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# The Educational Journal.

Consolidating "THE EDUCATIONAL WEEKLY" and "THE CANADA SCHOOL JOURNAL."

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notwithstanding changes in form and adaptation, still exist in their prominent features, were incorporated as essential parts of the educational system of the Province, during those years. Dr. McLellan not only suggested the advisability of holding some of these examinations, but did, we are told, a great deal to arrange the details so necessary to the efficient working of the whole. His High School reports to the Department in 1871 and 1872 called attention to several of the weak points in the Law and Regulations as they stood at that time, and suggested the remedies that have since been adopted.

torate the Normal Schools at Toronto and Ottawa have improved in methods and in efficiency. If in any respect they still fall materially short of an ideal standard, the result is, we can readily believe, rather due to the want of the large appropriations necessary to bring them up to such a standard than to any lack of enlarged ideas or efficient inspection. The new and lasting impulses which have been imparted to many minds, and the enlargement of professional ideas and improvements in actual school work which have taken place, and will yet take place, as the outcome of Dr. McLellan's inspiring presence and addresses to the teachers assembled at the Teachers' Institutes, during the past few years, cannot be estimated. They belong to that higher order of influences which are beyond the reach of computation, and cannot be expressed even approximately in any statistical tables. But no one who has watched the development of educational power and the improvement of educational methods in the Province can fail to recognize the influence of Dr. McLellan as among the potent causes.

From an article which appeared in the *Canada School Journal* in 1878, from which some of the foregoing facts are gleaned, we learn that Dr. McLellan was born in Lower Stewiacke, Nova Scotia, in 1832. His parents removed to Ontario in 1837. His boyhood was spent at Thornhill, where he received the rudiments of his education in algebra, Euclid and natural philosophy—subjects which he even then studied with success and delight—from two graduates of Victoria College. In 1848 he received a first-class certificate from the County Board, and in 1849 entered the Normal School, which he left with a high standing and special recommendations. Having taught, with some intermission, during the intervening years, he, in 1857, re-entered

the Normal School, and succeeded in obtaining a first-class certificate, grade A.

He matriculated in the University of Toronto in the following year, taking first-class honors and a General Proficiency Scholarship. He graduated from the University in due course, taking two medals, one in mathematics, in which he was especially proficient, the other in logic, ethics, metaphysics, and civil polity. He took his M.A. degree in 1873, also that of LL.D. In 1864 he accepted the principalship of

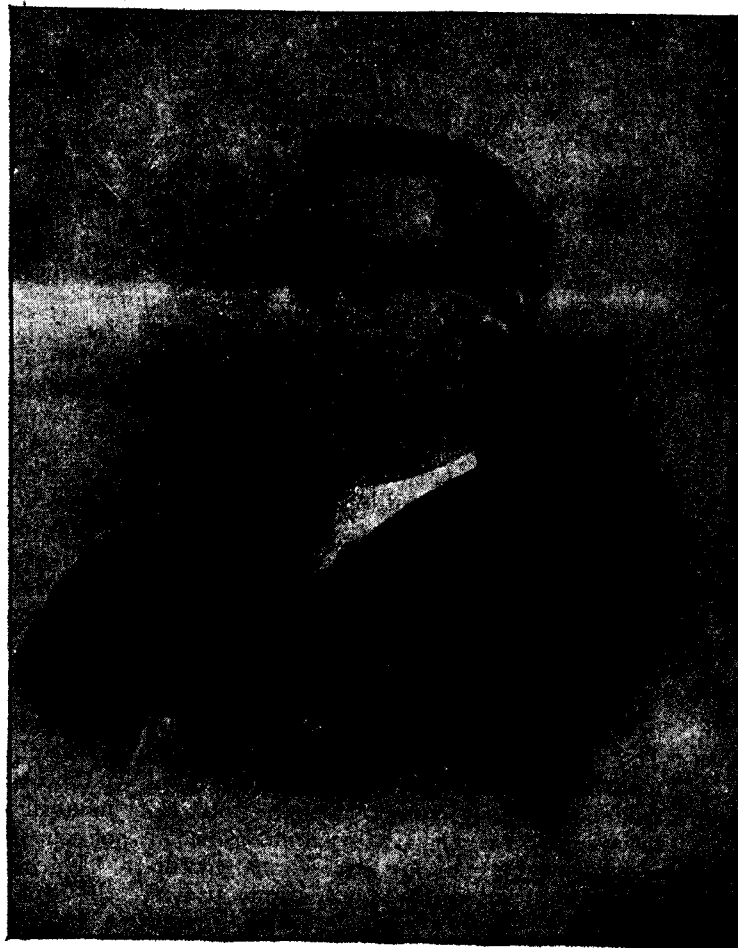
(Continued on page 505.)

### JAMES A. MCLELLAN, M.A., LL.D.

PERHAPS no other influence has been more potent or more beneficial in moulding and improving the educational system of Ontario during the last twenty years than that of Dr. McLellan. He first became officially connected with the work in 1871, when he was appointed Inspector of High Schools. In the same year he also was made a member of the Central Committee. The latter position he retained until the recent abolition of that body, its functions having become less and less important, in consequence of the reorganization of the Department under the development of the system of ministerial responsibility. But for many years, and especially during the earlier period of his service on the Central Committee, he performed a vast amount of hard work, and contributed very effectively to educational progress in the Province, both as an examiner and as an adviser to the Department. In 1876 he made a tour through the British Islands for the purpose of inspecting the Public Schools of the Mother Country. The information gleaned in the course of that tour was afterwards of special service to the Department, under whose auspices he was sent.

In the capacity of High School Inspector, Dr. McLellan rendered excellent service for many years. During the first six or eight years after his appointment, the system of examinations, which formed the groundwork and embraced the essential principles of that now in vogue, was wrought out and established. The Entrance and Intermediate Examinations in the High Schools, and the uniform Examinations for First, Second, and Third-Class teachers, which,

Dr. McLellan was relieved of the High School Inspectorship some years ago only to be called to the still more important office of Inspector of Normal Schools and Director of Teachers' Institutes. He was thus placed in a position which enabled him to lay a shaping and moulding hand upon the teaching profession itself in all its grades. The work he has done in these two responsible and closely related offices is so well known to the present teachers of Ontario, that it would be superfluous to dwell upon it in detail. During his inspec-



JAMES A. MCLELLAN, M.A., LL.D.

## \* Special Papers. \*

## THE ONTARIO PUBLIC SCHOOL SYSTEM.

N. B. SINCLAIR, B.A., HEAD MASTER, MODEL SCHOOL, HAMILTON, ONT.

THE Ontario Public School System, established in 1846 by the late Dr. Ryerson, while bearing in many parts the impress of the individuality of its great founder, is essentially *composite* in its character. Local self-government and self-taxation by each school section may be said to have formed the basis of the system.

A school section usually comprises about four square miles, and at an annual meeting of its ratepayers, where school matters are freely discussed, trustees are elected by popular vote. These trustees provide a schoolhouse, engage a teacher, pay the salary (with the exception of a small government grant) and furnish a yearly estimate of the money they require, to the township authorities, who collect the amount from the ratepayers of that particular section.

This method, probably brought with them from their New England homes by the United Empire Loyalists, possesses all the advantages and disadvantages of popular government. By directly voting the money for the support of the school, ratepayers become interested as they would in no other way; discussion keeps them in touch with every educational change, and, while they may not be so ready to grasp a new idea, or so quick to make an educational advance as some enthusiastic and progressive educators might desire, yet, victory once gained, the battle has not again to be fought out, and the system at all times truly reflects the educational attitude of the people. Its local character permits an elasticity which meets the diverse requirements of an all-round practical training for those whose only education must be obtained by a brief attendance at their local school, and also furnishes an intermediate training between the home and Kindergarten, on the one side, and the High School and University on the other.

To this local, self-governing principle Dr. Ryerson made numerous additions, amongst them—

- (a) Uniformity of text books, as in Ireland,
- (b) A Normal training course for teachers, as in Germany,
- (c) Free Schools.

This last reform, however, was not really introduced till 1871, when, after twenty years of hard fighting, carried on in every school section of the province, it was finally adopted. While schools are free in Ontario, pupils are required to provide their own text-books, except in a few localities where supplies are furnished by the board of trustees and a commensurate fee of from ten to twenty cents per month is charged. Attendance is compulsory for all children between the ages of eight and fourteen years, subject to exception for clearly defined and satisfactory reasons. Hitherto the compulsory clauses of the School Act have, unfortunately, not been strictly enforced, but the Truancy Act, passed at the

recent session of the Legislature, and now in force, makes what it is believed will prove to be efficient provision for the strict enforcement of the law.

Dr. Ryerson's successors have endeavored to conserve all that was of value in the system as he left it, and in addition to introducing many improvements from time to time, have given to the whole a coherency and relative fitness which, from the nature of things, it did not originally possess. The watch-word at the beginning may be said to have been "thoroughness and adaptability," and at the present time to be "unity and correlation."

All matters pertaining to the management of the general educational affairs of the province, *e.g.*, examinations, school law and regulations, the training of teachers, etc., are administered by the Education Department. At its head is the Hon. the Minister of Education, who is elected by the popular vote of some constituency at the provincial elections, and who is a member of the cabinet in the Provincial Parliament.

County and City Inspectors or Superintendents may be said to form the connecting link between the Education Department and the people, being responsible to both. County Inspectors are elected by County Councils and City Inspectors by City Public School Boards. The Government contributes a grant to every Inspector's salary of five dollars per annum for each school-room in his inspectorate.

The efficiency of the school system of any country may be gauged with tolerable accuracy by the care which is taken in guarding its avenues to the teaching professions; and in this bird's eye view of the Ontario system, we may first glance briefly at the qualifications of the seven thousand teachers who go in and out of our public schools and minister to the educational needs of more than half a million of children.

The lowest grade of certificate upon which any person is permitted to teach is a "Third class Professional." The non-professional examination for this certificate demands a scholastic knowledge equivalent to that necessary for matriculation into the Arts department of a good university, with the exception that fewer languages are required. The professional requirements are four months' training at a county Model School and a subsequent examination on practical teaching, and on the History and Science of education. Second class professional certificates are granted on examinations passed after an additional year or more of literary training and a half-year's professional training at the Provincial Normal School, together with one year's successful experience in teaching. First class professional certificates are granted on examinations passed after an additional literary training of one or two years (according to grade of certificate), and on a Training Institute (now School of Pedagogy) examination, the preparation for which is calculated to occupy four months, together with one year's successful experience in teaching. The standards are rigidly adhered to, and it will be seen that no one can teach in Ontario without fair literary preparation and at least four months of purely professional training, and that, in order to reach the highest round of

the pedagogical ladder, *i.e.*, a First Class Professional Grade A certificate, the Third Class teacher must take three years' additional literary training, nearly one year's additional professional training and have had two year's additional successful experience as a public school teacher, or, in other words, a six years' course.

It must be admitted, however, that thus far the performance has hardly come up to the promise, and it is to be feared that, notwithstanding the care which has been taken in the preparation of teachers, a close investigation would reveal the fact that far too many of the future men and women of Ontario are being taught by teachers scarcely twenty years of age, holding only third class certificates, and receiving salaries lower than that usually paid to a good servant girl.

In the endeavor to quickly gain an insight into the aim and results of the system, an enquirer will do well to glance at the High School Entrance Examination papers set from year to year. This examination is especially designed as a passport to pupils proceeding to the High School.

These pupils comprise about one-thirtieth of the school population; and the average age of transition is about twelve years.

It may also be taken as a very fair criterion of the maximum efficiency at time of graduation of the great mass of pupils who do not proceed farther than the public school.

It includes Reading, Literature, Orthography, Orthoëpy, Geography, Grammar, Composition, History, Arithmetic, Drawing, Writing, Agriculture and Temperance, the last two being optional.

Music and Calisthenics are the only additional subjects taught in the public school.

It will be seen that English is the only language taught, that, with the exception of a few lessons in the reading books and a little incidental teaching, Natural Science has no place in our public school curriculum; and that, with the exception of Drawing, Writing, and Gymnastics, Manual Training has not been introduced to any appreciable extent. Whatever difference of opinion may exist in regard to substituting one or more of these subjects in the place of those now on the school course, public sentiment would, I think, be unanimous in opposing any increase in the number of school studies.

Unusual care has been taken to preserve the golden mean between extreme educational theories, especially those which, on the one hand, look upon the child as an empty vessel to be filled with knowledge, a blank page to be written upon, and those which, on the other, see in him "the promise and potency of *all* that is to be." While not always the first to adopt the new, Ontario has not been slow to realize that "perfection consists not in a having and a resting, but in a growing and a becoming."

Teachers are finding the solution to many educational problems in the study of the child himself, and the importance of Psychology is being recognized.

Much of the mechanical rote work of twenty years ago has been discarded. The Kindergarten is fast winning a way to the hearts of the people and is being rapidly

introduced. Primary Grade work is becoming better adapted to the needs of pupils passing from the symbolic, and entering upon the conventional period of school life.

Children are being trained to think for themselves, their self-activity is aroused, and they are gaining power to do. The work is growing more practical. An effort is being made to give the child a well-balanced, all sided and rational culture throughout the entire course; to see to it that, without submerging the intellectual, a sound mind is in a sound body, and always to remember that character-building is the teacher's most important work.

Corporal punishment has almost entirely disappeared. A thousand charms have been introduced to enhance the happiness of school life. Lofty ideals are kept in view and children are urged to conscious and constant effort to concentrate the will upon those motives which lift to the highest ideal.

The citizen of Ontario will find in a review of the more extended systems on either side of the Atlantic many things which he will admire and which he can incorporate with advantage, but he will also meet with many things which will cause him to turn with pardonable pride to a contemplation of the work as it is being done in his native land.

It remains for the people of Ontario, under circumstances the most favorable, to test the ultimate possibilities of an educational system of marvellous strength and beauty, unfettered by legal enactment and untrammelled by class or race prejudices, free from the clogs of creed, the license of agnosticism, or the demoralization of party politics. If we are content with past achievements, little will be accomplished. We shall settle into a stagnation fatal as well to mental as to moral progress. But if, as a people, we rise to a sense of the importance and responsibility of the work, we shall ever grow nearer the true ideal and realize the becoming of a great, complete, and harmonious educational system.

## UNIVERSITY EXTENSION.

BY WILLIAM HOUSTON, M.A.

### II.

"UNIVERSITY EXTENSION" has been defined by one of its most distinguished promoters\* as "University education for the whole nation conducted on an itinerant system." In explanation of this definition its author lays down the following theses: (1) that university education does not necessarily relate to one kind of subject more than another, and may be applied to all alike; (2) that a complete course of study covering several years is attainable by only the most favored class of students, and that where this is impossible some part of university education may still be worth having; and (3) that university education, though it has generally been regarded as the privilege of only the well-to-do and the learned, equally adapts itself to the requirements of other classes. "It is a fundamental principle of higher education," says Mr. Moulton, "that its value lies not in the amount of

knowledge that may be possessed at any moment, but in the manner in which the knowledge has been imparted and the habits of mind formed under the process of instruction"; and the remark is perfectly true and deeply significant. Exception has been taken to the use of the term "University" as needlessly misleading; but while it is useless to contend about epithets there are good reasons for retaining this one, and those who favor the movement but dislike the title should suggest one more to their liking. So long as the subjects dealt with by extension teachers are amongst those included in University curriculums and are treated in accordance with University methods, or others still better, the use of the present title will neither mislead the public nor injure the Universities.

A brief description of the way in which extension work is actually done will enable all who are familiar with educational processes to comprehend its nature. The place where the work is carried on is called a "local centre," and a series of connected lectures on one subject is called a "course." The usual number in a course is twelve, and these are given generally at the rate of one each week. The work includes: (1) the syllabus, (2) the lecture, (3) the class, (4) the written exercise, (5) the final examination, and (6) the certificate. The syllabus corresponds to the University curriculum, and is simply an analytical statement of the order in which the various topics of the course are to be treated, with directions added as to sources of information and other helps. It is not absolutely necessary, but is useful as a guide to the student, and also to the final examiner. The lecture is delivered to a more or less popular audience, and may be made a useful means of attracting students to the course, but, like the syllabus, it is not essential and it may prove an obstacle to good teaching if it degenerates into the ordinary academic talk. In the "class" the real teaching is done. The subject is discussed by the teacher and the students, at close quarters. Difficulties are cleared up, and suggestions are thrown out which have a real educative and not merely a stimulative effect. A topic is assigned for a written exercise each week, and these exercises, after having been critically read by the teacher, are made subjects of class discussion. Only those who attend the classes and write the exercises are admitted to the final examination, which is conducted by one who is not the teacher. And, lastly, the certificate is issued on the two-fold basis of weekly exercises and examiner's report. This test is much more trustworthy than the ordinary final written examination by itself, for it constrains the student to do his work as he goes along, instead of leaving it to be mastered by a brief but intense spell of "cramming" on the eve of the examination.

Obviously, only certain subjects lend themselves usefully to University extension treatment. Not enough of people are sufficiently interested in pure mathematics to make mathematical courses feasible, and brief courses in either mathematics or foreign languages, ancient or modern, would be comparatively useless. The subjects most commonly taken up are literature, history,

political science, physical science, art, and education, and, fortunately, for these a preliminary training is not indispensable. The subject of each course is chosen by the local centre at whose expense it is given, but the lecturer and examiner are appointed, and the syllabus is prescribed by the central authority, whether it be a University or a society organized to promote University extension.

### (2). ORIGIN OF "UNIVERSITY EXTENSION."

The elaborate system which now goes under the name of "University Extension" has been developed during the past quarter of a century from a very small beginning. In 1867, Professor Stuart (then fellow and lecturer in Trinity College, Cambridge), was requested by an association of ladies in the North of England to lecture to them on the art of teaching. Instead of complying directly with the invitation he offered to give a course of lectures on some scientific subject, basing his offer on the theory that as "a thing is often best described by showing a piece of it," he might do more to inculcate good methods by exhibiting than he could by describing them. This course was followed by others of a similar character, delivered in various places and under different auspices. The "class" and the "weekly exercise" were soon added to the lecture, and the syllabus was prepared by the lecturer to enable his audience to dispense with note-taking under difficulties.

For several years this work was carried on without any recognition or encouragement from the Universities, but in 1873 Cambridge agreed, at the instance of Professor Stuart and others, to take supervision of the work provided the requisite funds should be provided by the local centres. For three years more the promoters of the movement labored under a succession of discouragements, but by that time others were ready to follow their example, and in 1866 the "London Society for the Extension of University Teaching" was organized for the purpose of carrying on the work in the city and suburban districts of London. Oxford University took up the extension movement in 1878, but comparatively little was done under her auspices until 1885, since which year it has been continuously flourishing. The Universities of Victoria and Durham have since fallen into line, and the movement has spread to Scotland, but only to a limited extent.

Brief as this statement of facts is, it suffices to show that "University Extension" from the beginning met a felt public want, or it would never have taken root. Isolated lectures of a popular character had been delivered for many years under the auspices of mechanics' institutes and other societies, but the superior merits of "courses" of lectures soon became apparent. When to these courses were added the important educational features known as the "syllabus," the "class," the "weekly exercise," and the "final examination," the ultimate success of the experiment became only a question of time.

BE good, sweet maid, and let who will be clever,  
Do noble things, not dream them all day long,  
And so make life, death and that vast forever  
One grand, sweet song.

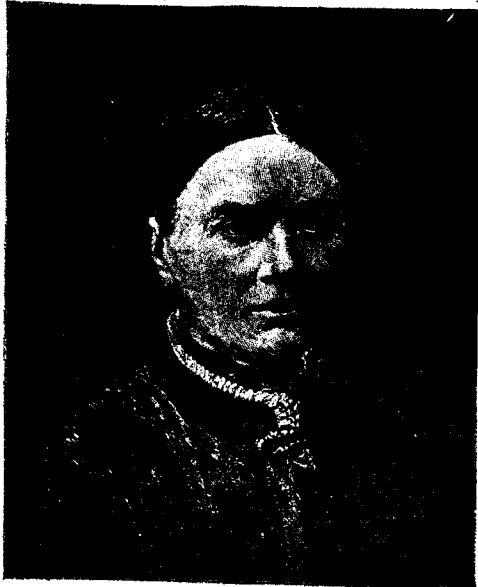
\* R. G. Moulton, M.A., of Cambridge University, who has by his work as an "Extension" teacher placed himself far ahead of all the regular University Professors in Great Britain as a teacher of literature.

## \* English. \*

Edited by F. H. Sykes, M.A., to whom communications respecting the English Department should be sent.

### THE LITTLE MIDSHIPMAN.

BY JEAN INGELOW.



JEAN INGELOW.

#### I. BIOGRAPHICAL.

JEAN INGELOW (*in'-je-lō*) was born in the year 1830. Her father was a banker, and a man of culture and high intellectual power; her mother was of Scotch descent. Jean was naturally very shy and reserved. Her early life was quiet and uneventful, devoted to study and poetry. But in November, 1853, a volume of poems which she published made her at once famous, fourteen editions being exhausted within five years. The poems entitled "Divided," "High Tide on the Coast of Lincolnshire," and the "Songs of Seven," are widely popular. The last-named has been published by itself, with illustrations; it contains seven poems representing seven epochs in the life of woman. Miss Ingelow now resides in London; but her unassuming nature and habits do not allow much of her life to appear before the world. One trait, however, shows the kind and sympathetic character which one would readily ascribe to her from her writings. Three times a week she gives a dinner to twelve needy persons just discharged from hospitals.

#### II. EXPLANATORY.

*Midshipman* is the second rank obtained by officers in the royal navy, the cadet being the first. It is, however, merely a position of apprenticeship, where the aspirant receives instructions for future duties as a naval officer. His practical duties are to transmit to the seamen the orders of a superior officer, and to watch over their execution.

*Careless*—Note the force of *less*,—free from.

*Coach*—The English coach is a closed, four-wheeled vehicle with springs, drawn by two or more horses; it contains two seats inside, and is built so as to carry baggage on top.

*Gig*—A light vehicle with two wheels, drawn by one horse.

*Quarter-deck*—The portion of the uppermost deck between the main-mast and the mast nearest the stern (the mizzen mast).

*Sea-serpent*—The great sea-serpent has been the subject of many sailors' tales; whether it is a reality or a creature of the fancy is a matter of doubt. Many stories, however, are told of such a monster that one can hardly disbelieve—so circumstantial are the details, and so respectable the narrators.

*Jib-boom*—A spar run out from the end of the bowsprit to which a triangular sail is fastened.

*Main-top-mast cross-trees*—The "cross-trees"

are horizontal pieces of oak at the top of the mast, sustaining the top of the lower mast and spreading the shrouds (ropes) that support the mast above. The "main-mast" is the chief mast, standing in the middle of the ship. Upon this mast is placed a smaller one called the top-mast, and above it a still smaller, the top-gallant mast. These cross-trees represent very lofty points on a sailing vessel. Make a diagram.

*Not a sparrow falleth to the ground*—See Matthew ix. 29.

*Our eyes are held that we cannot see*—See Luke xxiv. 16.

#### III. QUESTIONS AND EXERCISES.

1. *Who is this?* . . . Is this better than beginning "There was once a little midshipman. . . ."

2. *Chimney-tops* . . . Is it a better term than "city?" Why?

3. *Every new object gives him fresh delight.* Why?

4. What do we call one who tells everything he knows? The robber is different in every respect from the boy except that they both are restless. Notice that this restlessness arises from different motives in each.

5. *He never talks, he sits apart.* What would you say he is because of these habits? [Sullen, morose, moody, reserved, taciturn, unsociable, etc.]

5. *He watches him narrowly;* how does "narrowly" get its meaning in this line?

6. "*Parsonage*," i.e., house where the parson lives. Give other words in—*age*, and show the force of the suffix.

7. *He will do worse.* What? Why not say so? [When the lesson is read as far as the middle of page 26, it would interest the pupils very much to trace on the blackboard the drive from London up to the entrance of the wood, reviewing the scenes and objects passed. Then as the puffsuit advances, the sketch may be added to.]

8. *Now he gets the start again*—over what? Had you difficulty in telling? Should there be any? Was it your fault or the author's? What name does this fault go by? [Obscurity, ambiguity.]

9. Give the meaning of "*asunder*," "*outrun*," "*wayfarer*," "*canopy*," "*fern*" (a specimen would be interesting)?

10. *Heyday.* Explain. What mood or temper did this accident put the boy in? Did he lose his cheerfulness? [He is vexed, as much as his nature is capable of being, at the bush.] Should he be? [The bush was friendly. "Faithful are the wounds of a friend."] Did the white-owl come for his good?

11. Explain the meaning of the "main track," and of "dairy"?

12. "*Thoughtless boy.*" How does he show lack of thought here? [He runs after danger when danger is running away from him.]

13. *The moon is ploughing up, etc.* There is no real ploughing going on. The farmer ploughs. Why then does the writer say there is? [Because the moon seems to be shoving through the clouds, as a plough forces its way through the sod, and the clouds are in ridges just like the ploughed field. It is not ploughing, it only puts one in mind of ploughing, and when the writer says that the moon is ploughing, she uses a figure of speech (called a metaphor), which gives us a clear and pretty picture of the sky.]

14. *Listens breathlessly.* Why? Explain "thicket."

15. *Shall pass.* How is it different from "will pass"?

16. *The jaws of death*—another metaphor, explain it.

17. Explain "benighted," "at any rate."

18. Why did the farmer say "thee"? Why was it a pleasure to hear him talk?

19. Explain "in comparison."

20. *Provide*.—Explain the meaning by derivation.

II. Tell what sort of boy the midshipman was. Would you have liked him? Did those who knew him like him? His fellow-travellers? The woodman? The farmer? His relations? How did each shew his liking?

2. Are there any names of persons or places in this story?

(III.) 1. Is the story of the little midshipman a true story? [Not exactly, the facts may never have occurred.]

2. Do you think it is meant to teach us anything or that it is a mere story?

3. What kinds of stories are intended to teach? [Parables and Fables.]

4. Name some Parables. ["The Sower," "The Prodigal Son," etc., of the New Testament.]

5. In what sense are these parables true?

6. What are they intended to teach?

7. Name some Fables, and tell what they are intended to teach.

8. What do you think this story of the little midshipman is intended to teach? [That human life is full of unseen danger, but that a guiding Hand is ruling all, guarding even the thoughtless. What symbolic meaning, then, have the robber, the by-path, the white owl alluring to the dismal pool, the thorn, etc.?

IV. Compose a tale of a boy exposed to dangers similar to those of the lesson, and escaping in a similar manner. E. J. McI.

## \* Question Drawer. \*

### ENGLISH.

YOUNG TEACHER.—

(1). "For who to dumb forgetfulness a prey,"

\* \* \* \* \*

Nor cast one longing, lingering look behind."

The meaning of this stanza is, briefly, that no one ever died without regret at leaving this world. Note the negative force of the rhetorical question "For who," etc., as equivalent to "surely no one ever left," etc. We become "a prey to dumb forgetfulness" when death claims us, when our lips are silent and the memories of the past vanished. This life of ours in the world is full of joy (pleasing), though troubled by care (anxious), so that as we depart from this life (resign this being) for the cold and silent grave, we do like one who, departing from a dungeon, looks back regretfully upon the sun-lit scenes (precincts, literally districts) that he may never again behold.

(2). "Even from the tomb the voice of Nature cries."

The feelings that nature gave us in life cling to us after the dissolution of body and soul, so that even when dead we long for the sympathy and love of those we leave behind.

J.W.G.—In Jean Ingelow's "Little Midshipman" the expressions "He wishes he *was* down among the hazel-bushes," "He wishes he *was* seated on the top." Our questioner will notice that the verb *was* is not there to express *time*, because in each case the wish is one of the present. The force of the *form* of the past tense is to indicate that the wish is merely a wish, not a fact. Hence whether we regard *was* as indicative or subjunctive, we must look upon its *functions* as subjunctive. Many speakers usually strengthen the subjunctive force of this past tense form by using the pure subjunctive form *were* (e.g., "I wish I *were* there"). This is, according to the older English, strictly correct, but with the fading away of many uses of the older subjunctive, it would not be right—it would indeed be contrary to very reputable usage—to condemn the use in these passages of "was" for "were."

F.M.—The honor examination for matriculation in Toronto University is equivalent to First C. non-professional. Write to Education Department for full information.

SUBSCRIBER.—For information about teachers, examinations, etc., in the West, you had better write to the Superintendents of Education at Winnipeg, Regina and Victoria, respectively, from whom you will obtain all particulars.

Vox.—We published a time-table for a country school some time since, but cannot now refer you to the date. Perhaps some teacher of experience will kindly send us one which has been found useful, for the benefit of the younger members of the profession.

A SUBSCRIBER, who addresses his query to the *Educational Weekly*, (?) asks for "the names of the books that will be used in the Normal School in

1891." It is better to address the Principal of one of the Normal Schools, or the Education Department for all official information.

J.H.—To publish a list of the members and officers of the Dominion and Provincial Parliaments would make altogether too large a demand on our space. In the Canadian Almanac, to be had through any book-seller for fifteen or twenty-five cents, you will find the information you ask.

TEACHER.—(1). We have not space to publish "the limit of work required in each subject in entrance examinations." Write to the Department for a circular. (2). If a teacher agrees to accept payment of his salary yearly instead of quarterly, and no mention of interest is made in the agreement, we cannot see that he has any legal claim for interest.

J.H.—You will find in each number of THE JOURNAL one or more of the lessons prescribed for Entrance work fully treated in the English department. These papers always include biographical notices, in which, as well as in the other portions of the papers, the "merits and demerits of the different authors are discussed." See the editorial note and advertisement in this number in regard to forthcoming book on Entrance Lessons.

F.L.D.—It is difficult to form any reliable estimate of the amount or value of the inter-provincial trade in natural and manufactured products, because such trade being free, no statistics are provided, as in the case of exports and imports all which are of course registered at the custom houses. Ontario sends agricultural implements, wagons, stoves, and a variety of manufactures in wood and iron, also, we suppose, canned meats and fruits to a considerable extent, to Manitoba and the North-West Provinces, and these are paid for chiefly in wheat, which is, of course, the staple product of the North-West. Ontario sends flour, also probably a considerable variety of manufactures in wood, leather, paper, etc., to Quebec and the Maritime Provinces; also, we believe, considerable quantities of cheese. She receives in return sugar from the refineries at Halifax, some manufactures in cotton, woollen, etc., and other products. These statements are very indefinite, because we have absolutely no statistics before us. If we can succeed in obtaining any reliable estimates from any quarter we will give fuller particulars in another number. One of the objects of the high tariff is, we suppose, to promote inter-provincial traffic, but the similarity of the products of the provinces, combined with the great distances which separate them, render it difficult to largely increase their trade.

## \* Literary Notes. \*

"MR. BEECHER as I Knew Him" is an attractive title, and under it Mrs. Henry Ward Beecher begins her series of personal reminiscences of her husband in the October *Ladies' Home Journal*. In a delightfully frank manner she tells of her first meeting with Mr. Beecher, and how he looked; their courtship and engagement; how he earned his engagement ring; his first sermon and early religious beliefs.

JULIEN GORDON (Mrs. Van Rensselaer Cruger) contributes to the October *Lippincott* a thoughtful paper, entitled "Healthy Heroines." She declaims against the delicate style of heroines to be found in old-fashioned novels and declares, "If we turn to history we will find that the few women who have ruled it, and the hearts of men, were not invalids." The clever author embodies in the article a number of sensible and valuable directions to women for the preservation of health.

*Entertainment* for September contains a long list of suggestions for church and home entertainments, games, recitations and songs. "The School of Church Work," and "The Sunday School Blackboard" are both important features of this magazine, and call for special mention as being of decided value and interest to all Church and Sunday School workers. The motto of *Entertainment* is, "Devoted to the Bright Side of Life," and it aims to turn the eyes of its readers in that direction. Published by the *Entertainment* Bureau, Council Bluffs, Iowa. \$1.00 a year.

THE *Chautauquan* for October has several illustrated articles and the portraits of a number of prominent women. Its table of contents contains the names of more than twenty writers, many of them well known, and the titles of many of the articles are such as will commend them to the attention of thoughtful readers. The poetry of the number is by Irene Putnam, Bettie Garland and Emily Huntington Miller. The editorials treat of the C.L.S.C. for 1891-92, Polite Society and James Russell Lowell. There are the usual departments devoted to the Chautauqua Literary and Scientific Circle.

MISS ALICE M. FLETCHER, of the United States Interior Department and the Peabody Museum, Cambridge, will contribute to *The Century* in 1892 the results of her studies of the American Indian in a series of illustrated papers. They will give an intimate account of how the Indian actually lives and thinks, his music, home life, warfare, hunting customs, etc., and it is the opinion of Professor Putnam, of Harvard, that they will undoubtedly be the most important papers that have ever been published on the subject, and that they will give an entirely different idea of the Indian from that now commonly prevailing. The series will be called "The Indian's Side."

RECENTLY the Department of Agriculture at Washington has been conducting rain-making experiments in Western Texas, under the management of General Robert G. Dyrenforth, which have been remarkably successful and give promise of wonderful results. In the October number of the *North American Review* General Dyrenforth gives the practical details of his operations and the success attending them. In the same number of the *Review*, Prof. Simon Newcombe, LL.D., of Washington gives the scientific ground upon which the Agricultural Department bases its expectations of success. The article is one of the most interesting and valuable that has ever been published on the subject.

CARROLL D. WRIGHT, U. S. Commissioner of Labor, opens the October *Popular Science Monthly* with the first of a series of Lessons from the Census, in which he traces the growth of the census, and shows that it has come to be a somewhat unwieldy instrument. Under the title "Metamorphoses in Education," Prof. A. E. Dolbear traces the necessary connection between the new character which human life has taken on and the rise of scientific education. Prof. G. T. W. Patrick discusses "The Rivalry of the Higher Senses," and shows that man is becoming less "ear-minded" and more "eye-minded." The second paper of Prof. Frederick Starr's notable series on "Dress and Adornment" is in this number. It deals with the origin and many of the varieties of dress and is fully illustrated. The work done by "Astronomical Societies and Amateur Astronomers" is dealt with by L. Niesten. There is a pleasant and very seasonable article on spiders—"The Spinning Sisterhood," as they are called by the writer, Mrs. Olive Thorne Miller. In the Editor's Table are an examination of Herbert Spencer's latest book on Justice, and a sketch of the work done in the School of Applied Ethics, at Plymouth, during the past summer. New York: D. Appleton & Company. Fifty cents a number, \$5 a year.

THE October *Educational Review* is the strongest number yet issued. Prof. James H. Blodgett, Special Agent of the Census for Statistics of Education, begins the interpretation of the Educational Statistics of the Eleventh Census; President Francis A. Walker argues for the higher appreciation of Schools of Technology; Prof. Herbert B. Adams traces the beginning of University Extension in America; John T. Prince, of Massachusetts, describes some of his experiences in the German schools. Other articles are by Prof. Hanus, of Harvard, Superintendent Aaron Gove, of Denver, Dr. Larkin Dunton, of Boston, Prof. Hammer, of Munich, and the editors. Important book reviews are by Sir William Dawson, of McGill College, Montreal; Prof. B. I. Wheeler, of Cornell; Prof. Garnett, of the University of Virginia; Profs. Hyslop and Jackson of Columbia; Prof. Sanford, of Stanford University, Supt. Calkins, of New York, and the editors. The issue also contains the full text of the great English Act, known as "The Elementary Education Act, 1891," which introduces free education on a large scale. This Act ranks with the famous speech of the German Emperor (in the Feb. number,) as the most important education documents of the year.

ONE of the great needs—we might, in fact, say a chief and indispensable need, of every school-room, every study and, indeed, every family sitting-room, is a first-class dictionary, full in its list of words, clear and accurate in definition, careful and reliable in pronunciation, and as nearly complete as may be in its treatment of the various matters, such as proper names found in the Scriptures, Classics, Geography, History, Literature and Fiction, usually treated of in appendices. In the rapid advance along all lines of Science, discovery and invention, for which our time is so remarkable, dictionaries and encyclopaedias, sooner even than most other works, fall behind the date, and have to be replaced. Among the various competitors for public favor, which are now being offered to the public, the *Standard Dictionary* of the English language, in course of preparation by Funk & Wagnalls, the well-known New York Publishers, seems likely to become, on its merits, one of the first favorites. This fine work, of which we have some sample pages before us, is to contain nearly 2,200 pages, over 4,000 illustrations made specially for this work, and 200,000 words, which, it is claimed, is 70,000 more than given in any other single volume dictionary. It has on its editorial staff over one hundred editors, many of them among the best known American and English lexicographers. We have not space even to enumerate the sixteen distinguishing characteristics to which attention is invited, as illustrated in these specimen sheets. One improvement, however, which specially commends itself to us as journalists, is its serious attempt to solve the difficult problem of compounds. There is, perhaps, no single difficulty which causes more perplexity to the writer or editor who is ambitious to reach something like uniformity in the use of the hyphen than this. It is, moreover, a question which merits the serious attention of those who care for preserving the best characteristics of the English language as a philosophical medium for the accurate expression of nice distinctions and shades of thought. This department has been placed, we are told, in the hands of a special editor. On the whole, the Dictionary bids fair to be one of the best, if not the very best, for general purposes, of the larger one-volume dictionaries now competing for public favor. We are inclined to advise those who may be about to purchase a dictionary of this kind, and who can afford but one, to wait, if they can do so without too great inconvenience, till they can have an opportunity to compare Funk & Wagnalls' *Standard* with others.

JAMES A. McLELLAN, M.A., LL.D.

(Continued from first page.)

Yarmouth Seminary, Nova Scotia. In 1869 he was appointed mathematical master in Upper Canada College, and in 1871, as above noted, was made High School Inspector. He is the author of some able and valuable educational works in mathematics and psychology. He is also well known as an effective public speaker.

Dr. McLellan at present holds the position of principal of the newly formed School of Pedagogy, which has opened auspiciously in Toronto. This much-needed work will, no doubt, afford a sphere of usefulness and educational influence well suited to his tastes and ability.

AN examination in grammar or arithmetic may be a very poor test of the applicant's knowledge of the subject and a still poorer test of his ability to teach it. Whether it will be a good test or a poor one depends almost wholly on the qualifications of the examiner and on his views respecting what is fundamental and important.—*Ex.*

'Tis weary watching wave by wave,  
And yet the tide heaves onward;  
We climb like corals grave by grave,  
But pave a path that's sunward.  
We're beaten back in many a fray,  
But newer strength we borrow,  
And where the vanguard camps to-day,  
The rear shall rest to-morrow.

—Gerald Massey.

Mathematics.

All communications intended for this department should be sent before the 20th of each month to C. Clarkson, B.A., Seaforth, Ont.

EDUCATIONAL DEPARTMENT, ONTARIO.  
ANNUAL EXAMINATIONS, 1891.  
THE HIGH SCHOOL PRIMARY, LEAVING, AND  
UNIVERSITY MATRICULATION.  
ARITHMETIC, MENSURATION, AND  
COMMERCIAL TRANSACTIONS.

PRIMARY.

Examiners: A. R. BAIN, LL.D.  
N. F. DUPUIS, M.A.  
I. E. MARTIN, B.A.

NOTE.—Candidates will take question 1, and any other five questions in section A; two in section B; and one in section C.

A.

- (a) Shew that  $.045 = \frac{9}{200}$ ;  
(b) Shew that  $.412 = \frac{103}{245}$ .  
(c) Add, without reducing to vulgar fractions,  $312, 9.4$  and  $.23$ .  
(d) Make a drawing that will shew the number of square yards in a square rod.
- Find the premium paid to ensure a house worth \$7,500 for  $\frac{3}{4}$  of its value for 3 years, the rate being  $\frac{3}{4}$  % of the policy for each year.
- A tax of \$24,750 is levied on a town, the assessed valuation being 1.5 mills on dollar; what tax does a man pay on an income of \$1,100, of which \$400 is exempted?
- From the list price of a line of goods a purchaser is allowed a trade discount of 20%; a further discount of 10% off the trade price for taking a quantity, and a still further discount of 5% off his bill for cash. Find his gain % by selling at 10% less than the list price.
- A man invests \$12,000 in 3% stock at 75; he sells out at 80, and invests  $\frac{1}{2}$  of the proceeds in  $3\frac{1}{2}$  % stock at 96, and the remainder at 5% par. Find the change in his income.
- A man puts \$350 in a Saving's Bank each year, making his first deposit December 31, 1890. How much will there be to his credit January 1, 1895, the Bank adding 4% per annum?
- A owes B \$400 due in 1 year, \$300 due in 2 years, \$200 due in 3 years. What sum paid now would cancel the debt, money being worth 5% per annum, compound interest?

B.

- The sides of a triangle are 13, 14 and 15 feet; find its area, and the length of the three perpendiculars from the angles on the opposite sides.
- The external dimensions of a rectangular covered box, made of inch stuff, are 7, 8 and 9 feet; find the capacity of the box, and the quantity of lumber in it.
- A well 7 feet in diameter and 28 feet deep, is to have a lining of special bricks, fitting close together without mortar, 7 inches thick; find, in tons, the weight of the bricks, supposing 1 cubic inch of brick to weigh  $\frac{2}{3}$  of an oz., and 1 cwt. = 112 lbs. ( $\pi = \frac{22}{7}$ ).

C.

- A shipped to B 1,000 sheep, the buying price of which was \$4.50. B pays a freight charge of  $17\frac{1}{2}$  cents per head, and the cost of feed and yard is  $2\frac{1}{4}$  cents each per day. His first sale is made at the end of 2 days, which consists of a lot of 250 head @ \$5.25. At the end of the 3rd day he sells a second lot of 525 @ \$6.00, and at the same time 5 sheep are killed by an accident. The balance are disposed of at \$5 per head at the end of the 5th day. B takes 10 per cent. of the profits for his commission, and remits the balance to A. Make out B's Account Sales to A.
- A has 8 bottles and B. 2 bottles of wine. At odd times a common friend, C, joins them, and the three share equally. To recoup A and B, C hands over \$10. How should A and B settle between them,

13. Add vertically and horizontally the following statement:

Total.	\$851.02	\$26.55	\$97.22	\$189.16	\$3,650.12	\$1,169.84
	312.60	297.02	239.49	914.19	866.78	909.58
	1,477.42	869.69	196.17	1,654.70	742.49	575.72
	568.35	2,223.42	8,418.60	119.25	1,180.66	2,678.28
	116.02	5,300.20	1,542.24	2,016.72	1,638.24	312.83
	1,214.03	136.97	349.95	108.00	342.65	1,052.47
	1,732.25	1,124.50	1,020.00	215.17	687.23	339.11
	138.50	475.00	600.00	514.02	514.02	1,732.50
	1,097.47	4,656.65	136.70	777.60	3,839.25	1,237.50
	1,204.74	7,738.75	1,850.14	112.50	1,291.98	113.56
	1,421.91	243.44	636.99	311.20	973.03	3,661.00
	694.62	252.47	7,357.51	1,201.64	670.22	1,139.67
Total.						

NOTE.—This sheet may be handed in by the Candidate with totals marked upon it.

SOLUTIONS.

- (a) Let  $.045 = \text{fraction}$ .  
 $\therefore 45.045 = \text{fraction} \times 1000$   
 $45 = \text{fraction} \times 999$   
 $\therefore \frac{45}{999} = \text{fraction} = \frac{5}{111}$ .
- (b) Let  $.412 = \text{fraction}$ .  
 $\therefore 412.12 = \text{fraction} \times 1000$ .  
and  $4.12 = \text{fraction} \times 10$   
 $408 = \text{fraction} \times 990$   
or  $\frac{408}{990} = \text{fraction} = \frac{103}{245}$ .
- (c)  $.312 = 0.312312$   
 $9.4 = 9.444444$   
 $.23 = 0.232323$   
Sum = 9.989079
- (d)

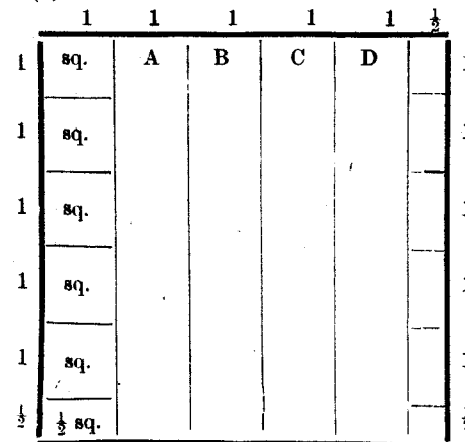


Fig.  $5\frac{1}{2} \times 5\frac{1}{2}$  yards. Each strip, like A, contains  $5\frac{1}{2}$  square yards. The last strip is half as large as A, and hence contains  $2\frac{3}{4}$  square yards. All together contain  $5\frac{1}{2} \times 5 = 27\frac{3}{4}$  square yards

- plus  $2\frac{3}{4}$  " " " "  
Total.  $30\frac{1}{4}$  " " " "
- Policy =  $\frac{3}{4}$  of \$7,500 = \$5,000 = \$100 × 50.  
Rate =  $\frac{3}{4}\% \times 3 = \frac{9}{4}\%$   
Premium =  $50 \times \frac{9}{4} = \$90$ .
  - \$1,100 - \$400 = \$700 = taxable income;  
And \$700 at 15 mills per \$ = \$105.
  - Take \$100 of goods at list price;  
20% off leaves \$80; 10% off this leaves \$72 = bill.  
5% off bill leaves \$72 - \$3.60 = \$68.40 invested.  
List price - 10% leaves \$90 = selling price.  
 $\therefore \$90 - \$68.40 = \$21.60$  gain on \$68.40 invested.  
 $\therefore 24$  is the gain on 76 " "  
 $\therefore \frac{6}{76}$  " " " " 19 " "  
 $100 \times \frac{6}{76} = 7.89$  " " " " 100 " "  
 $= 31\frac{1}{4}\%$ .

Otherwise:—  
Gain =  $\frac{9}{100} - (\frac{3}{100} \times \frac{3}{100} \times 100) = \frac{9}{100}(1 - \frac{9}{100})$   
Or gain =  $\frac{9}{100} \times \frac{91}{100}$  on  $\frac{9}{100} \times 100$   
24 on 76, etc., as before.

5. Proceeds of sale =  $(12,000 \div 75) \times 80 = \$12,800$   
1st Partial income =  $(\frac{1}{3} \text{ of } 12,800 \div 96) \times 3\frac{1}{2} = 155\frac{1}{3}$   
2nd " " =  $(\frac{2}{3} \text{ of } 12,800) \times 5 = 426\frac{2}{3}$

2nd income = \$582  $\frac{2}{3}$   
1st income =  $(12,000 \div 75) \times 3 = 480$

Difference of income = \$102  $\frac{2}{3}$

6. December 31, 1890, deposit, \$350.00  
" " 1891, interest, 14.00  
" " " deposit, 350.00  
" " 1892, interest, 714.00  
" " " deposit, 28.56  
" " " deposit, 350.00  
" " 1893, interest, 1,092.56  
" " " deposit, 43.7024  
" " " deposit, 350.00  
" " 1894, interest, 1,486.2624  
" " " deposit, 59.450496  
" " " deposit, 350.00

January 31, 1895, \$1,895.712896

Otherwise:—  
 $1 = 1.00$   
 $1.04 = 1.04$   
 $1.04^2 = 1.0816$   
 $1.04^3 = 1.124864$   
 $1.04^4 = 1.16985856$   
 $\$350 \times 5.41632256 = \$1,895.712896$ , as before.

- P.W of 400 due in 1 year =  $400 \div 1.05$   
" " 300 " " 2 years =  $300 \div 1.05^2$   
" " 200 " " 3 years =  $200 \div 1.05^3$   
Or  $(400 \times 1.05^2) \div 1.05^3$   
 $+ (300 \times 1.05) \div 1.05^3$   
 $+ 200 \div 1.05^3$  } = P.W. of debt
- Or P.W =  $(441 + 315 + 206) \div 1.05^3$   
 $= 956 \times \frac{27}{125} \times \frac{27}{125} \times \frac{27}{125}$   
 $= 7,648,000 \div 90,261 = \$825.8287 +$
- $\frac{1}{2}(13 + 14 + 15) = 21$   
 $21 - 13 = 8$ ;  $21 - 14 = 7$ ;  $21 - 15 = 6$   
 $\sqrt{(21 \times 8 \times 7 \times 6)} = \sqrt{(7^2 \times 6^2 \times 2^2)} = 84 = \text{area}$   
Half area = 42,  $\therefore 42 \div 13 = 3\frac{3}{13}$  one perp.  
 $42 \div 14 = 3$  " "  
 $42 \div 15 = 2\frac{4}{5}$  " "
- Area of lid and bottom =  $2 \times 8 \times 9 = 144$  sq. ft.  
" " sides =  $2 \times 9 \times 6\frac{3}{8} = 123$  " "  
" " ends =  $2 \times 7\frac{3}{8} \times 6\frac{3}{8} = 107\frac{1}{8}$  " "

Total external area =  $337\frac{1}{8}$  sq. ft.  
The internal dimensions are 82, 94 and 106 inches.  
 $\therefore \text{Capacity} = (82 \times 94 \times 106) \div 1728 = 472\frac{7}{24}$  cub. ft.

10. External diameter of wall = 84 inches.  
Internal " " " = 70 "  
 $\therefore \text{Area of top of wall} = \frac{22}{7} \times \frac{1}{4} (84 + 70) (84 - 70)$   
 $= 77 \times 22$  square inches.  
 $\therefore \text{Solidity of wall} = (77 \times 22 \times 28 \times 12) \div 1728$   
 $= \frac{1}{18} \times 77 \times 77$  cubic feet.  
But 1 cub. in. weighs  $\frac{1}{8}$  oz.,  $\therefore$  1 cub. ft. weighs 72 lbs.  
 $\therefore \text{Weight of wall} = (\frac{1}{18} \times 77 \times 77 \times 72) \div 2,240$   
 $= 10\frac{1}{8}$  tons.

11. ACCOUNT SALES OF 1,000 SHEEP, INVOICED @ \$4.50.

Charges

Freight on 1,000 @ $17\frac{1}{2}$ cents	= \$175.00
Feed 250, 2 days	} = 3,190, 1 day @ $2\frac{1}{4}$ c. = 71.78
" 530, 3 "	
" 220, 5 "	
10% commission on \$815.72 profit	= 81.58
Cash remitted to A	= 5,234.14
	\$5,562.50

Sales

250 sheep @ \$5.25	= \$1,312.50
525 " @ \$6.00	= 3,150.00
220 " @ \$5.00	= 1,100.00
	\$5,562.50

12. Total wine = 10 bottles ; each gets  $3\frac{1}{2}$  bottles.  
C pays \$10 for  $3\frac{1}{2}$  bottles, or \$3 per bottle ;  
B should pay for  $1\frac{1}{2}$  bottles @ \$3 = \$4.00.

13. HINT.—In adding horizontally, place a ruler or a sheet of paper to cut off from the eye all other figures except those to be added. In adding vertically, proceed till the sum reaches 20 or 50, then place a dot over the number to represent the 20 or 50, and carry the excess. Count the 20's or 50's on the way down. Thus, in first column at the left, say, 7, 13, 14, 21, dot, 4, 12, 14, 22, 26 ; 46.

PROBLEMS.

108. The Equitable Life Assurance Society offer straight insurance to a man, 29 years of age, for an annual premium of \$22.07 on each \$1,000 ; to the same man they offer a ten-year endowment policy for \$104.43, the premiums in each case being paid at the beginning of the year. The man takes out a straight life policy for \$1,000, and deposits in a Savings' Bank \$82.36, which pays 4 per cent. a year, compounded yearly. The man dies at the end of five years. How much better off are his heirs than if he had taken an endowment policy ?

109. A mortgage of \$4,000, bearing interest at  $5\frac{1}{2}$  per annum, payable half yearly, has five years and three months to run, the next payment of interest being due in three months. Find its present value, money being worth 5 per annum, payable half-yearly.—A.C.M.

CORRESPONDENCE.

PROBLEMS 92, 93, 94 were solved in the December number of 1890 by W. Pendergast, B.A.

Mr. P. wishes to correct his solution of 92 as follows :

Let A = amount of goods imported before the change.  
" r = rate of tariff.  
"  $\frac{1}{x}$  = fraction by which rate was increased.

Then Ar = 20 million dollars ;

And  $r(1 + \frac{1}{x})(1 - \frac{1}{2x})A = 22$  " "

$\therefore (1 + \frac{1}{x})(1 - \frac{1}{2x}) = 1\frac{1}{10}$

i.e.  $\frac{1}{x} = .2763$ , or 27.63%

95. Solution by MR. PENDERGAST

The holder will receive \$6 in a year, \$6 in two years, and \$106 in three years. To make 5% on his investment he must get the P.W. of these sums at 5% compound interest.

$\therefore$  Price of bonds =  $6(\frac{2}{3})^0 + 6(\frac{2}{3})^1 + 6(\frac{2}{3})^2 + 100(\frac{2}{3})^3 = \$102.723$ .

MR. F. J. FRALICK, South Zorra, Ont., sends the following solution of No. 95 :

Suppose the person buys one share at par. \$100 @ 6% cpd. int. for 3 years amounts to \$119.1016 : \$100 @ 5% cpd. int. for 3 years amounts to \$115.762 = amt. on \$100. \$119.1016 = amt. on \$100 ÷ \$115.762 × \$119.1016 = \$102.884. Hence the stock is @ 102.884. The result seems reasonable, but progress is not clearly set forth.

The EDITOR wishes to return thanks for several kind letters expressing appreciation of the work done in this column. The great purpose of the JOURNAL is to help teachers, to foster in them the professional spirit, and bind them together in one noble brotherhood. If every experienced teacher would write one short, well-considered letter to us each year, giving some piece of actual experience, some method found successful in practice, some happy invention for shortening labor, or for increasing its effect, some neat solution of a school-room problem, or of a mathematical problem, what a treasury the JOURNAL would have to draw upon, how much good would be done to all our readers, and to the great cause of Education generally ! Friends, we are always glad to hear from you, if it is only about a new blackboard-brush worked by an electric button. We are thankful for keen criticism, but especially for kind words of appreciation. Tell us constantly how we can help you.

SELF-FORGETFULNESS is better than a constant struggle towards unselfishness. One may be so desirous of being unselfish as to devote time to the repression of self, or to the denial of self, that ought to be spent in behalf of others to the utter forgetfulness of self.—Aron.

\* Hints and Helps. \*

OLD METHODS ARE NOT ALL BAD.

THERE is quite a complaint among eachers, principals and superintendents that pupils in the higher grades are not able to read with ease and expression, they have so little mastery over words that an exercise in reading becomes a laborious effort at word calling. \* \* \* There can be no good reading without the ability to call words readily, and it may be well to consider whether the methods of teaching primary reading are not at fault in preparing the pupil for the advanced reading.

We are inclined to think the inability of pupils in the higher grades to call words is the legitimate out-growth of the teaching by the word method. By this method the word is presented to the child as a whole ; and the teacher either tells the child the word or by skilful questioning leads him to use the word.

Later, when phonics have been introduced, the teacher writes the new and difficult words on the black-board and marks them. The general results of these methods on the mind of the pupil are about the same. He soon learns to think he can do nothing with a new word without the help of the teacher in some way. While he should be learning independence in making out his words, he has learned dependence, and his dependence increases with the increase of difficulties.

We are wont to laugh at the old-fashioned teacher, who, when his pupils halted at a word, said "Spell it." But it is worth while to consider whether the oft repeated command of "Spell it" did not beget more power over new words than some of our vaunted later methods. It at least taught a child to make an attack upon a new word, and any method that teaches a child to try has some merit in it. If in our haste to teach children to read in primary readers we are sacrificing their ability to read in the higher grades of reading, we had better call a halt and sacrifice the lower grades of reading in the interests of the higher.

In a recent article Superintendent Greenwood says : "Is it not a fact that if children be put at first to spelling words and speaking them distinctly, and if they be kept at it for half a year or a year, they will make double the progress in their first, second and third readers ? It is worth considering at any rate."

Perhaps the craze that swept through the schools a few years ago, that taught that everything in school should be made so pleasant that the child should find nothing but one unalloyed round of pleasure in the school-room, is responsible for the elimination of that drudgery necessary in teaching the spelling and syllabication of words in such a thorough way as to enable the child to read with some degree of ease in the fourth reader. We are of the opinion that, if a child has not learned how to get at the pronunciation of words by the time he has finished the third reader, the chances are very much against his becoming a reader, or of his taking much pleasure in reading.—Central School Journal.

TEACHING MORALS.

How shall we teach morals in the public schools ?

One way is to have a good school. The virtues of obedience to law, industry, and honesty are essentials to a good school, as they are to society. Make a good school and you help to make good pupils, and therefore good citizens.

Another way is by correcting everything vile or mean that crops out among the pupils in school or at play. There are ways of doing this with tact, and to the best effect, which will occur to the shrewd teacher. Watch the currents of opinion among your pupils and turn them in the direction of purity and nobility of character.

Another way is by directing the reading of the pupils to books that will be interesting and at the same time inspiring. Youth is full of enthusiasm and ready to worship an ideal, good or bad. Instead of that ideal being a pirate or an Indian fighter, let it be an inventor or a benefactor of the human race in some way. Good books are great teachers.

Another way is by inducing the pupils willingly

to memorize selections which are full of some great enthusiasm, such as patriotism. Half the moral evils of the world are simply weeds growing where there is no good seed sown. Give the boy or girl something noble to think of, and that will of itself expel a great deal of silly trash or worse than trash from his or her mind.

Another way is by a series of talks to the scholars, or better, with them, on moral questions. The more informal these are and the more they draw out from the pupils, the better effect they will generally have. Preaching at your pupils will not often do much good. Such a story as that of Washington and the hatchet ; or Lincoln paying his drunken partner's debts, will furnish a series of questions, which is often well to leave open for discussion several days. In most cases the children themselves will settle these questions of casuistry near enough right, if you can only wake up their interest in them. It is of more importance to set them thinking and talking on moral questions than it is to decide them dogmatically for them. It is the habit of asking whether certain actions are right that is of most consequence. We may add that in some cases it is more politic for the teacher to leave the avenue to really doubtful questions open.

In some of these ways it ought to be easy for every teacher to inculcate morals in a public school. And it ought to be easy to do this without being sectarian, or offending any one's prejudices, with a little good sense and tact in the teacher.—Midland Journal.

FOR AN ATTRACTIVE SCHOOL-ROOM.

- A CLEAN floor.
- Clean windows.
- A well-kept teacher's desk.
- Clean blackboards.
- Clean crayon racks.
- A room well dusted every morning.
- Whole, neat curtains, evenly drawn.
- Tidy walls, whitened, tinted or papered.
- Good pictures well hung.
- A well-filled bookcase, well kept.
- As good a "centre-table" as at home.
- A well-covered and adorned "mantel."
- Good mottoes, well hung.
- Choice bric-a-brac.—Ex.

HINTS TO TEACHERS.

DON'T give up the boy who sits in the back seat and wears his coat collarless, his hair *non à la Pompadour*, and his finger-nails in mourning—who won't learn his lessons and who will get into mischief. I knew a teacher who had a pupil just like him. She showed interest in him ; she visited his parents, and didn't act as if their language and manners made them devoid of all fine feeling. She asked him to help her about some work after school one night, and said, "By the way, John, we know each other pretty well now. I like you and I hope you like me. I want you to do something for me, will you ?"

"If I can," was the answer.

"Come to school to-morrow with a collar, comb your hair nicely, and pare your finger-nails. You see I like you as you are now, but I want other people to like you, too, and they won't if you are careless about your appearance."

Do you think the boy hated her ? No. He was never seen untidy after that evening. He graduated from the high school with honors, and is to-day filling a responsible position in society. He swears by that teacher. She made a man of him.—Journal of Education.

THE riches of a commonwealth  
Are free, strong minds and hearts of health ;  
And more to her than gold or grain  
Are the cunning hand and cultured brain.

—Whittier.

"Do not," remarked Mr. Balfour in a speech at Plymouth, "suppose for one moment, those among you who are parents, that you delegate the education of your child at the rate of threepence a week to the hired schoolmaster. The important part of education must be done, not under any State system which you like to devise, but must always be done at home. With that part the State cannot interfere. With that part it ought not to interfere. With that part I trust it never will interfere."



# The Educational Journal.

Published Semi-monthly.

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AND THE ADVANCEMENT OF THE TEACHING  
PROFESSION IN CANADA.

J. E. WELLS, M.A. Editor.

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## ✻ Editorials. ✻

TORONTO, OCTOBER 1, 1891.

### SEX IN TEACHING.

A RATHER animated discussion was, a little ago, provoked in the Toronto papers by the motion of Mr. Baird, one of the Public School Trustees, in favor of the appointment of women as principals to fill certain vacancies. The motion was based, we believe, upon the alleged fact that the schools presided over by ladies are better managed and more efficient than those in charge of the other sex. We have not seen the report or evidence in support of this statement, but it does not seem to have been challenged. The motion alarmed some of the educational fogies and caused the reappearance, in fresh garb, of many familiar arguments and assertions about the inability of women to control unruly boys, etc. The much-talked-of deterioration of the boy of the day, his lack of "moral manliness," etc., have been deplored, and the blame laid in large measure at the door of the ubiquitous female teacher. Quite a vigorous war has been waged on behalf of the rights, prerogatives, and superior powers of teachers of the sterner sex. The *Globe* rather neatly turned the argument derived from the alleged inability of women to make the boys manly men, by pointing out that the schools are largely composed of girls, and

that the same line of argument is equally valid against male principals, on the ground of their inability to train up womanly women.

The whole question is, it appears to us, in a nutshell. Let the most competent teachers be appointed to all positions, whether men or women. The question is one of merit, not of sex. It is too late in the day to deny that many women have proved and are proving themselves quite as capable teachers in all grades, and quite as good disciplinarians, as can be found among their counterparts of the sterner sex. On the other hand, there are hundreds of female teachers who have neither intellectual nor moral fitness for their high and responsible calling. Of such are most of those—some of them, we charitably believe, talk in this way only in imitation of a bad habit, or for the sake of effect—who will tell you that they "detest" the work, and are in it for a short time only because of necessity, or to make a little more dress and pin-money. But then how many boys and young men there are in this profession whose minds are not a whit broader and whose motives are not a whit higher.

The whole question is, we repeat, one of character and ability, not of sex. Thousands of the manliest of men will bear witness that they owe most of whatever "moral manliness" they possess to the training and influence of their womanly mothers; as no doubt many of the womanliest of women owe a like debt to the ideals set before them by their manly fathers. In mixed schools principals and teachers of either sex have both their advantages and their disadvantages. Probably these, so far as they arise from qualities peculiar to sex, are generally about equally balanced. The most efficient and desirable schools will, we believe, be found to be, other things being equal, those in which men and women teachers are in about equal proportions.

### IMPORTANT ANNOUNCEMENT.

THIS JOURNAL is forming a class in Short-Hand, to be conducted by the well-known author, Eldon Moran, of the Central College of Correspondence, St. Louis, Mo., who will give personal attention to letters written by members introduced through this office.

Printed plates and instructions will appear in THE JOURNAL beginning November 1st, of this year, and continuing until twelve lessons are given.

Any person wishing to join the class can do so upon making application, accompanied with the membership fee of \$2, to the Editor of THE EDUCATIONAL JOURNAL.

Each member of the class, in addition to

the published lessons, will be furnished with lesson keys and blanks, speed and proof sheets, introduction and report cards, corrected exercises and any other needed help. Mr. Moran takes personal charge of the correspondence, and has every facility for doing this work in a prompt and practical manner. The lessons will be so simple and clear that any intelligent boy or girl of twelve can readily understand them. This is an excellent opportunity for teachers and others wishing to learn short-hand, who cannot afford the time and expense of attending a school or college for the purpose.

### THE KINDERGARTEN.

WE have often felt disposed to devote an article or two to the discussion of the Kindergarten, and have as often refrained because we were not sure that we possessed either the insight into the underlying principles of the system, or the information derived only from close and prolonged observation of its results, without both of which no one can be a competent critic of this system. We may frankly confess, too, that we have hesitated the more because we were conscious of a certain lack of faith, or at least of the assured confidence that begets enthusiasm, in the Kindergarten as the natural method of laying hold of the child-mind and starting it fairly on the highway that leads through life-long culture to whatever of systematized knowledge and developed brain-power are attainable in this world.

Dr. Fitch tells us that, "it is useless to try to adopt the Kindergarten system unless you have some one to work it who has faith in it and the special aptitude and enthusiasm which will help her to make the best of it." But is not this criterion, in so far as it is not applicable to the teacher of any and every grade, rather a condemnation than a recommendation of the system? If the Kindergarten is *par excellence* the natural and universal system for the training of the mind in its earliest years of conscious activity, its principles ought not surely to be so abstruse, or its methods so hard to apply, that its successful use is beyond the reach of average ability? Ordinarily one of the best tests of an educational system is its simplicity, the readiness with which it may be taken hold of and successfully applied by every industrious teacher of moderate ability.

In this somewhat sceptical spirit, but with at least an earnest desire to know the truth, the whole truth, and nothing but the truth in this matter, we submit a few thoughts, suggested partly by our own observations and questionings, partly by Dr. McLellan's remarks upon the Kinder-

garten Department, in the Special Report on Normal Schools to which we have before referred. In so doing we wish to be tentative rather than dogmatic. We should like especially to elicit discussion and testimony from some of the many among our readers whose daily professional experience places them in the most favorable position for estimating correctly the real educational value of Kindergarten teaching. Teachers of all grades in the Public and High Schools have ample means for forming opinions on this point. Especially is this the case with Public School Principals, and teachers of primary classes which are recruited, as is no doubt often the case, with pupils drawn partly from the Kindergartens, and partly from other sources. Within the last few weeks we chanced to have an opportunity of learning the opinions of three teachers of the latter class. Two of them belonged to Ontario, the other to the United States. It so happened that two of them had reached conclusions unfavorable to the Kindergarten, so far, at least, as its work came within the range of their experience. They complained that the children who came into their classes from the Kindergarten were less satisfactory as pupils than those who had received their preliminary training elsewhere, mainly because of their constant craving for amusement. The testimony of the third young lady was precisely the opposite. She preferred the Kindergarten pupils, because she found them better prepared in every respect to go on with the work of her grade. The unfavorable comments of the first two were of special interest, as in line with one of the queries which is sure to arise in connection with the theoretical study—Kindergartners would probably say rather the cursory and superficial study—of the Kindergarten system. That query is, of course, whether the attempt to identify and harmonize the *work* of the school-room with the *amusement* of the play-ground may not be the result of a false educational principle.

Dr. McLellan mentions as among the proofs that "in true Kindergarten work the laws of early physical development are closely followed, that "the mighty *play-impulse* is wisely appealed to by the use of infinitely varied games and plays, which are the means universally employed by the race for the organization of infant instincts and impulses." But the question will, we think, suggest itself to the minds of many of those who have had opportunities for observing the operations and tendencies of the child-mind, whether the *work-impulse* is not quite as mighty and as universal as the *play-impulse*, and whether nature does not indicate that the latter, rather than the

former, is to be regarded as indicating the proper force to be employed in driving the educational machinery. Who has not seen the sturdy boy of five or six voluntarily turn aside half-a-dozen times a day from amusements provided for him, to imitate the gardener or the carpenter in downright toil? Such a boy will, of his own free choice, dig or build, or pile wood, for hours, if permitted, in the blaze of a noon-day sun, with the perspiration starting from every pore. You may call it play if you please, but his chief gratification comes from the conception of it as *work*. Nor is it to be supposed that he is insensible to the discomfort or the fatigue, much less that he really enjoys these. They are to him simply means to an end—something which has to be endured in order to an ulterior purpose which he has more or less clearly in view. And precisely the same law holds in the sphere of mental activity. What teacher, who is a teacher indeed, has not watched with interest and delight the indications of mental effort, of genuine, hard brain-work, which a child will put forth in the solution of some little problem, or the comprehension of some, to him, difficult sentence, until presently the wrinkles disappear from the brow, the clouds from the eye and the cheek, and the flash and glow which tell of victory succeed?

We do not say that this necessarily shows that the Kindergarten is on the wrong track. But it does at least suggest that many Kindergartners may make grave mistakes through relying too much upon the play-impulse, and too little upon the work-impulse.

We may return to this subject in another number.

### \* Editorial Notes. \*

MR. WILLIAM HOUSTON'S second article on University Extension will be found on page 503.

WE wish to direct the attention of those who have made inquiries about Entrance Literature Lessons, and all others interested, to the advertisement in this number of a little book on this subject. This has been prepared under the supervision of the Editor of the English Department of this paper, and will shortly be published from this office. It will no doubt be most useful, if not absolutely indispensable, to every teacher of the subject.

In addition to the regular articles in the Primary Department will be found, in this number, some specimens of "cut-up"

stories, kindly sent us by a teacher. The idea is a good one, if carried out as suggested. These cut-up stories, the sender hopes, will help to supply a want felt by primary teachers, who complain of a lack of material for word recognition. It is suggested and hoped that other teachers will send in similar contributions, and thus help one another in the interesting work of teaching beginners to read. [We are sorry to find that the cut-up stories referred to have been crowded out, and must be held till next number.]

ON the twenty-eighth day of July last an interesting ceremony took place in the Council Chamber of the City of Edinburgh, in which Sir Daniel Wilson, LL.D., F.R.S.E., the honored President of Toronto University, was admitted and received "a Burgess and Guild Brother of the City, in recognition of his distinguished literary services in historical and antiquarian research." The presentation was made by the Lord Provost, who presided at the meeting, in the presence of a representative assembly of ladies and gentlemen. In an interesting speech, the Lord Provost referred in very appropriate terms to Sir Daniel Wilson's studies and published writings in connection with the subjects named, and "the Youngest Burgess" responded in grateful and eloquent terms.

A GRADUAL and grateful reform is taking place in the Ladies' Colleges, and we hope in other circles, in the disuse of the diminutives with which we have become so familiar in the names of the young ladies. The Board of Education of New York has gone so far as to adopt unanimously a resolution which will prevent women teachers in that city from being henceforth officially called by baby names. But the silly custom still lingers in many places, hence the following touching appeal of the New York *Sun* is still in order:

Oh, girly girls, with sunny curls, and eyes blue as the skies, and lots of lovely things the poet sings, say, won't you, just the same, take on a proper name, and drop, kerflop, Bessie and Essie, and Mattie and Hattie, and Sallie and Lallie, and Mollie and Pollie, and Jennie and Kennie, and Lizzie and Izzie, and Maggie and Aggie, and Lottie and Dottie, and Annie and Fannie, and Ettie and Hettie, and Gertie and Flertie, and Gracie and Macie, and Cassie and Lassie, and Bettie and Nettie, and Rettie and Pettie, and Flossie and Bossie, and Winnie and Minnie, and so on at length? May the gods give us strength never to call you by those names at all! Oh, girly girls, with sunny curls, etc.

"CURVED is the line of beauty;  
Straight is the line of duty.  
Follow the last, and thou shalt see  
The other ever following thee."

## Examination Papers.

EDUCATION DEPARTMENT, ONTARIO —  
ANNUAL EXAMINATIONS, 1891.

HIGH SCHOOL ENTRANCE.  
LITERATURE.

Examiners: { JOHN SEATH, B.A.  
                  { J. S. DEACON.

NOTE.—A maximum of five marks may be allowed for neatness.

## I.

O, for festal dainties spread,  
Like my bowl of milk and bread,  
Pewter spoon and bowl of wood,  
On the door-stone gray and rude!  
O'er me, like a regal tent,  
Cloudy-ribbed, the sunset bent,  
Purple-curtained, fringed with gold,  
Looped in many a wind-swinging fold;  
While for music came the play  
Of the pied frogs' orchestra;  
And, to light the noisy choir,  
Lit the fly his lamp of fire.  
I was monarch: pomp and joy  
Waited on the barefoot boy!

Cheerily, then, my little man,  
Live and laugh, as boyhood can!  
Though the flinty slopes be hard,  
Stubble-speared the new-mown sward,  
Every morn shall lead thee through  
Fresh baptisms of the dew;  
Every evening from thy feet  
Shall the cool wind kiss the heat:  
All too soon these feet must hide  
In the prison cells of pride,  
Lose the freedom of the sod,  
Like a colt's for work be shod,  
Made to tread the mills of toil,  
Up and down in ceaseless moil:  
Happy if their track be found  
Never on forbidden ground;  
Happy if they sink not in  
Quick and treacherous sands of sin.  
Ah, that thou couldst know thy joy,  
Ere it passes, barefoot boy!

1. State briefly in your own words the substance of the preceding part of the poem.

2. What is the subject of lines 1-14, and of lines 15-34?

3. Explain fully the meaning of each of the italicized parts. (For values of answers, see margin of extract.)

4. (a) Show that "pomp and joy waited on the barefoot boy."

(b) Explain why the poet utters the wish expressed in lines 1-4 and in lines 33 and 34.

(c) Point out the bad rhymes in the above extract.

## II.

Bassanio confessed to Portia that he had no fortune, and that his high birth and noble ancestry were all that he could boast of; she, who loved him for his worthy qualities, and had riches enough not to regard wealth in a husband, answered with a graceful modesty, that she would wish herself a thousand times more fair, and ten thousand times more rich, to be more worthy of him; and then the accomplished Portia prettily dispraised herself, and said she was an unlessoned girl, unschooled, unpractised, yet not so old but that she could learn, and that she would commit her gentle spirit to be directed and governed by him in all things; and she said: "Myself and what is mine, to you and yours is now converted. But yesterday, Bassanio, I was the lady of this fair mansion, queen of myself, and mistress over these servants; and now this house, these servants, and myself, are yours, my lord; I give them with this ring:" presenting a ring to Bassanio. Bassanio was so overpowered with gratitude and wonder at the gracious manner in which the rich and noble Portia accepted of a man of his humble fortunes, that he could not express his joy and reverence to the dear lady who so honored him, by anything but broken words of love and thankfulness; and, taking the ring, he vowed never to part with it.

1. What is the subject of the foregoing paragraph?

2. Give a brief account of  
(a) the events that preceded those narrated in the above extract; and

(b) how Bassanio kept his vow never to part with the ring.

3. From what you have read in "The Merchant of Venice," give reasons for believing

(a) that Portia had a "gentle spirit;" and  
(b) that Bassanio had "worthy qualities."

4. Explain the meaning of each of the italicized parts.

5. Explain how it is that the author describes Portia as "accomplished," and she speaks of herself as an "unlessoned girl, unschooled, unpractised." Why does Portia address her lover as "Bassanio" in line 15, but as "my lord" in line 18?

## III.

Quote any one of the following:

The last three stanzas of "To Mary in Heaven."

"The Three Fishers."

The last two stanzas of "Pictures of Memory."

THE HIGH SCHOOL PRIMARY, LEAVING,  
AND UNIVERSITY MATRICULATION.  
ENGLISH POETICAL LITERATURE.

## PRIMARY.

Examiners: { W. J. ALEXANDER, PH.D.  
                  { T. C. L. ARMSTRONG, M.A., LL.B.  
                  { JOHN E. BRYANT, M.A.

NOTE.—Of the questions marked with asterisks, only one is to be answered.

## A.

Dear Harp of my Country! in darkness I found thee.

The cold chain of silence had hung o'er thee long,  
When proudly, my own Island Harp, I unbound thee,

And gave all thy chords to light, freedom and song!

The warm lay of love and the light note of gladness

Have waken'd thy fondest, thy liveliest thrill;  
But, so oft hast thou echo'd the deep sigh of sadness,

That ev'n in thy mirth it will steal from thee still.

Dear Harp of my country! farewell to thy numbers,  
This sweet wreath of song is the last we shall twine!

Go, sleep with the sunshine of fame on thy slumbers.

Till touch'd by some hand less unworthy than mine;

If the pulse of the patriot, soldier, or lover,  
Have throbb'd at our lay, 'tis thy glory alone:  
I was but as the wind, passing heedlessly over,  
And all the wild sweetness I waked was thy own.

1. Explain, in concise and simple language, the meaning of this poem, clause by clause.

\*2. Indicate, in detail, the various devices which give a poetical character to the expression of the third stanza, and which elevate it above the style of simple prose.

Break, break, break,

On thy cold gray stones, O Sea!  
And I would that my tongue could utter  
The thoughts that arise in me.

O well for the fisherman's boy,  
That he shouts with his sister at play!  
O well for the sailor lad,  
That he sings in his boat on the bay!

And the stately ships go on  
To their haven under the hill;  
But O for the touch of a vanish'd hand,  
And the sound of a voice that is still!

Break, break, break,

At the foot of thy crags, O Sea!  
But the tender grace of a day that is dead  
Will never come back to me.

3. Describe briefly, in your own words, the feelings to which these verses give expression, and the circumstances which may have given rise to them.

\*4. Show the reason of each stanza, or, in other words, what each stanza contributes to the expression of the central idea.

\*5. Indicate the scansion of the 1st stanza of extract B.; discuss the metre of the first line.

## C.

One feast, of holy days the crest,  
I, though no Churchman, love to keep,  
All-Saints,—the unknown good that rest  
In God's still memory folded deep,  
The bravely dumb that did their deed,  
And scorned to blot it with a name,  
Men of the plain heroic breed,  
That loved Heaven's silence more than fame.

Such lived not in the past alone,  
But thread to-day the unheeding street,  
And stairs, to Sin and Famine known,  
Sing with the welcome of their feet;  
The den they enter grows a shrine,  
The grimy sash an oriel burns,  
Their cup of water warms like wine,  
Their speech is filled from heavenly urns.

6. State the subject of the whole poem, and of each stanza.

7. (a) Point out the peculiarity of construction in the first four lines.

(b) Explain the meaning of the sixth and of the eighth line of the first stanza of C.

\*8. Explain fully the meaning of the second stanza of C, clause by clause.

## D.

9. Explain clearly and concisely the exact meaning of the italicized words as used in the following passages:—

(a) I pray you think you *question* with a Jew.

(b) For the intent and purpose of the law  
Hath full *relation* to the penalty.

(c) Collects his spades, his *mattocks*, and his hoes.

(d) The pompous strain, the sacerdotal *stole*.

(e) Clinging like *cerements*.

(f) At the *sea-down's* edge.

(g) But just when the *dingles* of April flowers  
Shine with the earliest daffodils.

10. Tell, in your own words, the story EITHER of *Barbara Freitchie*, OR of the *Lord of Burleigh*, reproducing, in as far as possible, the spirit of the original.

## School-Room Methods.

## INVERTING THE DIVISOR.

A TEACHER furnishes the following simple method of explaining to young pupils why the divisor is inverted in division of fractions:

Before attempting to teach division of one fraction by another, you will of course teach how to divide a fraction by an integer, and how to divide an integer by a fraction. The three classes of problems are illustrated below:

I.	II.	III.
$\frac{3}{4} \div 2 = \frac{3}{8}$	$12 \div \frac{2}{3} = 18$	$\frac{8}{9} \div \frac{2}{3} = \frac{4}{3}$
$\frac{3}{4} \div 2 = \frac{3}{8}$	$5 \div \frac{2}{3} = 7\frac{1}{2}$	$\frac{8}{9} \div \frac{2}{3} = \frac{4}{3}$

The first class may be taught by actual illustrations, from which may be deduced the principle that a fraction is divided by dividing its numerator or multiplying its denominator. The second class may be solved at first by changing the dividend to the denomination of the divisor. 36 thirds  $\div$  2 thirds = 18, needs no more explanation than 36 apples  $\div$  2 apples = 18. After a great number of problems have been solved in this way, analyze the numerical process, and show that in every case the number of units in the dividend is multiplied by the denominator, and the product divided by the numerator.

Adopt that rule and use it also when a fraction is made the dividend. After the pupils are made familiar with the process, show, if you please, that the same result is obtained more quickly by inversion of the divisor and multiplication of corresponding terms. Give enough problems, solved in the two ways, to prove that the results are the same and to show why they should be; then give sufficient drill with simple problems to insure facility in the process.—*Educational Gazette*.

## Primary Department.

### HOW TO INTRODUCE ELEMENTARY COMMERCIAL GEOGRAPHY.

ARNOLD ALCOTT.

My title suggests that the products of different countries have to be taught to Primary pupils. Let me tell you how to make this particular branch of Geography, perhaps one of the most interesting lessons of the day. I shall lead to the lesson in a narrative form, from which you may glean suggestions which will be applicable to your class.

"Willie," said Mr. Brown, "as this is your tenth birthday, how would you like to come with me and your sisters down to Fairy Pond, with your little sail-boat?"

"That would be fine fun papa," said Willie, "when shall we go?"

"I shall be ready by one o'clock. So at one o'clock Mr. Brown with his children, Lily, Violet and Willie, started off for Fairy Pond, about a mile distant from their home. On their way Mr. Brown said, "How would you like to play the game of trade?"

"What is that, papa?" asked Violet, who was only seven.

"It's something like playing store, I guess," said Willie.

"Yes," said Mr. Brown, "playing store is very much like playing trade, only on a smaller plan."

"Do you play trade when you are down town all day, papa?" asked Violet.

"Well, my dear, you have called it play, but papa thinks he is doing very hard work, sometimes."

As they had by this time reached the pond, and were eager to commence their game, Mr. Brown accordingly began to make explanations.

"Now, Willie, you go round to the shore on the opposite side of the pond, and we will pretend that this pond is the ocean, and that you live in a country across from us."

N.B. (Incidentally develop the definitions of a pond, and of a shore or beach.)

"Then, as your country has a different climate from ours, the things that grow, or are made in your country will not be the same as in ours, so we will send you some of our things and you will send back to us some of your country's products."

Willie ran quickly round to the other side of the pond, thinking he would never get there. Mr. Brown and his little girls put some wheat into Willie's boat, *The Swift*, and sent it off. It sailed well for a while, but when the breeze stopped for a few moments it stood quite still. And in the meantime, Mr. Brown explained to his children that sailing vessels on the ocean, or the sea, were sometimes stopped or becalmed for a whole week. However, a brisk little breeze came up just then, and *The Swift* landed in safety. Willie unloaded the cargo, and found wheat, which he was glad to get, as it was not plentiful in his land. He then re-loaded the boat with silk, and tea, and coffee and sent her back. In she sailed quite proudly, and Lily and Violet were so delighted to get the tea and coffee, because none grew in their country. Mr. Brown

then asked them in what country Willie must be living then; and they said they guessed he must be in China or in India, which was quite right, papa said. Back again went the little boat laden with cotton and rice. Willie received her gladly, and returned nuts and dates. When they had played in this way for quite a long while, then they all sat down on the edge of the pond or the shore, and Mr. Brown told them that trade was sometimes called commerce, and so they remembered ever after that trade or commerce is the sending of articles from one country to another. At about five o'clock they reached home, and after tea Willie drew a picture on his slate of the pond, and of his boat, *The Swift*. Then, as it was late, they bid good-night to mamma and papa, and went to bed.

N.B. Teachers can use the following as copies in this lesson:—

A pond is fresh water with land all around it.

A shore is the edge of land bordering on the water.

Trade or commerce is the exchange of the articles of one country for those of another.

Get the pupils to make boats of paper and of wood; also, to outline the boat and the pond on paper, then prick and sew with silk or wool.

Try this lesson and see if it is not in accordance with the educational principles:—

Proceed from the particular to the general; Proceed from the known the unknown; Teach one thing at a time; and above all, Learn to do by doing.

### A TALK ABOUT THE LEAVES.

RHODA LEE.

It is nine o'clock on a late September morning. Ten minutes before I had been turning over in my mind the various subjects suitable at this time of the year for object-lessons, but had not succeeded in coming to a decision for the lesson which on my programme was due the following afternoon.

Happy thoughts do come to teachers occasionally though, and a thought suggested by a little scholar on this bright morning opened a field of pleasure and profit to our circle that we have not yet finished exploring. The children had just taken their seats and were waiting for me to wish them the usual "good morning," when a timid little hand was raised at the back of the room holding something green. "What is it, Peter?" I asked. "Sumfin for you," said the little fellow, and started up to my desk to place in my hands a bunch of leaves, maple, poplar, horse-chestnut, and beech, jumbled together without any idea as to arrangement. Expressing my thanks for the gift, I placed the leaves on the table, adding that we would talk about them after prayers, for the thought had just come to me that in my list of lessons and talks I had actually omitted *leaves*, and this was just what I wanted.

Presently we had a few spare minutes, and holding up a maple leaf, I asked for the name of it. Who knew where to find one like it? Like the poplar, beech or mountain-ash? "Children," I said, "to-night

when you go home from school, see how many different kinds of leaves you can find me. Ask father or mother to tell you the names of those you do not know. Bring them, neatly tied together, to-morrow morning, and we will have a talk about them.

Next morning brought faces brimful of interest, and hands full of leaves. Some, indeed, were strangers to me, being leaves of rare shrubs, and to these we paid but little attention any further than giving a word of commendation to those who had found them, but rather confined our study to those commoner ones, such as the oak, maple, chestnut, poplar, and willow. We noted the various edges, veins, stems, colors, and other characteristics. Made drawings of them all. Wonderfully good drawings too for little folks. Accurate? Oh, no! Some of them looked more like tents and flag-poles than leaves of the poplar and maple; but this was a first attempt, and it is never wise to discourage genuinely honest first attempts with fault-finding. I intend to press the leaves and keep them for drawing again, and again.

We closed the lesson with Susan Coolidge's beautiful thought of the conversation between the great tree and the little leaves that were getting so sleepy, ready to nestle down for their long winter nap, under the great, white, cosy blanket.

Henry Ward Beecher has a pretty idea in "Norwood" about the leaves. It is not necessary to give it in full, as you can best adapt it in your own words to suit your pupils. A little leaf had been worrying over what the wind had told her he was trying to do—shake her off the branch. But the old tree comforted her by saying she would never go until she was quite ready. By-and-by, when the October days came, the other leaves began to grow gay in their beautiful yellow, brown, and red dresses. The little leaf wondered why all this happened. "Ah!" said the old tree, "they are getting ready to fly away, and have put on all these bright colors because of joy." The branches whispered somewhat mournfully, "We must keep on our work-clothes because our life is not done, but your garments are for holiday, because your tasks are over." The little leaf then began to wish to go with her brothers and sisters, began to grow so beautiful, along came the wind, caught her up, whirled her over and over, then placed her gently down to begin the long, long dream.

These ideas add interest to the season. The children are led to notice the work going on about them, and all tends to bring us near to Nature's heart. Childish fancies, some may call them, but when there is such beauty in the fancies they are worth preserving.

Make a choice of the most perfect leaves, and, after pressing carefully, arrange them on pasteboard or brown paper. These will be useful charts for illustrations and drawing lessons throughout the term.

This little talk and object-lesson will lead the way to others upon the acorn, chestnut, fir-cone, beech-nut, and rowan-berry. Autumn is full of interest if we know where to look for it. Do not miss it in your school-room.

THE girl who is often lost in admiration easily finds herself in love.—Exchange.

"WHAT does your father do when you're naughty, Johnny?"

"Oh, he applies the faith cure."

"What's that?"

"Well, it's sort of laying on of hands, anyway."—Light.

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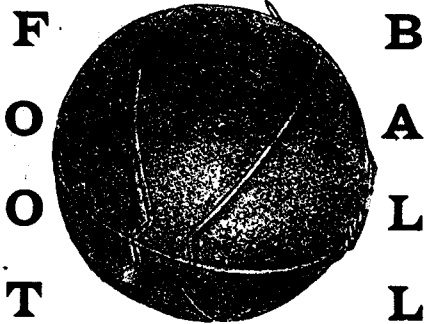
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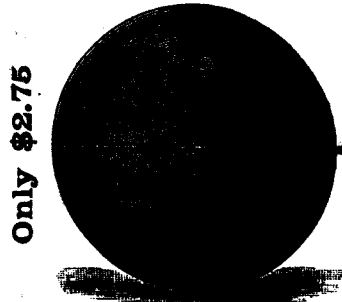
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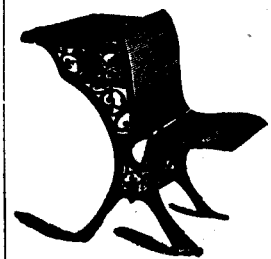


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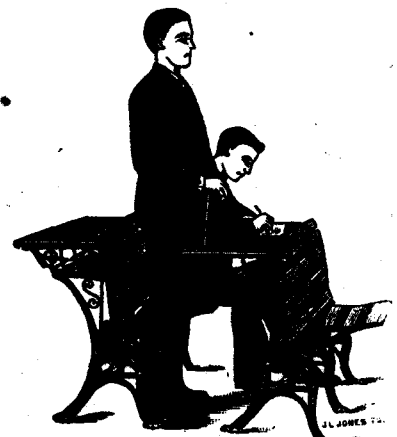
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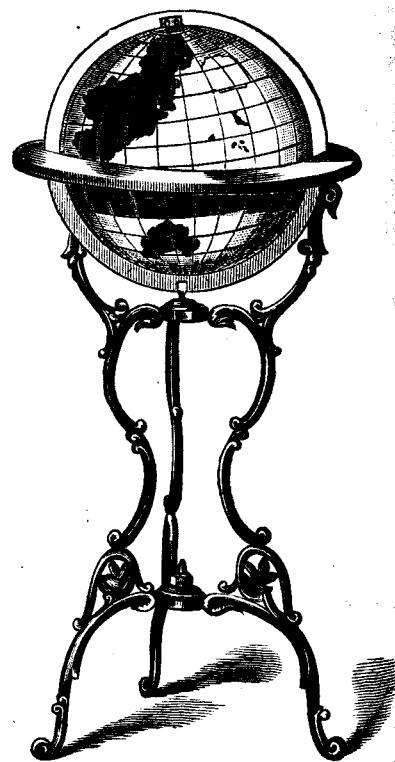
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