceed somewhat in this wise:

First, we would ask the members of the class to prepare for the lesson by reading the poem very carefully as many times as might be necessary, and then writing out an abbreviation of the story in their own language. What we should aim to get would be something like this:

The scene brought before us by the poet is that of a cottage near the seashore, on a wild, stormy night, in the fall of the year. Not far from the shore is a reef of dangerous rocks, on or near which a beacon has been built, that its light may warn fishermen and sailors approaching the shore, from the dangerous rocks. As the fierce winds dash the great waves against the reef, they break in a sheet of foam, whose gleam can be seen through the darkness and the rain for a considerable distance. In the kitchen of a cottage near the shore, a young maiden is just preparing the evening meal, which has been postponed to a late hour, in order that the father and a young friend, who is the accepted lover of the girl, may arrive from their fishing grounds, where they have been all day engaged in their usual occupation of fishing. As the evening drags slowly on, and the fishermen do not return, the young girl, knowing too well the dangers of the coast, and the difficulty of finding the entrance to the harbor in darkness and storm, becomes uneasy, then anxious, then tortured with a terrible, foreboding dread. Ever and anon she leaves her preparations for the meal and, going to the window, which in the daylight commands a view of the harbor, presses her face against the pane, in a vain hope of seeing, perchance by the aid of the beacon light, the frail boat speeding safely into the harbor. Alas! she can see only the beacon light fluttering in the gale, the crests of foam which mark the jagged line of the long reef of rocks, and the vivid flashes of lightning which shoot across the heavens, lining the dark skies with veins of brilliant light. Some one, perhaps it is the mother, is sitting in the corner, with heart equally racked with fear and anguish, but practising the self-control which is born of many a previous painful experience of the same kind, or, it may be, the poet means merely to represent himself as speaking in thought, gently chides Mabel for thus giving way to her fears, and seeks to induce her to divert her thoughts by going on with the preparation of the meal, encouraging her meanwhile by reminding her of the bravery of her lover, and the strength of his boat, and of her father's knowledge of the coast. But nothing can divert her from the window, which has a dreary fascination for her. The poet then puts in other features of the scene which add to poor Mabel's terror. The belfry of the old chapel is a little tower with open sides, through which the gale now sweeps with such violence as to sway the bell and make it ring what the fertile fancy, in its excitement, easily interprets as a knell for the drowning fishermen. Then comes the boom of the gun, fired from the fort near by, to warn the fishermen that the reef is in that direction. This is followed by the gleam of a signal rocket fired from the fort, or the beacon, for the same purpose.

The poet then cites our attention again to Mabel, whose cheeks and lips he represents as ashy white, no doubt meaning to represent her as knowing, through some keen intuition of a loving woman's heart, the moment in which the boat or boats are swamped and father and lover go down to death.

The curtain drops to rise again on a scene which is startlingly vivid and inexpressibly sad. The storm has died away, and just as the first red rays of the rising sun are bursting through the rim of clouds which line the eastern horizon, we see a train of four fishermen toiling slowly up the beach, carrying the bodies of the drowned father and

lover, which have been driven ashore by the winds and waves. They bend their weary steps to the little cabin, only to find there another ghastly sight—that of the little maiden, pale in death, still standing with her face pressed against the pane. Probably the sight of the drowning fishermen, whose foundering boat was either visible for a moment in the glare of the beacon light, or the lightning's flash, or, more probably, as we think, seen only in the flash of an inner perception born of the intense strain of excitement and sympathy, had been too much for her, and her spirit had left her body at the same moment with those of her loved ones, who had gone down in the stormy waters.

Of course, the teacher can hardly expect to receive from any pupil, at least not until after a good deal of practice, anything like so full an outline, but the ability to present it with a good degree of completeness will increase rapidly with practice, especially if the faulty exercises are carefully examined and judiciously criticized. What shall be done with the exercises thus handed in? If the class is large, it will usually be too much of a task for the teacher to read and mark each paper separately. Nor is it necessary. The end can be as well or better reached by calling on several, chosen at random, to read their paraphrases before the class, asking each member of the class to pay careful attention and note any error or omission of importance, and also to criticize any rendering of the story or thought which may seem to be faulty, and to suggest a better. In connection with this exercise, the meaning of passages which seem difficult or obscure may be discussed, the teacher aiding the pupils' thoughts and suggestions with such questions as the following:

What reason, if any, is there for saying it was the "fall of the year"? (Some pupil will, no doubt, refer to the beginning of the fifth stanza or division, where the expressions, "morning clear and cold," "frost-touched," etc., would pretty nearly answer the question, even were the plain statement, "in the pleasant autumn air," not there.)

Whom do you think the poet means to represent as speaking, at the beginning of the second division, "Set the table, etc."? Were the father and the lover in the same or different boats? Give reasons for your answer in each case. (The directions about the supper table, and the words about the father's knowing the reefs, etc., sound like a mother's attempt to keep the maiden's and her own courage up, but the fact that the maiden was found dead with her face against the pane, in the morning, seems to indicate that she was alone in the cabin, and that the words are intended merely as the thought, or, if we may so say, the unspoken address of the poet. So the lines commencing "Your lover's heart is brave," seem to favor the idea of separate boats. But the description of "the helpless sail" farther on makes it pretty clear that the poet conceives of both as in the one boat.)

Do you think that the author meant to intimate that Mabel possibly did get a glimpse of the sail as it was tossed towards the reef, or to imply that this, which was impossible in fact, might have taken place as a kind of second sight, in her overstrained condition?

What is the beacon light Mabel sees beyond the skies?

If the time at the disposal of the class will admit, one lesson may very profitably be given to this kind of exercise, designed to bring out clearly the exact meaning and thought of the poem. It may not be possible, and it is not necessary, that the teacher should always give a definite answer to such questions as some of the foregoing. The main benefit will come in the discussion of them, and in the earnest effort of the pupils to think them out,

or solve them by reference to other parts of the poem.

It is indispensable to the proper mastery of the poem, the full appreciation of its merits, and the utmost profit from its study, that another lesson, if possible, be given to a critical examination of the poem. This will include both grammatical and rhetorical peculiarities and difficulties. From this rhetorical point of view, the teacher may, for instance, call attention to the effect produced by the poet's skill in presenting at once the central and most touching character of the story. This is what a great Roman poet and critic (Horace) calls plunging at once into the middle of the subject. The very first line gives us the name of the maiden, and the first six or eight lines set before us the touching picture of Mabel standing with her face pressed against the pane, in a vain effort to pierce the darkness which shrouds most objects, but reveals more clearly the beacon light. The first stanza, or division, gives us the full picture, with all its accompaniment of sights and sounds. Even a child will readily perceive how much more effective is this sudden beginning, in gaining our attention and sympathies, than if the poet had commenced by telling us that the scene was in such and such a place, that the night was dark and stormy, that such a girl lived in such a locality and such a cottage, that her father and a young man to whom she was betrothed were out fishing, etc.

The teacher may then proceed, drawing from the pupils, if possible, and, if not, pointing out to them, the various poetical expedients resorted to by Mr. Aldrich to heighten the effect and so deepen the interest of the hearer. Among such evidences of the poet's art may be mentioned the use of the antiquated "a-trembling," "a-steeping," etc., the personification of the breakers in the expression "making moan," the repetition of those monotonous and mournful words and of other sounds, such as those denoting the peals of the church bell, tolled by the mighty wind which sways it to and fro, the booming of the lighthouse gun, and perhaps above all, the picture of utter desolation given in the vision of the four old fishermen toiling along the beach with the two stark bodies, while, all unknown to them as yet, the face of the dead Mabel, still pressed against the pane, is apparently gazing on them in their slow and sorrowful approach.

Some of the effective similes and other figures of speech should receive attention in this connection. For instance, the comparison of the willow tree to an old crone, wringing her gaunt and palsied hands, can hardly fail to impress itself upon the imagination of even the youngest reader. Then, again, there is something weird and thrilling in the representation of unseen fingers swaying the bell in that old, high belfry. (By the way, let the children tell why the poet represents it as tolling "in the lullings of the storm." Should we not rather expect it to toll loudest in the fiercest gusts?) Let them see, also, if they can explain what it is that gives their peculiar effectiveness to such expressions as (hears) "the sea-bird screech"; "how it rolls"; "tolls for lost souls"; (its echo) "rolls and rolls." (Onomatopœia.) Ask them to explain the appearance of the sky denoted by "from a shoal of richest rubies," and whether it strikes them as a good metaphor.

We have not left much time or space for purely grammatical questions. Nor is there need of much, for the beautiful simplicity of the style leaves few intricacies or subtleties of construction to be explained. It will be well to note the force and use of the old English preposition *a*, as used before verbal nouns in -ing, as "a trembling, a steeping." (It is, we think, more easily understood

when written without the hyphen, though both forms are in use by good writers.) "Four ancient fishermen." What is the usual distinction made in the use of the words *ancient* and *old*? (*Ancient* is generally opposed to *modern*, and *old* to *new* or *young*. Thus we usually say "an old man" when we speak of one who is still living, but "an ancient sage" when we speak of one belonging to an age or era long past.) Can the use of "ancient" here be justified on any other ground than that its additional syllable suits the metre? Is it in any way more poetical or suggestive than "old" would have been?

### THE BUGLE SONG.

MISS M. A. WATT.

"And then we turned, we wound  
About the cliffs, the copses, out and in,  
Hammering and clinking, chattering stony names  
Of shale and hornblende, rag and trap and tuff,  
Amygdaloid and trachyte, till the sun  
Grew broader till his death and fell, and all  
The rosy heights came out above the lawns."  
—Tennyson's "Princess."

At this juncture in the "Princess," just before the time when the "Prince's" disguise is broken in upon by Cyril's foolishness, comes the "Bugle Song," a word-painting of extreme beauty. It might seem as though, while the young ladies and the three young men were standing gazing at the setting sun, some bugle call re-echoed among the cliffs, and the sentiments awakened by the scene and the sound were crystallized into "a local habitation and a name" in this little gem.

Paint the scene, "the lean and wrinkled precipices," "every coppice-feathered chasm and cleft," "the nebulous star we call the sun" sinking to its death in the rosy west. The old castellated cliffs made splendid by the glory, the level light stretching across the lakes, the cataract leaping in a thousand diamond gleams and glitters; all are added to by the silvery note of the bugle-horn, which blends its color-tones with those of the landscape. The ear craves for more, and the cry is,

"Blow, bugle blow, set the wild echoes flying,  
Blow, bugle, answer echoes" (like a delicate shading of color to the eye, so the tones to the ear), "dying, dying, dying."

The heart is enraptured by the extreme beauty of the delicate sounds, fitting so perfectly into the sweetness of the scene, and the mind seeks a parallel, which it fails to find short of fairyland. With the added phrase, "purple glens," the second stanza closes with the same call to the bugle to repeat its note and prolong the pleasure of the shaded melody. The phrase used, "purple glens," suggests a deepening of the feeling, as well as the further sinking of the sun. Among the group of listeners stands the young prince, full of a lover's thoughts and sentiments, and we may reasonably judge that reference is made to his feelings in the third stanza. Be that as it may, the mind has not ceased seeking a more satisfying parallel, and the fainting echo has suggested the influence which one personality has upon another. The parallels diverge at a certain point, the echo forming a *diminuendo*, the influence rising in a long, never-ending *crescendo* of power, "forever and forever." Again the bugle is called upon to send forth its note, but its purpose seems to be a greater one, as though the poet said, "Send out your note, let us hear it, let it suggest to us thoughts of serious power, thoughts of warning."

In reading this poem it has been the custom to use tricks of elocution to suggest the sound of the trumpet, forgetting that the person who says "Blow" is not the person who *blows* the bugle, and, therefore, could not with consistency wind even an imaginary horn. All such tricks of elocution are to be avoided by those who wish to read well. If a pure tone, delicate inflections and thought, will not impress the class with "The Bugle Song," at least do not vulgarize it by blowing a nasal trumpet.

The introduction to "The Princess" is decidedly English in scene, but the locality is merely suggested in "The Princess" itself. From this poem we may cull words which suggest locality, as

"snowy summits," "lakes," "scaur," and "purple glens," but we cannot otherwise fix the scene.

There are many words which seem to embody in themselves a volume of thought. "Splendor" is so expressive that, try as we may, we can find nothing to add to its meaning. How suggestive the words "shakes," "leaps," "glory," and "wild"! How exact "yon rich sky," and "They faint on hill or field or river"!

Notice the expression, "The long light." Our commoner thought would be helped out by "The long shadows," predicating the setting of the sun.

Even a junior class will be delighted to notice the rhyme doubled in the first and third lines, the second line rhyming with the fourth, the fifth with the sixth.

A class recitation may be made very beautiful by appropriate motions, suited to the idea of the poem. Suitable music adds to the interest of the class, and may easily be arranged to the words by a good musician. There was such an arrangement for a class exercise printed, but it has been mislaid, or it could be given here for the benefit of teachers who wish a really fine exercise for their Christmas Closing.

## Hints and Helps.

### HINTS.

(1) Don't let your main talent run to discipline. Keep a reserve for genuine child-culture that shall neither be weak in its kindness, overdone in its enthusiasm, nor short in its patience and self-control.

(2) Remember that even blackberries growing on the same bush, nay, on the same stem or cluster, do not all ripen at one and the same hour.

(3) Teach with special reference to (a) the dull, (b) the poor—as they often have to leave school years before their mates to begin the struggle of life—(c) the indifferent, (d) the deprived.

(4) Remember that prevention is cheaper than reparation, and direct a part of your forces toward the negatives of your work. Anticipate a growth of weeds and briars by stocking the ground with something else.

(5) Keep self as much as possible in the background. "It is right," lasts longer, is heavier, and travels further than "I told you to do it."

(6) Create, so far as possible, the blessed "home" atmosphere to which every child is entitled—by divine right. So shall your pupils enthroned in their heart of hearts and rise up to call you blessed through all the coming years.

(7) It is *not* the "number work" and its correlative studies that count for or against your value as a teacher, but the impress you leave upon the characters. Therefore waken the sleeping conscience, open the wide doors of thought, rouse interest, and inculcate principles of right and of beauty. Develop and train for the good, the pure, the true, the beautiful—teaching the ETERNITY.  
—*Educational Exchange.*

### A RESEMBLANCE IN SOUND MISLEADS.

ACCEPTANCE, ACCEPTATION.—*Acceptance* is the "act of accepting"; also "favorable reception"; as, "The acceptance of a gift," "She sang with marked acceptance." *Acceptation* now means "the sense in which an expression is generally understood or accepted."

ACCESS, ACCESSION.—*Access* has several meanings authorized by good use: (1) outburst; (2) admission; (3) way of entrance. *Accession* means (1) the coming into possession of a right; or (2) an addition.

ACTS, ACTIONS.—"Acts, in the sense of 'things done,' is preferable to actions, since actions also means 'processes of doing'."

ADVANCE, ADVANCEMENT.—*Advance* is used in speaking of something as moving forward; *advancement*, as being moved forward.

ALLUSION, ILLUSION, DELUSION.—An *allusion* is an indirect reference to something not definitely mentioned. Roughly speaking, an *illusion* is an error of vision; *delusion*, of judgment. "In liter-

ary and popular use, an *illusion* is an unreal appearance presented in any way to the bodily or the mental vision; it is often pleasing, harmless, or even useful. . . . A *delusion* is a mental error or deception, and may have regard to things actually existing, as well as to *illusions*. *Delusions* are ordinarily repulsive and discreditable, and may even be mischievous."

AVOCATION, VOCATION.—"Vocation means 'calling' or 'profession'; *avocation*, 'something aside from one's regular calling, a by-work.'"

COMPLETION, COMPLETENESS.—*Completion* is "the act of completing"; *completeness* is "the state of being complete."

OBSERVATION, OBSERVANCE.—*Observation* contains the idea of "looking at"; *observance*, of "keeping," "celebrating." "We speak of the *observation* of a fact, of a star; of the *observance* of a festival, of a rule."

PROPOSAL, PROPOSITION.—"A *proposal* is something proposed to be done, which may be accepted or rejected. A *proposition* is something proposed for discussion, with a view to determining the truth or wisdom of it."

RELATIONSHIP, RELATION.—*Relationship* properly means "the state of being related by kindred or alliance"; as, "A relationship existed between the two families." *Relation* is a word of much broader meaning. It does not necessarily imply kinship.

SOLICITUDE, SOLICITATION.—*Solicitude* is "anxiety"; *solicitation* is "the act of soliciting or earnestly asking."

STIMULATION, STIMULUS, STIMULANT.—*Stimulation* is "the act of stimulating or inciting to action"; *stimulus*, originally "a goad," now denotes that which stimulates, the means by which one is incited to action; *stimulant* has a medical sense, being used of that which stimulates the body or any of its organs. We speak of ambition as a *stimulus*, of alcohol as a *stimulant*.—From "Practical Exercises in English," by Huber Gray Buehler.—Harper & Co.

### THE ALASKA BOUNDARY.

The report of the joint commission appointed by our own and the British government to resurvey and to settle the boundary line between Alaska and British Columbia is said to be nearly ready to be presented to both governments. This report will not be made public until it has been considered at London and Washington, and may not be until it is laid before Congress and Parliament; in the meantime everybody connected with the commission is under strictest orders to conceal all particulars of their observations and all results of their surveys. These results must be important, for upon them depends the possession of some of the richest of Alaskan territory, as well as a possible addition of some good harbors and a considerable coast line to British Columbia, and the consequent loss of the same by the United States.

The old and existing boundary follows the lines set down in the treaty between Great Britain and Russia made in 1825, which ran from the south end of Prince of Wales island in latitude fifty-four degrees and forty minutes, north, along the Portland channel to the fifty-sixth parallel of latitude, then it followed a supposed range of mountains east to the 141st meridian, then north to the Arctic Ocean. The line was to be at no time more than ten marine leagues from the coast, and was to follow its windings. No such mountain range as the treaty of 1825 describes exists, so that it has been understood that the line follows the coast, at the prescribed distance of ten leagues, to the Arctic, and it was this boundary that was contemplated in the treaty of purchase between the United States and Russia.

A few years ago Canada set up a claim that this old conception of the boundary is wrong, and that the real starting-point of the line is Behm, and not Portland, channel. Canada urges that the Behm channel boundary suits the description in the Treaty of 1825 in that there is a mountain chain about ten leagues from the coast, and that the real boundary between Alaska and British Columbia is some twenty miles nearer the ocean than the existing line. If this Canadian contention is sustained by the commission, the United States will lose control of the entrance to the Yukon basin, as well as a strip of rich territory something like 600 miles long and 250 wide.—*N.E. Journal of Education.*

# The Educational Journal

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The Inspectors or Secretaries will greatly oblige us by giving us timely notice of the dates and places of meeting of the Institutes in their respective localities.

## Editorials.

### THE UNIVERSITY OF TORONTO.

WE very cheerfully publish the letter in which Professor Squair takes exception to certain expressions touching the Provincial University which were used incidentally in recent articles in our editorial columns. We thank Professor Squair for his admission that THE JOURNAL is usually fair and moderate. It is, we hope, our aim to be so in the treatment of all questions which come within our purview, and there is certainly no reason why we should make an exception when dealing with the University of Toronto.

We gladly accept Professor Squair's assurance that our statement, or, rather, allusion, to a "divided faculty" is wholly erroneous. As a member of that faculty he has means of knowing the fact which we cannot possibly have. At the same time, recalling well-known events which took place in the history of the University within the last few months, he can hardly be unaware that a different impression has prevailed somewhat widely. Nor can he blame us severely if, in common with many of our contemporaries, we have been misled in the matter.

With regard to "graduate work," we have no disposition to ignore or undervalue the "instruction and facilities for work to graduate students" which are now offered in the University of Toronto, but we do not suppose that it will be seriously claimed that these can in any way bear comparison with the instruction and facilities provided in the American institutions, described in the volume that was under review in the article in which the remark complained of occurs. It must, moreover, be well known to all who have paid any attention to the matter that the present resources of our Provincial University are wholly inadequate to the successful carrying on of post-graduate courses. This is not, of course, the fault of the present faculty of the University. We do not think it the fault of the Government or Legislature, seeing that it is exceedingly doubtful whether these, as the representatives of the people, would be justified in making further appropriations from the public funds for the purpose. If it is the fault of anybody, it is that of those, whether governors, professors, or students, who have hitherto failed to evoke such a feeling of sympathy with its work and aims, and of loyalty, affection, and liberality on the part of the graduates and friends of the institution, as should have long since secured to it ample endowments for extended work, both within and without the college precincts.

In the concluding paragraph of his letter Professor Squair, referring to our article on the Western University, finds, in the extract which he has previously quoted, two propositions set forth: "One, that State universities are more likely to be unprogressive than private or denominational institutions; and the other, that the University of Toronto is the one, above all others, in this Province, which needs to be spurred on in the path of progress." Both propositions he believes to be incapable of proof.

The first proposition we accept as a fair inference from our words. It is one, moreover, which we are quite prepared to maintain. Apart from historical facts, which are not far to seek, the proposition is but a corollary from that well-known weakness of human nature, from which it results that the human institution which is dependent for life upon its own exertions is much more likely to put forth those exertions with the utmost vigor, than that which is permanently provided for, and has the means of living without special exertion. The comparative laxity of State officials is proverbial.

The second proposition we do not accept as ours. We do not think that our words either say or imply that the University of Toronto is a sinner above all others in this respect. We, in fact, neither made nor intended any reference to its present condition. We are glad to know that now, and for a number of years past, the University has done excellent work—we do not say *ideal* work—in many directions, and, as Canadians, we are proud of the splendid record of its students who have gone to other institutions, as well as of many of them who have gone into professional and other pursuits. Our reference was, as our words show, to "past history." Was Professor Squair intimately acquainted with the institution as it existed about twenty-five years ago, to go no farther back? We fancy that a little investigation along that period of Parliamentary inquiries and professorial changes might make it pretty clear that our allusion was not exactly haphazard, and also that some pressure from outside quarters not disconnected with smaller institutions had much to do with that throwing open of the windows and letting in the light and the stimulating breezes which were potent influences in bringing about the subsequent life and vigor of the University.

We hold no brief for the Western University. We do not know that we should be altogether in sympathy with all its aims and methods. We simply desire to give its attempt to found and develop an Arts department the same sympathy and welcome which we deem due to any new competitor in the field of the higher education. But seeing that its Arts department is barely organized, and that no time has yet been had to show what it can do, may we not respectfully ask whether the sneer in the last paragraph of our correspondent's letter is quite worthy of him, or the University he represents?

### GRAMMAR AS A SCIENCE.

IT is a mere truism to say that every art is based on science. In saying this we use the word "art" in its widest sense, as including the simplest mechanical industry, as well as the highest products of genius in architecture, painting, or statuary. It is, of course, true that the art may exist, and even attain to a considerable degree of excellence, before the science is developed and formulated in distinct principles and rules. This is not to say that the science did not exist in a rudimentary form from the first practise of the art, but only that, as a rule, its principles are not analyzed and

formulated until long after it may have reached a considerable degree of development in its practical applications.

Why is it, we are often disposed to ask, that there exists so strong a tendency at the present time to despise the science of language alone, or almost alone, among the arts? Surely language, considered as the art of communicating thoughts and ideas, almost more than other useful and indispensable arts, is as worthy of being made a subject of careful scientific study as any other phenomenon of nature, or manifestation of intelligence. To say nothing of the degree in which the literary pleasure derived from written or spoken language is enhanced when that language is conformed to those underlying principles and laws to which speech is unconsciously subjected, how much the utility of language as an instrument for the expression of facts and thoughts is increased when it is used with a good degree of scientific precision! How much disputation, how much litigation, how much bloodshed, even, might have been saved to mankind through the ages had the science of language been more thoroughly understood and applied in the interchange of opinions and purposes! It would be far from increasing either our admiration of or our confidence in the mechanical engineer, or the professional man, should he be known to pride himself on his ignorance of the science underlying the operations which it is his legitimate business to perform in the best possible manner.

These thoughts have been suggested by the following extract from Labouchere's famous journal, *Truth*, which has been going the rounds:

"What have I done that I should be regarded as an authority on points of grammar or literary pedantry? Much against my will, I am constantly invited to determine disputes on such matters. The latest instance comes from Liverpool, where two clubmen were at issue as to whether it is more correct to say, 'There are a lot of cigars,' or 'There is a lot.' The matter has already been referred, I am told, to a 'supposed authority,' and the 'supposed authority' replies in the effect that a noun of multitude in the singular may have a plural verb after it, but that both singular and plural are used, though the preponderance of usage is in favor of the plural.

"This being deemed unsatisfactory, the disputants come to me. I am sorry that I can add nothing to the opinion of the other 'supposed authority.' Personally, I should prefer 'There are a lot' to 'There is a lot,' but I regard it, like the spelling of the name 'Weller,' purely as a matter of taste and fancy. Whether I say 'There are a lot of fools in the world,' or 'There is a lot of fools in the

world,' the meaning is equally plain, and the statement equally incontrovertible. What more do you want?

"I would remind the Liverpool disputants that grammar is made from speech, and not speech from grammar. All the grammarians do is to deduce rules from the accepted usage. If usage is divided, what can any rule be worth? It is reported of a company assembled on a famous occasion that, 'regardless of grammar, they all cried, "That's him!"' In other words, on the impulse of the moment the speakers expressed themselves naturally instead of studying the artificial rules prescribed by schoolmasters. Their utterance was consequently a thousand times more forcible and eloquent than if they had simpered, 'That is he.' I have no doubt that as long as the language has existed Englishmen have cried out, 'That's him!' and, in spite of board schools and free education, they will doubtless continue to do so. If this or any other natural and universal form of speech is contrary to the rules of grammar, so much worse for the rules of grammar."

Now, this is quite readable, being easy and attractive in style, and freshened by an undercurrent of humor. But, on sober reflection, what can be much more absurd than to assert that either of the two forms of expression, "There are a lot" and "There is a lot," may be used without discrimination and with perfect indifference, to express exactly the same thought? Passing by any objection that might hold good against the illogical use of the word "lot" to express the idea of a number of individual persons or things, what tyro in our Public Schools does not perceive that there is a clear distinction in meaning between the two forms of expression, and that the choice between them should be by no means accidental, or regarded as a mere matter of taste? Is it not worth while to take the trouble to perceive that the terms, properly considered, convey two distinct ideas, and that this fact determines the choice in the case of every thoughtful and scholarly person? There is a sound basis of science in the old rule formulated by Lennie, "When a noun of multitude conveys plurality of idea, the verb should be plural." In other words, the form of the verb is, or should be, determined by the conception of the speaker, the shade of thought he wishes to convey.

On another occasion it may be worth while to inquire whether the unscientific "that's him" is really more "natural" than the grammatical "that's he," or whether its seeming naturalness is not the result of perverted use and habit.

Don't fail to examine our clubbing list. We should have said that THE EDUCATIONAL JOURNAL and either of the weeklies named will be sent to new subscribers from date of subscription, if before January 1st, to the end of 1896, without additional charge.

## EDUCATIONAL NEWS NOTES.

THE Board of Education of Peterborough have extended the kindergarten system by supplying all the primary rooms with partial kindergarten supplies.

"OUR MONTHLY," published by the Manufacturers' Life Insurance Company, Toronto, offers \$20 for the best argument for life insurance, in the form of a story not exceeding fifteen hundred words. Particulars from Editor, *Our Monthly*, 63 Yonge street, Toronto.

AT the recent meeting of the Lincoln County Teachers' Association, held in St. Catharines, the Central and Court street schools of St. Catharines remained open the first forenoon to allow visiting teachers the opportunity of seeing the regular work of the classes. A good idea.

SINCE 1870 the number of children in English schools has increased from 1,500,000 to 5,000,000, and the number of persons in English prisons has fallen from 12,000 to 5,000. The yearly average of persons sentenced to penal servitude for aggravated crimes has decreased from 3,000 to 800, while juvenile offenders have fallen from 14,000 to 5,000.

AT the East Middlesex Teachers' Association, Inspector Dearness stated that in proportion to the work to be done the marks on the subject of Physiology and Hygiene at the Entrance examination were lower than on any other. He called on the teachers to unite and earnestly consider the causes with a view to raise the standard of efficiency in this to that of the other subjects.

THE renewed and vigorous discussion in the Toronto School Board's 72 corporal punishment ended in the adoption of the following resolution by a vote of six to five: "Administer punishment, when necessary, with the strap supplied by the Board, and on hands only, except in case of opposition by the pupil, when punishment may be applied elsewhere, avoiding the head and other vital parts, as the circumstances of the case may warrant."

ABOUT a month since the city teachers of Peterborough organized themselves into an association separate from that of the county of Peterborough, and chose the following officers: President, Alex. Wherry, P.S.I.; Vice-President, Miss Nicholls; Executive Committee, Messrs. J. C. Smith, McCreary, Keogh, Matchea, and Misses Mark, Findlev, and Jenkins; Secretary, Mr. A. H. Yennie. The first annual meeting will be held on Friday, November 22nd next.

THERE are 40,000 New York schoolboys now members of the Boys' Anti-Cigarette League. Branches have been established in ninety-five grammar schools in the city, and in many of the primaries. The boys are organized in each school, have their own officers, and wear their buttons as a badge, and are pledged not to smoke until they are one-and-twenty. It is said that the boys take up the subject with earnestness and enthusiasm, and that very few to whom it is presented fail to enroll themselves.

IN a condensed account of the proceedings of the Lincoln County Institute, the secretary, Mr. D. C. Hetherington, says: "The most interesting subject was a comparison of the Spencerian and Vertical systems of writing, by Mr. R. T. Martin, of Jordan. The specimens of vertical writing obtained from Kingston were much better than those Spencerian obtained elsewhere, and reflect much credit upon the teachers of the system in that city. There was a general feeling among the teachers in favor of adopting that system."

AT the recent meeting of the East Middlesex Teachers' Association, Mr. Laing explained the operation of a new instrument for teaching geography, called the helioterra. It is a revolving globe mounting the earth, the moon, Mercury, and the sun. He showed how the annual revolution of the earth, the succession of the seasons, the moon's revolution and phases, eclipses, transit of Mercury, solstices and other problems can be worked out or illustrated by the apparatus. A resolution was afterwards carried endorsing the use of the helioterra for teaching mathematical geography.



## Special Papers.

### AGRICULTURE IN THE PUBLIC SCHOOLS.

BY THOMAS C. ROBSON, MINDEN, ONT.

Agriculture is the source of all national greatness. It is the base on which all truly great empires have been built. At first view, the sword may appear to have something to do with the creation of an empire, and it has been claimed for the pen that it is mightier than the sword.

The spade is more powerful than either, and to it do all kings and conquerors owe their final conquests. Without it, the sword of the smiter is but the weapon of the rude mosstrooper, riding forth to root out and destroy. Without it, the pen is but the modern form of that rude harper he carried in his train, to publish, in the hours of the night, the destruction his "brain-biter" had worked in the day.

Before the mosstrooper can become a settler, he needs must beat at least some of his "brain-biters" into ploughshares, and a few of his spears into pruning-hooks. And who but the clever children of the spade have made the rude mosstrooper the yeoman of the universe, and his country the glory of her day?

I am aware that visions of Clive and Hastings in India, of Napoleon in Europe, and of the psalm-singers on the bare rocks of Massachusetts, will pass before your mind's eye, and lay claim to the title of empire-builders, and they do, indeed, represent three classes of the same. Napoleon began, continued, and ended a ruthless mosstrooper. His victories were not even conquests, much less empires, and, such as they were, they were created by the sword, and perished by the sword.

Clive and Hastings were yeomen, who beat their ploughshares into swords in self-defence, and readily changed the rude form of their warlike weapons into more peaceful implements of industry. Let no one suppose that England holds India with the sword. By her railways and canals, by improved methods of agriculture, and by open markets, she has wound such a girdle of peace round that vast empire as no sword can cut, no rifle ball burst asunder.

Of the psalm-singers of New England, it has been said that they formed their little colony in the wilderness in order that they might worship God according to the dictates of their own consciences, and make other people do so likewise.

Be that as it may, their empire is the empire of the spade, and although their occasional outbreaks of barbarism, their burning of live negroes, and hanging of the helpless and innocent, may lead the civilization that is outside of them to think that you have but to scratch a Yankee, and you will find a Mohawk, yet, with all their faults, they have given to the world the best illustration of the dignity of labor, of the nobleness of farming, and of the absolute sovereignty of the spade.

Seeing, then, that agriculture holds such a high position in our midst, it is but natural to expect that the children of our people should be made acquainted with its mysteries, that our statesmen should devise the best means for its improvement, that our sons should give their days to the practical development of its powers, and their nights to the careful analysis of its qualities, that our daughters should cultivate a knowledge of that beauty of form, that richness of coloring, and that diversity of expression which nature, and nature alone, supplies. What are we doing in this matter? It is true that the county of Haliburton cannot claim to be the most progressive in matters of education. It is true that our maps and school material may be a little antiquated, but we have one advantage over the great centres of learning. We have nature at our very doors. We have a class of pupils eager to know all we can tell them of that sylvan goddess, whose path they cross ever and anon in their daily life. Their minds are not drawn away to the questionable advantages of city life. To them the stately maple and the stalwart oak, the graceful cedar, and the incense-breathing pine are forms of beauty, unrivalled by any object formed by man, even though it be the labor of an age in piled stones. If we have the material for making farmers, would it be too much to advance that, in the persons of our young lady teachers, we have the best form of farm instructors?

There may be some who think that, in claiming for our young lady teachers the ability to teach farming, we are going a little too fast; that it is the prerogative of man to farm and to teach farming; that the management of horses requires robust constitutions; that the native soil and its elements are too coarse to be touched by ladies of taste. Such persons forget that ladies have already shown their skill in the hunting-field, the laboratory, and the dissecting room, and after such a display we may safely trust them to hold their own in the field and farmyard.

But how shall we teach our children farming?

Shall we go forth into the potato-patch, and the logging-fallow, and shew our boys a better way of handling the hoe, or a more graceful position in driving the oxen? I have some doubts of our being able to do the one, and am certain we cannot do the other. Farmers are born, not made. I know that this remark is generally applied to poets, but I don't see any reason why poets should claim a monopoly of predestination. I repeat, farmers are born, not made, and the point which I wish to make is this, that we should not try to make farmers out of material that is intended for doctors, lawyers, and ministers of the Gospel, but that we should persuade the born farmer to be satisfied with becoming a good yeoman, and so prevent him from sinking to the level of a poor doctor.

I know that many people look upon this matter from a different standpoint. They think that the boy who is content to remain on the farm is little better than an ignoramus. He is told that he has no ambition. He is called a "clodhopper," a "mossback," and a "hayseed." He is ranked with the dude, and the negro, as an object of ridicule; he is pelted with the sarcastic conceits of every budding citizen, and his road to affluence is paved with all the bad jokes of the continent. Shall we ask why do our boys flee the farm, or shall we rather remember that it was even thus "Cervantes laughed Spain's chivalry away"?

To come back to the farm boy. Books are written to convert him from the errors of his ways. "The Converted Clodhopper" is given to him as a prize for reading, and "From Woodshed to White House" marks his progress in mathematics. I have nothing to say against presidents or preachers, but I think a man may be as useful in the woodshed as in the White House, and as pious in his own parlor as in other people's pulpits.

How are we to know the "born farmer"? Does he smell like Esau, of the fields, or is he a plain boy like Jacob, living in a respectable habitation?

Now, here is where our young ladies will have their opportunity. I do not think that any grave and reverend professor, with spectacles on nose, could tell the character of Esau from the state of his hands. He would probably conclude that a rough hand and a wicked heart went together, notwithstanding that it was the smooth, oily palm and deceitful heart of Jacob that were found in company.

The schools of Haliburton are small. The average daily attendance is not twenty. The teacher has the opportunity to study the individuality of her pupils. Here is a little fellow running by the woodside in the company of his teacher. They pass a maiden hair, an oak fern, or a violet. He plucks it, and gives it to her. By-and-by she learns that the little fellow is an authority on wild flowers, and that he is kind to birds and dumb animals.

Put him down as a "born farmer." The mere suggestion on your part will set him to work on the bank of the schoolhouse, where, if you plant one-tenth of the wild plants he will bring you, and bring them to a successful growth, Solomon in all his glory will not be so grand as those flowers, or half so well pleased as that little fellow of six years with your joint products.

Your joint products! The refined and city-bred lady of twenty summers forming a garden party with an agricultural gentleman of six! Impossible! No, not impossible, but very probable, for you will never be a successful teacher of agriculture unless you do so.

I have found that it is well *not* to know too much when teaching children agriculture. In the matter of wild flowers, I think I have learned as much from the children as they have learned from me, and theirs was knowledge *never* learned of books.

In the matter of cultivating and classifying, they are my debtors, but I think that the success of our Saturday expeditions is owing as much to the

capacity of the teacher for listening as to his ability to impart knowledge.

I have said little of the methods of teaching. The child who at six years is interested in a lady fern can be easily persuaded to search for its brothers and sisters. At ten, he will drink in with avidity anything the teacher can tell him of their classification. Nor will he stop at ferns and wild flowers, but, if properly encouraged, he will, at fourteen, be master of the leading truths of botany and agriculture.

A little patch of ground will aid the teacher in her work. The writer, living in the backwoods, has used the banks of the schoolhouse for the purpose. Each scholar had his own particular plot, in which he was allowed absolute liberty of action, the teacher confining himself to caution and recommendation. The value of ashes, rotten sod, guano, old bones, was clearly shown to the interested pupils, and the beds of thistles, rude and unsightly as they were, convinced the dilatory that eternal vigilance is the secret of good farming.

I have spoken of the born farmer in the masculine gender. It is only fair to the feminine to say that young maidens take as deep an interest in these matters as their brothers. The farmer boy has more destructiveness, the village maiden more constructiveness. These opposite qualities can be taken advantage of in the school garden. Young Canada is too much of a destroyer, and does not require any instruction in the art of killing chipmunks, ground hogs, or wild birds. The teacher should use her best efforts to soften down this trait in his character.

In this she will have the assistance of his sisters, who are just as kind to the little children of the forest as their brothers are rude and oppressive.

### THE TEACHERS' INSTITUTE.

The teachers' institute is one of the universal educational instrumentalities of this country. The institutes vary greatly with local conditions, but they may be classified in general as official or voluntary, as academic, "methods," or professional.

The official institutes are state, county, or city, as the case may be. New York State is the best illustration of a system of state institutes. She has a corps of well-paid state institute conductors, who, under the direction of the state superintendent, hold meetings of a week's duration in various districts apportioned for that purpose. Teachers are required to attend, and to be attentive as well. The state department has the right to annul the certificate of any teacher who absents himself without an acceptable excuse, or whose conduct at any session is unbecoming a teacher. This is not a "bluff," but has been enforced within a few months by annulling the certificates of two men for half a day's absence, unbecoming conduct, and personal disrespect to the institute conductor. New Jersey has a species of state institutes, although they are held by counties, and there are no official conductors. The state, however, pays the expenses. Massachusetts has state institutes, sessions for a single day, or, at most, for two days, conducted by one of the agents of the state board of education, who is assisted by normal school teachers. These are almost entirely methods institutes. Maine, New Hampshire, Vermont, and Connecticut have institutes of the same general character as those of Massachusetts.

The official county institute is at its best in Pennsylvania, where each county has an assemblage of all the teachers for a week's session, and it looks over the entire county in search of instructors and lecturers, from whom the teachers shall profit while enjoying the exercises. California, Colorado, Indiana, Illinois, Iowa, Missouri, Oregon, Washington, and other states approach very closely to the plan of Pennsylvania.

Ohio is the best illustration of the voluntary system. In Pennsylvania the teachers are paid regular wages while attending, and attendance is obligatory. It is so to a greater or less extent in the other states mentioned, but in Ohio the teachers receive no pay, and attendance is not required. They are county gatherings, but there is no superintendent or official board. The teachers organize themselves, choose their own committee, that secures its own talent and conducts the session in its own way. The county indirectly furnishes a large part of the funds for the meeting. In many

respects, this voluntary idea works well, especially in a creation of a public sentiment, which secures attendance and tones up the attention of the teach-

The days of the academic institute are largely passed, though there are still a few communities in which the ideal is drilling girls and boys in their teens and the younger teachers in the technicalities of the various branches, in order that they may pass the examinations for a teacher's certificate. The "methods" institute is fast passing into history, although there are still very many in which the aim is to recite certain specific methods of teaching some portion of a special subject. The professional idea is fast coming to the front, and the great benefit from the ordinary institute is the professional tone that it gives the teachers individually, and the entire community as well. The schools of any county may be measured fairly well by the character of the work demanded through the institute.

Whispering, inattention, tardiness, early leaving, are all things of the past in most cases, and universal commendation and hearty enjoyment have taken the place of criticism.—*N. E. Journal of Education.*

### STUPIDITY VERSUS INTELLIGENCE.

Is it possible to divide children into intellectual sheep and goats? And, if so, is it possible to arrange a different scheme of education for each class? These questions are suggested by the recent decision of the educational authorities in Germany, who, according to the *Lancet*, have resolved to divide all aspirants for State education into two classes, the stupid and the intelligent. We are told that in all the State schools children will be examined by a medical man, who will be required to diagnose their mental faculties. If he decide that a child is "intelligent," then that child will receive "instruction in the higher branches of learning"; the education of the rest is to be "confined to the rudiments." At first blush, this sounds to English ears quite ridiculous, and we may be inclined to pass on with a smile, treating the suggestion merely as another Utopian dream of the many-sided Emperor. Certainly, English doctors would not welcome this addition to their responsibilities. But, after all, there is something attractive in the plan. Stripped of its German officialism and uniformity, the idea may fairly be paralleled by our own action in recent years, in reference to the ever-spreading scholarship system. We must all feel how much more work could be done with a class from which the dullards and slow-workers had been eliminated. And how much more patiently and thoroughly we could teach the dullards if we were not haunted by the feeling that the rest of the class were growing impatient for further and more rapid progress! As things are, in all but the very largest schools, it is clear that one portion of the class must frequently be merely marking time, or else that another portion is being driven too quickly. It may be urged that a few clever children in a class keep up a higher standard of work. But it is doubtful if this objection could be substantiated.

There is little question that the work of the class will go on much better where all the pupils are fairly equal in ability and knowledge, even if the standard is a low one. The real difficulty, of course, is to decide upon the grounds of the distinction. It is a matter of common experience that the clever boy and the dull boy, as tested and labelled by their examiners and masters, frequently reverse in after life the early judgment passed upon them. Who is to divide the wheat from the chaff? It is clear that the teacher, with his present scanty stock of physiological knowledge, is not quite fitted to be the arbiter of a child's destiny. And we doubt whether physiologists even, much less general practitioners, have sufficient information at their command to qualify them for the task. We are told that the "bright" boy may only be exercising the lower brain-powers which we have in common with animals. His "brightness" may be the result of stimulation of the sensorium only: his higher brain-power, seated in the cerebrum, may be untouched; whereas the slowness of the seeming dullard may be the result of a conscious and gradual struggle to develop his higher powers. Some teaching, by stimulating the sensorium only, may directly produce stupidity. But this knowledge would not

enable a doctor to say with confidence whether a child's brain would develop under proper stimulus, and in what degree. Granted the feasibility of distinguishing a fool from a genius—and schoolmasters have not always been happy in this respect—yet the average child is neither fool nor genius. Discrimination is often well-nigh impossible; and the idea of a universal examination in brain-power is a patent absurdity.

We venture to think that we manage these things better in England. We certainly want to pick out our best boys and girls, and give them a higher education than their less-favored comrades. The English solution of the difficulty at present is examination to test knowledge and intelligence—the scholarship system. It is true that examinations, whether paper or oral, are by no means infallible, yet we do not see our way to any safer method. Examiners as a rule, nowadays, set their papers so as to elicit answers which will show the intelligence and capacity of the student rather than his aptitude for retailing undigested cram. When the scholarship schemes of County Councils and other authorities are more fully developed, we may hope that children of promise may generally be picked out of the elementary school at the age of ten or eleven, whilst the remainder will continue a scheme of instruction arranged specially for them. From the intermediate schools, again, we shall take out our picked boys or girls at an early stage, and send them to higher schools, and so on up to the universities. We shall attain our end by a sounder, if slower, process than a medical diagnosis.—*The Educational Times (Eng.).*

## Mathematics.

All communications intended for this department should be written on one side of the sheet only, and should be addressed to the Editor, C. Clarkson, B.A., Seaforth, Ont.

### SUBTRACTION.

A LECTURE ON METHOD BY PROFESSOR MOHAMMED BEN MUSA.  
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"There are only two things that a child can do with a number," said the professor, as he was ascending the platform; "he can *increase* it, and this he calls Addition; or he can decrease it, and this he is taught to call Subtraction. A certain peculiar kind of addition he learns to call Multiplication, namely, that in which the first addition is repeated over and over a given number of times: the initial number is added to itself, and again added to the sum, and again added to this second sum, and again added to this third sum, and so on, the final sum being called by the very respectable title of *product*. A certain peculiar kind of subtraction he learns to call Division, namely, that in which the first subtraction from a given number is repeated over and over as often as possible: from the initial number a second smaller number is taken, from the residue the second number is again taken, from the second residue the smaller number is again taken, from this third residue the smaller number is again taken, and so on, until the final residue is less than the smaller of the two original numbers, and the operation is no longer capable of being repeated, the final residue being known by the very honorable title of *remainder*. These are the four fundamental operations of elementary arithmetic; and you must at once perceive, my dear disciples, that the operations denominated *Multiplication* and *Division* are merely particular cases of *Addition* and *Subtraction*, respectively, so that my first sentence enunciates the general truth which lies at the basis of all numerical science. Nor is this statement in conflict with the fact that in higher arithmetic we perform upon numbers the operations called *Involution* and the *Extraction of Roots*, for these, again, are only special cases of multiplication and division, respectively.

"My purpose this morning is to consider the second fundamental operation and the method of explaining it to a class of children who are just studying it for the first time; and I may tell you, parenthetically, of the difficulties encountered by my little friend Harry, who is at present trying to understand the great mystery of borrowing and paying back. He has a decided antipathy to mysticism, and has asked some quaint and original questions of his affectionate teacher at the most inopportune and busy moments, with anxious care, about 'carrying.' As you are preparing to teach little people like Harry, it may be profitable to spend a few minutes in clearing up this great mystery, and in looking through the heart of the matter, so that you may be able to lay with the greatest ease the corner-stone of all mathematical science, namely, a clear conception of Addition and Subtraction, and their relation to each other.

"The first observation I wish you to make is this: To increase a number and to decrease a number are simply reverse operations; Subtraction is simply the operation of Addition reversed. Keep in mind the great fact that we can *increase* a number, or we can reverse the process and *decrease* the number. Thus  $3+2=5$ ;  $5-3=2$ ; and  $5-2=3$ , so that every example in Addition produces at least two examples in Subtraction; and, correspondingly, every example in Multiplication supplies two examples in Division. As we increased 3 by 2, and at the same time increased 2 by 3, we can, by reversing the process, decrease 5 by 3, or decrease it by 2. What we call *Sum* in Addition we connote by the aristocratic and classical title of *Subtrahend* in Subtraction. Now, Harry's great difficulty is in perceiving that the same thing has these two different names, and we must make him grasp that fact or he will inevitably fall into mysticism. We must, by numerous simple examples, bring him face to face with the fact that the two names mean the very same number. Propose to him twenty problems like these:  $3+?=5$ ,  $2+?=5$ ,  $6+?=10$ ,  $4+?=10$ , and he will begin to perceive the central unity of Addition and Subtraction. The same questions may then be written down in the common form:

5	5	10	10
3	2	6	4
—	—	—	—
?			

and so forth. Two numbers added together make 5, one of them is 2, what is the other? Two numbers added together make 5, one of them is 3, what is the other? A hundred easy questions like this may be solved mentally and be answered orally as a means of confirming Harry in his conception of subtraction, or 'un-adding.' And larger and larger numbers may be used up to his highest limit of mental addition, perhaps up to 25, or 50, or even 100, if he is found capable of solving the problem proposed. Thus:  $26+?=30$ ,  $36+?=40$ ,  $46+?=50$ ,  $96+?=100$ ;  $16+?=30$ ,  $26+?=40$ ,  $36+?=50$ ,  $86+?=100$ , and so on, until he can, if he has been thoroughly drilled on the *Analysis of Numbers* up to 45 or 100, do all the corresponding subtractions mentally.

"But what beyond? I know you have been waiting patiently till I should reach this point. Now we reach the real crux of the method, the virtual crisis. So far an active-minded boy like Harry could probably proceed without much systematic teaching. But if we now step into the unknown and say, 'Harry, Mr. Farmer had 253 sheep in his field, but 142 of them took a dreadful disease called *anthrax* and died; how many had he left?' he will be brought to a stand until we show him that he knows that

$253 = 200 + 50 + 3$   
and that  $142 = 100 + 40 + 2$  and that by three sub-remainders  $= 100 + 10 + 1$ , or 111, as we commonly write it. He should get a hundred more problems of this kind in which there is no carrying required.

"Now the final stage arrives, and for this it will be necessary to make a little preparation. Set down side by side a number of examples of this type :

5	15	8	18	16	26	38	48
3	13	5	15	14	24	33	43
2	2	3	3	2	2	5	5

and get Harry to perceive the analogy of the various pairs, and that the second pair of each group is simply the first pair with each number increased by 10. Make him observe that each pair of remainders is the same. Increase the number of examples. Do not hurry. Let him make a sound induction of which he will feel sure forever after. Call on Harry to *make* more examples with larger numbers. Do not hurry. The boy will be happy while he is contriving new examples ; give him time to explore the matter on his own account. Do not hurry ; impatience spoils a great deal of teaching that would otherwise be fruitful. Finally, when it is quite clear that Harry comprehends the notion that to add 10 to each term of a subtraction question will always leave the remainder the same, we will sum up the result in some verbal statement, getting the boy, if possible, to make the formula for himself. Then we are ready to go on.

"Mr. Farmer had 253 sheep in his field, but one night some bad dogs came in and worried 169 of them ; how many were left alive in the morning ?' Probably Harry will remember very well how he did the former question, and write down :

$$\begin{array}{r} 200 + 50 + 3 \\ 100 + 60 + 9 \\ \hline \end{array}$$

but he immediately finds out that he cannot take 9 sheep from 3. Now we shall find out whether the previous induction was soundly done. If we add 10 to each number, what will the difference become ? Will it be more or less ? The same, says Harry ; or, if he does not seem sure of it, we are going too fast, and must turn back and get him to supply some more examples like the preceding, until he is *sure* that  $253 + 10$  and  $169 + 10$  will give the same remainder as 253 and 169. Then we ask him to add the 10 to the 3 and make 13, and the lower 10 to the 60 and make 70. When he has written the question over it stands thus :

$$\begin{array}{r} 200 + 50 + 13 \\ 100 + 70 + 9 \\ \hline \end{array}$$

He now takes the 9 from 13, and gets 4 ; and we make him observe over and over that when the 3 became 13, the 60 became 70. We vary the figures a little, and set down a 4 where we had 3, and 8 where we had 9, and see whether he can add 10 to each number without aid from his teacher. We ask him to take 79 from 93 in this way, and see whether he can put it down :

$$\begin{array}{r} 90 + 3 \\ 70 + 0 \\ \hline 10 + 4 = 14 \end{array}$$

If he can, we ask him to 'make up' some more questions like that, as many as his slate will hold. No haste, no delay. 'Let the boy win his spurs.'

"Then we come back to  $253 - 179$ . What shall we do next ? Can the 70 be taken from the 50 sheep ? What did we do before ? Well, what shall we do now ? Harry thinks we may add 10. Try it. We change the 50 into 60, and still we

cannot subtract 70. The boy will certainly find out that 100 must be added if the teacher is only patient and will give him time and a few questions.

"Make him write the whole over again as at first :

$$\begin{array}{r} 200 + 150 + 13 \\ 200 + 70 + 9 \\ \hline 80 + 4 \end{array}$$

Bring him over the critical points again and again. Where did you get this 13 ? When you changed the 3 to 13, did you change any other number ? Point it out. How did you get this 150 ? Did you add 100 to any other number ? When you added the 10 to each number, did that make the remainder less than before ? More ? The same ? How do you know ? When you added 100 to each number, was the remainder still the same ? Harry may now go and 'make up' some more questions and write them all out after the model :

$$\begin{array}{r} 253 \quad 200 + 50 + 3 \quad 200 + 50 + 13 \\ 169 \quad 100 + 60 + 9 \quad 100 + 70 + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 200 + 150 + 13 \\ 200 + 70 + 9 \\ \hline 80 + 4 = 84 \end{array}$$

Do not hurry. Give the new ideas time to simmer for a while in the growing brain. Hasten slowly to the final stage, and show him at last how to avoid all this copying.

$$\begin{array}{r} 2 \quad 15 \quad 13 \\ 2 \quad 5 \quad 3 \\ 2 \quad 7 \\ 1 \quad 6 \quad 9 \end{array}$$

Cancel the given figures and write the new ones above them. He will like this very well for a whole day ; it is new ; and he will 'make up' more questions than his teacher has time to examine. Finally, we bring him to the level we wished him to reach, and he subtracts long lines of figures—the longer the better—against time. At the next lesson we teach him how to test his subtraction by addition, and shortly he 'proves' all his answers in that way, and is now ready for problems involving combinations of addition and subtraction to be done as quickly as possible.

"Such, my dear disciples, is one method of teaching Subtraction without introducing the profound mystery of 'borrowing one' from the upper line and 'paying back' one to the lower line ; and such is the slow, clear manner of the inductive teaching I wish to commend to you, and which I hope you will be able skilfully to practise. We are now prepared to consider Multiplication in the next lecture."

C. C.

SOLUTIONS.

- No. 82. By A. N. MYER, Dunnville.  
In 1,440' true time watch loses  $3\frac{1}{2}$  min.  
" 1,436 $\frac{3}{4}$ ' of its own " " " "  $3\frac{1}{2}$  "  
i.e., " 8,621 " " " " " " " " 19 "  
" " " " " " " " " " 19 "  
" " " " " " " " " " 19 "  
From 12.10 on Monday to 12 Saturday = 7,910 minute spaces traversed,  $\therefore$  watch loses in these 7,910 minutes of its own time  
 $7,910 \times \frac{19}{8621} = 17\frac{3733}{8621}$  minutes.  
Hence watch indicates 7 minutes,  $27\frac{3733}{8621}$  seconds past 12, since it was 10' too fast at first.
- No. 83. By A.N.M.  
 $7,600 \left( \frac{100+x}{100} \right)^2 = 9,196$  ; whence  $(100+x)^2 = 12,100$  ;  $100+x = 110$  ;  $x = 10$  %.
- No. 84. By TEACHER, New Prussia.  
 $116,280 = 2 \times 2 \times 2 \times 3 \times 3 \times 5 \times 17 \times 19$ ,  
from which we easily get  $116,280 = 17 \times 18 \times 19 \times 20$ .

No. 85. By A.N.M.

$$\begin{array}{r} 33038369407 \quad | \quad 127 \\ \hline 1 \\ 230383 \\ \hline 1^4 \times 50,000 = 50,000 \\ 1^3 \times 10,000 \times 2 = 20,000 \\ 1^2 \times 1,000 \times 2^2 = 4,000 \\ 1 \times 50 \times 2^3 = 400 \\ 2^4 = 16 \\ \hline 74,416 \times 2 = 148832 \\ \hline 8155169407 \\ \hline 12^4 \times 50,000 = 103680000 \\ 12^3 \times 10,000 \times 7 = 120960000 \\ 12^2 \times 1,000 \times 7^2 = 7056000 \\ 12 \times 50 \times 7^3 = 205800 \\ 7^4 = 2401 \\ \hline 1165024201 \times 7 = 8155169407 \end{array}$$

Ans. 127.

No. 86. By R. D. GIBSON, Ayr.

$$\begin{aligned} & (x-y)(y^3-z^3) - (x^3-y^3)(y-z) \\ & = (x-y)(y-z)[(y^2+yz+z^2) - (x^2+xy+y^2)] \\ & = (x-y)(y-z)(yz+z^2-x^2-xy) \\ & = (x-y)(y-z)(z-x)(x+y+z). \end{aligned}$$

No. 88. By the EDITOR.  $x^3 + xy = 76$  ;  $y^3 + xy = 39$ . By inspection we easily get  $x = 4$ ,  $y = 3$ , and we require two more solutions. Substitute  $y = 3$  in first, and  $x^3 + 3x - 76 = 0$ . Divide this by  $x - 4 = 0$ ,  $\therefore x^2 + 4x + 19 = 0$ , a quadratic that will give the other two values of  $x$ . Similarly for  $y$ .

No. 90. By TEACHER. Average price per head = £1 ; the cattle are bought at £4 above the average, geese at £ $\frac{1}{2}$  below. The ratio of these is 80 : 19. Hence a solution will be 19 cattle, 1 sheep, and 80 geese.

No. 91. By R.D.G. Snail goes up 15 inches a day ; at the end of 25 days he will rest 375 inches up the pole ; i.e., 45 inches from the top. At the end of the daylight on the 26th day he will be  $45 - 15 = 30$  inches from the top, which will take  $11\frac{1}{3}$  hours to ascend. Ans.—26 days,  $11\frac{1}{3}$  hours, or  $635\frac{1}{3}$  hours to reach the top.

No. 95. By TEACHER. Six miles per hour =  $\frac{1}{2}$  mile in 5 minutes, hence the cars are  $\frac{1}{2}$  mile apart on the road ; and in 4 miles there will be 8 cars at any given moment. The traveller will meet these and all others that start during the hour he walks, viz., 12 more ; 20 altogether. Again, in an hour the cars go 6 miles and man only 4 miles ; i.e., the cars on 2 miles will overtake him, viz., 4 cars.

No. 96. By the same.  
Let  $x = \text{length} = \text{breadth}$  ;  $y = \text{height}$   
 $\therefore x^2y = 1$  ;  $xy^2 = 6$ . Multiply and  $x^3y^3 = 6$  ; cube the first and divide, and

$$x^3 = 1 \div \sqrt[3]{6} = \frac{1}{\sqrt[3]{6}} = \frac{1}{\sqrt[3]{3 \cdot 2}} = \frac{1}{\sqrt[3]{3} \cdot \sqrt[3]{2}} = \frac{1}{3.301927} = \text{etc.}$$

No. 85a, p. 75. By A. H. P. MATTHEW, Cloverdale, B.C. A., B., and C. have 8 loaves, i.e., each has  $2\frac{2}{3}$  loaves. A. gives C.  $2\frac{1}{3}$  loaves ; B. gives C.  $\frac{1}{3}$  loaf ;  $\therefore$  money is divided 1 : 7, i.e., A. gets 35c. and B. 5c.

No. 86a, p. 75. Spent  $\frac{2}{3}$  money, had  $\frac{1}{3}$  money left.  $\therefore \frac{1}{3}$  money -  $\frac{2}{3}$  money = 57 cents =  $\frac{1}{4}$  money. Ans. \$3.99.

No. 87a, p. 75. 60 lbs. of tea and coffee cost \$43.50  
60 " " tea " 54.00  
Difference by substituting tea for coffee = 10.50  
Difference for each pound = 50c.  
 $\therefore$  number of lbs. substituted =  $1050 \div 50 = 21$  lbs. coffee. Tea, 39 lbs.

No. 88a, p. 75. Take O as centre, DE as the chord to be determined, OG the perpendicular = 10 inches. Draw the diameter BOGC. Then  $OB = 26$ ,  $CG = 16$ . Now (Euc. III. 35), rectangle  $BG \cdot GC = DG \cdot GE = GE^2$  (Euc. III. 3).  
 $\therefore GE = \sqrt{36 \times 16} = 6 \times 4 = 24$ , and  $DE = 48$  inches.

No. 89a, p. 75. By the EDITOR. Let AB be the hyp., on it describe a semicircle. From centre A with radius = one side, describe a circle cutting the semicircle at P, join PB. APB is a right angle (Euc. III. 21) and APB is the triangle required.

No. 90a, p. 75. By A. H. P. MATTHEW. Reckoning compound interest, \$100 worth of bonds will net the owner in 3 years \$119.30522, and  $\therefore$  the price will be the P.W. of that sum at 5 % half-yearly.  
i.e.,  $P(1.025)^6 = 119.30522$  ;  $P = \$110.80$  nearly.

No. 91a. In the first sale of 3% he gains  $\frac{1}{10}$  of amount invested,  $\therefore$  he receives  $\frac{11}{10}$  of amount invested.

In the first sale of 4% he gains  $\frac{1}{10}$  of amount invested,  $\therefore$  he receives  $\frac{21}{20}$  of amount invested.  $\frac{11}{10}$  of amount invested +  $\frac{21}{20}$  amount invested =  $\frac{71}{20}$  of amount invested in each.

In the second sale of 3% he loses  $\frac{1}{10}$  of  $\frac{71}{20}$ ,  $\therefore$  has  $\frac{11}{20}$  of  $\frac{71}{20}$  =  $\frac{781}{400}$  of amount invested.

In the second sale of 4% he loses  $\frac{1}{10}$  of  $\frac{71}{20}$ ,  $\therefore$  has  $\frac{11}{20}$  of  $\frac{71}{20}$  =  $\frac{781}{400}$  of amount invested.

$\frac{781}{400}$  of amount invested +  $\frac{781}{400}$  amount invested =  $\frac{1562}{400}$  of amount invested in each at first.  
 $\frac{721}{400} - \frac{250000}{1000000} = \frac{14050}{1000000}$ , of amt. in. in each = \$3514.75  
 $\therefore \frac{120000}{1000000}$  " " " " = .25  
 and  $\frac{120000}{1000000}$  " " " " = 324.90  
 $\therefore$  he invested in each stock \$324.90, or \$649.80 altogether. Ans.

No. 92a.

$$\text{Sum of } \frac{1}{5} + \frac{1}{5^2} + \dots + \frac{1}{5^9} \text{ terms} = \frac{\frac{1}{5} \left( \frac{1}{5^9} - 1 \right)}{\frac{1}{5} - 1} = \frac{488281}{100000}$$

Ans.

No. 93a.

$$\text{Sum of } \frac{1}{6} + \frac{1}{6^2} + \dots + \frac{1}{6^9} \text{ terms} = \frac{\frac{1}{6} \left( \frac{1}{6^9} - 1 \right)}{\frac{1}{6} - 1} = \frac{2015536}{1000000}$$

CORRESPONDENCE.

J.H.P. points out very kindly that in the solution of No. 57, p. 123, "it is not stated how MO and NP are to be drawn." The solution ought to read: "Draw MO and NP on opposite sides of the diameter and perpendicular to it." The last four words were omitted by the printer. It then follows that AQ : AR = AS : AT  
*i.e.*, AQ : AS = RA : AT, and by similar triangles = MA : AN, which are medial sections.

W.J.M. sent reference only. Life is short ; time is fleeting.

J.H.H.—The length of a degree of latitude increases slightly as we approach the pole. The Institute conductor had you on the hip. The following figures will show the proportion in which the degree lengths. At 20° the length is 68.777 miles, at 30° it is 68.875, at 40° it is 68.987, at 50° it is 69.108 statute miles, and so on. It is, in fact, from this variation that the figure of the earth is calculated, and not *vice versa*. The length of a degree of latitude can be measured with great precision by means of astronomical instruments, within half a dozen feet. You will discover your mistake if you refer to any text-book on Geodesy or on Astronomy.

J. MORGAN sent a clock problem.

No NAME sent a drain problem.

W. E. BAVIS asks for the area of a zone of a circle.

J. E. COOMBES sent two problems in physics.

A YOUNG LADY sent three questions.

A.H.P.M. sent ten questions for solution.

X.Y.Z. sent thirteen problems.

J.H.V sent six problems.

If there are any others who have been overlooked, please repeat.

We shall publish solutions of the primary and other papers set last summer, and shall be glad to receive assistance from as many willing hands as possible. The last number set a noble example, and Mr. Cuthbert deserves the thanks of his fellow-teachers.

However well endowed a teacher may be in respect of instruction or intelligence, he will always be inferior to a teacher who, to the same personal qualities, adds that which gives power, assurance, and decision—the reflective knowledge of the natural laws for the development of the intelligence. —*Compyre.*

All evil and all good, all disaster, as well as all prosperity, find their source in the education of the people.—*E. P. Powell, in the Forum.*

Examination Papers.

EAST MIDDLESEX PROMOTION AND REVIEW EXAMINATION.

November, 1894.

LITERATURE—3RD TO 4TH CLASS.

Time, 2 hrs. 30 min.

With books, open write the answers of these questions in complete sentences.

Lesson XIV., page 45.

1. Give directions for reading aloud "may his tribe increase."
2. Quote two exclamations and two interrogations in this poem.
3. What is compared to the lily in bloom?
4. By what other two names is the Angel spoken of in the poem?
5. Why was it that Abou spake more low? line 12.
6. Explain "led all the rest," last line. Values—4, 4, 4, 4, 4.

Lesson XXXIX., page 106.

7. (a) In the first paragraph does *more* modify *useful*, or does it modify *lessons*? Give reason for your answer.  
 (b) What is the difference in the meaning of the different modifications?
8. Criticize the third paragraph :  
 (a) Show that it should have been divided into two, and tell where.  
 (b) Point out the chief fault in the form of the sentences ; give examples and improve them.  
 (c) Rewrite the paragraph as far as "toes," making the first sentence tell the size, the second the covering of body and tail, the third a condensed description of eyes, ears, teeth, and feet.  
 Values—1, 4, 6, 6, 8, 9.

Lesson LXXX., page 223.

9. Why is *Figurier* put at the head of the lesson?
10. (a) What does *commit* mean as used in the first line?  
 (b) Write a sentence containing *commit* with a different meaning.
11. Explain "germinate," "vegetable in miniature," "reveal itself."
12. Make a picture or drawing suitable to illustrate this (first) paragraph.
13. In the second paragraph what contrast is instituted between the essential organs of vegetation?
14. Describe three different kinds or forms of root referred to in this lesson, and mention the plants which have them.
15. From what lessons are the following extracts taken :  
 (a) Cannon-balls may aid the truth,  
 But thought's a weapon stronger.  
 (b) Toiling—rejoicing—sorrowing,  
 Onward thro' life he goes,  
 Something attempted, something done,  
 Has brought a night's repose.
16. Who are the respective authors of the poems :  
 (a) About the girl who was lost when going to help her mother home.  
 (b) About the girl who wished to be called early to see her last New Year.

Values—1, 2, 2, 6, 6, 6, 9, 6, 6.

Count 100 marks a full paper ; 33 minimum to pass. Full value ought not to be given for any answer unless it is carefully written in a correct, complete sentence, and shows definite knowledge. Deduct one mark for each misspelled word.

EDUCATION DEPARTMENT, ONTARIO—ANNUAL EXAMINATIONS, 1895.

PUBLIC SCHOOL LEAVING.

ENGLISH GRAMMAR AND RHETORIC.

Examiners : { J. C. MORGAN, M.A.  
 J. J. CRAIG, B.A.

1. "On the top of a windmill, of which the solid tower is still to be seen on the ridge overhanging the field, the King, who had his head quite bare, remained in absorbed silence, whilst the young Prince, who had been knighted a month before, went forward with his companions in arms into the thickest of the fray."

(a) Analyze fully, giving classification and relation of each phrase and subordinate clause.  
 (b) Classify and state clearly the relation of the italicized words.

2. (a) Define "conjugation," "mood," "strong verb."

(b) Of what use is the passive conjugation?  
 (c) Discuss the question, "What sort of verbs can be used in the passive conjugation?"

3. (a) Define gender, and explain clearly the distinction between gender and sex.  
 (b) Give the other gender form for testator, friar, votary, painter, sultan.

4. Explain briefly the difference in meaning between

(a) "Happier than any king" and "Happier than any other king" ;

(b) "I found the way easy" and "I found the way easily."

(c) "The Secretary and the Treasurer" and "The Secretary-Treasurer."

5. Write a complex interrogative sentence, a simple imperative sentence with preposition phrase, a compound and complex sentence with adverbial clause.

6. (a) Give the derivation of "antecedents," "contradict," "suggestion," explaining the force of each prefix or affix. Give the corresponding adjective for each of the three words.

(b) What is a diminutive? Give diminutives of "lamb," "hill," "goose."

7. He has finished what I asked him to do. I do hope that I shall pass.

What do you see there?  
 That man is my brother.

What kinds of fruit do you like best?  
 He killed the dog that bit me.

"What! do you mean it?"

Classify the italicized words in the above, and explain fully and carefully the relation of each.

8. (a) State the general rule for the position of related words, and illustrate by changing as often as you can the position of *only* in the following sentence, giving the meaning in each case :  
 "I only eat one apple."

(b) Rewrite the following so as to remove any ambiguity :

"He caught his brother and shut him up in his own room which he opened."

Values—24, 14, 6, 4, 7, 3, 4, 10, 3, 3, 3, 5, 5, 7, 3, 5, 3, 3+3, 16, 3, 8, 8.

Have an aristocracy of birth, if you will, or an aristocracy of riches if you wish, but give our plain boys from the log cabins a chance to develop their minds with the best learning, and we will fear nothing from your aristocracy.—*President James B. Angell, University of Michigan.*

Through the week we go down into the valleys of care and shadow and toil. But our Sabbaths should be hills of light and joy in God's presence. And so, as time rolls by, we shall go from mountain top to mountain top, till at last we catch the glory of the gate and enter in to go no more out forever!—*Henry Ward Beecher.*

Let us all resolve : First, to attain the grace of silence ; second, to deem all fault-finding that does no good a sin, and to resolve, when we are happy ourselves, not to poison the atmosphere for our neighbors by calling on them to remark every painful and disagreeable feature of daily life ; third, to practise the grace and virtue of praise.—*Harriet Beecher Stowe.*

## Primary Department.

FOR FRIDAY AFTERNOONS.

RHODA LEE.

Friday afternoon exercises may be profitable as well as entertaining, the time being well spent in games that are instructive as well as amusing.

A game that requires thought is always enjoyed most, and I never find that repetition spoils it. The oftener it is played the more general is the enjoyment, as there are generally some slower pupils who fail to appreciate the fun the first time.

The following are games that have been great favorites in my classes, and have at the same time been proved to be of direct benefit to the children.

### I. PUSS IN THE CORNER.

A geography game to impress the facts of direction.

A pupil stands on each side of the room—north, south, east, and west; also one in each corner—NE, SE, NW, and SW.

Puss stands in the centre of the room. The teacher asks any two scholars to change places. She says, for instance, "north, change places with southeast"; or, "west, change with northeast." When any mistake is made, puss takes the place of the one who has gone wrong. Puss may run to the corner without causing any disorder.

Frequent changes are also made in those occupying the different positions, and again puss has a chance to gain a corner. Southwest, north, and east are in turn requested to take their seats. Other pupils are then sent to these places, etc.

### II. KINGDOMS.

This exercise imparts scientific knowledge and general information, cultivates the attention, and stimulates quick thinking.

The three kingdoms are Animal, Vegetable, and Mineral. Everything that can be mentioned comes under one of these heads, although many objects may, in their different parts, belong to all three. A leather school bag belongs to the animal in the leather, the mineral in the buckle, and the vegetable in the thread with which it is sewn.

Plans for conducting the game:

1. Mention any article and ask the children to give the kingdom to which it belongs.

2. Name a kingdom and ask for an article belonging to it.

3. Write a list of articles on the board and ask the children to arrange them according to the kingdoms.

4. Choose sides and have a "match," conducting it in the same way as the old-fashioned spelling match, those who fail to answer correctly being sent to their seats.

### III. A GUESSING GAME.

An exercise in language and observation.

One pupil leaves the room. Those remaining, with the aid of the teacher, select

an object in the room or elsewhere, discuss it carefully, and then send for the "guesser."

The children are then asked in turn to tell something about the article.

For example:

It is black.

It shines.

There are small holes in it.

It is lined.

It has a tongue.

I have two.

I wear mine all day.

The answer can, of course, be readily given now—a *boot*.

### IV. DUMB CHARADE.

An exercise in reading. This game must be played very quietly, the pupils going to their different posts and carrying out directions without an unnecessary sound. Those who are not taking any active part read and make sure that those who are called upon to act are not making any mistake.

The teacher writes:

John, stand by my table.

Mary, take hold of the handle of the door.

Frank and Fred, stand back to back and see which is the taller.

Arthur, sit in my chair.

Kate, write your name on the blackboard. Etc.

The placing of the chalk in the ledge is the signal for the girls and boys to move to their places.

This is a good exercise for odd minutes at any time. It is thought-getting, and that we cannot have too much practice in.

Before leaving the subject of Friday afternoon employment, let me inform those of my readers who are not aware of the fact that Joel Chandler Harris's "Uncle Remus" stories are being published in the Saturday edition of the *Globe*. Mrs. Meadow, Brer Rabbit, Brer Fox, and others are to tell their stories. Every primary teacher should secure the stories and add them to her stock of schoolroom literature. The children will take great delight in them.

### THE ALPHABET OF HEALTH.

All healthy folks are active and bright.  
Be sure to go to bed early each night.  
Children, be careful, and keep dry feet—  
Damp shoes are neither healthful nor neat.  
Eat slowly, and choose the simplest food—  
Fresh fruit is dainty, and tempting, and good.  
Garments should never be worn too tight—  
Hats should always be airy, and light.  
If you would be happy, and healthy, and gay,  
Just stay in the sunshine the livelong day.  
Keep your heart pure, and your temper sweet;  
Let your dress and your home be always neat.  
Many have died from lack of pure air.  
No child can keep well without constant care.  
Old rags and trash should never be kept—  
People thrive best in a house well swept.  
Quick motion brings to boys and girls  
Red cheeks, bright eyes, and dancing curls.  
See that the water you drink is pure,  
'Tis better than coffee, or tea, I assure.  
Use all your wits to prevent mistakes;  
Very sad are troubles they often make.  
Walk every day as much as you can;  
X-ercise makes the strong woman or man,  
Your health is your wealth, and well worth pain—  
Zeal in its care is never in vain.

—Little Men and Women.

### STORY FOR COMPOSITION.

SUBJECT: "LITTLE SCOTCH GRANITE."

LESSON: "HONOR AND TRUTH."

Bert and John Lee were delighted when their little Scotch cousin came to live with them. He was little, but very bright and full of fun. He could tell some curious things about his home in Scotland and his voyage across the ocean. He was as far advanced in his studies as they were, and the first day he went to school they thought him remarkably good. He wasted no time in play when he should have been studying, and he advanced finely.

Before the close of school the teacher called the roll, and the boys began to answer "ten." When Willie understood that he was to say "ten" if he had not whispered during the day, he replied, "I have whispered." "More than once?" asked the teacher. "Yes, sir," answered Willie. "As many as ten times?" "Yes, sir." "Then I shall mark you zero," said the teacher sternly, "and that is a great disgrace."

"Why, I did not see you whisper once," said John, after school. "Well, I did," said Willie. "I saw others doing it, and so I asked to borrow a book, and then I asked a boy for a slate pencil, another for a knife, and I did several other things. I supposed it was allowed." "Oh, we all do it," said Bert, reddening. "There isn't any sense in the old rule, and nobody can keep it; nobody does." "I will, or else I will say I haven't," said Willie. "Do you suppose I will tell ten lies in one heap?" "Oh, we don't call them lies," said John. "There wouldn't be a credit among us if we were so strict." "What of that, if you tell the truth," said Willie, bravely.

In a short time the boys all saw how it was with Willie. He studied hard, played with all his might at playtime, but according to his reports he lost more credits than any one else. After some weeks, the boys answered "nine" and "eight" oftener than they used to; and yet the schoolroom seemed to have grown quieter. Sometimes, when Willie Grant's mark was even lower than usual, the teacher would smile peculiarly, but he said no more of disgrace. Willie never preached at them, nor told tales; but somehow it made the boys ashamed of themselves to see that this sturdy, blue-eyed Scotch boy must tell the truth. It was putting the clean cloth by the half-soiled one, you see; and they felt like cheats and story-tellers. They talked him over and loved him, if they did nickname him "Scotch Granite," he was so firm about a promise.

At the end of the term Willie's name was very low down in the credit list. When it was read he had hard work not to cry; for he was very sensitive, and had tried hard to be perfect. But the very last thing that closing day was a speech by the teacher, who told of once seeing man muffled up in a cloak. He was passing without a look, when he was told that the man was Gen. —, the great

hero. "The signs of his rank were hidden, but the hero was there," said the teacher. "And now, boys, you will see what I mean when I give a present to the most faithful boy in school, the one who really stands highest in deportment. Who shall have it?"

"Little Scotch Granite!" shouted forty boys at once; for the boy who was so low on the credit list had made truth noble in their eyes.—*British Evangelist.*

VERY GOOD TIMES.

- "The best time I can recollect,"  
Said the boy from across the street,  
"Was when we played the Spartan nine,  
The day that our side beat."
- "My best fun was a year ago,"  
Said the boy who will never fight,  
"When father and I went fishing once,  
And slept outdoors all night."
- "Well," said the boy from the corner house,  
"The jolliest time for me,  
Was the summer they took me on a yacht,  
And we lived six weeks at sea."
- "And the greatest fun I ever had,"  
Said the boy who lives next door,  
"Was sailing down the river once,  
And camping out on shore."
- "The very best time I ever had,"  
Said the boy with the reddish hair,  
"Was in Chicago last July—  
The time I went to the Fair."
- "It seems to me," said the lazy boy  
(And his cap he thoughtfully thumps),  
"That the very best time in all my life  
Was the week I had the mumps."  
—*St. Nicholas.*

SUBJECTS FOR SCHOOL TALKS.

1. What I can see in the schoolroom. What I saw out of school.
2. What I can hear. What I heard.
3. What I can taste. What I can eat. What I have tasted. What I have eaten.
4. What I can smell. What I have smelled.
5. What I can touch. What I have touched.
6. Where I can go. How I can go there. Where I went. How I went there.
7. What I have worn. What I can wear.
8. What things are worn on the hands? Who wear them? When? Why?
9. What things are worn on the feet? Who wear them? When? Why?
10. What things are worn on the head? Who wear them? When? Why?
11. Objects in the school. What each is made of? Its use.—*New York School Journal.*

DICTIONARY EXERCISE.

1. A rolling stone gathers no moss.
2. A bird in the hand is worth two in the bush.
3. Don't count your chickens before they are hatched.
4. Fine feathers do not make fine birds.
5. Birds of a feather flock together.
6. As you make your bed you must lie in it.

7. Handsome is that handsome does.
  8. There's many a slip 'twixt the cup and the lip.
  9. A tree is known by its fruit.
  10. All that glitters is not gold.
- Virginia School Journal.*

A primary teacher who isn't fond of humor is incompetent, for she cannot sympathize with the child's enjoyment of a joke. Can you expect a tot to love a teacher who can smile, smile, smile, but never indulges in the luxury of a laugh?

Correspondence

THE UNIVERSITY OF TORONTO.

To the Editor of THE EDUCATIONAL JOURNAL:

SIR,—In your issue of October 16th appear two articles on University affairs which contain expressions calculated to surprise and pain the friends of the University of Toronto. It seems strange that, in the columns of a journal generally so fair and moderate in statement, one should find such expressions as the following, the first of which occurs in your article on "Graduate Instruction," and the second in the article on "The Western University":

"Toronto, with an unwieldy mass of students, a faculty divided against itself, and an already insufficient income, cannot even consider the possibilities of graduate work."

"The existence of active and energetic rivals is one of the best means of keeping the Provincial University out of the somnolency and ultra-conservatism into which State institutions are liable to fall—a rule to which our own Provincial University constitutes no exception, as those who are familiar with its past history can attest."

As a member of the faculty of the University I believe I am speaking truthfully when I say that your statement regarding a divided faculty is wholly erroneous. On the contrary, I believe that it would be difficult to find in any other institution a faculty more united and more able to come to unanimous decisions on all points affecting the interests of the University and those of higher education.

Regarding the matter of "graduate work," it is still an open question whether it is wiser for us to follow the European University system or the American. There is something to be said on both sides, as was pointed out in my paper on "Post-Graduate Courses in the University of Toronto," read at a meeting of the Ontario Educational Association on March 29th, 1894. It is quite possible that our University may at some time adopt the double-degree system prevailing in the United States, but in the meantime we should not forget that our undergraduate courses, particularly in natural science, contain a good deal of work which, in American universities, finds its place in the graduate courses. But, in addition to the high character of our undergraduate work, a fact attested by the high stand almost invariably taken by our graduates when they come into contact with the graduates of American institutions, a glance at our calendar would have shown that the University does offer instruction and facilities for work to graduate students, and we have now, as a matter of fact, within our walls, several of this class.

In the extract from your article on "The Western University," quoted above, two propositions are set forth: one, that State universities are more likely to be unprogressive than private or denominational institutions; and the other, that the University of Toronto is the one, above all others, in this Province, which needs to be spurred on in the path of progress. I believe that both propositions are incapable of proof. Some of the best universities in the world may fairly be classed as State institutions, and some of the worst are of private or denominational endowment. As regards this Province, I believe that our University has never required the presence of rivals to urge it on to do its duty, particularly such as are of the standing of the Western University, but that it has always been in the vanguard, doing valiant service in spite of its slender resources.

J. SQUAIR.

University College, Oct. 26th, 1895.

School-Room Methods

TEACHING ADDITION.

BY MISS M. C. JOHNSTON, WELAND.

In teaching the addition tables to junior classes I begin with "the doubles"

1	2	3
1	2	3
2	4	6

etc.

The combinations of ten are then taught. I have prepared a table card which I now have in use in my own school. It has been a great help to the pupils, as it contains every combination. It provides both busy-work and review lessons. I enclose a copy, hoping the idea, if new, may be of use to some busy teacher.

1	2	3	4	5	6	7	8	9	2	2	2	2
1	2	3	4	5	4	3	2	1	1	3	4	5
2	4	6	8	10	10	10	10	10	3	5	6	7
2	2	2	2	6	7	8	9	10	3	3	3	3
6	7	9	10	6	7	8	9	10	1	4	5	6
8	9	11	12	12	14	16	18	20	4	7	8	9
3	3	3	4	4	4	4	4	4	5	5	5	5
8	9	10	1	5	7	8	9	10	1	6	7	8
11	12	13	5	9	11	12	13	14	6	11	12	13
5	5	6	6	6	6	7	7	7	7	8	8	8
9	10	1	7	8	9	10	1	8	9	10	1	10
14	15	7	13	14	15	16	8	15	16	17	9	17

TEACHING GEOGRAPHY TO BEGINNERS.

BY A. HARVEY, BOLSOVER.

In THE JOURNAL of Oct. 16th, through the Question Drawer, "A.H.M." asks for suggestions regarding the teaching of geography to second class.

I have tried the following plan and found it very successful. I first teach the geography of our own section; then that of the township and county.

FIRST LESSON.—Draw lines on blackboard to represent the roads in vicinity of school. The teacher then marks position of some well-known place, and the pupils will take great interest in marking the position of all houses and buildings along the roads as far as they know. Write names of persons who live in houses and names of public buildings on map. Review.

SECOND LESSON.—Preparation.—Pupils draw map of roads which we drew on blackboard. Class Work.—Teacher draws map again, and pupils compare their maps. Then extend map by drawing roads leading to neighboring towns or villages which most of class will have visited. If the pupils do not already know directions, and how we understand north, south, east, west, on blackboard or map, I teach that at this time.

Another interesting lesson which may be taught now is a map of playground. Perhaps you may not be able to teach all that I have outlined in two lessons. If not, make three or four. Be careful not to go too fast.

Now, if you have a spare blackboard, commence a map of the county. Draw outline first, mark townships, rivers, creeks near home, lakes, railroads, important wagon roads, towns and villages, post-offices.

The above will require quite a number of lessons, and will be enough geography to keep an average second class six weeks or two months, to master thoroughly. Of course the success of the teaching depends greatly on the teacher. Let the little folks talk and they will soon be interested. I have spent some very pleasant times teaching the geography of this county to a second class.

After we get through with the county, I teach the shape of the earth, and what it is made of, land and water. Then the continents, oceans, large rivers, great mountain ranges.

At this point I teach the general geographical definitions. But I do not get to these until my class is in the third book, and as "A.H.M." asked for second class only I will not go any farther.

## THE TONE OF THE SCHOOL.

BY AN EX-SUPERINTENDENT.

I have been struck more by the tone or absence of tone in the schoolroom than even the scholarship. And I have ever found scholarship to be in some inscrutable way dependent on tone. It is not easy to define *tone* in the schoolroom, but what is meant is the existence of energy; energy in operation gives force.

In one school G—— was the presiding teacher; he had four assistants. He always talked loud and boisterously; he knew his knowledge so well and he liked to talk so well that he did a great part of the reciting himself. One day the class had "finding the least common multiple of 6, 8, 10." A boy stood at the blackboard.

"Well, Charles, you divide by 2, do you? You get what? Ah, I see, 3, 4, and 5. Well, now multiply these together, don't you? Oh! you have. It is—60. Right. And that again by 2—120. Now you can divide all these into it, can't you? 6 goes into 120—20 times; 8 goes 15 times; 10 goes 12 times, see? Very well done, Charles, be seated."

All of this was said in a vigorous, loud, strong voice. Charles had but little to do with that common multiple. I knew the master well, and said nothing then.

Another boy was called up, and he and the master went through the business of finding the least common multiple of 5, 10, and 15. Then another was called up, and he and the master tackled 6, 8, and 12.

The next week I came in again and asked Charles to give me a small number; he gave 6. I asked James for one, he gave 10. Carrie gave 14. Now, I said, "I want a number that I can divide by each of these—can you find it?"

The master wanted to suggest, but I shook my head, "Why, boys, what are you thinking about?"

Now the master by his boisterousness, his noisy manner, and his prompting, his everlasting telling, telling, had destroyed all the tone of that school; even his assistants were demoralized. But he was popular; the boys liked him. Scholarship was impossible, however, in his schoolroom. The master afterward went into politics.

Miss G—— had a school in the same town with three assistants. I stood in the hall a moment before I entered and I could hardly hear a sound, and yet I knew there must be fifty pupils there. Though it was muddy weather the floor was neat; it had evidently been brushed since the pupils went in. But few eyes were turned toward me as I entered; a boy came forward and gave me a seat.

A class was reading; the teacher stood at the rear of the room. At a signal the pupil reading gave a *résumé* of the lesson to me—it took twenty-five or thirty words. Then she proceeded to read. What struck me was that she had a *point to make* in her reading. She looked at the teacher every three or four words, in an earnest manner.

"Is that just the meaning? Suppose you try the last sentence, George. Before you rise, remember, you have to convince me of something." George rose and looked sharply at the teacher and caught her eye before he proceeded. "Well, George has made the point, I think." I felt that the class must have made a careful study of that part of the book.

"What did we read yesterday?" All were ready to reply.

"What did we read last week?" Several were called on and gave intelligible accounts.

"Who can tell of subjects read last term? Tell me what pieces you liked best." Each had something to say.

"Tell me something you have read that you have had brought up in your life out of school."

"One pupil referred to a line of poetry about the stars—but the 'time is up.'"

Now the space between Miss G—— and the master was great; yet each had the same position of duty. A pupil in the room of the former had some chance of expansion—in the latter absolutely none.

Of course in subtracting the latter from the former a great difference is left which may be explained in generals or particulars. One may say that the former proceeded according to pedagogical principles, and the latter with no principles at all. I wish to state this more narrowly by saying Miss G—— accumulated the energy in the pupil

and directed it, and this gave *tone* to the entire school. All the operations of the school bore the marks of *tone*. The carriage of the pupils, the way they passed to their seats, their observance of me, their attention to their teacher, all were the opposite of the rough-and-ready slouchiness and boisterousness that appeared in the master's room.—*Educational Record*.

## LANGUAGE LESSONS.

(1) Write the names of:

1. Ten kinds of vegetables.
2. Five kinds of grain.
3. Eight kinds of metal.
4. Ten wild animals.
5. Five kinds of fish.

(2) Write ten words, each one ending in *ing*.

(3) Write the following adjectives in a column, and after each write a word meaning the opposite:

thick,	late,	deep,
soft,	wide,	sharp,
cool,	fast,	even,
right,	smooth,	large,
high,	old,	broad.

(4) Change these sentences to express *past* time:

1. I lay the book on the desk.
2. We lie down to sleep.
3. The mason lays the bricks.
4. The cows lie in the shade.
5. The old man lies on the floor.

—*Journal of Education*.

## For Friday Afternoon.

## THE VOICE OF THE HELPLESS.

I hear a wail from the woodland,  
A cry from the forests dim;  
A sound of woe from the sweet hedge-row,  
From the willows and reeds that rim  
The sedgy pool; from the meadow grass  
I hear the fitful cry, alas!

It drowns the throb of music,  
The laughter of childhood sweet,  
It seems to rise to the skies,  
As I walk the crowded street;  
When I wait on God in the house of prayer,  
I hear the sad wail even there.

'Tis the cry of the orphaned nestlings,  
'Tis the wail of the bird that sings  
His song grace in the archer's face,  
'Tis the flutter of broken wings,  
'Tis the voice of helplessness—the cry  
Of many a woodland tragedy.

O! lovely, unthinking maiden,  
The wing that adorns your hat  
Has the radiance rare that God placed there,  
But I see in place of that  
A mockery pitiful, deep and sad,  
Of all things happy, and gay, and glad.

O! mother, you clasp your darling  
Close to your loving breast;  
Think of that other, that tender mother,  
Brooding upon her nest!  
In the little chirp from the field and wood,  
Does no sound touch your motherhood?

That little dead bird on your bonnet,  
Is it worth the cruel wrong?  
The beauty you wear so proudly there  
Is the price of a silenced song;  
The humming-bird on your velvet dress  
Mocks your womanly tenderness.

I hear a cry from the woodland,  
A voice from the forests dim;  
A sound of woe from the sweet hedge-row,  
From the willows and reeds that rim  
The sedgy pool; from the meadow grass  
I hear the pitiful sound, alas!

Can you not hear it, my sister,  
Above the heartless behest  
Of fashion that stands, with cruel hands,  
Despoiling the songful nest?  
Above that voice have you never heard  
The voice of the helpless hunted bird?

—*Selected*.

## Teachers' Miscellany.

## CHINESE ETIQUETTE.

When last in this country, the Rev. F. L. H. Pott, who is headmaster in St. John's College, Shanghai, gave to a *Tribune* reporter an interesting account of the way in which he receives a pupil. It gives one a good idea of Chinese etiquette. Mr. Pott said:

"You want to know how I receive a boy into the college? Well, the fathers of the boys at St. John's are usually politicians, merchants, or scholars. They are all Chinese gentlemen. Of course, I have to adapt myself to the etiquette of the Chinese, and so when a father arrives with his boy I escort them to my Chinese reception-room, where the father and I shake our own hands most heartily and bow profoundly. I then say to him: 'What is your honorable name?'"

"He replies: 'My mean, insignificant name is Wong.'"

"Before beginning our conversation, I send for tea and the water-pipe, and when they arrive I say, 'Please use tea.'"

"When he has taken some tea and a puff from the pipe, we talk. He asks innumerable polite questions about myself. A Chinese gentleman never comes to business for a quarter or half an hour. Time never troubles an Oriental. He begins by asking:

"What is your honorable name?"

"I, of course, reply that my mean, insignificant name is Pott. The next question from him is:

"What is your honorable kingdom?" And I am obliged, much as I dislike it, to say:

"The small, petty district from which I come is the United States of America."

"How many little stems have you sprouted?" he says. That is the way he asks how old I am.

"I have vainly spent thirty years," I reply.

"Asking after my father, he says: 'Is the honorable and great man of the household living?'"

"It is shocking, I know, but I have to answer: 'The old man is well.'"

"Then comes: 'How many precious little ones have you?'"

"I reply, gravely: 'I have two little dogs.' (The little dogs are my children.) The last question is:

"How many children have you in this illustrious institution?"

"My answer is: 'I have a hundred little brothers.'"

"Then he comes to business, and says: 'Venerable master, I have brought my little dog here, and worshipfully entrust him to your charge.'"

"The little fellow, who has been standing in the corner of the room, at this comes forward, kneels down before me, puts his hands on the ground, knocks his head on the floor, and worships me. I raise him up, and send him off to school, and arrangements are made about his dormitory, course of study, etc.

"The gentleman rises to take his leave. 'I have tormented you exceedingly to-day,' he remarks.

"Oh, no," I answer, 'I have dishonored you.'

"As he goes toward the door he keeps saying: 'I am gone; I am gone'; and I reply: 'Go slowly, go slowly.'"

"Their politeness is sometimes carried to an extreme which seems amusing to us. I have seen five or six men enter a door at which they had chanced to meet. They all urge one another to go in first. And this ceremonious politeness is not confined to the upper classes. If two wheelbarrow men meet in a narrow path, and one has to go on one side to let the other pass, the one who kept the road will say, 'I have sinned against you'; and the other will reply, 'Don't mention it.'"

"But while they are exceedingly polite among themselves, they are very rude as a rule to a foreigner.—*Selected*.

WERE the schoolmaster as noisy as a politician, or as visible as an orator, or as charming as an artist in a studio, the public would hasten to crown with laurels at least all those great in this calling; but they live and die in a world where those who lay the mighty foundations of a cathedral are forgotten, compared with those who carve its columns or design its colored glass.—*David Swing*.

ART AND LITERATURE IN CANADA.

There are cynics who say that there is no public opinion in Canada, no literature. At a dinner given recently by the publishers of Toronto to Mr. Hall Caine, the great novelist, this question was discussed, and a leading publisher remarked that literature would never make rapid advance in this country because it was difficult to induce Canadians to read the works of a Canadian author. This statement, however, is not true with regard to *Toronto Saturday Night*, which has as large a circulation as any newspaper of its class in America. Its Christmas number, which will be issued on the first of December, is the eighth in a series of art numbers. It will be accompanied this year by five splendid colored supplements. The largest, a reproduction of a painting by a Canadian artist, done specially for *Saturday Night*, is 24 by 33 inches in size. Its title is "Champlain the Explorer," and depicts him and a flotilla of war canoes entering the mouth of a river on Lake Huron. The picture has been praised by the Historical Society as the most interesting and artistic attempt ever made to carry us back to the old days when Canada was little more than a geographical term. The other four pictures are done in sixteen colors and the book itself, consisting of over forty pages, contains the four prize stories in the *Saturday Night* competition. Following is a list of contents:

1st prize, "A Reconnaissance at Fort Ellice," by William Bleasdel Cameron. Illustrations by J. C. Innes.

2nd prize, "Boh Shwey's Ruby," by W. A. Fraser. Illustrations from photographs.

3rd prize, "A Matter of Necessity," by John McCrae. Illustrations by F. M. Bell-Smith, R.C.A.

4th prize, "Widow Molony," by J. C. Innes. Illustrations by the author.

"Jim Lacy's Pass," by E. E. Sheppard. Illustrated.

"From the Sublime," by Warren H. Warren. Illustrations by G. A. Reid, R.C.A.

"Nanton's Sister," by Alice Ashworth. Illustrated.

"Hendershott of Strathgannon," by Joe Clark. Illustrations by Carl Ahrens, A.R.C.A., and Beatrice Sullivan.

"So Long," an etching, by "Don."

"Hawkie's Dream" (poem), by Alexander McLachlan.

"The Passing of the Hog" (poem), by William Cowper, with illustrations by J. W. Bengough.

"Life of Champlain," by George Stewart, M.A., D.C.L.

"As a Little Child" (poem), by Evelyn Durand.

"A Song" (poem), by Gertrude Bartlett.

The price of the number, postpaid, in a pasteboard tube to protect it from damage in the mails, is 50 cents, and in point of literary excellence and the quantity and quality of the supplements, it far exceeds anything offered by foreign holiday publications. Mr. James L. Hughes, Inspector of Schools for Toronto, has said that the Champlain picture should be framed and hung in every schoolroom in Canada, and school teachers everywhere should take an interest in bringing it before the public. Teachers can do a good work by sending for a Christmas number of *Saturday Night*, and a better work by acting as agent for it and inducing their neighbors to send for it as well. A liberal commission is allowed. Address the Sheppard Publishing Company, Limited, Adelaide street west, Toronto. The regular edition of *Saturday Night*, which undoubtedly stands at the head of Canada's most interesting and thoroughly high-class weeklies, is \$2 per year.

Question Drawer.

All questions for this department, like all communications for any other department of THE JOURNAL, must be authenticated with the name and address of the writer, and must be written on one side of the paper only. Questions should also be classified according to the subject, i.e., questions for the English, the Mathematical, the Scientific, and the general information departments should be written on separate slips, so that each set may be forwarded to the Editor of the particular department. If you wish prompt answers to questions, please observe these rules.

A.F.—Following are the Literature selections for Public School Leaving Examinations for 1896:

From the High School Reader: 1896. V., To Daffodils; XVIII., Rule, Britannia; XX., The Bard; XXXI., To a Highland Girl; XXXV., The Isles of Greece; XLIX., Indian Summer; LII., The Raven; LIV., My Kate; LXIX., The Cane-bottomed Chair; LXVII., The Hanging of the Crane; LXIX., As Ships, Becalmed at Eve; CV., The Return of the Swallows.

G.W.R.—The passage you have in mind is, no doubt, the following from Longfellow's "Elizabeth":

"Ships that pass in the night, and speak each other in passing,  
Only a signal shown and a distant voice in the darkness;  
So on the ocean of life we pass and speak one another,  
Only a look and a voice, then darkness again and a silence."

Miss Beatrice Harraden, a clever young Englishwoman, has taken "Ships that Pass in the Night" as the title of a story which has won for her a good deal of celebrity.

Armstrong's Book of Arithmetical Problems, as published by the Copp, Clark Co. (Ltd.), has again been brought up to date by the addition of the Entrance and Senior Leaving Papers for 1895, so that the book now contains a very complete series of problems.

Book Notices.

PRACTICAL EXERCISES IN ENGLISH. By Hubert Gray Buehler. New York: Harper & Brothers. 1895.

This book is an attempt to provide drill on some elements of good English in a more rational and natural way and in more abundant measure than drill-books have hitherto provided. It has in view pupils who come to Grammar or High Schools with many habits of expression formed on bad models; it points out common errors, and tries to lead pupils to convert knowledge of these errors into correct habits of expression. The author agrees with the recommendation of the Committee of Ten that "exercises in the correction of false syntax should be sparingly resorted to," because "in the hands of any but a highly intelligent teacher exercises in bad English may do more harm than good." Therefore he has avoided, whenever possible, "sentences for correction," and has made the exercises consistent with the principle that (1) the habit which schools should try to form in pupils is, not the habit of correcting mistakes, but the habit of avoiding them, and that (2) correct English is largely a matter of correct choice between two or more forms of expression. Many examples of the way in which these ideas have been worked out are given.

Before each set of exercises are brief statements of principles established by good usage. The treatment of the Sub-

jective (pp. 82-88) is entirely new, and aims to help students of foreign languages. The book is furnished with a complete index of words and subjects.

In our practical department will be found a sample exercise taken from this new and useful little volume.

PROFESSOR G. W. BELL, V.S.

The Governors of the Kingston Veterinary School have secured the services of Dr. G. W. Bell as professor of diseases of domestic animals in the new institution. He has been sixteen years in practice, and during this time has amassed an ample fortune in the practice of his profession. He has been a prominent veterinary surgeon of Erie, Pennsylvania, for the past ten years, and comes to Canada recommended as a first-class and successful veterinary surgeon by no less an authority than the late Hon. J. C. Sibly. He is a Canadian by birth and education. He will show his students how to perform those difficult operations for broken-wind, for stringhalt; also spaying and castration in all its branches, and on all kinds of domestic animals. The Veterinary College building adjoins the new Dairy School.

Literary Notes.

The *Atlantic Monthly* for November contains, among other features, three short stories of exceptional quality: "In Harvest Time," by A. M. Ewell; "The Apparition of Gran'ther Hill," by Rowland E. Robinson; and "The Face of Death," by L. Dougall. There is also an instalment of Gilbert Parker's serial, "The Seats of the Mighty"; and Charles Egbert Craddock's "The Mystery of Witch-Face Mountain" is concluded, the fifth and last of the series. George Birkbeck Hill's "Talks Over Auto-graphs" appears in this issue. Lafcadio Hearn's "After the War" is quite as readable as his other delightful studies of Japan. A paper by Walter Mitchell on "The Future of Naval Warfare" is a timely discussion of the future usefulness of the world's perfected navies. Mr. Peabody, in his "An Architect's Vacation," journeys to Italy, and discusses "The Italian Renaissance." Woodrow Wilson writes of Walter Bagehot, and contributes a readable paper under the title "A Literary Politician." The educational paper of the issue is "At the Parting of the Ways," a timely

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article upon the physical education of women in college. Poems, exhaustive book reviews, and the usual departments complete the issue. Houghton, Mifflin & Co., Boston.

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It has been represented to us that many of the subscribers to THE EDUCATIONAL JOURNAL might be glad of an opportunity to get, in connection with it, one or more of the leading weekly newspapers or magazines of the day at reduced rates for the two or more. We are, therefore, making the best arrangements in our power to supply to every subscriber who wishes it any one or more of a good list of papers and magazines, on the terms given in the following table. Our arrangements are not far enough advanced to enable us to name more than a few Canadian periodicals in this number, but we hope to have the table considerably extended in our next and following numbers. Of course, the advantage of this clubbing arrangement is available only to those who pay cash in advance. Immediately on receipt of the subscription-price named for any paper or magazine on our list, we forward it to the proper office and have the subscriber's name and address put upon the mailing list, after which the subscriber must look to the publishers of the periodical in question for his copy.

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Do not fail, also, to note the clubbing list, which we are enlarging from week to week, and by means of which we can enable our subscribers to obtain a good magazine or weekly, in connection with THE JOURNAL, at a greatly reduced rate—in some cases at half-price.



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**OFFICIAL CALENDAR**

OF THE

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November:

1. Last day for receiving applications for candidates not in attendance at the Provincial School of Pedagogy for special examination to be held in December. (1st November.)
  30. Last day for appointment of School Auditors by Public and Separate School Trustees. [P.S. Act, sec. 37 (1); S. S. Act, sec. 28 (5).] (On or before 1st December.)
- Municipal Clerk to transmit to County Inspector statement showing whether or not any county rate for Public School purposes has been placed upon Collector's roll against any Separate School Supporter. [P.S. Act, sec. 113; S.S. Act, sec. 50.] (Not later than 1st December.)

December:

9. County Model Schools Examinations begin (During the last week of the session.)
  30. Special Examinations for Candidates, who are exempt from attendance at Provincial School of Pedagogy.
- Returning Officers named by resolution of Public School Board. [P. S. Act, sec. 102 (2).] (Before 2nd Wednesday in December.)
- Practical Examinations at Provincial Normal Schools begin. (Subject to appointment.)
- Last day for Public and Separate School Trustees to fix places for nomination of Trustees. [P. S. Act, sec. 102 (2); S. S. Act, sec. 31 (5).] (Before 2nd Wednesday in December.)
14. County Treasurer to pay Township Treasurer rates collected in Township. [P. S. Act, sec. 122 (3).] (On or before 14th December.)
- Local assessment to be paid Separate School Trustees. [S. S. Act, sec. 55.] (Not later than 14th December.)
- Municipal Council to pay Secretary-Treasurer Public School Boards all sums levied and collected in township. [P. S. Act, sec. 118.] (On or before 15th December.)
- County Councils to pay Treasurer High Schools. [H. S. Act, sec. 30.] (On or before 15th December.)
- High School Treasurer to receive all moneys due and raised under High Schools Act. [H. S. Act, sec. 36 (1).] (On or before 15th December.)
- 18. Written Examinations at Provincial Normal Schools begin. (Subject to appointment.)
- 19. Last day for notice of formation of new school sections to be posted by Township Clerk. [P.S. Act, sec. 29.] (6 days before last Wednesday in December.)

Provincial Normal Schools close (Second session.) (Subject to appointment.)

- 22. High Schools first term, and Public and Separate Schools close. [H. S. Act, sec. 42; P. S. Act, sec. 173 (1) (2); S. S. Act, sec. 79 (1).] High Schools end 22nd December; Roman Catholic Schools end 23rd December; Separate Schools end 23rd December.

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