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# The Educational Journal

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## Editorial Notes.

A HAPPY NEW YEAR to all our readers!

ARE you really enjoying the work of the schoolroom? While enjoying the holiday rest, as every teacher of course does, can you look forward to the re-opening with pleasurable anticipations? The question is important, for the degree of enjoyment which one finds in his work is a measure of his fitness for it and success in it. It is a question whether anyone, in any profession or sphere of labor, can do the best work of which he is capable until he has learned to find a real pleasure, a positive sense of enjoyment, in the doing of it. Of course, in the teaching profession some are much more happily circumstanced than others. There are many who are overworked and underpaid; many who have to struggle on day after day amidst the most depressing discouragements. We know full well how hard it often is under such circumstances to maintain an even temper and a cheerful deportment, to say nothing of either enthusiasm or delight.

THE "Case in Court," some of the details of which are given in another column, will evoke but one response, not only from teachers, but from all law-abiding citizens. The remarks of the judge who pronounced the sentence, though severe, were just, reasonable, and right. The man who undertakes to take the law in such a case into his own hands, and to correct what he conceives to be the wrongs of his child, in such brutal fashion, needs to be taught, and must be taught, that the law of the stronger is not the law of Canada, and shall not be permitted to become so. It would not be correct to say, as some might, that that law of the stronger is the law which prevailed in the schoolroom when the flogging was done, for the law of the land—approved by the majority, else it would not continue on the statute book—recognizes the teacher as, for the time being, in place of the parent, and endued, for purposes of school-discipline, with the parental right to inflict

moderate corporal chastisement upon the person of the child. There is, we believe, a considerable and increasing number of parents who consider this law and the practice which it sanctions to be wrong in principle. We confess to a good deal of sympathy with that view. In fact, we are pretty confident that the time is not far distant when it will prevail. In the meantime those who seriously and conscientiously object to the practice have no resource, so far as we can see, save to withdraw their children from the schools in which the corporal punishment is used, and find other means of educating them, either in some of those Public Schools, of which there are, we believe, not a few, in which that kind of discipline is not used, or in private schools, meanwhile seeking by constitutional means to have the provisions of the Public Schools Act changed in this particular.

### STILL ONWARD.

COMPARED with the blanket sheets which were the rule in newspaperdom not many years since, and still are in many quarters, the present size and shape of THE EDUCATIONAL JOURNAL are convenience embodied. But the question with the wide-awake, ambitious journalist is not whether such and such a shape and size are relatively neat and convenient, but whether they are absolutely the neatest and most convenient form in which the periodical can be placed in the hands of its readers. Modern newspaper enterprise will be satisfied with nothing less than the ideal. At least such is the spirit which pervades some of the most progressive offices, among which is to be found, as a matter of course, the office from which Canada's oldest, largest, and—may we not, after its long and successful career, say without boasting or violation of modesty?—best, educational periodical is published. In this spirit, as the old year was hastening to its close, and the coming of a new one was being heralded, a council, or rather a series of councils, was held to debate the question whether, all things considered, a still

better shape could not be found for THE JOURNAL. After debate, the answer was an emphatic Yes. It was decided that the page is still too large by half. The ideal form for any periodical of considerable size, appearing not less than once a week, is the magazine form. Everyone knows how much easier to hold and to read is a magazine than a newspaper, and how the smaller page facilitates classification and indexing, making it much less difficult for the reader to find at a glance the article he wants at the moment. The change will be found to be a double improvement in this case from the fact that THE JOURNAL is so comprehensive in its scope and aims, covering the whole broad field which extends from the primary school to the university. It has been our aim, and the steadily increasing favor with which the paper has met year after year affords the best proof that the aim has been successfully attained, to let no number of THE JOURNAL go out which does not contain matter interesting and helpful to teachers of every grade. But with the present twenty folio pages changed to forty book pages the work of arranging will be greatly facilitated. Again, those of our patrons, a large and wise constituency, who wish to preserve and file the numbers of their JOURNAL from year to year, will be able to do so with much greater satisfaction when the result is a book of handy size for reading or reference, which may be bound and placed on their shelves with other volumes.

The sum of the matter, then, is that it is now decided that the old established EDUCATIONAL JOURNAL shall, two weeks hence, January 15th, appear as a neat magazine of forty pages and upwards, as occasion may demand.

Subscribers will, of course, be prepared for an intimation that this change will necessitate some increase in price. They will, therefore, be all the more surprised and gratified to learn that no such increase is proposed, but, on the contrary, the publishers hope, should their reasonable expectations seem likely to be realized, to be able at an early date to make an actual reduction in the subscription price, relying on the increased circulation which is confidently expected to save them from loss.

## English.

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

### READING AND LITERATURE.

EDITOR OF THE EDUCATIONAL JOURNAL :

SIR,—I see by an editorial in a recent issue of your JOURNAL that you heartily agree with the aim and tenor of my letter bearing the above title, which appeared in one of the November numbers of your paper. This is well. I see, however, no reason why you should not also heartily agree with me that neither "how to put the question" nor "the elucidation of the thought" is, or should be, the main object in the teaching and study of literature in our High Schools.

First, then, let us clearly understand what is meant by literature—and I speak now particularly of poetic literature. I always hold that a good definition is not a bad test of a clear and logical mind, and in the discussion as well as the teaching of literature the mind should be both clear and logical.

Let us take Prof. Corson's definition of literature, which, I think, will prove acceptable to anyone. Here it is: "Literature is the expression in letters of the spiritual co-operating with the intellectual man, the former being the *primary dominant* co-efficient." The spiritual element, then, is the primary and chief co-efficient in literature—what we may term the *informing* life of a poem. To assimilate this informing life should be the main object and purpose in the teaching and study of literature in every educational institution in our land, from the primary school to the university. For literature has not one meaning for the boy of twelve years and another for the young man of twenty-five. Its import is constant. The assimilation of this informing life is what DeQuincey terms the literature of power.

The thought which articulates a poem is no doubt important, and the elucidation of it one of the chiefest duties on the part of the teacher, but this elucidation is far from being the main object in the teaching and study of literature. Let the teacher bring all the intellectual power and scholarship possible to his work—so much the better, provided he understand the great aim of all literary studies; but if he rests satisfied with the elucidation of the thought, if he pauses upon the threshold of the temple, he will neither see nor feel any of the glory upon the altar within. Nor will his pupils or students grow in literary power or sympathetic comprehension.

The truth is, the study and interpretation of literature are more subjective than objective. If you make of the study and teaching of literature an objective job, you degrade and materialize it. Perhaps that is the reason why students in our High Schools nowadays always speak of "getting up the matter" of their examinations.

Hear what Prof. Corson has to say of teachers who turn literary studies into merely intellectual work—into the elucidating of the thought: "The opinion is prevalent among educators that clear, definite, intellectual conceptions are the only measure of true education; and that definite impressions, in order to be educating, must be intellectualized as far as possible; that truly to know means this. On the contrary, it may be maintained that in the domain of the spiritual (and to this domain the higher literature primarily belongs) it is all important that indefinite impressions derived, for example, from a great creation of genius,

should long be held in solution, and not be prematurely precipitated into barren abstractions which have no quickening power." How would this advice of Prof. Corson's harmonize with the process of some teachers of literature in the High Schools of Ontario—specialists, too, God save the mark!—who set the pupils at work to paraphrase poems on their slates and on the blackboards for the purpose of elucidating the thought? It will not do to say that this is not done, for I have seen this literature-killing process in operation in one of the leading Collegiate Institutes of Ontario. The teacher had in view the midsummer examinations, and was elucidating the thought for the contest.

It is this desire to teach literature in a purely definite way—in terms of *x* and *y*—that is ruining literary culture in our schools. Any person who understands what literature is and has ever shared in the examination of the literature papers that find their way to the Education Department after the July candidature struggle will quickly realize this. The spirit of literature is neglected, the letter emphasized. We have become method mad. Hamlet the Dane put method in his madness, but we put madness in our method.

As to "how to put the question" being a chief object on the teaching and study of literature such a contention requires not to be answered. If two-thirds of the questions that are "put" in our literature classes were killed off in their conception, it would, I make bold to say, be a happy and blessed thing for true literary culture in our schools. It should be remembered that there is something more than intellect in a boy or girl, and that the true teaching or rather study of literature demands that the spirit be responsive rather than the intellect to the appeals of a literary product. For this reason only a few leading questions should be asked such as will lead to a deeper, fuller, and more sympathetic insight and make clear intellectually any line or lines which may have dimmed the impression or import of the poem as an organic whole. There is no greater evil in our schools to-day in the study of literature than this process of brilliant analytics—mere pedagogical fireworks—to which boys and girls are subjected. It may become a coat or gown of specialism, but it is as a substitute for true literary study, to say the least a very poor thing.

It is therefore plain, I think, that neither "the elucidation of the thought" nor "how to put the question," each valuable in itself, but only valuable as a means of reaching the true end and purpose of all literary study—the assimilation of the informing life of an art product—is, or can be, the main object in the teaching or study of literature.

As to reading, out of which first grew this discussion, I hold it to be an exceedingly important factor in the great work of literary study and literary interpretation. Why? Because you can test by reading in a moment whether or not a student has assimilated the informing life of a poem, and this, and not "the elucidation of the thought" or "putting the question," is the object of objects in the teaching and study of literature. When I speak of reading, I do not mean the mere sham and show of so-called elocutionary training. I mean the sensible, rational, and unobtrusive vocal interpretation of literature without any display of elocutionary gymnastics. In this respect, I heartily agree, Mr. Editor, with your line of thought upon this subject in THE JOURNAL. Two-thirds of our elocution schools are a positive injury to good reading, because they emphasize in their teaching letter and method rather than spirit. Besides, many of their teachers have had no adequate literary training and their work is little more than *vox*

*et praterea nihil*. Perhaps here in Ontario we have never had but one real legitimate reader-interpreter—Mrs. Agnes Knox Black—and she is great by virtue and grace of her own intellect and heart, and not because of any school of elocution.

All really great readers have been great literary scholars, and herein rests the power of Prof. Corson as a vocal interpreter.

I have heard nearly all the great actors and actresses of the last twenty years, such as Booth, Barrett, Barry Sullivan, Salvini, Neilson, Mary Anderson, Marie Wainwright, and Julia Marlowe, and I must affirm that no one of them presented to my mind a Shakespearean character with such clearness and dramatic force as did Prof. Corson, when quietly interpreting Shakespeare to his classes. This power belongs to him because he has studied the spirit of the drama and the spirit of the great masterpieces of poetry, and, by reading aloud every day for a quarter of a century, has developed and cultivated a voice attuned and keyed to the whole gamut of literary thought and expression.

Prof. Corson's little work, to which Mr. Seath called the attention of teachers of reading and literature through the columns of THE JOURNAL, bears the name "The Voice and Spiritual Culture," the very title of which is a rebuke to the method of teaching literature now in vogue in the schools of this Province. I have shown that the conditions which now obtain in the teaching of literature in this Province render useless Prof. Corson's work in the hands of teachers. Nay, more, that we may not hope for better things in our literary studies till we have given to the voice and spiritual culture their true place in the great work of literary interpretation. As to putting the question and the elucidation of the thought being the chief objects in the teaching of literature, all I have to say is that those who have such an aim may hug it fondly to their bosoms. I am content to hold the views of my honored and cherished teacher, Prof. Corson, and will have none of it!

THOMAS O'HAGAN.

## Mathematics.

Communications intended for this department should be written on one side only, and with great distinctness; they should give all questions in full, and refer definitely to the books or other sources of the problems, and they should be addressed to the Editor,

C. CLARKSON, B.A.,  
Seaford, Ont.

### CORRESPONDENCE.

"Time rolls his ceaseless course," and once more we wish all our readers a HAPPY NEW YEAR!

J.H.N., Fonthill, sent three questions from the H.S.A. They have all been solved in this column before. See back numbers or send for private answer.

SUNDERLAND SUBSCRIBER sent a number of solutions and also a problem. Thanks for the assistance. The problem has previously appeared here, but you will find the clue to an elegant method of solution on p. 80, "Problems in Arithmetic," type solution No. 59, or send for private answer.

L.F.S., Elmbank, sent a theorem in geometry, which is given below.

A.R.R., Brockville, thinks that the enlarged edition of the P.S.A. has omitted this:  $5\frac{1}{2} \text{ yd} = 1 \text{ rod}$ ;  $30\frac{1}{2} \text{ sq. yd.} = 1 \text{ sq. yd.}$  The book says so, pp. 32-3. "Do you think," says Lady Alice, "there is anything to be gained by teaching this third form pupils?" Yes, a good deal if you

draw the figures and prove the second statement from the first.

A. E. WELLS, New York, sends the following example of fallacy :

$$x^2 - x^2 = x^2 - x^2$$

$$\therefore x(x-x) = (x+x)(x-x); \therefore x = x+x = 2x;$$

$$\therefore 1=2$$

The false step is taken when we divide by  $x-x$ , or 0, and infer that the quotients are equal. Because  $X \times O = 2X \times O$  is true, it does *not* follow that  $X = 2X$ . See higher algebras for the origin and mathematical significance of zero.

MISS M. MCL. asks: "Are not the answers to questions 2 and 3, Ex. 78, new edition of P.S.A., wrong?" Will some kind friend examine these two questions and send in correct solutions?

T.J. sent a problem in mensuration, which appears after many weeks' delay.

NEMO asks: "What distance on the earth's surface can one see till the horizon shuts in the view?" Ans.—Pretty one, that depends (a) on your sight, (b) on your height, (c) on the light, and (d) on your situation on the surface. If the sun is shining, and your eye is about six feet above the water, you can see three miles over the lake. But on the top of a high hill you can see ten times as far on a clear day. The "dip" is about 8 inches for the first mile,  $4 \times 8$  for the second,  $9 \times 8$  for the third,  $16 \times 8$  for the fourth mile, and so on for all distances in every direction. The rule is, square the number of miles and take the product with 8 inches to find the height of an object that can be seen above the horizon at that distance.  $N \times 8 =$  Height.

L. R. ECKHARDT, Unionville, sends a useful solution intended for the P.S.L. pupils. He has done well to give others the benefit of his teaching experience, and we hope the excellent example will find many followers.

A.M., Toledo, Ont., asks for explanation of a solution given in the November issue, and sends two problems. No name given; no reply possible.

W. MONTGOMERY, Petrolia, has very kindly sent corrections of several solutions that appeared in the October number, 1896. We gladly give them space, and specially request all our friends to imitate the example, and to correct as promptly as possible any errors that may be discovered.

J. W. JOHNSON, F.C.A., principal of the Ontario Business College, Belleville, and author of "The Dominion Accountant," has, at our request, contributed a valuable article on discounting commercial paper. We call special attention to it as a reliable statement of Canadian usage as contrasted with the usage of the United States, which we quoted on p. 188 of the December number. On behalf of our readers we return sincere thanks to Principal Johnson.

### THE AUTHORIZED METHOD OF WORKING DISCOUNT.

BY J. W. JOHNSON, F.C.A., PRINCIPAL ONTARIO BUSINESS COLLEGE, BELLEVILLE.

The question of discount has been, and still is, a source of trouble and uncertainty in examinations. I wish to point out to teachers and pupils an absolutely safe guide in working questions in that subject.

Discount is not an abstract question, nor a theory; it is a matter of common, everyday practice with bankers and business men. We have simply to ascertain their custom and we have the authorized method. The common law in regard to any business matter is the custom among merchants and bankers, which is known as the "Law

Merchant" (Lex Mercatoria). Long before there was any statute law respecting promissory notes and bills of exchange, there was the common law, based upon the "Law Merchant." The practice of the banks in working questions in discount may be regarded as the common law with respect to that matter.

That practice is illustrated in the following examples: I am discounting a note of \$560 (borrowing money, with the note as security) at a bank at the rate 7% per annum. The note is made at three months from January 5th, and I discount it on that date. As there are three days of grace on all promissory notes and bills of exchange, not payable on demand, throughout Canada, this note will fall due legally on April 8th. The number of days between January 5th and April 8th is 93. The discount on the note, that is to say, the amount that will be deducted from its face for the loan of the money at the time I borrow it, is the simple interest on \$560 for 93 days at the rate of 7% per annum. The interest on \$560 for a year at 7% is \$39.20; the interest for 93 days is  $\frac{93}{365}$  of \$39.20 = \$9.98.

Again, I am discounting a note of \$620, made at three months from June 15th, on the 5th of July at the rate of  $6\frac{1}{2}\%$  per annum. The note will mature on September 18th; the time that it has yet to run (from July 5th to Sept. 18th) is 75 days. The interest on \$620 for a year at  $6\frac{1}{2}\%$  is \$40.30; the interest for 75 days is  $\frac{75}{365}$  of \$40.30 = \$8.28.

It will be observed that in discounting the first thing to do is to ascertain how many days the instrument has to run from the date of discounting to the date of maturity. Then find the interest on the face of the note for a year, and then for the fraction of a year, the denominator always being 365.

The trouble with candidates for examination has perhaps arisen from not clearly understanding the custom of our banks. They are apt to find the time in months and parts of a month, and calculate the discount for so many twelfths of a year, whereas the banks invariably find the exact number of days from the date of discounting to the maturity of the note, and always allow 365 days to the year.

### SOLUTIONS.

A. An employer remits his agent 1,500 hams, each weighing 25 lbs., which he sells at 10c. a lb. After retaining his commission at 2%, and \$75 for freight, he is instructed to invest the proceeds in tea at 45c. a lb., after retaining his commission at  $1\frac{1}{2}\%$ , and prepaying freight at 20c. per cwt. How many lbs. of tea does he ship? H. S. A., p. 151, Q. 28.

Solution, intended for P.S.L. pupils, by L. R. ECKART, Unionville, Ont.

(a) Employer remits agent 1,500 hams, each weighing 25 lbs. =

$$\therefore \text{weight} = 37,500 \text{ lbs., or } 375 \text{ cwt.}$$

$$\text{Agent sells them @ } 10\text{c. a lb.} = \$3,750.$$

$$\text{Agent's commission} = 2\% = \frac{2}{100} \text{ of } 3,750 = \$75.$$

$$\text{Freight} = \$75$$

$$\therefore \text{total expenses} = \$150.$$

$$\text{Net proceeds} = \$3,600.$$

$$(b) \text{Gross investment} = \$3,600.$$

$$\text{Let net investment} = 100\%$$

$$\text{Commission} = 1\frac{1}{2}\%$$

$$\text{Now, tea} = 45\text{c. a lb., or } \$45 \text{ per cwt.}$$

$$\therefore \text{on } \$45 \text{ he pays } 20\text{c. freight.}$$

$$\text{" } \$1 \text{ " or } \frac{1}{100} \text{c. " or } \frac{1}{100}\%$$

$$\text{Then the freight is the same as an extra } \frac{1}{100}\%$$

$$\therefore \text{gross investment} = 100\% + 1\frac{1}{2}\% + \frac{1}{100}\%$$

$$= 101\frac{1}{8}\% = \$3,600$$

$$\therefore 100\%, \text{ or net investment} = \frac{100}{101\frac{1}{8}} \times \$3,600$$

$$\therefore \text{lbs. of tea @ } 45\text{c.} = 7,847\frac{1}{8} \text{ lbs.}$$

B. On Jan. 15th a note for \$1,234.50 is drawn at 90 days, and discounted Feb. 10th @ 6% per annum. Find the proceeds. (See JOURNAL for October, 1896, pp. 155-6.)

Solution by W. MONTGOMERY, Petrolia.

Time, 90 days; note has run 26 days, and has 64 days yet to run, to which add 3 days' grace = 67 days.

$$\text{Proceeds} = \$1,234.50 - (1234.50 \times \frac{67}{365} \times \frac{67}{365}) = \$1,220.90.$$

N.B.—The note appended on p. 156, October, 1896, was somewhat misleading. All the banks in Canada count the exact number of days, and take 365 days to the year for all terms, long and short. See article by J. W. Johnson, F.C.A., in this issue. In many cities and States of the American Union 360 days is taken = 1 year, but not in all. In Canada 365 days = 1 year is the *uniform rule*, but many of our examination papers contain questions which reckon discount by months, or take 360 days = 1 year, with or *without* days of grace. The confusion thus produced is regrettable. See H.S.A., p. 349, Q. 9; p. 352, Q. 3; p. 358, Q. 3, etc., in former examination papers. We will forgive our examiners if they will cease *now* to offend against established commercial usage, to the great perplexity and uncertainty of teachers and students. All such questions as those quoted are essentially ambiguous, for the answer expected by the examiner is *not* the answer that any banker would accept.

C. On Jan. 14th, 1896, a note for \$1,098 is drawn at 90 days, with interest at 8%. Find the proceeds of the note when discounted at a bank on March 12th, 1896, at 10%. (Year = 366 days.) (See JOURNAL for October, 1896, p. 156.) The solution there given makes the proceeds \$1,109.22.

Solution by W.M., Petrolia.

$$\text{Interest} = \$1,098 \times \frac{8}{100} \times \frac{90}{366} = \$24.72$$

$$\therefore \text{amount due at maturity} = \$1,122.72.$$

$$\text{Discount} = \$1,122.72 \times \frac{10}{100} \times \frac{100}{366} = \$13.80$$

$$\therefore \text{proceeds} = \$1,122.72 - 13.80 = \$1,108.92.$$

I think it is misleading to insert "year = 366 days," for the practice in every case is to take a year = 365 days.

N.B.—Of course, neither of these answers is the correct one from the banker's standpoint. He would substitute 365 for 366. "Use and wont" have settled the mercantile law.

D. What rate of interest is made by a bank that discounts a 90-day note at 6% per annum? (See JOURNAL, Oct. 1st, 1896, p. 155.) The solution given on p. 156 simply takes the rate per annum, which gives the banker  $6\frac{381}{100}\%$ .

Solution by MR. MONTGOMERY, Petrolia.

$$\text{Bank discount} = \frac{6}{100} \times \frac{90}{365} \text{ of face value}$$

$$= \frac{27}{1425} \text{ " " " "}$$

$$\therefore \text{on } \frac{100}{1425} \text{ face value bank gets } \frac{27}{1425} \text{ face value for 93 days.}$$

$$\text{On face value bank gets } \frac{109.5}{1425} \text{ face value for 1 year.}$$

$$\text{That is, } 6\frac{109.5}{1425} = 6.093\%.$$

REMARK.—We hope that the preceding solutions, together with Principal Johnson's article, will be of service to many teachers and to all our University and Departmental examiners, and that we have seen the end of the uncertainty that has hung over problems in bank discount. If the authors of the High School and Public School text-books on bookkeeping and arithmetic would take the hint and insert *positive* and *explicit* statements to define commercial usage in Canada, they would render valuable service. Every United States text-book that we have seen is clear and explicit on this point, but our books are silent on the question, and our examination papers have produced the impression that we have no uniform rule in the Dominion.

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## Editorial.

### THE NEW REGULATIONS.

(SECOND ARTICLE.)

#### THE HIGH SCHOOLS.

(1) The plans of every High School hereafter erected, and the plans and site of every High School hereafter established, shall be subject to the approval of the Minister of Education.

(2) In the distribution of the grant drawing models are recognized, \$50 being the maximum in the case of two-masters schools, and \$100 in the case of others.

(3) The course of study remains unchanged, except that Geometry is now a subject in Form I., and a special course has been arranged for the Commercial diploma. The time prescribed for Writing is reduced to twice a week during the first term, provision being, however, required for practice in school hours; and, during the months of May, June, September, October, and November, the principal may substitute for drill, etc., not more than twice a week, such sports and games as he may approve of.

(4) The examination prescriptions remain unchanged. There will, however, be two papers in Biology in Form IV. The options for the different examinations are the same as before.

(5) As already intimated, the Non-Professional qualification for specialist's

standing after 1897 is to be an honor degree. As this Regulation is of interest to many we give it in full. It will be noticed that a modification of the former Regulation has been introduced in the last sentence.

Any person who obtains an honor degree in the department of English and History, Moderns and History, Classics, Mathematics or Science, as specified in the calendars of any University of Ontario and accepted by the Education Department, shall be entitled to the non-professional qualification of a specialist in such department. A graduate who has not taken an honor degree in one of the above courses shall be entitled to the non-professional standing of a specialist on submitting to the Department of Education a certificate from the Registrar of the University that he has passed, subsequent to graduation, the examinations prescribed for each year of the honor course of the department for which he seeks to be recognized as a specialist, and which he has not already passed in his undergraduate course; or any examination which is recommended by the University as equivalent thereto and accepted as such by the Education Department.

### THE TRAINING SCHOOLS.

#### KINDERGARTENS.

The qualifications for directors and assistants have been modified as follows:

The examination for directors shall include Psychology and the general principles of Froebel's system; History of Education; Theory and Practice of the Gifts and Occupations; Mutter and Kose-Lieder; Botany and Natural History; Miscellaneous Topics, including discipline and methods of morning talks, each 100; Practical Teaching, 500; Bookwork, 400. There shall also be a sessional examination in Music, Drawing, and Physical Culture, to be reported by the principal to the Examiners at the final examination. The examination for assistants shall include the Theory and Practice of the Gifts (two papers); Theory and Practice of the Occupations (one paper); Miscellaneous Topics, including the general principles of Froebel's system and their application to songs and games, elementary science, morning talks and discipline (one paper), each paper, 100; Bookwork, 400. Any director sending up candidates to the examination for assistants' certificates shall certify that the pease-work and modelling have been satisfactorily completed.

#### MODEL SCHOOLS.

We give in full the amended Regulations as to Model Schools:

(1) The Board of Examiners for every county shall, and the trustees of any city, with the approval of the Minister of Education, may set apart at least one Public School for the professional training of Third Class teachers. The principal of such school shall be the holder of a First Class certificate from the Education Department, and shall have at least three years' experience as a Public School

teacher. In every Model School there shall be at least three assistants on the staff who shall be the holders of First or Second Class certificates. The county Board of Examiners shall distribute the teachers in training among the County Model Schools as may be deemed expedient.

(2) The Model School term shall begin on the second of September and shall close on the fifteenth day of December. During the term the principal of the Public School to which the Model School is attached shall be relieved of all Public School duties except the management and supervision of the Public School. The assistants shall give such instruction to the teachers-in-training as may be required by the principal or by the Regulations of the Education Department. There shall be a room for the exclusive use of the teachers-in-training either in the Public School building or elsewhere equally convenient.

(3) Application for admission to a Model School shall be made to the Inspector not later than the twenty-fifth of August. Any person who has Primary or a higher standard, or who is considered eligible by the Board of Examiners for a district certificate, and who will be eighteen years of age before the close of the term, may be admitted as a teacher-in-training. The teachers-in-training shall be subject to the discipline of the principal, with an appeal, in case of dispute, to the chairman of the County Board of Examiners. Boards of Trustees may impose a tuition fee, not exceeding \$5, on each teacher-in-training.

(4) The course of study in Model Schools shall consist of instruction in School Management, to be valued for examination purposes at 100; instruction in the Science of Education, 100; instruction in the best methods of teaching all the subjects on the Public School Course of Study, two papers, 100 each; instruction in the School Law and Regulations so far as they relate to the duties of teachers and pupils; instruction in School Hygiene, Music, and Physical Culture, 50 each; and such practice in teaching as will cultivate correct methods of presenting subjects to a class and develop the art of school government. The final examination of the Education Department will be limited to School Management, the Science of Education, Methods, School Hygiene, and the School Law and Regulations.

(5) The principal of the school shall submit to the Board of Examiners a report with respect to the standing of every teacher-in-training, having regard to his conduct during the session, his aptitude as a teacher, his powers of discipline and government in the schoolroom, and such other qualities as in the opinion of the principal are necessary to a successful teacher. The principal shall also report the standing of each teacher-in-training in the subjects of Hygiene, Music, and Physical Culture as determined by at least one sessional examination. These reports shall be considered by the Board of Examiners at the final examination in esti-

inating the standing of the candidates for a certificate in all cases of doubt.

(6) During the last week of the session, the County Board of Examiners shall require each teacher-in-training to teach in the presence of such members of the Board as may be appointed for that purpose two lessons of twenty minutes each, one of which shall be assigned by the presiding examiner one day before, and the other forty minutes before it is to be taught. Each lesson shall be valued at 100, shall be appraised by different examiners, and shall not be taught in the same form nor in the same subject. The Board of Examiners shall also submit the candidates to a practical test of their ability to place upon the blackboard with neatness and despatch any exercise for pupils they may deem expedient. The time allowed for such a test shall not exceed ten minutes, and the valuation 50.

(7) Any teacher-in-training having Primary standing who obtains forty per cent. of the marks assigned to each subject (including practical teaching), and sixty per cent. of the aggregate, shall be awarded a Third Class certificate valid for three years. At the request of the County Board, and with the permission of the Minister of Education, a certificate for a shorter period and valid only within the jurisdiction of the County Board, to be known as a district certificate, may be awarded to teachers-in-training who obtain a lower percentage, or to such other persons whose non-professional standing would entitle them only to district certificates. The Board may reject any candidate whose scholarship appears to be defective. The decision of the Board with respect to the examination shall be final.

#### CURRENT HISTORY.

Perhaps the most important event in Canadian political history since our last notes were written was the by-election in Cornwall. This constituency had been made vacant by the death of the late member, Dr. Bergin. Dr. Bergin had been elected in June last, as a supporter of the late Government, by a plurality of several hundreds. Mr. Snetsinger has now been returned as a supporter of the present Government, by a majority of a little over six hundred over his Conservative opponent. (This use of the term *plurality* to denote the excess of the votes cast for one candidate over those given for any other, in cases where more than two were in the field, is common in the United States, and seems to be rapidly coming into use in Canada. As it is a convenient term, it may be well to employ it.)

In the general election there were three candidates in Cornwall, viz., a Conservative, a Liberal, and a Patron. The first, the late Dr. Bergin, who was elected, received a plurality of votes, but not a majority of the whole. The Liberal, who was then defeated, is now elected with the large majority above named over his Conservative opponent. We do not purpose

to discuss party politics in these columns, and refer to this case only because it is generally regarded as the verdict, on a question of great public importance, of the people of a constituency which is thought to be a specially representative one, the population being composed of Catholics and Protestants in about the same proportions in which they stand to each other in the Dominion as a whole. The races also are fairly represented, the Catholic parts of the constituency being composed of Scotch and Irish, as well as French-Canadians. The election was contested specially on the Manitoba School question, and the answer is accepted by most as meaning emphatically, "The school question is settled, and we do not want the settlement disturbed," and as in this respect voicing the sentiment of the great majority of Canadians all over the Dominion.

The Foreign Relations Committee of the Senate of the United States has reported in favor of a resolution which is quite out of chord with the cautious and judicial tone of the President's message. The resolution referred to, known as "The Cameron Resolution," from the name of its proposer, is strongly in favor of recognizing the independence of Cuba, and of the friendly interposition of the United States with the Government of Spain, "to bring to a close the war between Spain and Cuba." The resolution was laid on the table of the Senate, to be taken into consideration after the holidays. The feeling of the Senate was thought at first to be decidedly in favor of it, but indications are now thought to point to a less radical policy. Even should the Senate approve, the question would be by no means decided. The resolution would have to go before the House of Representatives, where it would probably be decisively defeated. But even should it pass both Houses of Congress, it is almost certain that the Executive branch of the Government, that is, the President, would veto it.

An ordinary bill, if vetoed by the President, can be re-affirmed by a two-thirds vote of Congress, and put into operation over the veto. Opinion seems to be divided as to whether the same course could be followed in regard to such a resolution as that in question. It is maintained by some high authorities that the matter belongs so exclusively to the Executive department that the President's veto must be final, and so prevent intervention until the end of his term, in March. It is not unlikely that the new President, then to be inaugurated, will continue the same policy in this particular. So it will be seen that, in the face of so many obstacles—the opposition in the Senate, the opposition in the House, the President's opposition, the difficulty of procuring a two-thirds vote over his veto, and the serious doubt if the will of the President is not supreme in this matter—it is extremely unlikely that any action looking to interference with Cuban affairs

will be taken by the United States, for some months to come, at least.

The death of Maceo, probably the bravest and ablest leader of the Cuban insurgents, has, it is believed, dealt a very serious blow to the insurrectionists. His death has been very variously reported, and was for a time flatly denied. The first news from Spanish official sources of his death in a battle, or rather skirmish, brought on, seemingly, by his having either in a spirit of bravado, or for purposes of strategy, attempted to cross the *trocha*, or military line, within which the Spanish General has undertaken to shut in the insurgent troops, was quickly followed by insurgent statements declaring that he had been lured by a Spanish official to a pretended conference under a flag of truce, and then basely assassinated. Subsequent rumors have had it that the report of his death was a Spanish canard, and that the famous rebel leader was still at the head of his troops, skilfully and effectively opposing the progress of the Spanish forces. The question can hardly be said to be absolutely decided even yet, but the probabilities seem altogether in favor of the view that Maceo was killed in battle, that the insurgents feel his loss very keenly, and that they are being gradually crushed under the vastly superior weight of their Spanish assailants.

Though there is little observable change in the European situation, rumor is still persistent in asserting that consultations are in progress looking to the effective intervention of Great Britain, Russia, and France at an early date. The contemplated action is believed to be in the direction of compulsory reforms carried on under the supervision of the Powers named. Sufficient evidence has long been had that it is absolutely useless to place any reliance on the Sultan's promises or protestations. When specific action is agreed on, it is thought likely that Russia will be commissioned to take whatever steps may be thought necessary in order to ensure its being carried out by the Turkish Government and officials. It is possible, according to another rumor, that the three Powers may unite in sending a number of warships to anchor before Constantinople, thus bringing to bear the only kind of suasion which can be relied on to move his Moslem Majesty.

An agitation is being carried on in the province of Quebec, looking to radical changes and improvements in the Public Schools of that province. This is one of the cases in which party rivalry seems likely to be productive of good. The opposition are, we believe, making school reform one of the planks in their platform, on which they hope to win at the approaching election. On the other hand, the Government are, it is said, quite ready to introduce and carry through important reforms in the educational system. Consequently, marked improvements may be hoped for in the near future.

## Entrance Department.

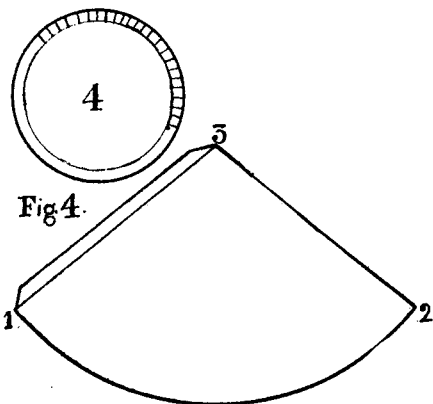
### DRAWING.

BY A. C. CASSELMAN.

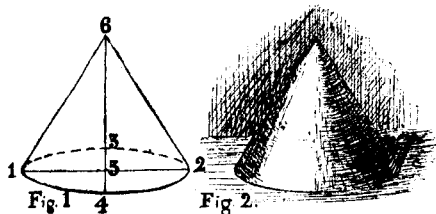
#### THE RIGHT CONE.

Present the cone to the view of the class. Study its faces as to *kind, number, shape, and position*. Get the definition of the cone from the statements made about its faces.

A cone is a solid bounded by a circular plane face, and a curved face which tapers to a point in the axis.



Cover the curved face of a cone, and no more, with a piece of paper. Fasten the paper in position with some mucilage. Cut it open by a straight cut from the apex to the base, unroll it and note its shape. It is a *sector* of a circle. Each pupil should make a paper model of the cone similar to Fig. 4. The curved part of the sector 12 is equal in length to the circumference of the smaller circle 4. Draw another circumference a little larger. Cut the circular annulus or ring up into a large number of parts. Fold these alternately to one side and the other. Half of these are to be folded inside the curved part and the other half on the outside. Fasten them in position by a little mucilage. The flap 31 is to be folded inside of 32. Every pupil should make a paper model of the cone. It is a manual training that is of great benefit to all.



Place the cone in the position as shown in Fig. 2. Draw the cone as it appears. Get the apparent shape of the base as explained in the paper on the vertical cylinder. Find the apex 6 in Fig. 1. From 6 draw straight lines to *touch* the ellipse that represents the circular base. The lines touch the ellipse a little beyond the long axis of the ellipse.

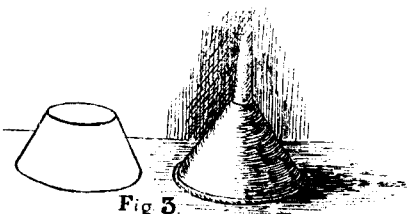


Fig. 3 shows the part of a cone that remains when a smaller cone is cut away by a plane parallel to the base. Such a part is called a *frustum* of a cone. Note the spelling and pronunciation of frustum. The funnel is the application of two frustums.

Place the cone in several positions resting on its curved face, and make drawings of it in each position.

Other objects based on the cone are, a tent, a parsnip, a carrot, a cornucopia, shells, and a wine glass.

Objects like a frustum are a wooden pail, a tub, a pan, a flower pot and its saucer, and a lampshade.

Study each object separately. Each will recall some scene that the pupils should be encouraged to describe.

Make drawings of several objects like a cone.

If the teacher uses some effort, the school will soon be supplied with a large number of excellent drawing models.

### GRAMMAR.

The following questions will be fully answered in our next number. We call attention to the treatment of the noun in another column. Use as much of it as you consider necessary for Entrance work. Have you tried dividing the parsing of a word into four parts as suggested? If you find it to be helpful, let us know.

*Why should not these three great branches of the family, forming one grand whole, proudly flourish under different systems of government?*

(a) Analyze the above fully.

(b) Parse the italicized words.

(c) Select all the phrases in the extract, other than the prepositional phrases, classify them and show clearly their function.

#### ANSWERS TO QUESTIONS IN OUR LAST ISSUE.

*When I landed, one of the very few differences that I observed between the people whom I had left and those among whom I had come was a calmer and more placid expression of countenance.*  
—Richard Grant White.

#### I. ANALYSIS.

(a) Clause—When I landed.

Kind and connection—Adverbial of time, modifying "observed."

Function—Used adverbially to modify "observed."

(b) Clause—That I observed between the people whom I had left and those among whom I had come.

Kind and connection—Adjectival, restrictive, modifying "differences."

Function—Used appositively, that is, loosely connected with "differences."

(c) Clause—Whom I had left.

Kind and connection—Adjectival, restrictive, modifying "people."

Function—Used appositively, that is, loosely connected with "people."

(d) Clause—Among whom I had come.

Kind and connection—Adjectival, restrictive, modifying "those."

Functions—Used appositively, that is, loosely connected with "those."

#### II. PARSING.

*When.* Relation—Observed when landed.

Function—An adverbial conjunction, joining the clauses of which the verbs are "observed" and "landed."

*One.* Relation—One was.

Function—A pronoun, used as the subject of the verb "was."

*That.* Relation—Observed that.

Function—A relative pronoun, used objectively as the object of "observed."

*Between.* Relation—Observed between people.

Function—A preposition, joining "observed" and "people."

*Whom.* Relation—Had left whom.

Function—A relative pronoun, used objectively as the object of "had left."

*And.* Relation—Had left and had come.

Function—A conjunction, joining the clauses of which the verbs are "had left" and "had come."

*Among.* Relation—Had come among whom.

Function—A preposition, joining "had come" and "whom."

*Expression.* Relation—Was expression.

Function—A noun used predicatively, completing the verb "was," and meaning the same as the subject "one."

#### III. PHRASES.

(a) Phrase—Of the very few differences.

Kind and connection—Adjectival, descriptive, modifying "one."

(b) Phrase—Between the people whom I had left, and those among whom I had come.

Kind and connection—Adverbial of place, modifying "observed."

(c) Phrase—Among whom.

Kind and connection—Adverbial of place, modifying "had come."

(d) Phrase—Of countenances.

Kind and connection—Adjectival, restrictive, modifying "expression."

To Our Many Friends



**WE** wish you all a Happy and Prosperous New Year. Thanking you for the many kind favors of the past,

We Remain, Yours Truly,

Fred G. Steinberger & Co., 37 Richmond St. West, Toronto

## ARITHMETIC.

Below we give eight problems in arithmetic, carefully graded, suitable for the Entrance class :

1. Define Factor, Multiple, and Measure of a number, and state what the product of the G.C.M. and the L.C.M. of two numbers is equal to.

2. Find the value of  $7\frac{2}{3}$  of  $\frac{1}{10 + \frac{1}{3 + \frac{1}{3}}}$  of \$210.10.

3. What weight must be multiplied by  $\frac{2\frac{3}{4}}{6\frac{1}{2}}$  that the product may equal 1 ton?

4. Divide the product of 7.5 and .075 by the difference of .075 and .15, and take the quotient from  $100\frac{1}{8}$ . Give the result in the form of a decimal.

5. A. can do a piece of work in  $\frac{3}{4}$  of a day, B. can do it in  $\frac{1}{2}$  of a day, and C. can do it in 1 day. In what time can all do it, working together?

6. A man sold a house and lot for \$3,200, losing thereby 10 per cent. on the cost. For what should he have sold it in order to have gained  $12\frac{1}{2}$  per cent.?

7. What principal will amount to \$1,200 in  $4\frac{1}{2}$  years, at 8 per cent. per annum, simple interest?

8. What would it cost to paper a room  $20\frac{1}{2}$  ft. long, 15 ft. 6 in. wide, and 12 ft. high, with paper 18 in. wide, deducting 15 square yards for doors and windows at \$1.20 per roll (a roll being 8 yards long)?

## ANSWERS TO PROBLEMS IN OUR LAST ISSUE.

(1)  $48\frac{3}{8}$  cords; (2) 116 suits; (3)  $21\frac{3}{4}$  acres in corn,  $21\frac{3}{4}$  acres in potatoes,  $7\frac{1}{2}$  acres in wheat; (4)  $214\frac{3}{4}$  barrels. (5) We find how many groups of 110 feet each there are in 3,680 feet. (6) 1,980 pickets, if there are two pickets used touching each other at each corner; (7) \$4; (8) 96,768 bricks; (9) book work. (10) Draw a square, and mark two sides off in five and one-half equal divisions; draw lines from these divisions parallel to the sides of the original square, and it will be readily seen that there are  $30\frac{1}{4}$  blocks having for side one of these divisions. Now call the side of original square one rod, and the blocks become square yards, or  $30\frac{1}{4}$  square yards in a square rod.

## LITERATURE.—FROM "THE DESERTED VILLAGE."

## ANSWERS TO QUESTIONS IN OUR LAST ISSUE.

## DIVISION III.

"Copse." A growth of shrubs and bushes.

"Garden smiled." A personal metaphor; the attribute of a person is ascribed to the garden. The garden was as attractive and beautiful as a smiling person.

"There." The effect of the use of this word is to recall the two preceding lines, and thus add to the clearness of the connection of "near yonder copse," etc., to "preacher's modest mansion rose."

"Torn shrubs the place disclose." Torn shrubs are straggling shrubs. The word "disclose" shows that the place where the preacher's house stood is still marked by these straggling shrubs.

"Passing rich." Passing is here used for surpassing. Poets are fond of shortening words, if possible, as 'mid for amidst.

"Godly race." This means a pious life.

"Nor e'er . . . varying hour." He had not adopted the changeable fashion of the times, so that he might win favor.

"Far other aims." His aim was to do good to others.

"More bent . . . than to rise." More inclined to help the wretched than to seek his own advancement.

"Vagrant train." The members of the train are enumerated, as the beggar, the spendthrift, the soldier. The dash marks an abrupt break in the sense; the general statement, "his house was known," etc., is followed by an enumeration of particulars, and these parts are separated by the dash.

"Chid their wanderings." Reproved their misdeeds.

"Long remembered beggar." The beggar is remembered from having called so regularly for such a long time. He is described as "beard descending swept his aged breast," to give the reader an impression of his great age, so that you will not despise him for begging, as you would an able-bodied young man.

"No longer proud." Shows the strong contrast between the "spendthrift's" present condition and his past condition, when he was well off and proud.

"Broken soldier." The word broken shows us the wrecked condition of the man physically.

"Pleased with his guests." Pleased means that he was more interested in his guests than that he was entertained by them.

"Careless their merits." Without any desire to "scan" or look closely into their "merits" or their "faults."

"Pity gave ere charity began." He pitied and sympathized with them, and, therefore, did not look upon his gifts to them as charity.

"Thus." Clearness is gained by this word. It sums up all that has been said from "His house was known" to "charity began."

"His failings leaned to virtue's side." If he had any faults they were mistakes made through over-kindness of heart.

"As a bird . . . led the way." The preacher is here compared to a mother bird teaching her young to fly. The anxiety of the mother bird to have her young fly is similar to the preacher's anxiety to have the "vagrant train" lead a higher life. Then both are full of love, kindness, and parental care, and each tries every possible means to secure the desired end. The name of this figure is simile.

"Parting life." Means departing life. This is a shortened poetic form, and gives us pleasure through the mental stimulus which we receive from the surprise at seeing this uncommon form. See "passing rich."

"By turns dismayed." This means that the dying person spoken of in "parting life" was overcome or "dismayed," sometimes by "sorrow," at other times by "guilt," and, again, by physical "pain."

"Champion." He is spoken of as a champion because he upheld the cause of religion.

"Meek and unaffected grace." With an unassuming, reverent, and humble manner.

"Look adorned." His manner was suitable to and increased the solemnity of the church service.

"Prevailed with double sway." Truth is in itself mighty and convincing, but truth heard from the lips of this man was made more convincing by his eloquence; hence prevailed with *double* sway.

"Service past." Service is a noun in the absolute construction. See H.S. Grammar, chap. xiii., secs. 79 and 80.

"Steady zeal." Means with earnest desire.

"Endearing wile." Most appropriately describes

the simple, artless ways of children, which prove so captivating.

"As some tall cliff . . . on its head." The preacher is here compared to a cliff. The comparison is a pleasing one because, although the man and the cliff are not at all alike, "widely different conceptions," still there are many points of resemblance between them which the mind finds delight in detecting. In a metaphor or simile "the greatest poetry results from maximum remove with maximum similarity."

In this figure you see the preacher, a man who, while in this world surrounded by sorrow and trouble and guilt, kept his mind fixed on heaven and its "eternal sunshine," just as the cliff which rose from the valley had darkness at its base and clouds encircling its "breast," yet kept its top in the clear light of day.

## DIVISION IV.

"Straggling fence." This was probably a hedge which, through inattention, had become broken, untrimmed, and irregular.

"Blossomed furze unprofitably gay." "Blossomed furze" was a spring shrub having many branches and yellow flowers. The flowers are said to be "unprofitably gay" because, as the village was now deserted, there were none there to "profit" or be pleased by them.

"Noisy mansion." This is an example of "transferred epithet"; the attribute "noisy" belongs to the children, and is here transferred to the "mansion," school.

"I knew him well, and every truant knew." Emphasize "I" and "truant." The author, among other truants, had experienced the justice which the teacher meted out to those who failed to attend school when sent.

"Boding tremblers." Boding, another shortened poetic form for foreboding. "Tremblers" brings out the pupils' fear for the stern master.

"Day's disasters in his morning face." If he looked cross in the morning they expected to be punished during the day.

"Counterfeited glee." They pretended to be amused with his jokes to keep him in good temper.

"Full well . . . he frowned." The best chosen words in these lines are "busy" and "dismal." Such words are descriptive adjectives. See H.S. Grammar, chap. vii., sec. 3. They may be left out of the sentence without materially affecting the sense. In this they differ from restrictive adjectives. In literature such words are called "ornamental epithets." They give "picturesqueness" to a poem. Read the lines aloud, omitting the words "busy" and "dismal," and note the effect.

"The love . . . in fault." This means that the master, if severe, was not so from evil temper, but from a desire that his pupils should learn.

"Knew." The dash marks an abrupt change in sense. See Division iii. above.

"Terms and tides presage." Terms were the sessions of the colleges and courts of law. Tides were the movable feasts of the year.

"Gauge." To measure the capacity of casks.

"For even . . . argue still." The subtlety of the humor in this line adds to its force. The figure of the teacher arguing away after every argument of his had been overthrown is very ludicrous. This is intensified by the open-mouthed wonder of the rustics, "That one small head could carry all he knew."

"Many a time he triumphed." Where many a time he had prevailed over his enemies or his obstacles.



## THE LANDING OF THE PILGRIMS.

QUESTIONS TO BE ANSWERED IN OUR NEXT ISSUE.

1. Give in a single sentence the theme of this poem.

2. Give the subject of each stanza, and show that a natural order has been followed in the development of the thought.

## STANZA I.

Read the first two lines omitting the words "breaking," "high," "stern and rock-bound," "stormy," and "giant." What is the effect? What are such words called? What is gained by their use?

"Breaking waves." What is meant?

"Stern and rock-bound coast." Describe the appearance of the coast in your own words. Is it applicable to the coast on which the pilgrims landed?

"Woods." Which do you prefer here, "woods" or "trees"?

"Stormy sky." Describe a stormy sky.

"Giant branches tossed." What picture does this call up to you?

"Heavy night hung dark." What is meant?

"O'er." What is this an example of? Name other instances of a similar use of words from the literature lessons.

"Band of exiles." Explain fully.

"Moored their bark." State this in your words.

"Wild New England shore." What is the force of the word "wild"?

Why are "the breaking waves," "the stern and rock-bound coast," "the stormy sky," "the tossing branches," and "the heavy dark night" introduced into the first stanza?

What causes the impression made by this description to be so vivid?

## STANZA II.

"Conqueror comes." Describe the coming of the conqueror.

"True-hearted." Why are they called "true-hearted"?

"Roll of stirring drums." Give the full force of "roll" and "stirring."

"Trumpet that sings of fame." What is meant? What is the relation in thought between line 2 and line 1?

"Flying come." What is meant by "flying"? Explain how the "flying" do come.

"In silence and in fear." What is meant? What is the relation between this and the rest of line 3?

"Shook the depths." Explain fully.

"Depths of the desert's gloom." Write this in your own words.

What do you mean by "depths" and "desert's gloom"? How is "desert's gloom" expressed in the next stanza?

"Hymns of lofty cheer." Why?

In what does the force of this stanza consist? Point out examples and explain fully.

## STANZA III.

"Amidst the storm." How was the storm referred to before?

"The stars heard and the sea." What figure of speech is here used? Why is it peculiarly pleasing?

What artifice does the poet use to beautify this line?

"Sounding aisles." What were the "aisles"? Why are they called "sounding"?

"Dim woods." How expressed before? Why dim?

"Anthem of the free." What is meant?

"Ocean eagle." Describe fully. Why is the eagle introduced here?

"White wave's foam." How was this expressed before in the poem? Is the description in this line true to nature?

"Rocking pines roared." What is there beautiful in this expression?

"This was their welcome home." Why is the dash used before "this"? Why is "this" not "these"? How could "this" be regarded as a "welcome home"? Explain fully.

How is strength or force secured in this stanza?

## STANZA IV.

"Hoary hair." Explain.

"Pilgrim band." What is meant? How expressed before?

"Wither here." What is the force of wither? Why is this thought introduced?

"Childhood's land." What land is meant?

"Woman's fearless eye." Why is this a particularly expressive phrase?

"Lit by deep love's truth." What is the meaning of "lit"?

Give in your own phrase "deep love's truth."

"Manhood's brow serenely high." What quality of the men is suggested by this phrase?

"Fiery heart of youth." Give this in your own words.

Account for the order in which the poet introduced the different persons in this stanza.

## STANZA V.

What does the poet gain by putting the first two lines of this stanza in the interrogative form?

To what people does the poet probably refer in these lines? Explain.

What do you mean by "bright jewels of the mine," "wealth of seas," and "spoils of war"?

Why is a dash used after "war"?

"Faith's pure shrine." Explain fully.

In what does the force of these two lines consist?

"Call it holy ground." Why?

"Left unstained." What does "unstained" mean?

Is this statement upheld by history?

"Freedom to worship God." What is the connection in sense between this phrase and what went before?

## COMPOSITION.

Our effort in this column is to make the composition hour a pleasant one. If you have any difficulty in interesting your class, try one of our plans. Below we give the outline of a composition on "My Native Town." If all the readers of

THE ENTRANCE JOURNAL would interest themselves in this one composition, and each class send in the best result of their efforts, we would be pleased to publish the most deserving, and then ask all to name the town described. Come on now, who will be first in the race? Be sure you do not name the town in the composition. If you do not live in a town or village choose the nearest one to you as the subject of your composition. Composition not more than 300 words.

## MY NATIVE TOWN.

Write a composition from the following outline:  
*Place.*—In what province? Is it a great city? If not, how far, and in what direction is it from a large city?

*Size.*—Number of inhabitants. Is it increasing in size?

*Connections.*—Steamers. Railroads. How long have the railroads been built? What new lines are building? Any stage connection?

*Streets.*—Which are the principal ones? Name and locate the public buildings: colleges, schools, churches, etc.

*Occupations.*—What leading industry, if any, is pursued? How do most of the people gain a livelihood?

*Miscellaneous.*—Describe all other matters of interest peculiar to the place.

## PHYSIOLOGY.

BY F. A. CLARKSON.

ANSWERS TO QUESTIONS IN LAST ISSUE.

1. White. Because a blister separates the epidermis from the true skin, leaving the (dark) pigment cells below the water of the blister.

2. While the man is in the oven, the sweat glands pour out perspiration on the surface of the skin. The heat of the oven is expended in evaporating this water, instead of destroying the tissue of the body.

3. The child died because the pores of the skin were blocked up, thus preventing the skin from throwing off the waste material of the body. This waste matter remained in the blood, and the child died consequently of blood "poisoning."

4. When the water reaches the upper part of the gullet, the remainder of the act of swallowing becomes involuntary. The muscles of the oesophagus push the water on towards the stomach, the direction being, in this case, upwards. The same phenomenon may be seen in watching a horse drink.

5. Bile in the system emulsifies oils and fats, hence it might be used to remove grease spots, etc.



Name this scene. Take this as the subject of your composition. Name under separate heads the different things in the picture in the order of their importance. Take these as the topics of the

paragraphs. Arrange and write this "Plan" at the top of the paper and then describe the scene under these as heads. Send in your compositions to Editor, ENTRANCE JOURNAL.

The following seven questions may be used as a review. They will be fully answered in our next issue :

1. State how nature provides for the protection of (a) the heart ; (b) the arteries.
2. Show how tight lacing interferes with the proper oxygenation of the blood.
3. Why are outdoor sports generally more healthful than gymnastic exercises indoors ?
4. Classify the following food substances as nitrogenous or carbonaceous (non-nitrogenous) : fibrin, sugar, casein, fat, starch, albumen.
5. When the kidneys are diseased so that their power of excretion is partially destroyed, why do physicians seek to relieve the system by inducing active perspiration ?
6. What is the function of (a) the pulmonary artery ; (b) the portal vein ?
7. What harmful effects are frequently produced upon the heart by the excessive use of tobacco ?

### ENGLISH.

These exercises are intended for "busy-work." Have a pupil write one exercise on the board, and your Third or Fourth class, or both, write the answers while you are at work with the other classes.

Combine the following statements into continuous sentences :

1. The next morning the battle began in terrible earnest.  
The next morning was the 24th of June.  
The battle began at daybreak.
2. Columbus returned to Spain in 1493.  
He had spent some months in exploring the delightful regions.  
These regions had long been dreamed of by many.  
These regions were now first thrown open to European eyes.
3. We diverged towards the prairie.  
We left the line of march.  
We traversed a small valley.
4. The Romans defeated Hannibal.  
He was, perhaps, the greatest general of antiquity.  
It was at Zama they defeated him.
5. I went on a vacation trip to the country.  
It was at the close of last term I went.  
I was tired out with hard study.
6. In China there are a great many tea-farms.  
These are generally of small extent.  
They are situated in the upper valleys.  
They are situated on the sloping sides of the hills.
7. Sugar is a sweet crystallized substance.  
It is obtained from the juice of the sugar-cane.  
The sugar-cane is a reed-like plant, growing in hot climates.  
It is supposed to be originally a native of the East.
8. Goldsmith was vain.  
He was sensual.  
He was frivolous.  
He was profuse.  
He was improvident.  
All this he was according to Macaulay.
9. The elephant surpasses all other animals in size.  
The elephant surpasses all other animals in strength.  
The elephant is a native of Asia.  
The elephant is a native of Africa.
10. There is to be a camp-meeting.  
It is to commence the last Monday of this month

It is to be at the Double-Spring Grove.  
This grove is near Peter Brinton's.  
Peter Brinton's is in the county of Shelby.

## Public School Leaving.

### THE WELL OF ST. KEYNE.

ANSWERS TO QUESTIONS IN OUR LAST ISSUE.

1. The well of St. Keyne and the legend of its charmed water.
2. The story is made up of six divisions :
  - (a) The well of St. Keyne. Stanzas 1 and 2.
  - (b) The visit of the traveller. Stanzas 3 and 4.
  - (c) The coming of the Cornishman. Stanza 5.
  - (d) The Cornishman tells the traveller the legend of the well. Stanzas 6 to 10 and first two lines of 11.
  - (e) The effect of the story on the traveller. Last two lines of stanza 11 and first two of 12.
  - (f) The Cornishman's confession of being outwitted.

This will be readily regarded as a natural development of the story—the well, the traveller, the Cornishman, the story, the effect of the story, and the Cornishman's confession.

3. The author gives beauty to the poem :

- (1) By choosing the fewest and simplest words, as stanza 2.
- (2) By combining gracefulness with energy, as stanza 3.
- (3) By using "ornamental epithets," as "good woman," "crystal well."
- (4) By using "out-of-the-common" expressions, as "angel summoned her," "gifted well," and "betimes."
- (5) By its melody, as "wife in west country," "cool and clear," "bade the stranger hail," and "sheepishly shook."

4. The story can be readily reproduced from the subjects of the divisions given in question 2.

5. The well of St. Keyne is described by the Rev. Thomas Fuller, from whose writings Southey drew his information, in the following words :

"A well arched over with the robes of four kinds of trees—wither (willow), oak, elm, and ash—dedicated to St. Keyne.

6. (a) The following are examples of humorous passages :

- (1) "But if the wife should drink of it first, God help the husband then !"
- (2) "But the Cornishman smiled as the stranger spake,  
And sheepishly shook his head."

(b) The artifices adapted by the poet to give the poem the ballad style are shown in the poet's using the old-fashioned mode of speech, as, "an if," "hast drank," "if she have," "thenceforth is he," "drink of it first," "wiser than me."

"West country." Means Cornwall, the western part of England.

"Not a wife." Our interest is at once aroused to find out what there can be about this well of special importance to wives.

"Behind," "above," "below." These words are adverbs modifying *doth grow, doth grow* (understood in third line), and *droops*, respectively.

"Joyfully he drew nigh." Because he was tired and thirsty.

"Cock-crow." To understand fully the beauty in the use of such words as "cock-crow" you must understand the two functions which words perform ; first, then, a word names something in such a way as to identify it, and, second, it suggests along with it a very subtle and variable set of asso-

ciated ideas and emotions. A word may be said, then, to *denote* the idea it identifies ; John A. Macdonald denotes a tall gentleman with a prominent nose. A word may be said to *connote* the thoughts and emotions that it arouses in the hearer or reader ; for example, the name, John A. Macdonald connotes the idea of untiring energy, unflagging zeal, and ardent patriotism.

Now, to fully appreciate the beauty of the word "cock-crow," let us view the *denotation* and *connotation* of the three words "morning," "day-break," and "cock-crow."

"Morning." *Denotes* the first hours of the day, and *connotes* nothing.

"Daybreak." *Denotes* the glow in the sky that tells of the coming day, and *connotes* the cool, clear air, the subdued light, and the awakening to life of bird and beast.

"Cock-crow." Goes a step farther ; it is a figure of speech, and naming the *connotation* leaves the *denotation* to be inferred.

"There was not a cloud in the sky." To show the great heat of the day, which had almost overpowered the traveller.

"Bade the stranger hail." Wished the stranger good-day.

"Happiest draught." It would be the happiest draught, because it would give him the mastery over his wife.

"Crystal well." The "*connotation*," that is, the associations called up by the word "crystal," is very expressive when applied to describe the water of the well. You will notice the "well" is here put, by a figure of speech called metonymy (an exchange of names between the container and the thing contained), for the water of the well. Such words as "crystal" are called "ornamental epithets." For a more extended treatment of such words see the notes on "busy" and "dismal" in "From the Deserted Village," Division iv., this issue.

"Angel summoned her." This is much more forcible than "before she died," which is purely literal, would be, because of the feelings and emotions which are aroused by "angel summoned her."

"A spell." Is a charm.

"Gifted well." Gifted is another example of an ornamental epithet. The meaning is that the water of this well had extraordinary power.

"God help the husband then." Emphasize "God" to bring out the idea that the husband is then beyond all help, except it be the help of God. The Cornishman is not allowed to finish the sentence, because the action of the traveller much more effectively completes it than any words could have done. This is a humorous way of introducing the fact of the Cornishman's being outwitted by his wife.

"The stranger stooped," etc. The reason for the introduction of this action will now be plain.

"Betimes." In good time.

"Sheepishly." The word brings out very forcibly the man's shame at being outwitted by his wife.

"Than me." You would expect "Than I" here, but "Than me" can be justified by remembering that Southey is here allowing the Cornishman to talk in a way in which people occupying his position in life do talk.

The first, and pretty nearly the last thing that the public school ought to do, will be to teach the boy or girl to read, speak, and write the English language intelligently. This will afford no end of mental discipline, and will, at the same time, put in a pupil's hand the key to every door that he may need to swing farther on.—*Rev. Dr. C. H. Parkhurst.*

## Intermediate P.S. Department.

Designed specially for teachers of Second and Third Class. Edited by M. A. WATT.

### THE HARPER.

M. A. WATT.

Object of lesson : To cultivate imagination, perception (of the pathetic, especially in this poem), language, judgment, and memory ; and to increase stock of knowledge.

With young children the story of the author should grow out of their interest in the poem, and should come last, as it does naturally with grown-ups in the case of new writers.

First, open the books and allow a glance over the lesson, then ask what the story seems to be about. Some will say, "A Harper," but more will say, "About a Dog." Then the next question will be, "What was the dog's name?" Following this, "Had the dog a master?" and "What was his name?" Then naturally we wish to know where "Pat" lived, and a little talk ensues upon Ireland, noting where it is ; what sort of land it is ; how its people love it, and, finally, what it was that "forced" Pat to leave it. "What is Sheelah?" is a question that must not be left unasked, as "Sheelah" is a new word to the little ones, who may imagine it to mean very different things from its real meaning. It has stood for "Ireland," "Pat's home," "Pat's mother," and various other things just as odd, in the minds of our little ones. Having found out what the "Shannon" is and where it is, what is meant by "nigh," "blithe," "harp," and "cheerily," the teacher may paint the picture of happiness as told in the first stanza, the youthful harper sitting on the banks of the verdant stream, with his lovely Sheelah near him, his faithful friend, dog Tray, sitting by, and the whole scene full of peace and freedom from care. When the class have entered into the spirit of this picture, the shadows are introduced. Pat is brought face to face with the stern facts of life, no work, no money, no more careless gaiety, and he leaves his dear home and friends to seek a living in another land. But one friend refuses to be left behind ; he will not leave his master ; Tray goes with Pat. "What does Sheelah say to Pat?" "How does she feel?" "Repeat the saddest words in these two stanzas." "Shut your eyes and think of Pat, then tell me what you see?" If their answers show a vivid perception, the children may make little drawings of their thoughts of Pat, and each should be commended much more than criticized. Keep the pictures, and paste them on a card or paper with the name of this lesson at the top of it, marking under each picture the words illustrated. You will be delighted with your chart when the lesson is finished.

Ask the children to see if they find the name of Sheelah again after this. "Whose story is told in the rest of the stanzas?" "What do you think would have been a better title than The Harper?" These questions will arouse the child to interest as he feels himself judging and reasoning.

"How did Pat succeed in his efforts to earn a living?" Quotations should be given in proof of answers, for two reasons, first, to get the children examining the poem closely ; the second, to find out what meanings they are taking from it.

"Who was kind to Pat?" The oddity of the dog being spoken of as *kind* and a *friend* to the man may strike them, and an explanation may be sought.

There are some expressions to be explained,

such as : "Sour-looking folks turned me heartless away ;" "my wallet was scant ;" "I remember his case ;" "nor refused my last crust to his pitiful face ;" "played a lament ;" and, perhaps, others which the children may ask to have made clear.

Again we ask the children to close their eyes, and think of Pat. What do you see him doing? How does he look, in face and clothing? What feeling does he make you feel? Where is the saddest of all the parts of this sad story? What should we always try to be to the poor and miserable? What lesson can we learn from poor dog Tray?

*The reading of the lesson.* Good reading must follow good feeling of the spirit of the lesson and a knowledge of the words and their meaning. A lesson was impressed upon me, an idea which had been in my mind before, by an experiment tried upon an Entrance class, where the examiner (who had previously marked the same class in composition) requested the music-master to mark the range of notes employed by the candidate, while the examiner marked the reading upon his usual basis. The result showed that the readers who obtained high marks in composition were likewise very successful in the reading contest, and also were found to have used a much larger range of notes than the unsuccessful ones in both subjects. A lesson taught by this is that good thinking makes good reading, and that voice cultivation is also a result. To help this on there should be some little exercises upon the scale before the reading of any lesson. The class may or may not know that it is in preparation for the reading lesson, but it should be a cheerful, pleasant business, calculated to relax the tension of the throat muscles and to give them flexibility. Certain lines may be selected from the poem (such lines as will not lose their beauty in the process), and they may be arranged upon the board as an exercise, to be used, however, without much repetition, lest the reading become formal.

Take such a line as this :

"Poor dog ! he was faithful and kind, to be sure."

Beginning upon low Doh, say the first two words upon it, rise to Mi and say "He" upon it, coming down by degrees until you are saying "Kind, to be sure," upon Doh again. Why is "He" raised to view? What was said in the line before this line? The contrast is shown. Sheelah had asked Pat to be kind to Tray, but Pat tells us that Tray was the one who showed him kindness. This little exercise will open up a light, but it must not be used to excess. If true feeling is present, and the child is not damped in his expression of it, he will give out the tones in a wonderful manner, with simply a scale practice before the lesson. In practising the pronunciation of new words, a bright variation may be made by using the different notes in the practice.

I do not think that it is well to point out to the children the discrepancies in point of time, etc., in this poem ; the lesson of the whole thing lies in the beautiful devotion of the dog, and the loving acceptance and acknowledgment of it by the master.

### DRAWING IN RURAL SCHOOLS.

W. G. WARD.

*Exercise 4.* Use equilateral triangle, one-and-a-half inch sides, to draw : a large equilateral triangle, formed of four small ones—a regular pentagon—a five-pointed star—borders, etc.

*Exercise 5.* Combination—using a square and an equilateral triangle.

Draw a four-pointed star with a square as centre ; house front, and gable ; square envelope, with flaps ; a cross, with ends of arms and top pointed or indented ; a cross with apexes of four triangles touching, etc.

*Exercise 6.* Use square, triangle, and rule. Draw figures 1, 2, 3, 4, 8, 9, 10, 11, 12, 14, 17, 18, 19, 20, 21, first page, First Reader.

*Exercise 7.* Use circle, one-and-a-half-inch diameter. Draw a number of circles, a boy's hoop, three circles with circumferences touching, six circles in form of a pyramid, four in form of a square, borders overlapping circles, etc. ; a pair of spectacles, baseball, etc.

*Exercise 8.* Combination exercise, using a square, a circle, a triangle, and a rule. Draw a triangle in a circle, a circle in a square, a gate-post, a terrace of houses, fronts and gables, a cross with circles at the end of arms and top, a square with semicircles on the interior of each side, also on exterior of each side. N.B.—When cutting out the circles make a hole through the centre.

The above exercises are merely suggestive and far from being exhaustive. My pupils are as enthusiastic in their drawing by this method as they were over three months ago.

(To be continued.)

### ELEMENTARY LANGUAGE LESSONS.\*

Language teaching is one of our most important duties, and demands constant watchfulness. Its main object is to teach children to *use* language. Language should be an expression of thought. Words are useless and meaningless unless they represent ideas, therefore ideas must be given first. When a new idea has been given the child will have to have new words to express this thought, and by this means new words are added to his vocabulary.

Language lessons should begin when a child enters school, and every lesson should be a language lesson.

When a little child, in response to the question of his teacher, endeavors to give as good an answer as possible he is taking his first step. Shy, diffident, and sometimes indolent, children are apt to try to make their answers as short as possible, leaving it to the good nature of the teacher to complete and put into shape their thought. One word distinctly uttered may suffice for a time, but by-and-by a complete sentence, *given* in the form the answer requires, must be the rule.

We all get thoughts, directly or indirectly, through observation, memory, imagination, and reasoning. But the child gets by far the larger part of his ideas through his observing powers—that is through his senses. His memory and imagination are also more easily awakened than his reasoning powers. Therefore his first language lessons should be such as call into play these powers. To do this present some object with which the child is familiar, as a box. Have the pupils tell some things about it, these statements to be in the form of sentences.

By means of picture cards have the pupils form sentences, as "I see a boy," "I see a hat." Then have the cards grouped, and let the pupils tell what the group says, as, "I see a hat on a boy." Much of this practice will come in under their reading lessons, and while assisting them in grouping the words will add to their power of using language.

\* Read by Miss Smith before the South Grey Teachers' Convention at Dundalk, and requested for publication in THE EDUCATIONAL JOURNAL.

Care must be taken from the first that the pupils' answers are *always* in good English. When errors occur the pupil should be led, if possible, to give the correct form, by the teacher asking for the answer to be given in another form. With junior pupils it is sometimes better for the teacher to give the correct form, saying that she prefers to have it so.

The first part of this language work will necessarily be oral. Have short conversations leading the child to talk about some object of interest to him, as a *cat* or *dog*. The teacher may direct the child's attention to some facts about these animals hitherto unnoticed by the child.

One of the simplest and best ways of cultivating the oral use of language is by the reproduction of stories. Tell a good story and a few days after let the children tell it to you.

Of course, it will be little by little, in response to the questions of the teacher, who will correct the narrative and maintain its unity; but it will nevertheless form the best of preparations for what will come later—the written reproduction of stories.

After the words, *cat, rat, dog*, have been taught in the reading lessons, teach *can, run*. Then work may be given them to write the names of the things that "can run." These answers to be in the form of sentences, beginning with a capital and ending with a period.

After teaching new words as *rag, bag*, have pupils compose and write sentences containing them.

Such exercises as the following may also be given.

Make sentences about each of the following, telling what they do—birds, bees, hens, horses.

Tell what you see in the school-room.

Tell what you have, what you would like to have.

Tell what you do with a pen, a ball, a knife.

Provide yourself with pictures. Hold one before the class; withdraw it quickly. Allow the children to tell what they saw. If points have been missed show the picture again. Have them aid you in forming a story, placing it on the blackboard as formed. Have them read it as you proceed. This will also give them practice in forming longer sentences by the combining of several short ones.

In the use of these pictures, there are three stages:

First—Pure observation; the pupils simply tell what they see.

Example: I see a boy. I see a horse.

Second, these objects are brought into simple relation; as, I see a boy on a horse.

Third, the exercise of the imagination in forming the story.

When teaching a child to walk, it is not enough merely to walk up and down in his presence. We must set *him* walking, and seeking gradually to improve his manner. So here the main thing is to set the child imagining and to improve upon his first efforts. The actual, resulting mental picture is of secondary importance.

After they have had practice in forming stories from pictures with your help, give them a picture for a few minutes, and have them write a story. Some difficulty may be experienced here, as pupils will be apt to write sentences telling what they see in the picture instead of a *story* of the picture. This can be overcome only by practice in forming stories with your help, and by showing that these detached sentences do not form a story.

Have the pupils write a series of sentences, describing some animal.

Object-lessons may come in here. These les-

sons should be of a simple character. The study of the animal kingdom is the most interesting to children. The lesson on an animal may be taken up under the following heads:

A general description of the animal, its habits, its uses, and where found, and other subjects appropriate to the time of the year, may also be taken.

These observation lessons will cultivate the perceptive faculties, will teach pupils to use language correctly, by insisting on an intelligent description of what is observed, and be the means of adding at each lesson one or more new words to the child's vocabulary.

Have the outlines of this lesson placed on blackboard as lesson proceeds; this will guide the pupils as they write out a summary of the lesson.

Have a series of talks on size, developing such words as, large, larger, and largest, small, smaller and smallest.

Length, height, and depth will supply other subjects. Have the pupils use the words in sentences when taught.

Develop the use of see, saw, seen, do, did, done, rise, raise, their, there, etc.

Each lesson in the Readers will also furnish work. First, by having the pupils give the story orally; second, by having them write answers, using new words in sentences, giving certain parts in their own words, or telling part of the story; third, have them write story as a whole. Frequently have these stories written on paper, and file the best ones.

The teacher should tell a story and have the pupils reproduce it. These stories should be selected from the best authors, so that the language will be of the best. In these stories the teacher may give much information which will be of use to the pupil in later years. These stories should aid the pupils in forming ideas of *goodness, truth, and beauty*, and in transforming these into *ideals* of conduct.

Teach to understand, memorize the passage, and repeat beautiful passages of prose and poetry.

The teacher, knowing the ideas, will question the class about them, will have the pupils read it until they can repeat it from memory.

By doing this the child will have its memory and imagination cultivated, will have valuable thoughts treasured up, will have added new words to his vocabulary, and will have gained the power to use these words.

#### A LESSON IN ARITHMETIC.

The purpose of this recitation was to teach the class how to multiply one fraction by another, and show the reason.

The teacher began, as was his custom, by a series of review questions, rapidly uttered, and as rapidly answered by the class, thus:

Q. What is a fraction?

A. An expression that denotes one or more of the equal parts of a unit.

Q. How many numbers are involved?

A. Two; the number showing how many equal parts there are, and the number showing how many of these are taken.

Q. What are these numbers called?

A. The first is called the denominator, and the second the numerator.

Q. Suppose that I increase the numerator?

A. You will increase the fraction.

Q. How much?

A. Just as many times as you increase the numerator.

Q. How can I diminish the fraction?

A. By decreasing the numerator or increasing the denominator.

Q. Suppose that I decrease the numerator?

A. You will make the fraction smaller.

Q. Why is this?

A. Because you have taken a less number of parts.

Q. Why does multiplying the denominator decrease the fraction?

A. Because it increases the number of equal parts into which the unit is divided, and, therefore, makes each part smaller.

Q. Suppose that I wish to multiply a fraction?

A. You must either multiply the numerator or divide the denominator.

Q. How shall I divide a fraction?

A. Either divide the numerator or multiply the denominator.

Q. What are we to learn about to-day?

A. How to multiply one fraction by another.

Q. Give me a problem.

A. Multiply  $\frac{2}{3}$  by  $\frac{3}{4}$ .

Q. Suppose I multiply  $\frac{2}{3}$  by 3, what is the result?

A. It is 2.

Q. How do you know that?

A. I divided the denominator by 3, which multiplied the fraction by 3.

Q. 2 is what, then?

A. It is the product of  $\frac{2}{3}$  by 3.

Q. How much too large is this multiplier?

A. It is 4 times as large as it should be.

Q. What about the product 2, then?

A. It is too large.

Q. If my multiplier is four times as large as it should be, what will you say of this product 2?

A. It is four times as large as it should be.

Q. Good. What is the true product, then?

A. It is  $\frac{1}{2}$  of 2.

Q. Which is—?

A.  $\frac{1}{2}$ .

Q. Then the product of  $\frac{2}{3}$  by  $\frac{3}{4}$  is—?

A.  $\frac{1}{2}$ .

Q. Let us look over this now and see what I have done. What did I do first?

A. You multiplied  $\frac{2}{3}$  by 3.

Q. Yes. That is, by the numerator of the multiplier. What did I do next?

A. You divided that product by 4.

Q. Which is—?

A. The denominator of the multiplier.

Q. How, then, did I multiply  $\frac{2}{3}$  by  $\frac{3}{4}$ ?

A. By multiplying  $\frac{2}{3}$  by the numerator of the multiplier, and dividing this product by the denominator of the multiplier.

Q. Good. Now we will take that for our rule.

The above is almost an exact statement of the process by which the teacher presented this new step to the pupils. They were so familiar with all the processes that went before this, and which the teacher had been careful to call up in his rapid review, that the moment the teacher suggested by his question each step to be taken, the pupils saw it without any serious difficulty. The trouble with children is to see the end from the beginning, or the beginning from the end. They find it difficult to see the different steps of a process as parts of one and the same process. Hence the necessity of requiring them to make a statement of a process in the form of a rule, after they have gone through the steps under the lead of the teacher.—

*Illinois School Journal.*

#### ARITHMETIC.

The following devices will save some time, will excite curiosity, and will give some insight into arithmetical principles:

1. *Adding fractions or compound numbers, by making wholes.*

Example 1. Find the sum of  $\frac{1}{2}$ ,  $\frac{2}{3}$ , and  $\frac{3}{4}$ . Solution: Take 5 of the 9-tenths, and put them with the  $\frac{1}{2}$ , making a whole. Put the remaining 4 tenths or  $\frac{2}{5}$  with the  $\frac{2}{3}$ , making another whole.

Example 2. Find the sum of  $6\frac{1}{2}$ ,  $4\frac{1}{3}$ ,  $6\frac{2}{3}$ . Solution: Put  $\frac{1}{3}$  with the  $6\frac{2}{3}$ , making 7. We now have  $6\frac{1}{2}$ ,  $4\frac{1}{3}$ , and 7 to add. The sum of the whole numbers is 17, and the sum of  $\frac{1}{2}$  and  $\frac{1}{3}$  is  $\frac{5}{6}$ . In such an example as this, never change the mixed numbers to improper fractions.

Example 3. What is the sum of 6 bushels, 3 pecks, 7 quarts; 3 bushels, 1 peck, 5 quarts; 4 bushels, 2 pecks, 4 quarts? Put 3 of the 7 quarts with the 5 quarts, and the remaining 4 quarts with the 4 quarts in the third quantity. You now have 2 pecks, which put with the 2 pecks in the third quantity make a bushel. The other 3 pecks and 1 peck make another bushel. Then we have the sum of 6, 3, 4, and 2 bushels, or 15 bushels, for the answer.

Of course, all problems are not as convenient as

these for treatment; but if our eyes are open, we shall find that something of this kind may be done oftener than we think.

2. *Finding the sum of two fractions whose numerators are the same.*

Example 1. Find the sum of  $\frac{1}{3}$  and  $\frac{1}{3}$ . The answer is  $\frac{2}{3}$ , found by writing the sum of the denominators over their product. This will always give the answer when the numerators are both 1. Let some pupil discover why this is so.

Example 2. Find the sum of  $\frac{2}{3}$  and  $\frac{2}{3}$ . The answer is 3 times  $\frac{2}{3}$ , or  $\frac{4}{3} = 1\frac{1}{3}$ . If the numerators were 1, the answer would be  $\frac{4}{3}$ . Of course, as the numerators are 2, the answer is 3 times  $\frac{2}{3}$ . From this the pupil can discover how to proceed in any case when the numerators are the same.

3. *Finding the difference of two fractions whose numerators are the same.*

Example 1. Find the difference of  $\frac{1}{3}$  and  $\frac{1}{4}$ . The answer is  $\frac{1}{12}$ , found by writing the difference of the denominators over their product. The pupil who sees the reason for the rule just given in addition will readily see the reason for this process.

Example 2. Find the difference of  $\frac{2}{3}$  and  $\frac{2}{4}$ . The answer is 3 times  $\frac{1}{12}$  or  $\frac{1}{4}$ . The reason for this will be apparent to one who comprehends the similar case in addition.

4. *To obtain a product when all the figures in the multiplier are the same.*

Example 1. Multiply 67965 by 111. Write in the product, 5 for the units. Then the sum of 5 and 6, which is 11, will give 1 for the next figure. Next the sum of 5, 6, and 9, with 1 from the 11, will give 21, which gives 1 for the next figure in the product. The sum of 6, 9, and 7 with 2 from the 21 gives 24, making 4 the next figure in the product. The sum of 9, 7, and 6 with 2 from the 24, gives 4 for the next figure in the product. The sum of 6 and 7, with 2 from the last sum, gives 5 for the next figure. The sum of 6 and 1 from the last sum makes the final figure 7. The full product, therefore, is 7544115. If the pupil will write down the partial products in the usual way, he can discover why we have added as we have.

Example 2. Multiply 8437 by 444. The multiplicand multiplied by 111, as before, gives a product of 936507. Of course, the required product is 4 times this number, or 3746028. The pupil who studies these examples carefully will be able to handle any similar examples.

5. *To multiply when part of the multiplier is a multiple of some other part of it.*

Example. Multiply 86267 by 75255. Notice that 25 is 5 times 5, and 75 is 3 times 25. Solve the problem as below. Let the pupil find out why the first figure of each partial product after the first is written where it is. By counting, you will find that there are only two-thirds as many figures in the partial products as there would be if the work were done in the usual way.

$$\begin{array}{r} 86267 \\ 75255 \\ \hline 431335 = 5 \text{ times the multiplicand.} \\ 2156675 = 5 \text{ times last product.} \\ 6470025 = 3 \text{ times last product.} \\ \hline 6492023085 = \text{true product.} \end{array}$$

—Public School Journal.

## Correspondence

### A CASE IN COURT.

At the General Sessions for the County of York Archibald McArthur was up before Judge McDougall for criminal assault on W. G. Morrison, school teacher, East Toronto. The offence was committed in the school. Mr. Morrison had occasion to punish McArthur's boy. McArthur, thinking the punishment too severe, had the teacher up before G. W. Ormerod, J.P., who dismissed the case. For five weeks McArthur threatened to "lick" the master. Last week he went to the school with one Luke Sherry and proceeded to "smash" the master. Both were fined \$10 and costs by the school board for trespass and sent up

for criminal assault. Before the trial McArthur secured a compromise, by making ample apology to the board and the teacher, and also paying the teacher for damages (\$100). In pronouncing sentence the judge said:

"This matter with which you are charged is a matter of very serious import. If those who have charge of the education of the young, and have the responsibility for their discipline, if they are to answer to each individual parent for what that parent may choose to think the correct method of discipline, and if each parent is to take the school teacher in hand and discipline him when he thinks he has not done his duty, there would be no rule or order, or no possibility of conducting the affairs of a Public School except by the law of the mightiest and strongest. The man who was the biggest bully and fighter would be the man who would predominate, and no teacher would venture to conduct a charge of that kind unless he was the biggest bully in the community. I regret exceedingly to see a man in your position charged with such a serious offence. This country is not the country of the pistol, the bowie knife, and the bully.

"They say your eyes have become opened to the enormity of the offence, and that you have been fined a serious pecuniary amount for the breach of the school law, and they do not ask, you having apologized to the teacher, and having admitted you were wrong, for any punishment in connection with the charge of assault on the schoolmaster. All I can say is, if the schoolmaster concurs in that, he is more considerate than most people under the circumstances. You have subjected yourself to very severe punishment, because I cannot allow the law of the mightiest to rule where I have anything to say. People in this country cannot take the law into their own hands. The moment the sanctions of the law are removed from people's conduct they become a mob, a community where no person is safe. The man who has the strongest hand is the man who is going to rule the community. That cannot be endured in this country, and so long as the courts are conducted along the lines that characterize them in this province that will not prevail, and so long as people act against them they must take the punishment that may be awarded.

"In your case, in view of all the circumstances, I am inclined to let you go on suspended sentence. But bear in mind, if anything comes up between you and the school teacher, or if anything takes place by your temper getting ahead of you, you can be called upon again and sentenced even though you are allowed to go to-day. I shall let you go on suspended sentence, and take your own bond in \$100."

## School-Room Methods

### SOLUTIONS IN ARITHMETIC.

By F. J. VOADEN, Principal Kingston Public School.

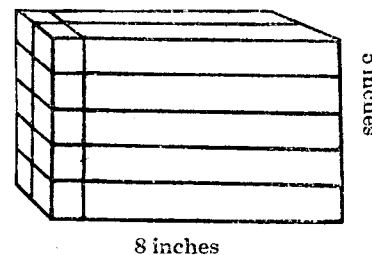
(Concluded.)

In all problems ultimately one thing is required, but several other things, not given, may be required in order to find this last thing required. Having first noticed this last thing required, the answer, and the other things, not given, but required as leading to the answer, the teacher asks, what must I do to find this, to find that, etc., and the pupils are able to answer fairly. This seems to me to determine the method of questioning and the method of answering.

Again, the signs indicate the operations, adding, subtracting, multiplying, and dividing, + means add, - means subtract,  $\times$  means multiplied by,  $\div$  means divided by. To say that  $\times$

means times is not consistent with the interpretation of the other symbols of operation, nor does it mark the operation of multiplying. It rather suggests adding, and while multiplication is kept before the class as a short method of addition it may be convenient, but as long as this is done the factorial idea, which is the key of multiplication, is absent. Multiplication has its genesis in addition, but is not addition.

In finding length the unit comes first, so also in area, and we properly represent the area of a surface 9 ft. by 5 ft. thus, 1 sq. ft.  $\times$  9  $\times$  5, to classes who have been impressed with the process of measuring area.



1 cubic inch, a unit

Now present to the class a solid say 8 in. long, 5 in. wide, and 2 in. thick. Its edges have length (long measure) and its surfaces have area (sq. measure.) It also has the equality of filling space. This is bulk or volume. How can we measure its volume? First we must get a unit. Will an inch do? No, because an inch has length, but no volume. Will a sq. in. do? No, because a sq. in. has length, width, and area, but no volume. Show a cubic inch 1 inch by 1 inch by 1 inch. This has volume.

Now practically to measure the volume of the solid, we should have it divided into cubic inches, all being closely fitted together to form the solid. The work of constructing the solid out of inch cubes is a useful exercise.

Now let a boy begin to measure the solid by counting off the cubic inches. He begins at the top most likely, and counts off a layer or slice of cubic inches. The number in the layer or slice will depend upon whether the layer or slice is taken from the top, which is 8 in. by 5 in., or from the end, which is 5 in. by 2 in., or from the side, which is 8 in. by 2 in. In any case, the number in a layer or slice of cubic inches will involve two dimensions, and the number of layers will involve the third dimensions.

Suppose we take layers or slices from the end. The layer or slice of cubic inches is made of rows, and the number in a row depends upon one dimension, and the number of rows depends upon the other. Now, the order of measuring is from 1 c. in., the unit, to the row of cubic inches, from the row of cubic inches to the layer or slice of cubic inches, and from the layer or slice to the vague, undefined whole of volume, which through our measuring work becomes a definite measured quantity. At the outside, then, the process of measuring volume should thus be represented if the slices are taken from the end:

$$\begin{aligned} 1 \text{ row in a slice of } c. \text{ inches} &= 5 \text{ c. inches.} \\ 2 \text{ rows, or the slice of } c. \text{ inches} &= 5 \text{ c. in.} \times 2 = \\ &10 \text{ c. in.} \\ 1 \text{ slice of } c. \text{ in.} &= 10 \text{ c. in.} \\ 8 \text{ slices of } c. \text{ in.} &= 10 \text{ c. in.} \times 8 = 80 \text{ c. in.} \end{aligned}$$

I believe this represents the practical and real way in which the measuring would be carried on. Thus the width of the solid is needed to tell how many c. inches in one row of a slice, the thickness is needed to tell the number of rows in a slice, and the length is needed to tell the number of slices.

Now, for a change, take the slices of c. inches from the side, then again the layers of c. inches from the large flat surface, and, by practically measuring, find the volume.

This work begun in the third class in this way may be made intensely interesting. In the Senior 4th and 5th classes, this practical method of measuring has become a real thing, and the pupils have a good sound basis from which to calculate. The three factors which enter into the measurement of volume, namely, measure of length, measure of width, and measure of thickness, are ever present, and the volume may be represented thus: Volume

of solid = 1 c. in.  $\times$  8  $\times$  5  $\times$  2 = 80 c. in. These are the factors, and it matters not in what order they are taken. Thus all problems, in which the measure of volume is given, and two of the factors length, or width, etc., become simply the finding of one of three factors of a measure, when two of the factors are given.

In this way the remaining units of volume, the c. ft., the c. yd., the cord, are worked out as needed, and their relation to one another defined. Thus we teach how to measure length, (long measure), area (square measure), volume (cubic measure) time (time measure), weight, capacity, money, value, etc.

Better work in measuring might be secured in the primary department by using these defined units of measurement, one inch, the square in., and the one inch cube, etc., than using undefined units like one apple, one bean, etc. Six apples is not as clearly a measured quantity as six inches, because the unit apple is not defined. Apples vary in size. The inch never varies.

But even these units, 1 in., 1 sq. in., 1 c. in., etc., are better defined in their relation to units used in measuring different kinds of quantity. Thus 1 c. ft. = 25 quarts of water = 1000 oz. of water makes the conception of a c. ft. more definite.

The art of measuring reaches its consummation in the solution of all kinds of problems. In problems we pass from the measurement of quantity in terms of one unit, to its measure in terms of another unit, and so on, by means of certain relations of units which we have taught, and by means of other relations given in the problem, until we reach what was asked, until we have measured that which was to be measured, and which at first appeared to us as a vague undefined whole, but which, as a result of our solution, becomes measured quantity. In every problem there appears first the vague, undefined whole, which is to be measured. Let us illustrate this by a problem, and endeavor to find a principle for the solution of all problems.

**PROBLEM.**—Find the weight of coal consumed by a steamer for a voyage of 4043 miles, supposing her rate per hour to be  $14\frac{1}{25}$  knots, and her consumption of coal 87 tons per day, a knot being  $\frac{311}{270}$  of a mile.

The first thing to be seen is the vague, undefined, unmeasured weight of coal required for the voyage. How shall we measure it? First get a unit of weight, say one ton.

With what is this unit of weight connected in the question? With time measure, 1 day.

87 tons are required for 1 day. What must we know before we can get the number of tons? We must know the number of days.

With what is days connected in the question? It is connected with hours. One day = 24 hours. What must we know before we can find the number of days? We must know the number of hours.

With what is hours connected in the question? It is connected with knots. In one hour steamer goes  $14\frac{1}{25}$  knots. What must we know before we can get the number of hours? We must know the number of knots.

With what is knots connected in the question? It is connected with miles.  $\frac{311}{270}$  knots = 1 mile. How many miles are there in the question? 4043 miles. Thus the backward movement is from tons to days, from days to hours, from hours to knots, and from knots to miles, to 4043 miles, a definite measured quantity. The backward movement is from the unknown, the vague, unmeasured whole, to the known, the definite measured quantity. This backward movement and the connection of units must be gone through mentally in every problem before any pencil work is done, and in every case I believe it will lead back to measured quantity.

Backward Movement of Thought.

Connections—

Units—	87 tons are used in one day.
tons	1 day = 24 hours.
to days	In 1 hour steamer goes $14\frac{1}{25}$ knots.
to hours	$\frac{311}{270}$ knots = 1 mile.
to knots	4043 miles
to miles	

Now the class are ready for the forward movement, which is accompanied by the operations, adding, subtracting, multiplying, and dividing, in which the pencil is used, and how eagerly the

boys and girls go at it. The forward movement is from the known to the unknown, through a series of related units, from miles to knots, from knots to hours, from hours to days, and from days to tons.

Forward Movement of Thought.  
Connections.

Units—	$\frac{311}{270}$ miles = 1 knot.
miles	$14\frac{1}{25}$ knots take 1 hour of time.
to knots	24 hours = 1 day.
to hours	For 1 day there are needed 87 tons.
to days	
to tons.	

Solution.

$\frac{311}{270}$  miles = 1 knot.  
4043 "  $\frac{4043}{\frac{311}{270}}$  knots =  $\frac{4043 \times 270}{311}$  knots.

equal 3510 knots.

$14\frac{1}{25}$  knots take 1 hour.

3510 " "  $\frac{3510}{14\frac{1}{25}}$  hrs. =  $\frac{3510 \times 25}{351}$  hours.

equal 250 hours.

24 hours equal 1 day.

250 hours equal  $\frac{250}{24}$  days.

For 1 day there are needed 87 tons.

For  $\frac{250}{24}$  days there are needed 87 tons multiplied by  $\frac{250}{24}$  = 906  $\frac{1}{4}$  tons.

As soon as the pupils have mentally performed the backward movement, from the unknown to the known, the problem is really solved, the reasoning is done, and the rest is mechanical work, requiring neatness, accuracy, and clearness of presentation. Insist on the backward movement before any work is done. Study all problems thus, and the pupils will acquire a habit of careful analysis, and will not jump into a problem in a haphazard way, without thinking of what is to be measured nor how it is to be measured.

Let us consider these two related problems. (I.)

6 books cost 30 cents, what will one cost? (II.) If one book costs 5 cents, how many can be bought for 30 cents? (I.) If 6 books costs 30 cents, 1

book will cost—= 5c.  
6

(II.) 5 cents buys one book, 30 cents buys  $\frac{30}{5}$  books = 6 books.

In the first case the whole of 30 cents is given, and the number of parts into which it is divided, and we are to find the unit, 5 cents. In the second case the whole 30 cents is given, and the unit, 5 cents, and we are to find the number of parts. In either case there are two factors. Each factor demands the other. The mental process is the same in each question. One process implies the other. In the first it is to find the unit 5 cents, one factor. In the second it is to find the number of parts, 6, the other factor. I see no need of writing  $30c. \div 5c. = 6$  times, which must be explained thus: 5 cents one time gives 1 book; 5 cents 6 times gives 6 books.

The question asks for the number of books. The number of books you are to find, and the number of books, pure number, you will find by dividing 30 by 5 just as well, and better, than by dividing 30 cents by 5 cents. You settle on books to be found, and the number of them  $\frac{30}{5}$  books = 6 books.

In conclusion, we say that measuring is what the child begins long before it enters school, that counting is measuring, that measuring, with a unit measuring, MEASURING, MEASURING, goes through all the school course in arithmetic.

The teacher who finds out the workings of mind in little children, the activities and powers which are seeking to unfold themselves, what interest it is that makes them measurers, and, appealing to that interest, facilitates their efforts, will make them measurers indeed, mathematicians indeed.

the positive, the other the negative. When we appeal to the good in a child, comment and give emphasis to what is right, we are employing the positive; when we direct attention to the evil emphasizing wrong-doing and its un-failing accompaniment, punishment, we are making use of the negative.

I have thought that at the beginning of the new year and a new term, it might not be amiss to discuss the relative values of these two methods. Of course, wrong-doing and evil cannot be ignored. They exist, and it is necessary to combat them, but I repeat what I have often said before in these columns, that the best way to overcome evil is to crowd it out with good. Make right-doing the sentiment of the class, and the few persistent wrong-doers will soon discover that it does not pay "to be out of the fashion." Their power will be a minus quantity.

Someone has said, "The good is our natural habitat as much as water is that of the fish, and we and the fish are miserable on the same principle when we get out of our natural way of living." We will not enter upon a discussion of the above, but admit the truth of it as regards the majority of the children in our charge. They are certainly happier when doing right.

If you have never made the experiment of looking only for good, try it for a few days. It will be somewhat of a revelation. Instead of scolding the careless writer, and exhibiting his book to the class, select the best ten books and place them where all may see them during a march around the room. Next day the competition will be stronger, and the day following you may have to double the number. The careless boy begins to try a little, and no matter how little that may be credit him with it, and encourage him to greater effort.

Suppose the pupils of a school to be in line in the yard, ready to march in to the class-rooms. Two teachers are in charge, one of them a negative disciplinarian, the other a positive. The remarks of the first are such as the following: "This is the worst line in the yard. The monitor will report to your teacher," "John, do try to get in line for once in your life," "Fred, don't slouch so; you look half asleep."

The remarks of the other teacher are simple, but straight to the point: "I like the look of this line." "This is a decided improvement on yesterday's line, boys." At the First Book class she says, "Harry, you will make a good soldier if you always stand as straight as that." An involuntary straightening of the whole class follows this.

Picture to yourself the schoolrooms of these two teachers. In the first, "nagging" is pre-eminent; there is a great deal of friction between teacher and pupils; the bad boys and girls are not very often in a frame of mind in which they wish to do better, and the good ones are inclined to think that school would be tame without the spice of badness and the daily scoldings.

Class number two is very different. There are no indications of care and

Primary Department.

TWO FORMS OF DISCIPLINE.

RHODA LEE.

There are two forms of discipline employed in our schoolrooms, as indeed in the great world-school, one

worry on the brow of the teacher. The children seem to be in perfect sympathy with her, and respond eagerly to every suggestion. The happiness of doing right is reflected from the faces of almost all in the class. The children are co-workers with the teacher in endeavoring to make their class and work as good as they possibly can.

When privileges are to be granted is it not reasonable that they should be given to the most worthy—those who try hardest to do what is right? Let this be understood. Also, that when the teacher asks a favor from a scholar, she goes to one in whom she has confidence. While thus placing a barrier between the bad boy and herself, she makes him understand that it is his own work, and that she is more than willing to assist in its removal.

If the negative has hitherto predominated in your manner of disciplining, let me urge a trial, for a short time at least, of the positive method. I do not mean to say that every child can be influenced by this means, but I believe the majority can, and our schoolrooms would be brighter and better places if the appeal was always to the best that is in the child and not the worst.

### READING.

RHODA LEE.

#### LESSON XXXIX.

Combinations "ou" and "ow."

*New words.*—ou—Our, sour, scour, out, pout, stout, shout, round, found, pound, bound, ground, flour, trout, south, house, mouse, loud.

ow—Cow, sow, how, row, now, town, bow, shower, flower, owl, fowl, howl, brown, crown, frown, power, gown.

#### LESSON XL.

Broad sound of a (â) "au" and "aw."

*New words.*—â—Fall, ball, call, tall, wall, almost, halter, salt, malt, chalk.

au—Paul, August, autumn, fault, vault, pause, Santa Claus.

aw—Saw, paw, law, raw, fawn, lawn, pawn, draw, straw, jaw, thaw, claw, shawl, drawl, awful, saw-dust, strawberry, awning.

#### LESSON XLI.

Combination "ew."

The sound of "ew" is equivalent to the long sound of "u" (û).

*New words.*—New, few, pew, stew, dew, mew, yew.

#### LESSON XLII.

Combination "ph," ph=f.

*New words.*—Ralph, photo, photograph, telephone, telegraph, Philadelphia, phonic, phonograph, phosphate, phosphorus.

#### LESSON XLIII.

Combination "qu," qu=coo.

*New words.*—Queen, queer, quick, quilt, quill, quack, squeak, squeal, quarrel, quantity, quiver, quickly, quickest, queerest, Quebec, quite, quaint.

#### LESSON XLIV.

Combinations "tion" and "sion," tion and sion = shun.

*New words.*—tion—Notion, lotion, portion, station, nation, plantation, correction, collection, intention, vacation, partition, position, invitation, determination. sion—Tension, pension, mansion, expansion.

#### LESSON XLV.

Soft "c" (ç).

*New words.*—Face, lace, mace, race, pace, grace, trace, place, brace, fancy, ice, mice, rice, mercy, prance, dance, voice, choice, cent, cell, cellar, cedar, cider, pencil, cinders, prince, princess, celery.

#### LESSON XLVI.

Soft "g" (ġ).

*New words.*—Age, page, cage, rage, stage, manage, change, gentle, ginger, gip, gipsy, George, gentleman, sausage, angel, danger, hinges.

#### LESSON XLVII.

Silent letters, "l," "b," "w," and "k."  
l—Half, calf, calm, palm, balm, balmy, chalk, walk, talk, stalk.

b—Lamb, limb, climb, thumb, crumb, numb, dumb, comb.

w—Write, wrote, written, wrist, wreck, wren.

k—Knit, knee, kneel, knock, knot, know, known.

### CLASS RECITATION.

#### LITTLE JACK FROST.

Little Jack Frost ran up the hill,  
Watching the stars so cold and chill,  
Watching the stars and moon so bright,  
And laughing aloud with all his might.

Little Jack Frost ran down the hill,  
Late in the night when the winds were still,  
Late in the fall when the leaves came down  
Red and yellow and faded brown.

Little Jack Frost tripped through the hills;  
"Ah!" said the flowers, "we freeze, we freeze";  
"Ah!" said the grasses, "we die, we die";  
Said little Jack Frost, "Good-bye, good-bye!"

Little Jack Frost tripped 'round and 'round,  
Spreading white snow on the frozen ground,  
Nipping the breezes, icing the streams,  
And chilling the warmth of the sun's bright beams.

But when Dame Nature brought back the spring,  
Brought back the birds to chirp and sing,  
Melted the snow and warmed the sky,  
Little Jack Frost ran pouting by.

Flowers opened their eyes of blue,  
Green buds peeped out and the grasses grew;  
It grew so warm and scorched him so,  
That Little Jack Frost was glad to go.

—Anonymous.

#### HOW TO HAVE A HAPPY NEW YEAR.

"Suppose we think little about number one,  
Suppose we all help someone else to have fun,  
Suppose we ne'er speak of the faults of a friend,  
Suppose we are ready our own to amend;  
Suppose we laugh with, and not at, other folk,  
And never hurt anyone 'just for the joke';  
Suppose we hide trouble, and show only cheer—  
'Tis likely we'll have quite a happy New Year!"

—Selected.

#### WHO COMES DANCING OVER THE SNOW?

Who comes dancing over the snow,  
His soft little feet all bare and rosy?  
Open the door, though the wild winds blow,  
Take the child in and make him cosy.  
Take him in and hold him dear,  
He is the wonderful New Year.

Open your heart, be it sad or gay,  
Welcome him there and use him kindly,  
For you must carry him yea or nay,  
Carry him with shut eyes so blindly.  
Whether he bringeth joy or fear,  
Take him. God sends him, this good New Year.  
—Dinah Mulock Craik.

### Book Notices.

Any book reviewed in this column may be obtained by addressing The Educational Publishing Co., Richmond Chambers, Toronto.

ESSAYS ON EDUCATIONAL REFORMERS. By Robert Herbert Quick, M.A., Syracuse, N.Y. C. W. Bardeen, publisher, 1896.

This new edition is a careful reprint of the original London edition of 1868, with the following additions: Mr. Quick's Pedagogical Autobiography, written for the *Educational Review*; his "Chapter on Froebel," written for the *Encyclopædia Britannica*; portraits of many eminent educators; *fac-similes* of MSS.; translations of all the passages in French, German, Latin, and Greek, with which the book abounds; side-heads, notes, etc. A valuable edition. Price, \$1.

THE GOLDEN READERS. London, Eng.: Moffat & Page, 28 Warwick Lane, Paternoster Row, E.C.

Primer I. of this series has already been noticed in our columns. Primer II. and Standard I. are now before us. Primer II. is a suitable continuation of Primer I. It contains simple descriptions, stories, verses, etc., mostly of one syllable in the earlier pages, and gradually increasing in difficulty as we proceed. Standard I. is larger, containing about ninety pages, bound neatly in cloth, with board covers. In both the type is large and beautifully clear.

GRIMM'S FAIRY TALES. Edited by Sara G. Wiltse, author of "Stories for Kindergartens," etc. Illustrated by Caroline S. King. Boston: Ginn & Company.

Being one of the admirable series of "Classics for Children," this charming book for children is published in the same style and with the same beautiful large type as many of the elementary books which have preceded it. No. II. offers a wider range of stories than No. I., and appeals especially to the developing moral sense through such dramas of the conscience and will as those presented in "The Woodcutter's Child." In some of them the child finds prophecies of the coming steam and electric power, is brought into touch with the mineral and vegetable kingdoms, and with animal life. The book can scarcely fail to prove instructive, as well as fascinating, to the young.

#### VERTICAL WRITING.

What is called vertical writing is the latest fad, says the Dundas *Banner*. It may become something much more than a fad, as it seems to have merit in it. Vertical writing, that is, where the letters are all made straight up and down, instead of slanting to the right, is easier to read, probably because the eye is accustomed to printed letters being vertical. Many a lad at school has been rapped over the knuckles because he did not hold his pen in a certain way, yet when lads grow to be men each of them has his own way of writing, and the handwriting of everyone of them is different, so different that it is a common thing to read the character of the writer by his handwriting. Guelph School Board has decided to give vertical writing a trial. It will be interesting to observe if the straight up and down character of the writing has any effect in forming the character of the writer.

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**Literary Notes.**

The January *Arena* is the most interesting number that has appeared in many months. It is of special interest to legislative bodies, physicians, and lawyers on account of the article on "A Court of Medicine and Surgery," written by A. B. Choate, the prominent lawyer, at the request of leading physicians. Mr. Choate intends to inaugurate a movement which it is believed by some of the ablest lawyers and physicians will be of as vital importance to medicine and surgery as well as to the public as was the movement that resulted in the establishment of trial by jury to the public and to the legal profession. This is the opening shot of a campaign that will be waged from *The Arena's* pages by leading physicians, surgeons, and jurists in the near future, and that will be carried before the legislature in Minnesota and elsewhere this winter.

Four beautiful maidens, some in old-fashioned costume, some in modern dress, adorn the four panels, or folders, which compose *The Youth's Companion* Calendar for 1897. The Calendar complete is 10½ by 24 inches in size, and is the most artistic and attractive record of the passing days which has yet appeared. It is lithographed in twelve colors, from four beautiful water-color paintings, and is perfectly charming in tone and design. The Calendar is published exclusively by *The Youth's Companion*, and could not be sold in art stores for less than one dollar. But it is sent free to all new subscribers who send the subscription price (\$1.75), and to all subscribers who promptly renew their subscriptions. It may also be had for 50 cents in cash. The announcement of *The Companion* for 1897 promises even more than the usual number of good things. It is especially strong, not only in good stories, but in articles which inform as well as interest the whole family. Illustrated prospectus of the volume for 1897 sent free on application. Address *The Youth's Companion*, 207 Columbus avenue, Boston, Mass.

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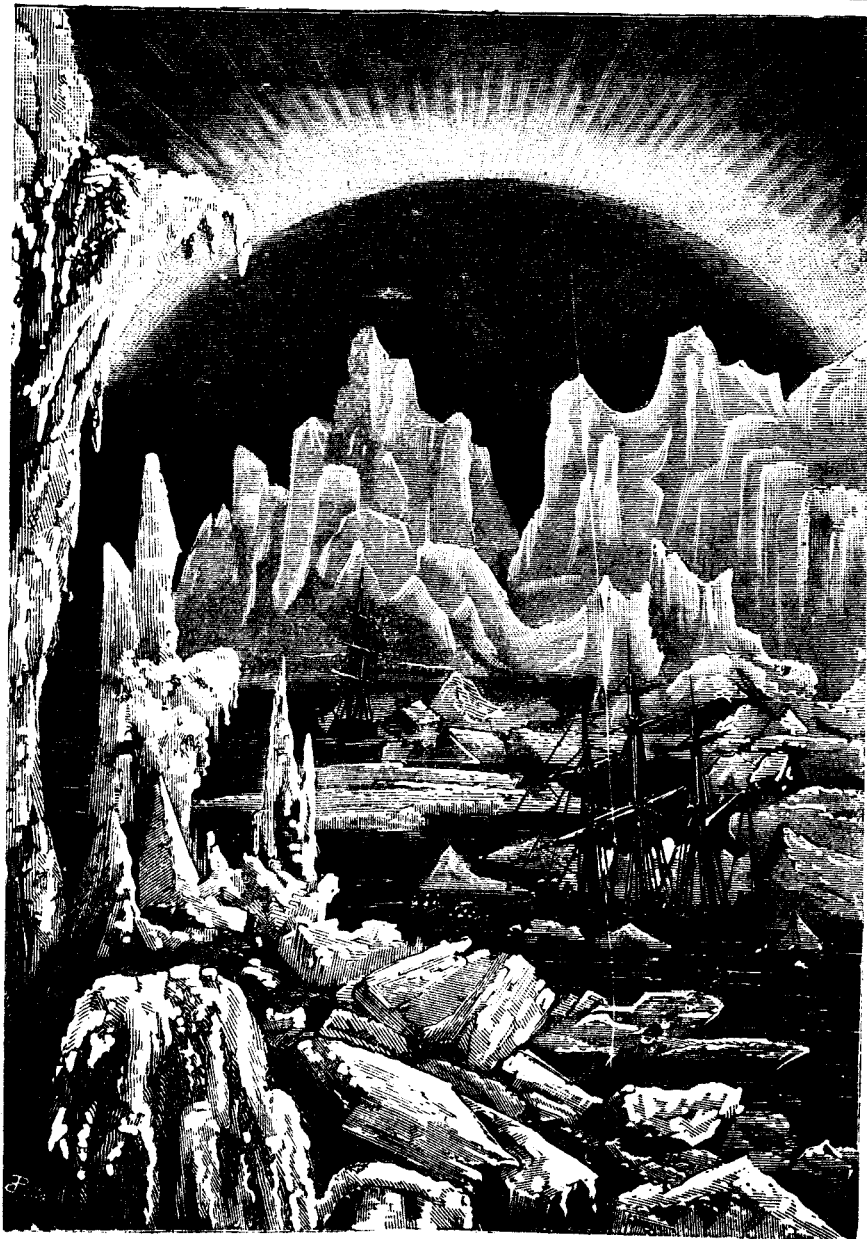
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