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# The Canada School Journal.

## AND WEEKLY REVIEW.

VOL. X.

TORONTO, JUNE 4, 1885.

No 22.

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### The Canada School Journal and Weekly Review.

Edited by J. E. WELLS, M.A.  
and a staff of competent Provincial editors.

An Educational Journal devoted to the advancement of Literature, Science, and the teaching profession in Canada.

#### —o—TERMS.—o—

**THE SUBSCRIPTION** price for THE CANADA SCHOOL JOURNAL is \$2.00 per annum, strictly in advance.

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CANADA SCHOOL JOURNAL PUB. CO. (Limited)  
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### The World.

The extracts we have given in our miscellanea from a preliminary report in regard to Lake Mistassini will serve to introduce the fuller discoveries of the exploring party, which will probably be given to the public in a few weeks. Recent Quebec despatches say that the expedition has been heard from and that the survey of the lake and the geographical inspection of its surroundings will probably be completed in August. The explorers have little doubt that the lake is as large as Lake Ontario. The surrounding country promises great mineral wealth, though believed to be practically valueless for agricultural purposes.

A great experiment is about being tried in New York. The Legislature of the State has at last granted a charter to a company which proposes to place a tunnel under Broadway Arcade to hold all the pipe and wire service of the city, and also to form a means of subterranean travel. It is quite possible that in this way an end may some day come to the perpetual tearing up of pavements and digging of ditches in the streets of great cities.

The death of Victor Hugo is a great event in French politics as well as in literature. As an original and intensely realistic writer he has had few equals. He founded a school of fiction which was eminently his own. As a political writer it has been truthfully said that he was largely instrumental in creating in France the sentiment upon which the Republic rests. With his death one of the world's great literary lights has gone out. He died at a good old age having seen Paris celebrate with great enthusiasm his eighty-third birthday.

Hard must be the task of the Canadian who wishes to keep his mind informed and unbiassed in regard to public affairs in the Dominion, and who has to depend for his information upon any one of the party newspapers. The practice of giving only one side of a debate seems to be carried to a greater extreme than ever this session. The Parliamentary reports of either of the great dailies give no adequate idea of what is said by speakers on the opposite side. Grant that the speeches omitted are of no weight or force, their publication would but add to the effect of the able and vigorous efforts which are thought worthy of reproduction. What a pity that one of the great organs would not try the experiment of reporting both sides with equal fulness, just for the novelty of the thing.

The announcement that the Anglo-Russian dispute is practically settled by Russia's acceptance of England's counter-proposals is a great triumph for the Gladstone Ministry, and a matter for congratulation to all lovers of peace the world over. A war between these two great powers would have moved back the hands on the dial plate of civilization by half a century. The moral courage displayed by Gladstone in resisting the terrible pressure which has for weeks past threatened to crush him and his cabinet, is worthy of all praise. The grand old Christian statesman will be able now, it may be hoped, to lay down the great burden of the premiership with honor, and enjoy during his few remaining days the well earned rest for which he no doubt longs.

### The School.

A subscriber urges with some force that it seems scarcely fair to print the competitive arithmetic papers in advance of the award being made, as later competitors might select from the earlier papers, and so gain a decided advantage. In reply we may say, that this can scarcely be done, as the papers are all endorsed with the date of their reception, and the examiners would be pretty sure to detect any such tactics in the later papers. It was stated, when the prizes were announced, that the papers might be published as received. Several correspondents have kindly pointed out errors in the published solutions of some of the questions. As before observed we have no right to revise the papers, but it will, of course, be the duty of the committee of award to take account of such errors.

Much has been said and written of late on the alleged prevalence of color-blindness. A correspondent of the *Pall Mall Gazette*, is right, we have little doubt, in attributing a very large proportion of the cases of so-called color-blindness to simple ignorance. He refers to the fact that the defect is rarely found in female candidates. Why is this, if not because the peculiarities of ladies' attire and their attention to house decoration, etc., give them a training in distinguishing colors, which the members of the other sex do not, as a rule, receive. The correspondent's suggestion that instruction in colors and their names ought to form a distinct item in the curriculum of elementary schools, is well worth considering. Such a study would have an æsthetic as well as practical value.

We are glad to learn that, by invitation of the Grimsby Park Association, the Philadelphia National School of Elocution and Oratory has decided to conduct its summer term upon the Grimsby Park grounds. The increased attention which is now being directed to the study of the literature of our own mother tongue is one of the most sensible and hopeful educational reforms of the day. Knowledge and appreciation of standard English authors will shortly become, as it should be, one of the chief tests of a good education. Good reading is beyond controversy, the "open sesame" to all literature. It should be the object of every teachers' ambition and indefatigable effort to become a good reader. The school of which Dr. Edward Brooks is president, stands, we believe, deservedly high. The course outlined in the advertisement on another page is comprehensive. We hope that the enterprise may prove a success, and be the means of giving a lasting impetus to good reading, in every sense of that ambiguous phrase, in Ontario.

"The function of the teacher is that of an eternal moral force, always in operation to excite, maintain and direct the mental action of the pupils,—to encourage and sympathize with their efforts, never to supersede them." This maxim of Jacotot contains the fundamental principles of all good teaching. The fluent talker is not necessarily the stimulating teacher, often the opposite. To give information, to lecture, however clearly and ably, is not the first or chief work of the teacher. It cannot be too often or too strongly insisted upon that the true measure of teaching power is the amount of thinking, of real brain work done by the student. It is quite as easy to help the child too much as too little. Possibly more harm is done in the former way than in the latter. Only as, and in so far as, the learner is making discoveries for himself, his mind doing its own independent work, is the process of education going on.

Vigorous action is being taken in reference to the death of a boy at King's College School, London, by the cruel treatment received at the hands of the larger boys. Sir William Harcourt, the Home Secretary, has placed the matter in the hands of the public prosecutor. In announcing the fact to Parliament, Sir William spoke in terms of great indignation, and said that he had given instructions to obtain evidence and, if possible, a conviction of the culprits. No doubt the sad

affair will lead to the reform of hoary abuses in this and other schools, and ameliorate the condition of many of the poor lads who have the misfortune to be the younger boys of such institutions.

The London, (Eng.) *School Guardian*, deploring the temporary defeat in the London School Board of a motion to establish, as an experiment, two Day Industrial Schools in the neighborhood of the Docks, remarks that, notwithstanding all objections, practical success is an answer to all opposing theories, and that "in many parts of the country, Day Industrial Schools have been the moral saving of the people and have quite vindicated themselves," and adds that, under the adverse decision, "the moral recovery of some hundreds of children awaits a more convenient season."

We give this week the first of a number of papers on drawing. These are being prepared for THE JOURNAL by competent authors, with special reference to the approaching examinations. In view of the nearness of those examinations we have thought a few sets of such papers would be more helpful to a large number of our readers than the initial numbers of a continuous series, which could not progress far enough in the few intervening weeks to be of great service to those going up for first examinations. After the midsummer examinations we shall have the whole subject treated progressively by competent writers. The papers presented in this and subsequent issues will speak for themselves. The fact that the author of the one given in the present issue, is a graduate of the Kensington (Eng.) Art School, as well as a successful Canadian teacher, affords a double guarantee that the papers will be of the right sort. We intend for some time to come to pay especial attention to this subject, and our first aim will be to have it treated in an artistic, yet thoroughly practical, manner.

"How shall I spend my vacation?" is no doubt just now a practical question with a good many teachers. We allude to it, not because we have any general recommendation to make. We have no summer school scheme to promote, no self-interest of any kind to serve. We would that every teacher might go from home for a few weeks, visiting the large cities and centres of interest within reach, making the acquaintance of other educationists, studying new objects and methods, enjoying beautiful and historic scenes, and mingling with men of different pursuits and modes of thought. In a word we wish the holidays could be made by each a season of rest, recreation, travel and self-improvement. Each would then go back to his work with renewed life and enlarged vision, and the schools would respond to the new impulses imparted. Every teacher who is worthy of the profession ought to be able to do this. It would pay the parents and other supporters of schools to enable them to do it. We look for a good time coming,—though yet we fear far in the dim future—when every one will feel that he can afford to do it.

As might have been anticipated the proposal of the English National Union of Elementary Teachers to secure direct repre-

sensation in Parliament, is found beset with practical difficulties, some of which the *School Guardian* forcibly points out. In the first place there is the difficulty of getting constituencies to return their candidates. Then their representatives, once elected, would be no longer teachers but only ex-teachers. Again as no man can serve two masters, the representative elected would be in a very awkward position. Will he be the servant of the constituency which returns him or of the Union which supports him? Worst difficulty of all, as the membership of the Union is made up of Liberals and Conservatives, shall the candidates be Liberal or Conservative? Upon this rock the movement will probably split. To an onlooker it would certainly seem as if the Union might influence legislation, much more hopefully from without Parliament, than from within. Its power which is happily becoming considerable, may effect more by being brought to bear through a number of representatives, than if the duty of representing advanced views were left to rest upon the shoulders of one or two specially chosen members.

There is no accounting for taste in logic any more than in dress or decoration. Most educationists will join with the London [Eng.] *Schoolmaster* in deprecating the cruelty and cowardice of such "bullying" in the Public Schools as led to the death of the poor lad at King's College, but few will be able to see the force of the argument which that Journal quotes with approval from *The Queen*, and which regards "this lamentable occurrence as in great part due to the maudlin and mawkish sentimentality of the age," the sentimentality, viz: which "is opposed to the infliction of corporal punishment." "At a good Public School," argues the *Queen*, "where the master has the authority of a parent delegated to him, and can inflict corporal punishment if he sees fit to do so, such an act of tyranny as the killing of a boy by the elder scholars would not occur, as the bullies would dread the sound flogging they would receive for every act of tyranny practised by them. "This is surely applying the principle of *similia similibus* in logic with a vengeance. It reminds us of the anecdote we have somewhere read in which a father is represented as reproving his son in terms of awful profanity for swearing. The argument is surely on the *lucus a non lucendo* principle.

#### PROFESSIONAL READING.

We notice that at one or two of the Teacher's Associations resolutions have been passed favouring the proposal to have a course of professional reading prescribed by the Minister of Education, as a kind of post-graduate course for members of the profession. This desire for further improvement is laudable. No one, with a spark of the true teacher's spirit in him, will wish to "rest and be thankful," when once he has secured his certificate and a tolerable situation. But is there not a more excellent way of progress? Cannot a large body of intelligent, educated men and women do better than follow a uniform, monotonous, cut-and-dried course, made ready for them by the Education Department? Will not take the matter into their

own hands, emancipate these readings from the fetters of departmental routine, and, relying upon the ample resources of their own complex individuality, form their own reading circles and mark out their own courses? Those courses will be all the better for not being too strictly professional. A generous admixture of general literature of a high class will make it more stimulating and more broadening. Nor is it at all desirable that all teachers throughout the province of Ontario even should read the same course? On the contrary, both the profession and the country will be the better for a variety. If any number of teachers from half a dozen, or less, to half a hundred, can consult together, agree upon three months' reading, and make arrangement for regular interchange of thought and work either at stated meetings or by systematized correspondence, we venture to say better results will be gained than are possible from any authorized routine? The benefit to be gained will be proportioned not to the amount or quality of the matter read, nor even to the thoroughness with which the ideas of celebrated educators are learned, but rather to the amount of individual thought and application secured. For this there is nothing like the friction of mind with mind, the free interchange of opinion and criticism.

#### METHODS OF TEACHING.

A writer in the *New England Journal of Education* asks his readers whether it has ever occurred to them in looking through some of the new primary and oral arithmetics that the author was afraid the children might have something to do. The question suggests a fault which, it seems to us, besets many of the so-called new methods as well as new books. It is the danger which threatens the kindergarten. In reading the "Quincy Methods," excellent as its lessons are in many respects, and full of helpful hints as to the best means of getting at the child mind, the query perpetually recurs, can there really be living children of four or five years of age and upwards, who require to have every obstacle in their pathway so finely pulverized, and all their mental pabulum so wonderfully diluted? No doubt there are such children and as long as the methods in question are strictly adapted to the mental state and needs of the little ones, they are truly admirable. The great danger is that many teachers may, through error in judgment, go on pulverizing and diluting to the injury of the child whose brain craves heartier food and the more vigorous exercise necessary for healthful growth.

It must never be forgotten that the intellect of the child, no less than its limbs, must be strengthened by exertion, and that the healthy child delights just as much in the vigorous use of the one as of the other. We all know how the average child enjoys the most vigorous gymnastic feats of which it is capable, at the various stages of growth. Nothing is more contrary to its nature, or more repugnant to its impulses, than to be helped to do that which it can do for itself, or to be restrained by leading strings when it would gambol and tumble at its own sweet will. It is the gambolling and tumbling, not the helping hand or the leading string which strengthens bone and muscle. And the healthful child is formed to take just as much pleasure

in mental as in physical feats. Its mind, no less than its body, delights in doing hard things.

The principle we wish to reach is this, and we enunciate it confidently. The more and the harder things a pupil can be led to find out and do for himself, the more rapid will be his progress and the greater his joy in study. Every true teacher will know how to recognize the kindly eye and the flushed cheek which tell of mental effort and conscious triumph, and will delight in calling them forth. The true aim of educational reform is not to make the pathway too level, or the grade too easy for the foot of the little learners, but to see to it that the exercises are such as to bring not merely memory, but reason, reflection, judgment, imagination, and every faculty into vigorous and successful play.

## Special Articles,

### TEACHER'S LANDMARKS.

1. Lead the pupils to discover what in the present lesson is new, to distinguish between the matter of this lesson and the matter of the last one. The passage from the known to the unknown is natural to the mind; knowledge grows from knowledge. Here emphasis should be laid on the importance of finishing the lessons day by day, if possible. Experienced teachers know how sluggishly the majority of pupils work on matter that they have worked over before. Threshing old straw is never interesting. Hence the aim should be to make every lesson successful, to have as few failures as possible, and to keep the edge of curiosity sharp. One conquest prepares the way for another conquest; and few things are more valuable to the student than the habit of success. An excellent scholar of my acquaintance partially failed as a teacher from making his lessons too long, the result being that the same matter was often under study for two or three days. Let the lesson be such that it can be finished, and then let thoroughness in preparation be insisted on.

\* \* \* \* \*

3. Successful primary instruction is strongly realistic. The teacher should cause the pupil to understand that material things are behind all language relating to material things. Formal object lessons are far less important than objective teaching. Only too often school arithmetic is merely a manipulation of figures back of which nothing is seen. Attention should be paid to teaching children adequate ideas of distance. How high is the school house? What are the dimensions of the school room? How large are the school grounds? How far is it from one familiar object to another (say from one street to another)? When he has formed an adequate idea of a half mile or a mile, the pupil can the better judge of the width of a river or the height of a mountain. Such efforts as these stimulate the imagination, furnish a ready means of associating ideas, and fix facts in the mind. The pupil should not be left to think that the Mississippi River is a streak of black ink on a sheet of white paper. However, it must not be forgotten that the time comes when, relatively, illustration must recede towards the background. There is abstract as well as concrete thought; there are concepts as well as percepts, general as well as particular ideas. At the proper time the pupil must be put in the way of dematerializing or unsensory things. An intelligent school boy, well taught in book ways, expressed a desire to go to the boundary between Pennsylvania and Maryland. Asked what he supposed the boundary is, he answered—"A rope!"

4. Teach the pupil to look carefully into the meaning of language; that is, challenge him with constant questions as to words used in definitions, rules, descriptions, and examples. An example in arithmetic is put before the pupil; before he begins to "cipher" let him look searchingly through the example to make sure that he understands all the elements that it contains. Teach him to lay hold of the key words to a sentence—to seize the salient ideas of a paragraph.

I cannot resist the impression that teachers as a class fail to appreciate the extent to which the instruction of school children is in words merely. Words are memorized, and then handled as though they were facts, things, thoughts. It is both instructive and amusing to call a class of children out into discussion, and to listen to their arguments. I shall here record, as literally as I can, two discussions in which I have borne a part. The first is with a class of boys that have just passed a very satisfactory oral examination in the history of the United States, including the Emancipation Proclamation of President Lincoln.

"What is slavery?" "There isn't any now." "Isn't there still slavery in some countries?" "Yes, sir." "Then you mean that slavery doesn't now exist in the United States?" "Yes, sir." "There was once slavery in the United States then?" "Yes, sir." "Where?" "In the South." "Well, what was slavery when we had it?" The universal silence that follows this question leads me to change the abstract for the concrete form. "Well, then, what is a slave?" "A negro." "A negro! were all negroes slaves—the negroes in the North?" "No, sir." "Then it is not a good answer to say a slave is a negro,—is it?" We must try again. "What is a slave?" "A slave has a master whom he has to mind." "Yes; and so a boy has a father whom he has to mind,—hasn't he?" "Yes, sir." "Then what is the difference between a slave and a boy?" "A slave has to work very hard." "And some boys have to work very hard: is that the difference—the slave has to work harder than the boy?" "A slave, if he does wrong, gets whipped." "And so boys sometimes get whipped; what is the difference then?" "If the slave does wrong he gets a terrible whipping; but a boy only gets cut once or twice." "Are you all satisfied with this answer?" Silence seems to show that the class cannot throw more light on the question. So I change my tactics again. "Can a master sell his slave?" "Yes, sir." "Can a father sell his boy?" "No, sir." "Then is not this the difference—a slave is property, a thing, or chattel, that can be bought and sold, while a boy is not?" "Yes, sir." This dialogue shows how pupils of considerable intelligence, able to recite memoriter good lessons in the history of the United States, can go on hearing and using such words as "slavery" with no just idea of what they mean.

The second discussion is excited by the use, by pupils, of the phrase, "The New World." "Did you say 'The New World'?" "Yes, sir." "Is there an Old World also?" "Yes, sir." "Then there are two worlds, are there?" "Yes, sir," and "No, sir." "You do not agree; what do you mean by the New World?" "The western continent." "And by the Old World?" "The eastern continent." "Then in this sense there are two worlds?" "Yes, sir." "Why is the western continent called the New World?" "Because it was made after the eastern continent." (One boy says four hundred years after!) "Because it was made after the Old World! Is that the reason?" "Because it was discovered after." "Discovered after! Who discovered the new world?" "Columbus." "When did he discover it?" "In 1492." "Who discovered the Old World?" No answers. "Was it ever discovered in the sense that the New World was?" "No, sir." Evidently this discussion had reached its limit with primary children, and so it

was dropped. They did not see all that was embraced in the question, but presumably they had learned something.

These dialogues have not been reported because they show special defects in teaching; these pupils had been well taught, as teaching goes. But they show how incorrect and vague the information of children often is, how inexact, false, and contradictory are their notions, and what the teacher must do for them. Too much importance can hardly be attached to the use of the dictionary; however, if the child simply cons from it verbal definitions, it may be doubted whether its use is not a disadvantage.—From an address by Supt. R. A. Hinsdale, Cleveland, Ohio.

**Prize Competition.**

**ARITHMETICAL PROBLEMS.**

FOR CANADA SCHOOL JOURNAL COMPETITION PRIZES—FOURTH CLASS.  
BY EX LUCE LUCELLUM—APRIL 15TH, 1885.

NOTE.—In every solution where proportion is used the Unitary method may be substituted.

1. Simplify the expression :

$$\frac{2\frac{3}{4} + 4\frac{9}{10} - 2\frac{1}{5}}{\frac{1}{3}(1 \times 5\frac{1}{2}) + \frac{1}{6} \text{ of } \frac{1}{7} \text{ of } (7 - 2\frac{1}{2}) - \frac{1}{3}}$$

$$= \frac{10\frac{3}{4} + 8\frac{1}{10} - 4\frac{2}{5}}{\frac{5\frac{1}{2}}{3} + \frac{1}{42} - \frac{1}{3}}$$

$$= \frac{10\frac{3}{4} + 8\frac{1}{10} - 4\frac{2}{5}}{\frac{1}{42}}$$

2. Find the value of

$$4 + \frac{1}{2} \text{ of } £1 \text{ } 15\text{s.} = 10\frac{1}{2}\text{s.} \times \frac{3}{5}\text{s.} = £7 \text{ } 11\text{s. } 2\frac{1}{2}\text{d.}$$

$$+ \frac{3\frac{1}{2}}{5\frac{1}{2}} - \frac{2\frac{1}{2}}{3\frac{1}{2}} \text{ of } 13\text{s.} = \frac{1\frac{1}{2}}{4\frac{1}{2}} - \frac{1}{2\frac{1}{2}} = \frac{1}{3} - \frac{1}{2\frac{1}{2}} = \frac{1}{6} \text{ of } 1\text{s.}$$

$$- 2\frac{1}{2} \text{ of } (2\frac{1}{4} - 1\frac{1}{2}) \text{ of } 7\text{d.}$$

$$\frac{1\text{s. } 4\text{d.}}{£7 \text{ } 12\text{s. } 6\frac{1}{2}\text{d.}}$$

$$\frac{1\text{s. } 3\frac{1}{2}\text{d.}}{£7 \text{ } 11\text{s. } 3\text{d.}}$$

3. How many cents must be added to

$$\frac{00075 + 375}{25 \times 075} \text{ of } \$0.50$$

to make it equal to \$1.00 ?

$$\frac{88\frac{2}{3} \times 25}{100} \text{ of } 50 = 16$$

$$\$1.00 - 16 = \$0.84 \text{ } 84 \text{ cents.}$$

4. Express as a decimal

$$2 \cdot 03 \times 17 \cdot 27 \div 4669.$$

5. Reduce .25 of 1 guinea + .625 of 1 crown

$$\frac{2\frac{3}{4} \times 17\frac{1}{2} + \frac{5}{8} \times 20}{100} = 75 \cdot 23$$

$$\frac{.3 \text{ of } 7\text{s. } 6\text{d.} - .375 \text{ of } 6\text{d.}}{\text{to the decimal of } £2 \text{ } 2\text{s. } 9\text{d.}}$$

$$\frac{1\frac{1}{10} \text{ of } 21\text{s.} = 5\text{s. } 3\text{d.}}{\frac{1\frac{1}{100} \text{ of } £5 = 3\text{s. } 1\frac{1}{2}\text{d.}}{\frac{1}{3} \text{ of } 7\frac{1}{2}\text{s.} = 2\text{s. } 6\text{d.}}}$$

$$\frac{10\text{s. } 10\frac{1}{2}\text{d.}}{- \frac{37\frac{1}{2}}{100} \text{ of } 6\text{d.} = \frac{2\frac{1}{2}}{10\text{s. } 8\frac{1}{2}\text{d.}}}$$

$$\frac{10\text{s. } 8\frac{1}{2}\text{d.}}{£2 \text{ } 2\text{s. } 9\text{d.}} = \frac{1}{4} = 25$$

6. Divide £12 6s. 8d. between two persons, giving to one two-thirds as much again as the other.

$$\begin{array}{r} 8 \\ 5 \\ \hline 8 \end{array} \begin{array}{r} £12 \text{ } 16\text{s. } 8\text{d.} \\ 3 \\ \hline £38 \text{ } 1\text{s. } 0\text{d.} \end{array}$$

$$\frac{£4 \text{ } 16\text{s. } 3\text{d.}}{£8 \text{ } 0\text{s. } 5\text{d.}}$$

7. A land owner has three estates containing 2457 ac. 2912 ac. and 3918 acres respectively. He divides his estates into farms as large as possible, all containing the same number of acres. Find how many farms he will have and the size of each.

$$G. O. M. = 91$$

$$2457 \div 91 + 2912 \div 91 + 3918 \div 91 = 102$$

91 acres in each. 102 farms.

8. Three merchants invest \$5,000, paying in proportion of 6, 5 and 4. One year's profits amount to \$750. Find each man's share and the rate per cent. for which he receives interest, and also the value of his capital.

$$\frac{6}{18} \text{ of } 6,000 = 2,400 \text{ of } 750 = 300$$

$$\frac{5}{18} \text{ of } 6,000 = 2,000 \text{ of } 750 = 250$$

$$\frac{4}{18} \text{ of } 6,000 = 1,600 \text{ of } 750 = 200$$

$$\text{Gain} = \frac{750}{6000} = 12\frac{1}{2} \%$$

9. Of five legatous the first receives 3 the second 3 the third .03 the fourth .03 and the fifth the remainder amounting to \$36,400. How much does each receive ?

$$\frac{3}{3} + \frac{3}{3} + \frac{3}{3} + \frac{3}{3} = 3\frac{1}{3}$$

$$\text{Remainder is } \frac{36,400}{3\frac{1}{3}} \text{ or } 36,400$$

$$\frac{36,400}{3\frac{1}{3}} = \$400$$

$$\frac{36,400}{3\frac{1}{3}} = \$120,000$$

$$\frac{3}{3} \text{ of } 120,000 = 40,000$$

$$\frac{3}{3} \text{ of } \text{---} = 36,000$$

$$\frac{3}{3} \text{ of } \text{---} = 4,000$$

$$\frac{3}{3} \text{ of } \text{---} = 3,600$$

$$\frac{3}{3} \text{ of } \text{---} = 36,400.$$

10. 60 yards of carpet are bought to cover a room 15 ft. x 27 ft. 3 in., at 4s. 6d. per yard. The remnant is sold for 3s. 4d. per yard. Find the whole cost, the carpet being 2 ft. 6 in. wide.

$$6 \text{ strips each } 9\frac{1}{2} \text{ yds. long} = 54\frac{1}{2} \text{ yds.}$$

$$60 \times 4\frac{1}{2} = 270$$

$$5\frac{1}{2} \times 3\frac{1}{2} = 18\frac{1}{2}$$

$$20125.1\frac{1}{2}$$

$$£12 \text{ } 11\text{s. } 8\text{d.}$$

11. Show by examples, that if of the four terms, sum of money invested. Rate per cent. of interest. Amount of interest. Time any three be given the fourth may be found. Let sum = s. Rate per cent. = r. Amount of interest = I. Time = t.

(a) Given s = \$500 r = 6%, t = 2 years. Find I.

$$\frac{6}{100} \times 500 \times 2 = I$$

$$\frac{30.00}{2} = I$$

$$\$60.00 = I.$$

(b) Given r = 6% T = 2, I = 60. Find s.

$$6 : 60 :: 100 : 500 = s.$$

$$\frac{60 \times 100}{6} = 1000$$

(c) Given s = 500 r = 6% I = 60. Find t.

$$6 : 60 :: 1 : t$$

$$500 : 100 :: 1 : t = t.$$

(d) Given s = 500 I = 60 t = 2 Find r%

$$500 : 100 :: 60 : r\%$$

$$\frac{60 \times 100}{500} = r\%$$

12. The prime cost of a 60 gallon cask of wine is \$75.00. 5 gallons are lost by leakage and 30 gallons are sold for \$2.00 per gallon. At what price must the remainder be sold per gallon to gain 50% on the whole cost ?

$$75 \times 50\% \text{ on } 75 = 112.50$$

$$\begin{array}{r} 60 \quad 30 \quad 60 \\ 5 \quad 2 \quad \hline 55 \quad 60 \quad \hline 30 \quad \hline 25 \end{array} = \$2.10$$

13. By selling a horse for \$140 I lose 30%. For how much must I sell him to gain 5% ?

$$\text{Prime cost} = 200$$

$$5\% \text{ on } 200 = 10$$

$$\$210$$

14. By selling two houses for \$800 each, I lose on one 25% and gain on the other 25% of the cost price. Find the gain or loss on the transaction.

$$\begin{array}{r} \text{Prime cost of one, } 1066\frac{2}{3} \\ \text{Prime cost of second, } 640 \\ \hline 1706\frac{2}{3} \\ \text{Selling price of both, } 1600 \end{array}$$

$$\text{Loss} = \$106\frac{2}{3}$$

15. An imported organ which bears a duty of 25%, is sold at a loss of 8%. Had it been sold for \$20 more, there would have been a gain of 2%. For how much was the organ invoiced ?

$$\$20 = 10\% \text{ on } \$100 = \$20 \text{ on } \$200$$

$$\$200 \text{ less } 25\% \text{ on cost} = \$150.$$

16. What must be the marked price of a piece of goods, which cost \$6, that the merchant may throw off 10%, and still make 25% profit ?

$$100 : 600 :: 125 : 750$$

$$90 : 750 :: 100 : \$8.33\frac{1}{3}$$

17. A dealer mixes teas worth 50 cents, and 37 cents per pound respectively, in the proportion of 8 pounds of the former to 5 pounds of the latter, and sells the mixture at the rate of 45 cents per pound. He uses for a pound weight one which weighs only 15.75. How much does he gain on every cwt. he sells?

$$\begin{array}{r} 50 \\ 8 \\ \hline 400 \\ 37 \\ 5 \\ \hline 185 \\ 400 \\ \hline 13,585 \\ 45 - 45 = 0 \\ \hline 71\frac{1}{2} \text{ cents.} \end{array}$$

18. Gold is worth 4 guineas an ounce. Find the value of a gold ornament, weighing 6 ounces, of which 18 out of every 24 parts are pure gold, allowing 3s. per ounce, as the value of the alloy and 33 $\frac{1}{3}$ % on the whole cost of workmanship.

$$\begin{array}{r} \frac{1}{4} \text{ of } 6 = 4\frac{1}{2} \text{ oz. gold } 1\frac{1}{2} \text{ oz. alloy.} \\ 4 \\ 18 \\ 21 \\ \hline 378 \text{ s.} \\ 4\frac{1}{2} \end{array}$$

$\frac{1}{4}$  of 6 = 4 $\frac{1}{2}$  s. = 510s. = £25 10s.

19. Trees are to be planted around a rectangular field, containing 15 acres, one of whose sides measures 10 chains. How many will be required if they are set 11 feet apart?

$$\begin{array}{l} 15 \text{ ac.} = 150 \text{ sq. ch.} = 10 \times 15 \text{ ch.} \\ \text{Perimeter} = 20 \times 80 = 50 \text{ ch.} = 3,300 \text{ ft.} \\ \frac{3,300}{11} = 300 \text{ trees.} \end{array}$$

20. A railroad runs through an estate for 18 miles, occupying a space 33 yards wide, valued at \$5.67 per acre. The owner in exchange receives a square field worth 7 d. stg. per pole. How many acres must it contain?

$$\begin{array}{l} (\text{sov.} = \$4.86) \\ 18 \times 33 \times 1760 = 10,392,000 \\ \frac{10,392,000}{5.67} = 1,832,788 \\ \frac{1,832,788}{4.86} = 377,117 \text{ sq. yds.} \\ \frac{377,117}{4840} = 77.7 \text{ acres.} \end{array}$$

7 d. per pole = £4 $\frac{1}{2}$  per acre = 22.68 -  $12\frac{1}{2} \times 4\frac{1}{2} = 54$  acres.

21. A rectangular plot of land is 160 feet x 120 feet. It has a ditch around the outside, and two others intersecting at right angles in the middle of the plot. If the ditches are 5 feet wide, and 2 feet 2 $\frac{1}{2}$  inches deep, and cost 54 cents per cubic yard, find the cost of digging them?

$$\begin{array}{l} 2(160 \times 5 \times 5) = 340 \\ 2 \times 120 = 240 \\ 160 \times 115 = 275 \\ \hline 855 \times 5 \times 2\frac{1}{2} = 9605 \\ 9605 \times 54 = 3192.10 \end{array}$$

22. The forewheel of a carriage is 12 feet in circumference and makes 2,200 revolutions more than the hind wheel in 15 miles. Find the circumference of the hind wheel.

$$\begin{array}{l} 1760 \times 15 \times 3 = 79,200 \\ 12 \ 679,200 \\ \hline 6,600 \\ 2,200 \\ \hline 4,400 \ 79,200 \ (18 \text{ feet.}) \end{array}$$

23. A block of ice measures 4 feet by 3 feet by 2 feet 1 inch. How many gallons of water does it contain, if water expand  $\frac{1}{10}$  in freezing and one gallon = 277 $\frac{1}{2}$  cubic inches?

$$\begin{array}{l} 4 \times 3 \times 2\frac{1}{2} = 25 \text{ c. ft.} \\ \frac{8}{10} \text{ of } 25 = 22\frac{1}{2} \text{ c. ft.} \\ 1728 \\ \hline 38,880 \end{array}$$

$\frac{38,880}{277\frac{1}{2}} = 140$  gallons.

24. 4 men, 5 women, 6 boys or 8 girls can do a piece of work in 47 days. How long will it take 2 men, 4 women, 5 boys and 8 girls to do it, all working together?

$$\begin{array}{l} \text{Men } 4 = 8 \text{ girls, } 1 \text{ man} = \frac{8}{4} \text{ girls,} \\ \text{Women } 5 = 8 \text{ " } 1 \text{ woman} = \frac{8}{5} \text{ " } \\ \text{Boys } 6 = 8 \text{ " } 1 \text{ boy} = \frac{8}{6} \text{ " } \\ \text{Girls } 8 = 8 \text{ " } 1 \text{ girl} = \frac{8}{8} \text{ " } \end{array}$$

$$\begin{array}{l} \frac{8}{4} \times 2 = 4 \\ \frac{8}{5} \times 4 = 6\frac{2}{5} \\ \frac{8}{6} \times 5 = 6\frac{2}{3} \\ \frac{8}{8} \times 8 = 8 \\ \hline 25\frac{1}{5} : 8 :: 47 : 15 \text{ ds. ys.} \end{array}$$

25. A and B can do a piece of work in 8 days, B and C in 10 days and A, B and C in 6 days. If \$240 be paid for the work, find how much each man earns.

$$\begin{array}{l} A + B = \frac{1}{8} \text{ in 1 day } \frac{1}{8} - \frac{1}{10} = \frac{1}{40} = C = 24 = \quad \$60 \\ B + C = \frac{1}{10} \text{ " } \frac{1}{10} - \frac{1}{40} = \frac{3}{40} = A = 15 = \quad 96 \\ A + B + C = \frac{1}{6} \text{ in 1 day } \frac{1}{6} - (\frac{1}{40} + \frac{3}{40}) = \frac{1}{20} = B = 17\frac{1}{2} = \quad 84. \end{array}$$

26. The driving wheel of an engine is 7 feet in diameter and makes 180 turns per minute. How many telegraph posts will it pass in 1 hour if they are 80 yards apart?

$$\begin{array}{l} (\text{Circumference of a circle} = 3\frac{1}{2} \times \text{diameter}) \\ 7 \times \frac{22}{7} \times 180 = 3960 \text{ feet per minute,} \\ 1320 \text{ yards " } \\ 60 \\ \hline 79200 \\ \hline 80 = 990. \end{array}$$

Examination Papers.

DRAWING.

BY WILLIAM BURNS, HIGH SCHOOL, BRAMPTON.

1. Draw a square of 4 in. side; inscribe in this the largest possible octagon. Around the centre inscribe another square of 1 $\frac{1}{2}$  in. side, parallel to the first, and again inscribe an octagon. Shade the positions of the squares visible in "half-tint."
2. Explain the methods of drawing an eclipse (1) by using the foci, (2) by using the lengths of semi-axes only.
3. Draw a rosette of 3 in. size—having eight points; all lines to be curves, but not segments of circles.
4. Draw outline of a vase; height, 10 in.; top, 4 in.; greatest width (6 in.) at a point 2 in. from the base. Sides consisting of curved lines only. Scale  $\frac{1}{2}$ .
5. Draw (from memory) a set of book-shelves open—with three shelves and ornamented top. Height, 4 ft.; breadth, 3 ft.; width of shelves 1 ft. Scale  $\frac{1}{8}$ .
6. Give perspective view of a plinth 6 ft. by 4 ft. by 2 ft., supporting a cubical block (at its centre) of 3 ft. side. Surmount this block by a column of 6 ft. high and 2 ft. square. Distance of spectator 12 ft. Height of eye 6 ft. Picture 2 ft. to R. of line of sight, and 1 ft. within the picture-plane. Scale  $\frac{1}{4}$ .

"LADY OF THE LAKE,"—CANTO V.

BY WILLIAM BURNS, HIGH SCHOOL, BRAMPTON.

1. Give connection of following lines with the preceding Cantos:—
  - i. And true to promise led the way,  
By thicket green and mountain gray.
  - ii. When here but three days since I came  
Bewildered in pursuit of game.
  - iii. Seek other cause 'gainst Roderick Dhu,
  - iv. Bold Saxon—to his promise just  
Vich-Alpine has discharged his trust,
  - v. Sees't thou, De Vaux, yon woodman gray  
Who town-ward holds the rocky way.
2. Explain allusions in the following lines:—
  - i. The spoils from such foul foray borne,
  - ii. Their headlong passage down the verge;
  - iii. Of yore her eagle-wings unfurled,
  - iv. A Douglas by his sovereign blest;
  - v. A purse well-filled with pieces broad.
3. Criticize grammatically the use of the italicized words in the following:—
  - i. Muttered their soldier matins by,
  - ii. The danger's self is here alone.
  - iii. Enough I am by promise tied,

v. While all along the crowded way  
Was jubilee and loud huzza.

4. Give a sketch of the plan of this Poem, accounting for its division into Cantos and Sections.

### ORTHOËPY.

BY J. E. WETHERELL, B.A., HEAD MASTER COLL. INS., STRATHROY.

#### I.

1. Define *orthoëpy*, *articulation*, *accent*.
2. Is *orthoëpy* a science?
3. What is meant by the statement that *good usage is the highest authority in orthoëpy*? (What is *good usage*)?
4. "With regard to many words there is an acknowledged disagreement among the best orthoëpists." Illustrate this statement by the words *orthoëpy* and *pronunciation* themselves.
5. Explain the expressions, "system of phonetic notation," "diacritical marks," "vernacular speech."
6. What is objectionable in the expressions "improper orthoëpy" and "written orthoëpy"?
7. Are "clear articulation" and "distinct utterance" synonymous expressions?
8. Mention any common defects in articulation.
9. What is meant by *ultimate*, *penultimate*, *ante-penultimate*, as applied to accent?
10. Illustrate the uses of the *the diaeresis* and the *cedilla*.
11. What is *syllabication*? By what other name known?
12. Give some general rules for syllabication?

#### II.

1. Illustrate the different sounds of the vowel *a*.
2. What is the difference between *diphthong* and *digraph*?
3. What consonants are sometimes silent? Give one example of each in a word.
4. When are *c* and *g* soft? When hard?
5. "The letter *q* never stands alone." What letter always accompanies *q*? Could the sound of this digraph be represented by any other combination of letters?
6. The letter *r* has a hard, trilling sound; and a soft, liquid sound. Name illustrative words.
7. What are the different sounds of *ough*?
8. Give words to illustrate the *aspirate* sound and the *vocal* sound of *th*.

#### III.

1. Mark the accent of *adult*, *adverse*, *ally*, *assets*.
2. Spell phonetically *agile*, *association*, *Asia*.
3. Show how a variation in accent affects the words *absent*, *affix*, *attribute*.
4. Mark the quantity of italicized letter in *apex*, *apricot*, *charade*.
5. Discriminate between the words in each of the following pairs:  
*emigrant*, *immigrant*;  
*ingenious*, *ingenuous*;  
*caret*, *carat*;  
*council*, *counsel*;  
*descent*, *dissent*.
6. Discriminate between the words in each of the following pairs:  
*strait*, *straight*;  
*raze*, *raise*;  
*canon*, *cannon*;  
*arc*, *ark*;  
*meter*, *metre*.
7. Divide into syllables—*laity*, *nevertheless*, *fever*, *river*, *alternate*, *agriculturist*.
8. What different forces have the form *conjure*, *blessed*, *aye*, according to pronunciation.

## Practical Department.

### ENTRANCE LITERATURE.

THE LARK AT THE DIGGINS.—PAGE 304.

BY H. KAY COLEMAN, HEAD MASTER PUBLIC SCHOOLS, PETERBORO.

Line 1. Stride, to take long steps. Principal parts, *stride*, *strode*, *strid* or *stridden*. Brisk, full of life and spirits; briskly, in an active, lively manner.

Line 2. Squatter,—one who squats or settles on land without a title. What word does *small* qualify? *Premises*,—houses, land etc., conveyed by deed. What other meaning has this word?

Line 3. Change this sentence into indirect narrative.

Line 4. Innocent,—harmless, guiltless, pure.

Line 5. Thatched,—covered with straw or reeds. Change this and the following sentence into the active construction.

Line 6. Furze—a prickly shrub. Spell and give the meaning of a word pronounced like furze.

Line 7. Vertical,—perpendicular. Paling,—derive this word and define palisade. Learn to spell barred, and tell when the final consonant is doubled before an affix; give exceptions.

Line 9. Magnificent,—what part of speech? Give the corresponding verb.

Line 10. Bound Australia. Draw an outline map marking a dozen places. Consistency.—Give the meaning of this word and parse it. Give its corresponding adjective and adverb.

Line 11. Why oak, and ash? Had 'Canadian' been written on the plantation, what tree would have been found? Define rival. What is its meaning as a verb? "Over-towering rival." What trees would these be?

Line 13. Oval,—Latin, *ovum* an egg, egg-shaped. Draw an oval. Write the sentence beginning "Ah! well," in indirect discourse.

Page 305.—Line 5. Gigantic,—huge, enormous. What noun does this come from?

Line 6. "What! is this," etc. Parse the two *whats* in this sentence, and tell what kind of a sentence it is. How many parts of speech may 'what' be. Write sentences and illustrate.

Line 8. What do you know about *ay* and *aye*? Parse *Robin-son's*. What is the difference between, 'the King's picture,' and 'the picture of the king'?

Line 9. Define *remonstrances*, give the corresponding verb, and compare it with 'expostulate.'

Line 16. Cackle,—foolish prating. Derive. "Like most singers, etc." Explain.

Line 25. Cadences. Give the singular and meaning.

Line 26. '*Sotto voce*,' Italian, in a low tone. Commit to memory the paragraph beginning, "It swelled its little throat." Why are the diggers called 'rough fellows,' 'shaggy men,' 'savage men,' 'rough diggers,' and described as having 'rugged mouths,' 'shaggy lips,' 'unbridled hearts,' 'bronzed and rugged cheeks,' and as being full of 'oaths, strife, cupidity, drink, lusts, and remorse'?

Page 306.—*Dulce domum*,—Latin, sweet home. Write sentences to show that you clearly understand the difference between 'remorse,' and 'repentance.'

The author contrasts the state of these unfortunate convicts with their bright and promising youth. The depths of degradation to which men may fall, we see around us every day. Australia was full of horrible examples at that time, being a penal settlement of Britain, to which the worst criminals were sent. And still amidst the moral darkness the novelist paints one bright ray of hope. Until the heart has become so callous that no trickling tear can course the cheek, God's mercy may rescue the worst. Although remorse alone, of which these men seem only to have been possessed, is of little



avail, it is the precursor of repentance, and to penitent man God's mercy is limitless, and its recipient is he over whom the angels of heaven rejoice.

Charles Reade, an English barrister, and novelist. His works show rare constructive skill. He is somewhat extravagant in incident, but a graphic delineator of character and plot. His chief works are. Peg Woffington, Christie Johnston, and Never too late to mend.

### ONE WAY OF TEACHING GRAMMAR.—(VI.)

BY MISS IDA M. GARDNER.

*Topic:* Attribute.

*Definition:* The attribute of a sentence is a part of the predicate used to denote some property, quality, or condition of that which the subject names; or it may be a part of the predicate used to denote the same person or thing as the subject.

*Method:* Give the predicate of this sentence: "The cord is elastic."

*Answer.*—"Is elastic."

What name do we give to that which belongs to any one or anything?

*Ans.*—Property.

Then what is the elasticity of the cord?

*Ans.*—A property of the cord.

Of what is the word "elastic" a part?

*Ans.*—It is a part of the predicate.

What does this part of the predicate denote?

*Ans.*—A property of the cord.

What part of this sentence is used to name the cord?

*Ans.*—The subject.

Tell me all about the word "elastic."

*Ans.*—It is a part of the predicate used to denote a property of that which the subject names.

Take this sentence,— "The cloth is coarse"; what is the predicate?

*Ans.*—"Is coarse."

Describe the word "coarse."

*Ans.*—It is a part of the predicate used to denote a property of that which the subject names.

Use a better word for "property" in this case. No one can? What is the quality of the cloth spoken of? Was it coarse or fine?

Then what does the word "coarse" denote?

*Ans.*—A quality of that which the subject names.

Tell me about "coarse."

*Ans.*—It is part of the predicate used to denote a quality of that which the subject names.

Take this sentence,— "The man was insane"; what is the predicate?

*Ans.*—"Was insane."

What was the condition of this man?

*Ans.*—He was insane.

Then tell me about the word "insane."

*Ans.*—It is a part of the predicate used to denote a condition of that which the subject names.

Now let us review. Give me your last statement about the word "elastic"; about the word "coarse"; about the word "insane." In each case we have an attribute of a sentence; can you tell me what we mean by the attribute of a sentence?

*Ans.*—An attribute of a sentence is a part of the predicate used to denote some property, quality, or condition of that which the subject names.

Take this sentence,— "Those men are carpenters"; give me the predicate.

*Ans.*—"Are carpenters."

Does the word "carpenters" denote the same persons as the subject, or does it denote different persons?

*Ans.*—It denotes the same persons as the subject.

In the sentence "The shores are empires," what is the predicate?

*Ans.*—"Are empires."

Compare the thing denoted by "empires" with that denoted by the subject.

*Ans.*—It is the same.

Describe the word "empires."

*Ans.*—It is part of the predicate used to denote the same thing as the subject.

Give the definition of *attribute*. Add to it the words, "or it may be a part of the predicate used to denote the same person or thing as the subject." Now give the complete definition.

*Topic:* Copula.

*Definition:* The copula is a part of the predicate used to connect the attribute with the subject.

*Method:* In the last sentence give the subject.

*Ans.*—"Shores."

Give the predicate.

*Ans.*—"Are empires."

Name the attribute.

*Ans.*—"Empires."

What word connects the attribute with the subject?

*Ans.*—The word "are."

Describe this part of the predicate. Because it joins or couples the attribute to the subject it is called the copula of the sentence. Define copula.

#### EXERCISE I.

Select the attributes and copulas in the following sentences, and give reason for your choice:

1. All men are mortal.
2. Washington was truthful.
3. To err is human.
4. To forgive is divine.
5. To lie is disgraceful.
6. Poverty is no sin.
7. Work is no disgrace.
8. Industry is the primal blessing.
9. The school is the manufactory of humanity.
10. Remorse is virtue's root.
11. Great men are rare.
12. Eloquence is the child of knowledge.
13. Life is the gift of God.
14. Experience is the test of truth.
15. Love is the true price of love.

#### EXERCISE II.

Write sentences containing attribute and copula. Underline the attributes with one line, the copulas with two.

*Topic:* Simple subject.

*Definition:* The simple subject of a sentence is the subject without any limitations.

*Method:* "The old tree was blown down." Name the subject without any of its limitations.

*Ans.*—"Tree."

"Tree" is the simple subject of this sentence. Define simple subject.

*Topic:* Simple predicate.

*Definition:* The simple predicate of a sentence is the predicate without any limitations.

*Method:* As for simple subject.

*Topic:* Complex subject.

**Definition:** The complex subject is the simple subject with all its limitations.

**Method:** In the sentence, "The old tree was blown down," name the simple subject. Now name the simple subject with all its limitations. That is the complex subject of the sentence. Define.

**Topic:** Complex predicate.

**Definition:** The complex predicate is the simple predicate with all its limitations.

**Method:** As for complex subject.

#### EXERCISE I.

Select the simple subject and simple predicate of each sentence in the last group; also the complex subject and complex predicate.

#### EXERCISE II.

Write ten sentences containing complex subject and complex predicate. Underline the complex subject with one line, the simple subject with two. Place a parenthesis about the complex predicate, and underline the simple predicate with one line.

(No attention has been given to punctuation in this series of articles, because the writer believes in teaching the main points in a series of dictation exercises preceding grammar. As the dictation is continued for some years, the more complicated cases can be taught after the pupil has acquired some knowledge of grammar.)

#### EXERCISE III.

From the following lists select a simple subject with an appropriate simple predicate. Add limitations to each to make a complex subject and complex predicate. Thus: "Maple does shed. Expanded: "The maple does not shed its leaves in one tempestuous scarlet rain."

- |             |                   |
|-------------|-------------------|
| 1. Bell.    | 1. Are fragrant.  |
| 2. Flowers. | 2. Breathe.       |
| 3. Fishes.  | 3. Gather.        |
| 4. Clouds.  | 4. Are strongest. |
| 5. Horses.  | 5. Rings.         |

—*New England Journal of Education.*

### Educational Notes and News.

Mr. D. J. Beaton, of the *Winnipeg Times*, formerly head master of Stayner Public School, is one of the observers on the *Alert*, which left Halifax the other day on the Hudson Bay expedition.

The *Shelburne Free Press* says that out of 79 teachers engaged in the County of Dufferin last year, 27 only have had a Normal School training.

Long neglected Alaska has at last obtained recognition in respect to education, in the appointment of Dr. Sheldon Jackson as United States General of Education in that territory. The needs of such an age are very pressing, the opportunities for his services are opening on all hands, and the selection of Dr. Jackson, so long identified with the best interests of the people in the far Northwest, is the wisest possible. The *Journal* rejoices in the approach of a better day for the people of Alaska, through the elevating influence of the school, the church, and the Christian home.—*N. E. Journal of Ed.*

The free-book question in the Ohio legislature has received a quietus, at least for a time. The bill which proposed to authorize the Cleveland Board of Education to supply all the pupils in the public schools of that city with books at public expense, came to a vote in the House, March 12, and was defeated by a vote of 21 ayes and 42 nays. We sincerely hope that every bill pending which has for its object the preparation of school text-books by the state, or the supplying of books to pupils in any other way than through the regular legitimate channels of trade, will meet a like fate.—*Ohio Educational Monthly.*

On hand—at the Stationer's, Esterbrook's popular pens in every variety of size, shape, style, and of superior quality. Hie the to the stationer's.

We are sorry to learn that Mr. H. Kay Coloman, Head Master of the Peterboro' Public Schools, has been suffering severe affliction, his youngest child having recently died, and Mrs. Coloman having been very ill for some time past.

**FREE BREAKFASTS FOR SCHOOL CHILDREN.**—At Wolverhampton it is found that owing to the depressed condition of trade and the great distress among the operatives, over 400 children are regularly sent to school without food. Last Tuesday a series of free breakfasts were commenced in the two principal schools at the east end of the town to about 300 hungry children.—*School Guardian.*

When classics shall be cultivated no more on the banks of the Isis, and the study of mathematics has ceased to find its chosen home on those on the Cam, the foundations of the earth will indeed seem to be out of course. The catastrophe is perhaps not so distant as may be imagined. Whatever is to happen at Cambridge, it is a fact that classics have been saved this week at Oxford by a majority of one only in a congregation of 143 members. The formal proposal before the House was that classical examination at Moderation should be dispensed with in the case of candidates for honours in mathematics and natural science. The effect, however, of the proposed statute would have been to eliminate classical studies from the University course of candidates for honours generally, and it was with a clear apprehension of this consequence that the subject was discussed on both sides.—*The Schoolmaster.*

One of the commissioners of the Board of Education of the city of New York lets out the startling fact that there are now twenty-five thousand children in that city for whom there are no school accommodations; that the mayor is opposed to going to the Legislature for the power to raise money; and that from 1877 to 1882 the Board of Education did not receive enough money to care for more than one-quarter of the natural increase of the city school population. What with sectarian bigotry, political deviltry, and high-toned indifference, there is good reason to believe that the standing army of barbarism in our metropolis is to be constantly re-enforced from the ranks of youthful ignorance; so that there shall always be a mighty host awaiting the leadership of any demagogue. No city has within itself more hopeful tendencies than New York, and the boast of her magnificence is heard throughout the earth. But, meanwhile, under the very centre of her glory is being packed a deposit of human dynamite whose explosion may wake up her most conceited magnate to a sense of the wrath to come. What is true of New York is measurably true of many of our great cities, and the way to meet and dispose of this threatening peril is a matter demanding the best thought of the time.—*N. E. Journal of Ed.*

### Literary Chat-Chat.

A. W. Gould, in *The Current* of May 30, discusses "History in Words," and shows, taking the word "animal" as an example, how well history may be understood by the assistance of philology.

Mr. W. D. Howells is engaged upon a new serial story for the *Century* magazine, to follow "The Rise of Silas Lapham," which will be finished in the August number.

Charles Scribner's Sons, New York City, have published "Assyriology, its Use and Abuse in Old Testament Study," by Francis Brown, professor of Biblical Philology in the Union Theological Seminary, New York City; price \$1.00.

Messrs. Funk & Wagnalls, of New York, are about publishing a book by Dr. Schaaf, under the title "The Oldest Church Manual," called "Teaching of the Apostles," with illustrations and fac-simile of the Jerusalem M.S., and cognate documents, with full discussion on the subject. This will be the latest and fullest work on this remarkable book recently discovered by Bryennios, the metropolitan of Nicomedia.

Ginn, Heath & Co., Boston and New York, have just added to their "Classics for Children" the "Tales of Shakespeare," by Charles and Mary Lamb; edited for use in schools; price 40 cents.

A. S. Barnes & Co., New York, have published a very handsome edition of *Vigil*, containing the first six books of the "Æneid," by Edward Gearing, A.M., and the "Bucolics and Georgics," by Henry Clark Johnson, A.M., LL.B. We shall review the work in a future number.

It is announced that Tennyson is writing a sequel to his drama of "Becket."

The "Century Magazine" is now issued in New York on the

first day of each month, and secures copyright in England by appearing there a day or two earlier.

General Gordon's diaries are shortly to be published simultaneously by Messrs. Kegan, Paul & Co., of London, and Houghton, Mifflin & Co., of Boston.

The first volume of Ruskin's Autobiography will appear in June.

### Miscellaneous.

#### LAKE MISTASSINI.—Continued.

Like the country on the Saguenay, the Mistassini region is, of course, a wooded region, the great sub-Arctic forest still extending far to the northward; but, as far as my observations enable me to speak on the subject, I would not call it a lumbering region. The prevailing tree is the canoe birch, or *bouleau*, which grows fully as large as around Lake St. John. There is also an abundance of tamarac, poplar, balsam, and spruce, ranging from seven, eight, and nine inches to twenty-two inches in diameter, but the smaller sizes largely predominating. I saw no pine, but I was told that large areas, probably of the Banksian pine, were to be met with to the north-westward. As to the soil, it seemed to me to be similar to that on the Big Peribonca River from Lake St. John upward for about twelve miles, and well suited for agricultural purposes. I saw very large tracts of this character along and about Great Mistassini, which would be sufficient to form dozens of parishes. But should the main expedition not find the climate suited to successful agriculture and to the location hereafter of a numerous and comfortable population, I am convinced that the Mistassini region, which seems to me to rest on a limestone formation, will prove exceedingly rich in economic minerals.

Now, to resume the thread of my narrative at the point where I digressed from it, on our arrival at Mistassini Post on the 10th of September, I discharged my remaining men, seven in number; and, while they returned to Lake St. John by the way we had come up, I, with the guide and one man, travelled toward Lake Temiscami to meet the main expedition, as that was one of the most practical routes by which it could first strike Little Mistassini. I should mention, however, that before starting I endeavored to collect from Mr. Miller, his assistants, and the local Indians any information they might possess as to the real size and shape of Great Mistassini; but I utterly failed to obtain anything satisfactory. In point of fact, they were absolutely ignorant as to the extent and configuration of this great mysterious inland sea, knowing little or nothing about it, except the portion in the neighborhood of the Post, and the route to be followed to reach Rupert House on James Bay via the Rupert River. They were convinced, however, that the lake was of immense size, but could not give even an approximate idea on the subject. But they mentioned as curious facts suggestive of the vast extent of this unknown sheet of water that, frequently in a perfect calm, the turbulence of its waves would give notice from twelve to fourteen hours of approaching storms, which I believe is the case also with Lake Superior; and that, during the spring freshets, when the level of Little Mistassini would rise from six and one-half to seven feet, Great Mistassini never rises more than a few inches.

In making for Temiscami, I navigated Great Mistassini for one hundred and twenty miles from Foam Bay, where I struck it first. As far as possible we hugged the southern shore, and consequently had no opportunity of seeing the big rock from which the lake is said to take its Indian name, and which, I understand, lies along the northern coast. At the aforesaid distance of one hundred and twenty miles, I do not believe we had yet reached what might be termed the main body of the great lake. At all events, it seemed to go on con-

stantly enlarging its width, with nothing visible ahead but sky and water. We passed a number of islands, some of them very beautiful. On one of these, to which we were obliged to run for shelter, we were storm-bound for several days, during which the waves ran so high that it was impossible for any craft like a canoe to live out. I also noticed that the waters of Great Mistassini are exceedingly deep as a rule, its basin seeming to sink abruptly from its coast-line, though the latter is low-lying, gradually sloping down to the lake. They offer, too, quite a contrast to those of Lake St. John, being remarkably clear and limpid.

After proceeding one hundred and twenty miles on the great lake, we retraced our route for sixty miles, as it occurred to me that there was another route which the main expedition in coming up might possibly follow. We then effected a crossing to Little Lake Mistassini, a distance of some six miles, by portages and four small lakes, and navigated it for some eighty miles toward its head. The general trend of the smaller lake seems to be the same as that of the great lake, with which it runs parallel from south-west to north-east. About thirty-five miles from its head, the Rupert, coming from the north-eastward, enters it, flowing out of it again on the opposite, or northern, side into Great Mistassini. In fact, both Great and Little Mistassini seems to be expansions of the Rupert, just as the great lakes of the West are expansions of the St. Lawrence. The outlet from the smaller into the larger lake is not more than one and one-fourth miles long, but very much broken by rapids. Little Mistassini is supposed to be at least one hundred miles long; but, if I saw its greatest width, it is not more than six miles broad at its broadest point. Along the north shore, which I coasted, islands are very numerous. The banks are generally low, and in most places composed of solid limestone, forming a sort of natural wharf, with numerous fissures, varying in width from one and one-half to ten inches. The southern shores present an agreeable appearance from the north, the land coming down to the water's edge in a gradual slope, and being also splendidly wooded. Where I struck them, near the head, I found them sandy.

We did not run up the Rupert from Little Mistassini, but struck the river higher up by a portage of about two and one-half miles. We then followed the Rupert toward the east for some twenty-five miles, and found it a large and noble stream. Leaving the Rupert, we reached Temiscami Lake on the 23rd of September, when we encountered the first hard frost of the season and a snowfall of one-half an inch. We also found there a deserted Hudson Bay Company post, built of squared spruce logs; but, although the structure looked old, it seemed still good. We discovered, however, no traces of the main expedition. Nevertheless, we did not abandon hope of meeting it; and, though the region in which we then were was a wild one and perfectly unknown to us, we managed to extricate ourselves very creditably by pushing on through the portages and lakes till we recrossed the Height of Land and struck a good-sized lake, by whose discharge we struck the Shipsisaw River, which is a tributary of Lake St. John. In so doing we circled around the head-waters of the Aux Fois, Little Pariboncas, and Mistassini rivers, thus further verifying the fact that the latter stream is a mere feeder of the Saguenay and has no connection whatever with the great lakes of the same name in Rupert's Land. I have no doubt that the true reason why this stream was originally called Mistassini was not from any fancied communication existing between it and either Great or Little Mistassini Lake, but because it has been used from time immemorial by the local Indians as their principal route to and from the Mistassini region.

Following the Shipsisaw, and at short distances falling into some beautiful lakes varying in size from three and one-half to fifteen miles in length, we noticed that the prevailing character of the soil

on the banks was alluvial and evidently good, supporting a growth of black spruce, bouleau, alders, etc. The first lake above Lake Shipsaw was found noteworthy, not only on account of its magnificence as a sheet of water, but also for the veneration which the local Indians seems to entertain for it. It is about eight miles long and three and one half miles broad. At its outlet there is a native burial place, while all around its shores the traces of old Indian camping places are still visible, some of them very old indeed, while from the trees depend in various ways, in conformity with the aboriginal superstitions, such offerings to the manes of the dead as the skulls of bears, beaver, otter, caribou, horns, etc.; many of the graves being inclosed with strong pickets and decorated with smaller spoils of wild animals, as well as with articles of clothing belonging to the deceased, their canoes and paddles, tobacco and matches wrapped in bark, moccasins, and such like. The Shipsaw River, which flows into the Great Paribonca, is a very large and noble stream, with few rapids or falls. Indeed, the only dangerous or troublesome section of this river is what is called *Les Crans Serrés*, which is a continuous and dangerous rapid of some twenty miles in length. At this point we had to abandon the main river and to follow a chain of portages and lakes, by which detour we were enabled to reach another river, which finally brought us back to the Shipsaw below *Les Crans Serrés*. About six miles further we entered the Large Pariboncas, flowing into Lake St. John, where, after about 1,900 miles of canoeing, we reached back safely on the 10th of October, and were again kindly received and hospitably treated by Mr. Cummins, whose name has been thankfully referred to in the first part of my present report.

In the remainder of the journey back to Quebec the Geographical Society is not interested, so that here would probably be the proper place to cut short my somewhat lengthy narrative. Still, as I suspect that your respectful body may be curious to learn my own impression as to the probable size of Great Lake Mistassini, over which so much mystery still hangs, I should, perhaps, add that one very clear morning, while on Little Mistassini, and when about thirty-five miles from its head, we caught glimpses away in the distance of a high range of mountain-peaks to the east, which range seemed to have a general direction from south to north, and which, if continued for any great distance northward, must cut directly across the general trend of Great Mistassini. Of course, I do not pretend that this is the case, but if it prove to be so, my conjecture is that the great lake will be found to extend to the base of this range and probably to run up for a considerable distance along it with a much enlarged breadth. At one hundred and twenty miles from the south-westerly extremity of Great Mistassini we could not perceive these mountains. We only did so, as already stated, at about thirty-five miles from the north-easterly end of Little Mistassini, which runs parallel with the great lake, and then, as far as we could judge, they seemed to be fully one hundred and twenty miles distant from us. I readily recognized them from their lofty, bare, bleached granite summits, as the Otish Mountains, which, in 1877, as my father's assistant, I crossed in scaling and exploring the Outarde and Bersimis rivers to ascertain the distance to the Height of Land, to verify which we had to find the waters flowing into James or Hudson Bay, selecting the East Main River for the purpose.

The following extract from my father's official report to the Honorable the Commissioner of Crown Lands, on the occasion, will be found specially interesting under the circumstances:

"The Otish Mountains, which form the Height of Land, are here bare, rocky, and desolate; we ascended them and found the height to be 1,300 feet above the pass and 3,700 feet above the sea. We were disappointed in having a view from the top, as we were in the clouds. At their base to the north is a small lake, the head of one

of the branches of Rupert's River, and at about thirty miles is the Hudson Bay Post 'Nitsequan,' on Rupert's River. This post is supplied from Hudson Bay, and is frequented by about thirty families of Nascapée Indians."

To the foregoing may be added, that where we struck them in 1877, the Otish Mountains are in latitude 52° 20', and that we found them so steep that, to ascend them, we had to cut steps in the hard snow and ice.

I have omitted to note that, on our return from Mistassini to Lake St. John, we were disappointed in our hopes of meeting the main expedition; but, since my arrival back in Quebec, I have received letters which show that on the 12th of October it had reached Great Lake Manouan. Consequently, it must have arrived and begun work at Great Mistassini long before this.

In conclusion, I have only to add my own impression,—for what it is worth, of course, only,—that the main expedition will find the great unknown lake to be long and relatively narrow; in other words, that it fills a deep, elongated trough, indented with bays. But, until the return of that expedition, it would be idle to indulge in speculations as to the real size and shape of this mysterious inland sea.

FRANCIS H. BIGNELL.

## Question Drawer.

### I. QUESTION.

Distinguish "Long ton" and "Short ton" as used in first set of competition problems.

### II. ANSWERS.

W. S. H. in JOURNAL of May 7th.—A "Standard" is a term used in measuring lumber and equals 12 board feet, or an inch board one foot wide and 12 feet long.

W. M., JOURNAL of April 2.—"Grammar" questions of April 2nd.

(1). Sentence should correctly read:—"Your tongue is too busy," and "Your"=a pronoun in possessive case.

But "of yours"=a treble possessive implied in combined use of "of," "r" and "s"=of you, your, and yours (double), formerly written "your's." But "yours" has an objective use (here) representing some name or substitute understood as well as a possessive use; hence objective case governed by the preposition "of" a relational word between "tongue" and "yours."

(2). "Ours" is explained similarly, only it has a subjective use, hence subjective case as well as denoting possession, and therefore represents the subject of the verb of incomplete predication "is." This example clearly explains the foregoing one (i. e.) "ours"=our school. Hence the dependent clause in full "our school is large" preceded by "than" a subordinate connective word.

(3). "As a teacher"=an adverbial phrase, introduced by the adverbial conjunction "as," "teacher"=subjective or nominative case with predicate understood. It is modified by the article "a."

Note.—We see that a word is not necessarily any particular part of speech as it depends entirely upon its use in a proposition.

Answers to Grammar questions in JOURNAL of April 9th.

(1). "Tremble" is direct, and "ground" secondary object of "felt."

(2). "Free"=direct, and "him"=secondary objects of "saw."

(3). "Honest"=complement of "found" (secondary), or direct of "to be."

(4). "Dying"=complement of "found" (secondary), or direct of "to be" "man" and "child" are secondary objects, and to be modified by complements "honest" and "dying"=direct of verb "found."

(5). The last two seem to be closely connected with the objects. In fact all are attributive to some extent. Would like to hear from others upon this question.

C. S. EGLETON.

P. S.—Nos. 3 and 4. These two words have a similar office: an objective complement with an active verb becomes subjective with passive. Thus, We found the man honest=We found the man to be honest=We found honesty in the man (Active)=The man was found honest=The man was found to be honest=Honesty was found in the man. (Passive.)

[We give Mr. Eggleton's answers as he sends them, in order to elicit further discussion. We fancy several of the last set, at least, will be voted not wholly satisfactory. Next?—Ed.]

## Teachers' Associations.

**PRINCE EDWARD.**—The Prince Edward Teachers' Convention took place on the 18th and 19th inst., Mr. Fann, president, in the chair. Mr. W. R. Brown presented a paper on "Grading Problems in Arithmetic," which was well prepared and well received. Mr. Osborne addressed the convention on "History, its Value and How to Teach it." Mr. Osborne disapproved of the text-books now in use, and also of the amount of work required in it, especially for entrance examinations, and outlined an introductory course. Mr. Reading addressed the convention on the subject of "Drawing." He thought that the system of drawing now in use in public schools started from the wrong point, as it began with straight lines, where the curve was far easier made, more natural to the child, and more interesting and useful in its application. "The Newspaper in School" was treated by Mr. H. A. Potter. The speaker advocated the use of daily papers by the teachers, and reading of select portions to pupils. Mr. Osborne and Mr. Platt both approved of the substitution of papers to some extent for reading books. Mr. S. B. Wilson read a carefully written essay on "Methods of Instruction." Mr. Reading dwelt with the subject of "Perspective in Drawing." Messrs. Dobson, Murray, and others discussed the subject of educational journals, warmly recommending every teacher to take some live journal. Dr. McLellan gave an excellent outline lesson on the method of teaching grammar in schools. A discussion was introduced by Mr. Murray, and taken part in by others, in regard to the want of reverence on the part of the young of the present day. The want of reverence was regarded as the source of many evils amongst school children, and several methods were suggested for counteracting it. Mr. Platt, Inspector, explained recent changes in the school law. Dr. McLellan again addressed the convention, commencing an interesting lecture of "Elementary Mental Science." Miss Flaunigan read a well written essay on "Self-Reliance." Mr. Dobson, at the request of the Ladies' Temperance Union of this town, presented to each of the teachers present a copy of the Temperance Primer, by Mr. G. D. Platt, B.A., as a textbook to be used in schools and to remain in the school-rooms. The following resolutions were passed:—Moved by Mr. G. D. Platt, B.A., and seconded by Mr. Jno. Trumppour, "That the matter of the Teachers' Reading Circle be referred to the Management Committee to devise a scheme and report at the next convention." Carried. Moved by Mr. R. Dobson, seconded by Miss Julia Gillespie, "That the teachers of Prince Edward county would gladly welcome a system of reading on professional or other subjects that would form a sort of post graduate course tending to help them in their duties." Carried. Moved by Mr. Murray, seconded by Mr. Brown, "That the teachers of this convention read Hopkin's "Outline of the Study of Man," and take up the first half of the book for discussion at the next convention." Carried.

**ELGIN.**—Held in the Collegiate Institute, St. Thomas, May 22nd and 23rd; C. R. Gunne, B.A., head master Vienna High School, presiding. After the minutes of the previous meeting were read, Messrs. Ames and Ford were appointed auditors. Mr. N. W. Ford, St. Thomas C.I., gave his ideas of how history should be taught to junior classes. The aim ought to be the value of the knowledge, and not to pass examinations; the ground should be marked out topically, the teacher ought to teach it without a text-book, and have a map before the class for reference; pupils might write details of historical events in their own words. Half the work in teaching history lies in reviewing. Messrs. Atkin, I.P.S., Ames, and Shepherd discussed the subject. Miss Sutherland, Principal Scott street school, illustrated with a class her plan of teaching calisthenic songs. The exhibition was very creditable. The question, "What is the benefit of such exercises?" was put by Mr. Shepherd, and in reply he was told that voice culture, grace, and a relief from school monotony resulted. If practical on opening school, they would lead to punctuality. The president strongly recommended Hughes' "Drill and Calisthenics" as an aid to the teacher. Miss Hattie Robinson gave an object lesson on "cork" to a third class, which was both interesting and instructive. This lesson was one of a series given by Miss Robinson in her class at the school. The first exercise in the afternoon was an essay by Miss McCausland, of Aylmer, on "Language Lessons." The theme dwelt chiefly on composition, general defects, and their remedy. The essayists recommended the plan of pupils writing down all the grammatical errors they heard, for the purpose of having them corrected in class, also actual practice in letter writing. It was decided to publish Miss McCausland's essay, as it was considered so practical and good. Mr. W. Atkin, I.P.S., gave some instructions and explanations respecting periodical reports, and referred to the free classes at the School of Art, Toronto, during vacation. Mr. Leitch, treasurer, read his report, which showed a balance of \$61.05 on hand. Mr. T. Hammond, of Aylmer, exemplified his method of teaching literature to a fourth class for entrance to high schools, and wrote on the blackboard a sample set of questions. He would not burden the pupils with analysis and other collateral matter until they were thoroughly interested in the subject. Some very practical ideas were elicited in the discussion by remarks from J. Miller, B.A., principal of St. Thomas C.I., and Mr. McLean, city school Inspector, the latter being of opinion

that language lessons are the foundation of literature and deserve the greatest attention. Children frequently fail to express their thoughts correctly because they aim at using the language of the text-books or the teacher. They should be guided to use their own simpler words. The general discussion was animated, and Mr. Hammond was frequently called on to explain, which he did very satisfactorily. In the evening a very large audience assembled in the lecture-room of Knox church, and were entertained by readings, recitations, and music. Addresses were given by Mr. Crothers and Rev. Mr. Fraser on the progress of education. The president, Mr. C. R. Gunne, occupied the chair. Next day, Mr. Gunne took up "Orthoëpy," and gave the correct pronunciation of several important names, English and foreign. Mr. W. Atkin, I.P.S., followed in an excellent and logical address, giving his views on teaching numbers to a primary class. He contended that figures should not be taught until children had ideas of numbers, which should be indicated by objects. The decimal system ought to be taught in the same manner, also "carrying" in addition and the plan of "borrowing" in subtraction. A lengthy and lively discussion followed, participated in by Messrs. Hammond, Ford, N. M. Campbell, Miller, B.A., Ames, and Misses Watts and McCausland. Mr. Simpson, B.A., of Vienna, gave an excellent address on "The English Language," showing its difficulty to foreigners through the variety of combinations of letters required in different words to express the same sound. He advocated phonetic spelling, and showed that in most instances the philology of the language would be preserved thereby. A discussion arose about the promotion examinations for the county, and it was ultimately decided to continue them if the expense were borne by the County Council. After a short address on "Drawing," given by Mr. Reading, the convention adjourned.

## Literary Review.

**LECTURE NOTES ON THE METALS**, by John T. Stoddard, Ph. D. (Harris, Rogers & Co., Boston, 1885.) This is a handy little text-book, of 130 pages, on the chemistry of the metals, being the substance of the lectures of the professor of chemistry in Smith's College, Massachusetts. It is just such a book as will enable students in arts or medicine to dispense with the manual labor of "taking notes" in class. Each element is discussed under the headings: (1) occurrence, (2) preparation, (3) properties, (4) uses, and (5) history. Its more important compounds are then taken up, under similar headings, where it is possible to do so. Finally, there is a brief note on the usual methods of detecting the element, and determining its quantity in a given compound. In short, the book is a mere synopsis of any one of the best modern treatises on the chemistry of the metals. The framework of the subject is given with almost perfect symmetry, but the superstructure cannot be completed without much labor on the part of an experienced teacher. Of course, there are no notes nor details of experiments, no list of apparatus required, and no illustrations of any kind. The book is not, therefore, a good one for students trying to read chemistry without a teacher, but, as we have already hinted, it will, no doubt, be found serviceable to undergraduates and others attending a course of lectures on chemistry for the first time.

**ST. NICHOLAS** for June is to hand with its usual entertaining and instructive variety. One cannot but wonder how such an outflow of story and sketch, and illustration can be kept up with such perennial freshness and vigor.

**GRAMMAR OF OLD ENGLISH.** By Edward Sievers, Ph. D., Professor of Germanic Philology, University of Tübingen, translated by Albert S. Cook, Ph. D., Prof. of the English Language and Literature, University of California. (Boston: Ginn, Heath & Co.) The study of Old English now occupies a leading place on the curricula of the great European universities, and year by year finds an increasing number of American students taking the O. E. course under Ten Brink, Zupitza, or other distinguished philologists. The existence of special obstacles, not necessary to be here enumerated, makes an exposition of the grammar of O. E. confessedly difficult, yet that real progress has been made in this direction, the work before us affords ample evidence. The Grammar is evidently the result of wide and careful research. The pronunciation of the O. E. alphabet is treated very fully, the innumerable peculiarities of O. E. orthography are accounted for in one dialect by showing what their equivalents are in other dialects, and thus by an elaborate comparison of dialectic orthographic peculiarities the pronunciation of all is arrived at. The chief difficulties are to be encountered in this part of the work, and it need surprise no one to find that various conclusions are reached in some instances by different investigators. What the O. E. inflectional system was can be ascertained with more certainty, and Prof. Sievers' treatment of it leaves little to be desired. On the whole, the Grammar must prove an invaluable aid to those who wish to make a thorough study of O. E. literature, and even to those who desire to ascertain the most ordinary facts of philology it will prove both helpful and interesting.