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# The Educational Journal.

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

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## The Educational Journal.

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A JOURNAL DEVOTED TO LITERATURE, SCIENCE, ART, AND THE  
ADVANCEMENT OF THE TEACHING PROFESSION IN CANADA.

J. E. WELLS, M.A.

Editor.

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## Editorial Notes.

THE "English Department" is crowded out of this issue. It will appear in next number, when questions relating to that department will be attended to.

THE essay on "The Schoolmaster in Fiction," which is given as our "Special Paper" in this number, was read before the Wentworth Teachers' Association, in Hamilton, on Feb. 20th, by Mr. J. Harold Putnam, the President of that Association. It will be found suggestive of some of the most striking phases in the evolution of the present day idea of the schoolmaster.

THERE are now 5,626 school houses in the Province, distributed as follows:—5,209 in rural districts, 230 in towns and 187 in cities. The log school house is fast disappearing, there being only 584 in 1888 as against 1,466 in 1850. In the same period brick school houses have increased from 99 to 2,086. 5,497 school houses are freehold and 129 rented. The number of maps now used amounts to 44,971. In 1850 there were only 1,814.

WE are informed that it is proposed to hold a school of music for teachers in the Normal school building for one week during August next, under Prof. H. E. Holt, of Boston. One hundred and fifty teachers attended Mr. Holt's class in 1887, and it is thought that the attendance will be equally large this year if arrangements are completed. A number of teachers in various parts of the Province have written to Mr. Preston, Teacher of vocal music in the Normal school, asking to have their names enrolled.

MANY of our readers will, no doubt, be interested in the pleasure excursions for members of the profession, advertised in this number. We invite attention to, and a careful perusal of this advertisement, in which the different tours, dates, terms and all particulars will be found clearly set forth. These excursions offer a tempting opportunity to all teachers who can manage by any means to secure for themselves the pleasures and advantages of a trip to the Old World. Such a tour would be, to the wide-awake teacher, an education in itself.

EVERYONE is looking forward, we suppose, to the publication of Stanley's forthcoming book, which will contain the only full and authentic account from his own pen, of his wonderful

journey. Charles Scribner's Sons, New York, are the American publishers. Our readers will be interested to know that Messrs. James Murray & Co., whose office is in this building, have agreed with Messrs. Scribner to manufacture the large Canadian edition of this work, including the binding, etc. The Presbyterian News Co. have undertaken the sale of the work in Canada. The book will be announced very soon.

IT may well be doubted if there is any wiser work of philanthropy than that which aims at the maintenance and enlargement of industrial schools for the education of poor boys and girls who have either lost their natural protectors, or been deserted by them and left to carry on the unequal contest alone. The promoters of the Boys' Industrial School at Mimico are engaged in a noble cause, and we are glad to hear that they are receiving encouragement in the shape of some liberal donations. There is equal need of a similar institution for girls, and a committee of ladies of Toronto are making an earnest effort to supply the need. A deputation of these ladies, the other day, laid before the Attorney-General the claims of their undertaking. It is to be hoped that the appeal will be favorably considered. We do not know how a few hundreds or thousands of surplus could be more worthily bestowed.

IN our "Methods" department will be found a timely and useful article on "Model Reading," by Mr. Clarkson, Principal of Seaforth Collegiate Institute and the able editor of our Mathematical Department. We thank Mr. Clarkson sincerely, as we do all who kindly contribute to the interest and usefulness of our pages. At the same time we have to confess to a pretty deep taint of the "heresy" against which Mr. Clarkson's article is directed, not that we doubt the necessity of giving the pupil models for imitation, but that we question the utility of any method which does not aim first and chiefly at developing the intelligence. We dare say, however, that closely analyzed, our correspondent's view and our own would come to about the same thing. The use of the model is to enable children to learn by imitation to give the peculiar inflections and intonations which they have been led, or will be led, to see are the natural mode of expressing the shade of thought to be conveyed. We admit that good reading cannot be taught without the imitation of good models, but we also claim, and no doubt Mr. Clarkson would agree with us, that it cannot be taught by imitation alone. The justification of the model must be found in nature, through the intelligence.

IN 1877, the first year in which the Department took the Entrance Examinations in charge, the number passed was 3,270; in 1888 it was 7,093. In 1877 only 6,248 wrote for entrance to the High schools; in 1888 the number had risen to 16,814. Last year 262,000 papers were sent out by the Department for this examination.

IN 1888 the number of absentees from the Public schools, *i.e.*, of children between the ages of seven and thirteen who attended school for less than 100 days in the year, was 87,874. It further appears that 78,142 of these were from counties or rural districts having a gross registered attendance of 353,357. This means that twenty-two per cent. of the rural school population attended school less than 100 days in the year. In towns the absentees numbered about thirteen per cent., and in cities about four and a half per cent. of the school populations. It does not seem probable that many of these children were being otherwise instructed. It is high time some sterner measures were being taken to enforce the compulsory clauses of the Act. It is intolerable that every fifth child in the rural districts of Ontario should grow up without school education.

CANADA is well represented in the better class of United States Universities, as well as in other literary and professional circles in the United States. There are now about thirty Canadians, most of them from the Maritime Provinces, at Harvard. Five of these are in official positions, and the rest, with one or two exceptions, are either in the post-graduate department or in the special schools. They have lately formed a Canadian Harvard Club. Its objects are partly to afford assistance to Canadian students, partly to advance the interests of both University and young Canadians by making them mutually better acquainted, and partly to afford a means of social intercourse and the encouragement of a Canadian feeling among its members. The great majority of the latter are said to be strongly Canadian in all their sympathies, and expect to return to Canada to live and work.

IF certain statistics which are going the rounds are reliable there is very little cause for anxiety in regard to the maintenance of the English language, and very little need for special legislation in aid of it. It is computed that at the beginning of the present century English was spoken by a little over 20,000,000 people, while French, German, Spanish and Russian had about equal numbers of users, all of them united far distancing the English. But all that is now changed. There are now 155,000,000 English speaking people, more than twice the number of users of any other European language, and the relative spread of the English tongue seems likely to continue. Europeans of all nationalities who settle in the United States endeavor to learn English quickly, while in England's principal Asiatic and African dominions, Indian and South African, its use is rapidly increasing among the natives. Its national adoption by

Japan is also said to be seriously talked of, but that is a species of information which it would be well to take with a large grain of salt.

THE Chicago *Advance* mentions an incident which is full of encouragement for teachers as illustrating the possibilities of influence, honor and usefulness which now lie within reach of members of the profession. Commenting on the death of the Principal of one of the city schools, the *Advance* says:

"It is sometimes said that teaching is a thankless profession, but is it so? There was buried one day last week the Principal of one of the largest Public schools in Chicago, Mr. George W. Heath. Though only fifty-two years of age he had given thirty-three years of his life to teaching. From childhood, education had been the passion, the sacred enthusiasm of his life; first for himself, then for others. He had been Principal of this school for nineteen years. The New England Congregational church never before held so many persons as at this man's funeral; representing the thousands of young people who were now or had formerly been his pupils, and their parents. Altogether it was a remarkably significant and impressive scene."

MANY of our readers are no doubt following with interest the educational changes and developments now taking place in Manitoba. If the provisions of the new School Act are efficiently carried into practice the Prairie Province will shortly have one of the best school systems to be found in the Dominion, or in any other country. The arrangement for establishing a Provincial Board of Education to advise and assist the Minister to be appointed, is, we think, a good one, and well adapted to remedy what has always seemed to us a defect in the Ontario system. It may be of interest to some of our readers to know that Ontario Second-Class professional and non-professional certificates obtained since 1879 are endorsed by the Manitoba Education Department, and made good as licenses to teach one year. The professional certificates are made permanent on the special recommendation of the local inspector. First-Class Ontario certificates obtained since 1871 are also endorsed and made professional or non-professional, as the Board of Education may decide. We have no desire to see good teachers leave this Province, and it is usually wise for those who have fairly satisfactory positions at home to retain them. We do not know whether the present supply in Ontario largely exceeds the demand, or whether the demand in Manitoba largely exceeds the supply. But if the competition at home is, as we suspect, so keen that good teachers sometimes find themselves unable to obtain positions, it is probable that some openings may be found in the younger Province. The best time to go to Manitoba with the idea of getting a school is early in April. The salaries in country schools range, we understand, from \$35 to \$60 per month. Many trustees throughout the country are themselves from Ontario and are naturally disposed to give Ontario trained teachers the preference.

## Educational Thought.

YES, sculptor, touch the clay with skill;  
Let lines of beauty curve and flow,  
And shape the marble to thy will,  
While soft-winged fancies come and go—  
Till the stone, vanquished, yield the strife,  
And some fair form awake to life,  
Obedient to thy beckoning hand—  
And thy name ring through all the land!

And painter, wield the brush with care;  
Give firm, true touches, one by one,  
Toil patient on, nor know despair;  
Open thy whole soul to the sun,  
And give of love's serene repose,  
Till the dull canvas gleams and glows  
With truth and wealth of sentiment,  
And thine own heart shall be content!

But, teacher, mould the tender mind  
With daintier skill, with dearer art,  
All cunning of the books combined  
With wider wisdom of the heart—  
The subtle spell of eyes and voice—  
Till the roused faculties rejoice,  
And the young powers bloom forth and bless  
The world and thine own consciousness!

*The American.*

TEACHERS, as a body, have innumerable problems of education to solve, and these problems are of vast importance both to the profession and to the community. To keep attention fixed to these problems, to help by articles to throw light upon them, to aid by hint, criticism, discussion, commentary or otherwise in their solution, is the proper work of educational journals in the interest of progress and reform — *The Teacher, N. Y.*

To be a teacher, one must first of all be a scholar. So much stress is now placed on method and the theory of teaching that there is danger of forgetting the supreme importance of scholarship and culture. For these there is no substitute; and any scheme of professional study that is pursued at the expense of scholarship and culture is essentially bad. To be open-minded, magnanimous and manly; to have a love for scholarly vocation, and a wide and easy range of intellectual vision are of infinitely greater worth to the teacher than any authorized set of technical rules and principles. — *Page.*

THERE (in the Gloucester schools) I learnt the great secret of St. Augustine's golden key, which, though it be of gold, is useless unless it fits the wards of the lock. And I found the wards I had to fit, the wards of my lock, which had to be opened, the minds of those little street boys, very queer and tortuous affairs; and I had to set about cutting and chipping myself in every way to try and make myself into the wooden key, which should have the one merit of a key, however common it might look, the merit of fitting the lock, and unlocking the minds, and opening the shut chambers of the heart. — *Thring.*

By devoting a little time each day to earnest study, that scholarship which is now defective can be made much more accurate. By daily exercise the mind can be made keener in its observation, more susceptible, retentive and ready in its memory, more vivid in its imagination, clearer and surer in its reasoning. The whole of education does not consist in a well-ordered school-room or in show-off examination papers. The highest test of any teacher's ability is the power to influence mind and heart to the most healthful activity. In looking back over my own school days, I have never hesitated in thought as to which was my best teacher, and I think I was fortunate in having several good teachers. My best teacher was accurate in scholarship, clear in thought, witty in conversation, constantly studying, improving herself by every means at her command. My admiration for her was great when I was under her immediate care, and years have only deepened the admiration. — *Margaret Sutherland, in Ohio Ed Monthly.*

THE kind of teacher a school has outweighs all other considerations whatever — *Edward Roland Sill.*

*Special Papers.*

## THE SCHOOLMASTER IN FICTION.

BY J. H. PUTMAN, PRESIDENT, W.T.A.

IF it be true that the creations of a good novelist are accurate and truthful reflections of the characters and manners of his age, and that his stories are all true except names and dates, then may not we pedagogues of the last decade of the nineteenth century find interesting and instructive recreation in following the gradual development of our own species?

The schoolmaster has ever furnished a good-sized target, against which fiction writers of both Europe and America have driven their shafts of ridicule. At the present time neither Britain nor America may be said to possess a novelist of more than ordinary genius, but I often wonder if our eccentricities and frailties will be used by some great writer to furnish amusement for the teaching profession of a half a century hence.

Perhaps there may be some of you who will be surprised that any member of our profession could be so uncharitable as even to hint at the possibility of finding among our ranks to-day, men and women with peculiarities enough to attract the attention of a story-writer.

How true the words of Burns when he says :

"Oh wad some power the giftie gie us  
To see ourselves as ithers see us!  
It wad frae monie a blunder free us  
And foolish notion;  
What airs in dress an' gait wad lea'e us  
And e'en devotion."

And I have no doubt that should some close observer of human nature carefully cultivate the acquaintance of the teachers—not of Wentworth, but of some adjoining county—he would find sufficient material for many a curious tale. Now, I do not intend to weary you with an account of all the dominies portrayed by even the great writers, but will notice a few of the most characteristic.

According to the eighteenth century writers the teachers of that period were old soldiers who were no longer able to serve their country; spinsters and widows who had no other means of support, and finally anyone who was of no mortal use for anything else.

The majority of these educators seemed to have but one well-defined idea concerning their calling, and that was that "lickin' and larnin' go together."

Goldsmith's village schoolmaster, who caused the people to wonder that "one small head could carry all he knew," is too familiar to need more than a passing notice.

In his "Guy Mannering," Scott has left us a genuine curiosity in Dominie Sampson. This worthy character was born of poor and humble parents whose attention was drawn to his serious disposition when he was but a few years old. The parents considered his soberness a very hopeful sign and resolved that they would make a great effort and suffer any amount of privation in order to educate their son for the Church. With this aim in view Abel Sampson was sent to College, and appears to have been by no means slow in acquiring knowledge. But even here the poor fellow was the butt of much ridicule; and it is said that the small boys would congregate in the hall to see him come down the stairs, his long legs sprawling about and his great awkward shoulder blades moving in time to his walk. His eyes were goggle, his voice harsh and something like that of a screech-owl, and when he began to speak it seemed that his jaws were moved by some complicated machinery within. In due time Sampson was appointed to preach his first sermon. He entered the pulpit, but his native bashfulness quite overcame him and after grinning and leering about the congregation for a few minutes he was greeted with uproarious laughter. Striding down from the desk he quitted the church and gave up all idea of becoming a preacher. It was now, when he discovered that he could do nothing else, that he began his career as a schoolmaster. His school was large and his fees were small, but he managed to increase his income by writing letters for a Scotch laird. This laird finally induced Sampson to give up his school and make his home a permanent residence. The schoolmaster owed this preference to the fact that

he was a good listener and said nothing himself, and that he never detected the grossest imposition. It is said that our hero never laughed but once in his life. His only method of expressing surprise or curiosity was by the one word "pro-di-gi-ous." Scott gives an amusing account of how the Dominie's friends managed to replenish his wardrobe. They dared not trust him to make his own purchases and they feared to wound his feelings should they call in a tailor and have him measured like a boy. So they engaged a tailor to take a good look at him and size up his ungainly proportions. The clothes were accordingly made by this novel measurement and sent home; but how to get them on was the next question. Sampson slept very soundly and a servant went into his room the first night and removed his old waistcoat leaving the new one. The next day he appeared in the new jacket none the wiser of the change, and by this means his whole suit was changed, piece by piece.

Our friend does not appear to have been at all averse to good living, commonly bolting his bread in three inch squares and bestowing a generous portion of his soup on his clothes; but he often forgot the dinner hour and the housekeeper would frequently have to waylay him with his share of the meal.

Charles Dickens wrote one novel with the express purpose of showing the infamous character of Yorkshire private schools, and with what effect may be judged from the fact that at least two or three Yorkshire schoolmasters threatened to prosecute him, each thinking that his own school was the one honored by the novelist's notice.

It would be difficult to conceive of a more detestable wretch than Wackford Squeers, whose name has become a synonym for those who take pleasure in torturing and abusing children. He advertised his establishment as follows: "Education—At Mr. Wackford Squeers' Academy, Dotheboy's Hall, at the delightful village of Dotheboys, near Greta Bridge, in Yorkshire. Youths are boarded, clothed, booked, furnished with pocket money, provided with all necessaries, instructed in all languages, living and dead, mathematics, orthography, geometry, astronomy, trigonometry, the use of globes, algebra, singlestick (if required), writing, arithmetic, fortification and every other branch of classical literature. Terms, twenty guineas per annum. No extras, no vacations and diet unparalleled."

"This delightful home was a miserable hovel, reeking with filth, and into it were crowded some two score unfortunate children of parents who knew little of their condition and cared less. Squeers and his amiable wife fed the children on brimstone and molasses to take away their appetites, half froze them, let them go naked, made them sleep six in a bed, forced them to eat the meat of animals that had died from natural causes, turned them out in turnip fields for a change of diet and finally beat them unmercifully for no cause whatever. Was it any wonder that the publication of "Nicholas Nickleby" aroused the English people to action against such places of infamy, and did much to rid the land of that class of schools?"

In "Dombey and Son," a work written some years later, Dickens gives us a picture of a school conducted upon very different principles from that of Wackford Squeers, and yet its effect upon the pupils can scarcely be said to have been much better. This establishment was conducted by Dr. Blimber and his daughter. The Doctor was a well-intentioned gentleman, whose idea of a school was a mental hot-house, where boys were stuffed with Latin and Greek from seven years of age.

Every boy who attended this school, no matter how young, was supposed to conduct himself as a young gentleman, and anything approaching play was looked upon with great disfavor. Study was the watchword. But little time was taken for meals and none for play. The result was a weakly lot of boys who either died in their teens or went daft before completing the course. It is said that they lost their spirits in three weeks and even approaching holidays failed to awaken any enthusiasm among them.

Now, while both Squeers and Dr. Blimber blasted body and mind, and destroyed every capability for usefulness, their methods were exactly opposite; the former starved the mind and showered his abuse upon the body, the latter killed mind and body by over-burdening the mental powers.

The "school marm" is a product of nineteenth century civilization, and flourishes best in America. While, therefore, I cannot give you a picture of a schoolmistress from the pen of an English author I will give you a short description of a schoolmaster as portrayed by a lady writer who holds a high place among English novelists.

George Eliot certainly knew some wonderful people and had a happy way of telling about them.

Bartle Massey, a schoolmaster of George the Third's reign, was not the least curious among her acquaintances. He lived in one of the north midland counties and not only kept a day school for children, but a night school for men. As a teacher he was very useful and had a love for his work which would do credit to any teacher of our own day. The ignorant country people looked with great awe upon his learning and agreed among themselves that it was possible he might have something to do with the bringing about of daylight and the changes in the weather. His most marked peculiarity was his hatred of women, and it was surmised by his friends that before he came among them he must have had some unpleasant experience. He said that he never knew a woman who didn't think that two and two would come to make five if she cried and bothered about it enough. Having such unfavorable opinions regarding the fair sex it was no wonder that he did his own housekeeping and lived alone in a room adjoining the schoolhouse.

Allow me to quote a short extract from the author: "I hate the sound of women's voices; they're always either a-buzz or a-squeak, and as for the young lasses, I'd as soon look at water-grubs. It's the silliest lie a sensible man ever believed to say a woman makes a house comfortable. It's a story got up because the women are here and something must be found for 'em to do. I tell you there isn't a thing under the sun that needs to be done at all but what a man can do better than a woman, unless it's raising children, and the women do that in a poor makeshift way; it had better ha' been left to men; it had better ha' been left to the men. I tell you a woman 'ull bake you a pie every week of her life and never come to see that the hotter the oven the shorter the time. Look at me! I make my own bread, and there's no difference between one batch and another from year's end to year's end, but if I had a woman I must pray to the Lord every baking to give me patience if the bread turned out heavy. And as for cleanliness, my house is cleaner than any other house on the Common, though half of 'em swarm with women. Don't tell me about God having made such creatures to be companions for us! I don't say but he might make Eve to be a companion to Adam in Paradise; there was no cooking to be spoiled there, and no other women to cackle with and make mischief, though you see what mischief she did as soon as she'd an opportunity. But it's an impious unscriptural opinion to say a woman's a blessing to a man now; you might as well say adders and wasps and hogs and wild beasts are a blessing when they are only the evils that belong to this state of probation, which its lawful for a man to keep as clear of as he can in this life, hoping to get quit of 'em forever in another." Such was Bartle Massey's opinion of women, and let us hope it was an opinion not shared in by the profession of to-day.

Let us now glance at the wielders of the rod described by American writers. Those of you who have not read Washington Irving's description of Ichabod Crane have a delightful hour yet in store. As to his personal appearance I shall quote from the author: "The cognomen of Crane was not inapplicable to his person. He was tall, but exceedingly lank, with narrow shoulders, long arms and legs, hands that dangled a mile out of his sleeves, and his whole frame most loosely hung together. His head was small and flat on top, with huge ears, large green glassy eyes, and a long snipe nose so that it looked like a weather-cock perched upon his spindle neck to tell which way the wind blew. To see him striding along the profile of a hill on a windy day with his clothes bagging and fluttering about him, one might have mistaken him for the genius of famine descending upon the earth, or some scarecrow eloped from a cornfield." The scene of Ichabod's labors was a rude log building of one room, having many broken windows which were stuffed with old

(Continued on page 350.)

### Book Reviews, Notices, etc.

*Laboratory Manual of Experimental Physics.* By Albert L. Arey, C.E., Instructor in Physics, Rochester Free Academy. C. W. Bardeen, Syracuse, N. Y., 1890. 200 pages.

To such teachers as feel the need of a brief course of quantitative experiments in the Physical Laboratory this little book will be found very valuable. The student is instructed how to make nearly all the apparatus needed with little expense; and blanks are left for the tabulation of results of experiments. The book is not intended to take the place of a teacher. Merely illustrative experiments are therefore omitted, leaving only such as every student ought to become familiar with.

*Syntax of the Moods and Tenses of the Greek Verb.* By Wm. Watson Goodwin, LL.D., of Harvard University. Rewritten and enlarged. Boston: Ginn & Co., 1890.

This excellent work, though based on a smaller treatise published thirty years ago by the now eminent author of the favorite Greek Grammar in American schools and colleges, is really, as was to be expected, almost an entirely new book. All that long years of patient research, all that the light of modern philosophy, logic and comparative philology brought to bear upon the study of the ancient classics, have enabled the foremost scholars in the old world and this to produce, have been laid under tribute by the author and their theories and conclusions placed within easy reach of the student. To a philosophical discussion of the general principles underlying the moods and tenses of the Greek verb, is added a full explanation of every particle, every variety of mood and tense construction accompanying each, and the shades of thought thus brought out. Following each section are examples in great variety and number, illustrating the usages treated of and drawn from the whole range of Greek literature. Finally, to make the whole doubly valuable as a book of constant reference there are added three indexes, by means of which the student may not only find at once where any subject or Greek word is discussed, but also refer immediately to the section where any difficult passage he may be studying is to be found, if it has been cited by the author. This work will no doubt soon be in the hands of every Greek student.

*Elements of Plane and Spherical Trigonometry,* by Edwin S. Crawley, Professor of Mathematics in the University of Pennsylvania: Lippincott Co., Phila.; pp. 159, \$1.00. A practical book after the usual type of U. S. trigonometries. A very good book for practical science students, but no better than many others already in existence.

*An Elementary Treatise upon the Method of Least Squares,* by Geo. Comstock, Professor of Astronomy in the University of Wisconsin, and Director of Washburn Observatory; pp. 67; Ginn & Co., Boston.

Designed to give students of physics, astronomy and engineering a working knowledge with a moderate expenditure of time and labor. Similar in its object to the preceding book noticed.

*Arithmetic for Beginners,* by J. and E. J. Brooksmith: Macmillan & Co., 1889.

This is a bright introductory book on the usual lines of English arithmetics. It contains abundance of questions for practice, and they are of the usual types. As an exhibition of method it contains nothing new.

*An Elementary Treatise upon the Method of Least Squares,* with numerical examples of its applications; by Geo. C. Comstock: Ginn & Co., 1890.

This little volume of sixty-eight pages gives a very clear and intelligible introduction to the subject by an able astronomer.

*Elementary Mathematical Tables,* by Dr. McFarlane: Ginn & Co., Boston.

Many of the thirty-one tables will be found useful in saving labor, even by teachers of the most elementary classes. Squares, square roots, cubes, cube roots, multiples, least divisors and similar tables for reciprocals save much valuable time in making and testing problems. The tables for

interest, annuities, debentures, etc., are worth more than the price of the book.

*Merry Melodies,* S. C. Hanson. Mr. James K. Cranston, wholesale and retail bookseller, of Galt, Ont., has handed us a copy of the above mentioned book, and judging from the unprecedented success it has had in the United States of over 10,000 copies sold in about two months, and from the selections themselves at once it is granted the position of being the freshest, choicest and most captivating book for school use now published. Good music has a powerful influence on young people and often rouses them to diligence and manly actions. Teachers should supply their schools and let pupils enjoy themselves a few minutes each day in singing some of the sweetest melodies ever written. Prof. S. T. Wallace, Principal Music Department, Muskingum College, O., writes:—"I received the book, *Merry Melodies*, and am highly pleased with it. I have no criticism to offer, for it is certainly one of the most attractive books that I have ever seen. You must have been in your happiest moods for composing when you wrote the beautiful melodies of this little book. I don't see anything to prevent its becoming a great success." Mr. J. K. Cranston, Galt, is the Canadian publisher of this book. See advt. on another page.

### Elocutionary Department.

#### ELOCUTION—ARTICULATION.

BY R. LEWIS.

No part of the reading exercises of the school room is more neglected than articulation. Pronunciation is substituted for articulation, and, as pronunciation is supposed to be correct and perfect when the authorized accent is given in a word, to the syllable requiring such accent, the equally important, sometimes more important, law of perfect articulation is neglected, in fact rarely ever enforced. The pupil who cannot be "heard" is requested to "speak louder"; but the loudness does not remedy the defect because that defect is entirely due to the imperfect articulation of some letter in the word. This has been suggested in a previous article. Perfect articulation requires the perfect utterance of every letter that is sounded in a word. That perfection demands in its fulness correctness in the elementary sounds, which includes purity and freedom from vulgar or provincial sounds. There is only one method by which the speaking and reading of the learners can attain this perfection, and that method is accomplished by the practice of phonic reading. No reading lesson should be regarded as finished without this practice, and if it formed an essential and imperative part of every reading exercise in the schools through every grade of instruction, pure English speaking and reading would be an accomplished fact, and the speaking and reading character of the nation revolutionized. In the previous article on articulation attention was directed to the wrong but common sounds of vowels which disfigure the speech of every class. The present article will be devoted to the simple and compound vowel sounds and the methods of practice. The arrangement is chiefly in accordance with the views of Dr. Rush, whose classification was made more in harmony with the vocal properties of letters than with their derivative or historical relations. The historical relations are interesting to scholars, but the elegance and purity and correctness of sounds should be the study of the teacher and the public schools.

There are at least eighteen vowel sounds, embracing in that number compound sounds. These have the name of tonic elements, as they depend less on the action of the vocal organs than on the quality of voice or tone in sounding them. The vowels are especially the letters which give music to speech whether in speaking or singing; and in that term is embraced all that constitutes force, beauty, elegance and refinement of utterance.

#### TONIC ELEMENTS OR VOWELS.

- |                        |                 |
|------------------------|-----------------|
| 1. A-rm or A-h.        | 8. E-nd.        |
| 2. A-n.                | 9. E-rr.        |
| 3. A-sk.               | 10. I-n.        |
| 4. A-t.                | 11. OO-ze.      |
| 5. A-ll, awe.          | 12. L-OO-K.     |
| 6. A-ir, d-a-re, e-re. | 13. U-p, U-nto. |
| 7. E-ve.               | 14. O-r O-n.    |

#### COMPOUND SOUNDS.

- |                            |  |
|----------------------------|--|
| 15. A-le; Union of A+e.    |  |
| 16. I-ce " A+i. & as in au |  |
| 17. O-ld, " O+oo.          |  |
| 18. O-ur, " A+oo. "        |  |
| 19. OI-L, " Aw+i. "        |  |
| 20. U-se. Ee+oo.           |  |

Each vowel in the above table is to be sounded as in the word which it commences. The pupil should however be drilled to sound the vowel *alone* and to point it out and select it in the words of the reading lessons. When sounding it alone it may be practised for tone, inflection, force and all the variations of voice to be hereafter explained. In every practice, however, a perfect, pure, refined sound should be insisted upon, and the action and form of the mouth carefully watched. Any twisting or protruding or ungraceful action of the lips should be promptly checked; and the self instructor will find it an advantage to practise before a mirror. There is no fixed number of vowels, nor is there a fixed quantity or length of time in utterance. No. 7 is a long vowel, and No. 8 is a short vowel, but the quantity may be varied according to the nature of the expression. *Hen*, which in English is always short, in Welsh signifying *old*, is prolonged and capable of beautiful expression.

*General hints on vowel sounds.* Nos. 1, 5, 6, 7, 8, 11, are capable of great expression and musical tone.

The compound vowels are so termed because each combines when correctly pronounced two vowel sounds. *A*, as in *day*, has an initial sound commonly used, but in refined pronunciation it tapers off in its vanish into a short sound of *e*. The absence of this vanishing sound often marks Irish and Scotch pronunciation of such words as *day*, *ga'te*, etc. *A*, is a compound of *a* in *an*, and *i* in *in*, and when prolonged, of *e*. In some parts of England and the east of Ireland it is pronounced *oi*, as *point*, for *pint*. *O* has a vanishing sound of *oo*, as if written *O+oo*. In its correct utterance the mouth is rounded internally but not externally. All strong action of the lips, especially that of protruding them, is unnecessary and ungraceful. In sounds like this the lips simply move towards each other with a small opening in the front, but they must not be pushed forward.

When *O* is followed by *R* this vanishing *oo* is not heard, but a sound of *ü* or as some state *è*, precedes the *R*, as in *deplore*, *more*, sounded like *öm+ur*; *door*, *dö+ür*.

*O* (14) in *on*, is the short sound of *a* in *all*, but in *o* the short sound of *ü* is heard between the *o* and the *r*. *A* in *all*, *fall*, etc., has a fuller sound. The liquids *l, m, ng, r*, when following any vowel add to the fullness and beauty of the tone. Practice with these combinations and prolonging the sounds are excellent exercises for voice culture. It may be regarded as a rule that when the long vowels, 1, 5, 6, 7, 11, 16, 17, 18, 20, precede *R*, a slight vowel sound is introduced between the vowel and the *R*.

*Ou*, a compound of 2 and 11, heard in *our*, *town*, *down*, *now*. The compound is probably more one of 2 and 12. Londoners and south of England people sound this compound more like the union of 8+12; *now*, as *nè+öo*, *town* as *tè+öon*.

*Oi*, as in *oil*, is a compound of great beauty and capabilities of expression; it is a compound of 14 and 10, or of *o* in *on* and *i* in *ill*, heard in *toil*, *coil*, *moil*, etc.

*U*, as in the verb *use*, *you*, *yew*, *dew*, etc. The defects in sounding the compound are almost universal. In such words as *dew*, *duty*, *dissolute*, the general pronunciation is *juw*, *juty* or *dooty*, *dissoloot*, etc. As was suggested in a previous paper this defect may be prevented by introducing a *y* before the *u*; or still better by writing the elements of such words on the blackboard, *dÿ+oo*, *dÿ+ooty*, *dissollÿ+oot*. The exceptions to this rule, when *u* is sounded like *öo*, are when *u* follows *r*, *sh*, *zh*, *ch*, *j*, and after *l*, preceded by another consonant; as *rule*, *sure* (*shoor*), *leisure*, (*zhure*), *chew*, *June* and *conclude*.

The reader and student are reminded of the false pronunciation of vowels on unaccented or final syllables; as *charity*, *vis'ble*, *innocence*, *conscience*, *document*, *hospitable*, *become*, *behold*. The italicised vowels are wrongly sounded like *ü* in *dunce*; the *i* should have the sound of No. 10, the *e* of No. 8, the *a* of No. 4, and the *e* in *behold*, *become* of No. 10.

In practising the following exercises, first analyze the words phonically, that is sound the vowels and then the word :

1. *Arm, arm* it is the cannon's opening roar.
2. He grasped the palm with his hand.
3. He dares not touch a hair of *Catiline*.
4. How small of all that human hearts endure,  
That past which laws or kings can cause or cure.

Sound the vowels in the following words and then name their place in the table of vowels :

*Providence, grief, Ben Adhemis, name led all the rest.*

The sailor's eyes were dim with dew.

Pronounce the following words syllabically, then sound their vowels, with special attention to the italic letters :

*Incoherent, capability, docility, between, bedizened, behold, become.*

Exercises like the last might also be analyzed by syllables, thus :—*Incompatibility, com-pa-ti-bi-li-ty, pa-ti-bi-li-ty, ti-bi-li-ty, bi-li-ty, li-ty, ty.* Note that all the *i's* and the *y's* have the same sound.

Mr. Russel, an eminent elocutionist of the United States, recommends the following exercise from which the best results have followed in correcting slovenly or vulgar pronunciation :

Begin at the end of any line or sentence ; 1st, sound every letter or element used in every word separately and very distinctly and correctly, as it should be sounded in the word throughout the sentence ; 2nd, enunciate every syllable of each word in the sentence clearly and distinctly ; 3rd, pronounce every word in the same style ; 4th, read the sentence from the beginning forward with perfect correctness ; 5th, read the sentence similarly and with the best expression. The writer of these articles has practised these methods for securing distinct articulation with classes of all ages, youth and adult, with the best results.

The few exercises given in this paper are offered as suggestions of what can and should be done in the cultivation of improved modes of speaking and reading.

### For Friday Afternoon.

#### THE BELL OF JUSTICE.

THERE was a King long years ago :  
His name historian doth not know.

He lived beneath Italian skies,  
A noble monarch, just and wise.

That he might serve his people well,  
In a high tower he hung a bell.

He who was wronged had but to ring  
The bell of justice, for the King

Was bound to make the humblest prayer  
The subject of his royal care.

At first men rung it every day,  
Rotted at last the rope away,

And, growing shorter by degrees,  
Swayed lightly to each passing breeze.

For many a month it idle hung,  
No longer needed. No one rung

For justice ; men had learned to fear,  
And dreaded now the bell to hear.

At length a wandering grape-vine clung  
Tight to the rope that idle hung.

And firmly held it, sweetly grasped,  
As if one hand another clasped.

A starving horse, turned out to die,  
One summer day was passing by.

And browsing where the grape-vine hung  
The bell of justice loudly rung.

Straightway a royal herald came,  
And saw the horse, half-starved and lame.

He told the King who rang the bell,  
The monarch answered : "It is well,

"The brute for justice doth appeal ;  
For starving brutes I pity feel.

"Go seek his owner out for me,  
And tell him this is our decree :

"Long as he lives this horse must fare  
On oats and grass of his. Beware !

"If he again for justice call  
My wrath shall on his owner fall."

Would God to day there was a bell !  
The brutes could ring, and thereby tell

The story of their cruel wrongs,  
And win the justice that belongs

To every creature, great and small ;  
For God their Maker loveth all.

—Egbert L. Bangs, in *N. Y. Independent*.

#### BEAUTIFUL LAND OF DREAMS.

WHEN daylight dies,  
And the darkened skies  
Are lit by the stars' soft gleams,  
Oh, gladly I go  
From this world of woe  
To the beautiful land of dreams.

The very air  
Is fragrant there,  
From odorous fruits and flowers,  
And Father Time,  
In that wonderful clime,  
Forgets to count the hours !

In that fair land,  
On every hand,  
The golden sunlight gleams ;  
Or silvery-bright  
Is the moon's soft light  
In the beautiful land of dreams.

Oh, strangely sweet  
It is to meet  
Our loved ones gone before—  
Oh, wonderful land,  
Where we touch the hand  
Of one from the heavenly shore !

Shall we find at last,  
When life is past,  
And we stand by the living streams,  
That golden shore  
We have seen before  
In the beautiful land of dreams ?

—Troubadour.

#### ALWAYS A RIVER TO CROSS.

THERE is always a river to cross ;  
Always an effort to make  
If there's anything good to win,  
Any rich prize to take.  
Yonder's the fruit we crave,  
Yonder the charming scene ;  
But deep and wide, with troubled tide,  
Is the river that lies between.

For the treasures of precious worth  
We must patiently dig and dive ;  
For the places we long to fill  
We must push and struggle and strive.  
And always and everywhere  
We'll find, on our onward course,  
Thorns for the feet and trials to meet  
And a difficult river to cross.

For the rougher the way that we take,  
The stouter the heart and the nerve ;  
The stones in our path we break,  
Nor e'en from our impulse swerve.  
For the glory we hope to win  
Our labors we count no loss ;  
'Tis folly to pause and murmur because  
Of the river we have to cross.

So, ready to do and to dare,  
Should we in our places stand,  
Fulfilling the Master's will,  
Fulfilling the soul's demand ;  
For though as the mountain high  
The billows may war and toss,  
They'll not overwhelm if the Lord's at the helm  
When the difficult river we cross.

### Question Drawer.

1. WOULD you advise the teacher to make any mention of the author in conducting a third class in reading and literature ?

2. If so, what points should be specially noted ?

3. Which should be taught first, L. C. M. and H. C. F., or fractions ?

4. What is the best instrument for inflicting corporal punishment ?—W. H. C.

[1. Yes, the pupils should know something about the author. They should form the habit of noting the author of what they read and finding out the leading facts of his history.

2. Much depends upon the nature of the extract and the celebrity of the author. The class should at least know his country, and his time, and, if a man of note, something of his principal works and characteristics as a man and a writer.

3. Will some teacher kindly answer ?

4. For parents or guardians who, in our opinion, should administer corporal punishment, a light switch or rod is probably best and safest, as combining the maximum of pain with the minimum of danger. Personally we do not believe either in the necessity or in the utility of flogging in the schools.]

WOULD any one kindly lend any of the following books to a young school teacher who has not the means of buying them ? The borrower will pay the postage or express charges on the books : Green's Short History of the English People, Freeman's Old English History, Withrow's History of Canada, Archer's History of Canada, Parkham's Historical Narratives ? Address EBENEZER SIM, Fern Glen P.O., Parry Sound District, Ont.

1. A TEACHER leaves his school at midsummer, having been engaged the preceding Christmas for the full year ; how ought the year's salary to be divided ?

2. If a teacher having a Second-Class professional certificate wishes to teach in Manitoba, will he be obliged to pass another examination before doing so, his certificate having been obtained in Ontario ?—INQUIRER.

[1. The amount due the teacher bears the same proportion to the year's salary agreed on which the number of days of actual teaching bears to the whole number of teaching days in the year.

2. See editorial note in this number of JOURNAL.]

To the question, "How many envelopes are there ?" should the answer be "There are none," or "There is none" ? None I know to be a contraction of *not one*, but can it not also mean *no envelopes*, and is this not the more frequent use ?—A. B.

[Yes. In this case, as in many others, the original meaning of the word is lost sight of in common usage. Smart says *none* is used in the plural as often as in the singular. Worcester quotes Milton :

"In at this gate none pass," etc.  
Good usage is grammatical law.]

I AM a Third-Class teacher, passed on Physics and Botany. If I were to take a medical course in Ann Arbor, Michigan, and come back to Ontario, as what year's student could I enter the Medical College.—A TEACHER.

[Write to the Secretary of the Medical Faculty of the University you wish to enter.]

1. Is it the duty of trustees to call a public examination of a school ?

2. Is a school board authorized to suspend a pupil in case of alleged misconduct without the consent or knowledge of the teacher ?

3. When do vacation terms begin and end in case of town schools ?—TEACHER—SUBSCRIBER.

[1. No. It is the duty of the teacher to hold during each term a public examination of his school, and to give due notice to trustees and others.

2. We should say not. Certainly it would be inadvisable and discourteous to do so. The law provides that trustees may dismiss pupils adjudged refractory by themselves and the teacher.

3. The terms for town schools are the same as

(Continued on page 349.)

## Primary Department.

### DRAWING.

RHODA LEE.

"SYMPATHIZE with you," I said, "I should think I do. I have had more than once a similar experience, but my plan now is to check and effectually crush out any such feeling in the very earliest stage." Now let me explain the cause of this outburst.

We had been having a little after-school experience meeting, and in the course of our conversation one of our most earnest, painstaking and successful teachers asked, in a somewhat sorrowful voice, "If anybody ever was in danger of crowding out or doing injustice to a distasteful subject?"

"I have been very unfair," she continued, "to one of the subjects on my programme. If an interruption occurs and something is crowded out, I am tempted to let this go. I find myself infringing on the time allotted to this lesson, and instead of liking it better my interest in it is daily diminished."

I was sorry to hear this from my fellow-teacher but sympathized thoroughly with her, having experienced, as I said in beginning, though in a very slight measure, something of the same feeling.

We cannot avoid having our likes and dislikes in regard to the lessons, but it is decidedly wrong to give way to feelings of this kind.

To try to excel in some subjects at the expense of others is most unfair.

On being asked to give my experience in this direction I startled my hearers into something like surprise and even incredulity, when I stated that it was in *drawing* that I became so lukewarm and discouraged.

I had scratched little quarter-inch squares on one side of the children's slates, but as some of them were very young and had never been through the kindergarten, I found great trouble in getting them to follow my work on the board and copy it neatly and correctly on their slates.

With sixty-five or seventy pairs of little hands to supervise in their work it was very difficult to get good results and I found the time, instead of the delightful half-hour it is now, to be tiresome and uninteresting.

On awakening to a knowledge of this fact, I set myself to revolutionize this state of affairs.

How was I going to make that lesson attractive both to the children and myself? Determination goes a long way on the road to success, and I was determined to do this. I was amply repaid for my efforts. First of all I obtained some colored crayons as an attraction and used these in drawing the designs on the board.

Then in drawing I got into the way of calling the squares houses, and taking the little boy occupant of the imaginary house, we visited others, the line, of course, showing the direction we went, and when we returned to the starting point the figure was complete.

Little stories woven into the designs improved them wonderfully, and any familiar object such as a spool, a gate, a bird-house or a saw-horse added extra interest.

The most careful worker was sometimes rewarded by being allowed to draw in the squares on the board beside his teacher.

The class I now speak of were not supposed to use drawing books, but to their great delight we bought half a dozen kindergarten practice books and used these once a week. I took the pages out of the books and gave each child one sheet with the name written across the top. These sheets we used only once a week, and at the end of the lesson they were collected carefully and kept until needed again.

I kept one book entire, and whenever any scholars did some specially good work they were permitted to draw it in the large book.

At the end of the term we had quite an exhibition of drawings and the children were greatly pleased by being allowed to take their work home.

It has been deemed impracticable by some to use paper and lead pencils for drawing in the lowest rooms, and while I would not advocate the entire use of these I would certainly advise their partial use, say once a week, as a very strong incentive to interest and work.

For "busy work" in the First Book classes there is nothing like the squares on the slates. Keep a

number of simple patterns on the board and let your pupils copy them, and besides doing this mechanical work they will make their own little figures and designs.

Occasionally, and in connection with story-writing, I distribute business cards and ask the children to copy what they see and write all they can about it below. Sometimes, too, I pass around outline pictures cut from magazines and school journals, and pasted on cardboard, and these they take great pains to copy, sometimes making very good attempts.

Vary the drawing lesson by dictating the figure, instead of drawing it for the class to copy.

After giving a drawing lesson either by dictation or copying, erase the pattern and require the scholars to draw it from memory.

It is a very easy matter to make designs suitable for little children, but be careful to start simply, using only vertical and horizontal lines at first.

After they can use these in their designs with facility and accuracy make use of the oblique lines. Encourage original designing and instil a great amount of pride in neat careful work.

Take for your motto: "Not how much, but how well," and you will find the drawing one of the most, if not *the* most, interesting lesson in the week.

### OUR BIRD LESSON.

ARNOLD ALCOTT.

HAVING taken a lesson such as the one described in our last issue, we endeavor to deepen the interest in our little feathered friends, not only by the pretty songs such as "The Merry Brown Thrush," "The Birdies' Ball," and "All the Birds and Bees are Singing," but also by "gems."

Let us take for example these:

"Little bird with bosom red,  
Welcome to my humble shed,  
Daily near my table steal  
While I eat my scanty meal.  
Doubt not, little though there be,  
But I'll share a crumb with thee.  
Well repaid, if I but spy  
Pleasure in thy glancing eye."

"Up springs the lark,  
The messenger of morn,  
Ere yet the shadows fly, he mounting, sings  
Amid the dawning clouds."

Also, we may have many stories of the different birds. We may let the robin tell his story on one afternoon; and on another we may listen to the lark, and we surely will not forget the king of song birds, the nightingale.

As we are endeavoring to develop our pupils harmoniously, may we not dictate a lesson such as this for homework: "Pretend you are robins, or parrots, or linnets, or canaries and write a story of your life."

Further, we may very successfully direct the special interest in birds into a channel which will be helpful in the spelling lesson.

Suppose that we say to our pupils: "Next Friday afternoon you may have a guessing game on birds, so learn to spell all the names of birds which you can."

Then on Friday we choose sides and the teacher puts the following on the blackboard:

P—t. The successful pupil says "parrot." Then proceed as in the old-time spelling match. Or, we may play girls against boys, and give marks to each according to the number of letters which have been omitted in the word which was written on the blackboard. But we must be careful to choose the names so as to give "fair play" to both sides.

We wish to outline another lesson on birds, devoting attention chiefly to their *feet*.

"Those pupils who have ever been out in a row-boat?" "What made your boat go, John?"

"The oars made it go, Miss A."

Then lead your pupils to tell you that an oar is made of *one broad flat* piece of wood. Also help them to get the idea that the water could not be driven back if the oar had prongs like a pitchfork.

We are aiming at getting our children to see that the broad flat surface is necessary in order to drive the water back. Get a pupil to come forward and to open his fingers. Then tell him to put his hand in the pail of water and to make the swimming

motion. Next let him close his fingers and make the motion. Now ask which motion, the first or the second, would drive back the water the better.

Then we may ask our pupils to name a bird that is a swimmer.

The teacher opens her fingers and asks if the foot of the "duck" is shaped in that way. Some may not have observed a duck's foot.

Others will tell you that there is a thin skin between the toes. Then we may tell that a duck has a *webbed* foot. A problem, such as the following, may now be dictated: Draw a picture of the foot of a bird that is a swimmer.

If you have not previously done so, we would advise that you teach the "swimming" motions in the calisthenic exercises of to-day.

*The Wader*.—"Did you ever take off your boots and stockings and wade, Charlie?"

Now get a pupil to test before the class that less irritation in the water is produced if the hand be put into it with the fingers apart than if together. Then tell that some birds live on fish. And, of course, the birds must catch the fish for themselves.

There is no trouble at all in getting your boys to tell you how to fish. Just plead ignorance, and it is wonderful how minutely you will be initiated into the mysteries of angling.

Of course, we are trying to get the class to realize that everything must be *quiet*, or else the fish may be frightened away. Therefore we are proving that this bird has *long thin* legs and a *long bill*. Then ask your class to draw the feet and the beak of the wader bird.

*The Runner*.—"Did you ever run a race, Tom?" How Tom's eyes glow, for he is the best runner in our room! "Tell me what kind of shoes you wore." And he tells how he had very light shoes without any heels. "Would you like to have heels with big spikes in them in your racing shoes?" "No, Miss A." "Why?" "Because the nails would stick in the ground."

Then we may vary our method and the teacher may draw the picture of the foot of an ostrich and show that it has no toe behind.

*The Climber*.—Having already on the blackboard the pictures of the swimmer, of the wader and of the runner, we may combine these last class—the climber.

The teacher draws on the board the foot of a climber, but does not say that it is a climber. "Those who notice a difference between this and that of the runner?" "It has claws." "It has a toe behind." "Then is it a runner?" "No, Miss A."

Then get Fred to see that when he wants to catch hold of anything tightly he likes to have good strong nails. Show that the hind toe is a support. And so develop that the picture is that of a climber.

## School-Room Methods.

### MODEL READING.

BY C. CLARKSON, B.A.

THE following consensus of educational opinion was collected some years ago by a teacher connected with the staff of one of our Canadian Normal schools. The heretical doctrine had been advanced that the teacher of Reading in Public school classes should never on any account permit his pupils to imitate his own reading, that all imitation is wrong and useless, that the correct manner of reading should be questioned out of the pupil, that the pupil should be so deeply inspired with the meaning of the passage as to give spontaneously the correct expression of the thought and feeling, etc., etc., *usque ad nauseam*. In opposition to this the writer contended that this method was contrary to all experience in the learning of any spoken language, that it involved a foolish waste of time, that it turned the reading lesson into a dry, monotonous piece of cross-examination, that it afforded a convenient refuge for teachers who could not themselves read expressively, that actual experiment proved it a total failure both with juvenile pupils and with students-in-training, and that the leading authorities had steadfastly set their faces against it and recommended model reading by the teacher as the best means of securing good reading by the pupils. In support of the latter statement the following condensed extracts were

compiled; and, as Reading continues to be the worst taught subject on the Ontario programme of studies in Public and High schools, and as the Model and Normal schools seem as yet unable to cope with this deficiency to any adequate extent, perhaps it may be useful to lay these extracts before the teaching fraternity.

*Fitch*, p. 210.—1. First it is well "to read the passage aloud" very carefully with "the proper intonation," requiring the scholars to fix their eyes on the book and to follow the teacher, pointing out word by word as he utters it.

2. Next "a simultaneous exercise" is often found very useful. The teacher reads the lesson again and asks the whole class to read it with him slowly, etc.

3. Third step: Call upon "the class to read the lesson simultaneously" without the teacher.

4. Challenge the scholars one after another to read, etc.

5. Close the books and give a few simple questions, etc.

*Currie*, p. 324.—To produce good reading, Instruction, Imitation and Practice must all contribute. P. 329. The acquisition of a good style of reading is "mainly the result of imitation." P. 330 *et seqq.* When the teacher has explained to his class how a passage should be read, or when he wishes it to be better read by them, "he should himself read it," that they may observe his modulations; and this should be a thing not of occasional, but of very frequent and regular occurrence . . . ; he should also read to them from some suitable work of general interest . . . ; it keeps before them "an example of reading applied . . . where there is no model held up for his imitation . . . practice is as likely to confirm (in the pupil) a bad style to impart a good one.

*Robinson*, p. 4—"Rule of Imitation." The great means to produce correct expression in reading may be said to consist in a steady adherence to one rule—the Rule of Imitation, *i.e.*, to reading the sentence as it ought to be read, and causing the child to exercise his powers of imitation upon the model thus placed before him. Reading after all is but cultivated talking, and "must of necessity be acquired," as speaking itself is—"by imitation." . . . Two ways to apply the rule, (1) master reads, the child listens; (2) both read together. . . . Children not taught to group words naturally. The only true remedy for this defect is . . . "reading the sentence as it ought to be read," so that the child may have something tangible by means of which he may discover and correct his errors.

*Wickersham*, p. 227 of "Methods of Instruction." *Expression*.—Two ways: (1) The teacher may read correctly and require his pupils to imitate him. (2) Rules may be given which can be learned and followed in reading. Rules can be of little use to children just beginning to read. "The teacher must instruct them mainly by using their powers of imitation." His voice must be their constant model. Faults of reading should be prevented by showing what is right. . . . All descriptions of the variations of the voice . . . will be unmeaning, unless the sound described be itself exhibited. This method of teaching reading by imitation is applicable not only to young learners, but must be used throughout the whole course of instruction. . . . Such rules as express the laws of taste, the teacher is at liberty to impress upon the minds of his pupils. He must "always exemplify them" by his own reading. . . . They do not, when thus presented, destroy the pupil's individuality. . . . but leave room for the display of his own genius. He "must show them" what is right, and patiently train them to do it. "He must give them in his own delivery a fit model for imitation."

*Gladman*, p. 39.—It is common enough to find children falling into a monotonous and labored style. The best remedy is "Pattern Reading" by the teacher. . . . Let the teacher show his pupils how to place the emphasis, and see that they carry out his directions. . . . "Show them how" to read the sentence, and "make them imitate you."

P. 47. "Reading in a Junior Class"—1. Arouse interest by a word or two of introduction.

2. Pronounce each word distinctly, but not too loudly, and "cause the class to imitate you," either simultaneously or individually, according to your discretion.

3. Read the sentence slowly. Let the children imitate you.

4. Correct errors—see that they are rectified by the pupils.

5. Require individual pupils to read the same sentence. See that errors of pronunciation and articulation are corrected.

6. Vary your plan slightly by any device likely to awaken attention, *e.g.*, call on a good reader to give the sentence instead of reading it yourself.

7. Make the children understand what they are reading. Give questions and explanations. But "remember the object" in a reading class "is to teach reading." This is best done by practice.

"Reading in a Higher Class."—1. Allow the pupils to look over the lesson for five or ten minutes, under supervision—pupils write out difficult words (on the B.B.) 2. Teacher goes through the whole lesson correcting errors, furnishing needful explanations and illustrations, and "showing how the various sentences ought to be rendered." 3. Give class practice—break up into sections—(each section to read both individually and simultaneously). 4. Dictation lesson follows this exercise.

It will be seen from these extracts, necessarily mutilated by condensation, that the leading Scotch, Irish, English and American writers on Method are unanimous in recommending imitation as the most effective means of securing good reading. And it will require something stronger than the authority of the Boston School of Elocution to overthrow such clear testimony, supported as it is by the experience of the whole civilized world.

#### FIRST LESSONS IN GRAMMAR.

**DEFINITIONS.**—The object of study in grammar is the sentence, precisely as the mineral is the object of study in mineralogy or the plant in botany. Beginning with the sentence, therefore, or with several sentences, we first lead the pupils to know and define a sentence and its related parts. Two points are to be observed in teaching definitions: first, to see that they are constructed by the pupils upon facts which they themselves have observed; secondly to secure accuracy of statement. When the definitions have been properly taught, and when the statements are made by the pupils in accordance with the facts observed, it may be well to compare those statements with others which are found in the text-book, and which may sometimes be substituted for their own. But even the text-books are not always correct, as when it is stated that "the subject of a proposition is that of which something is said," and that "a noun is a name."

To illustrate how definitions may be made, the following examples are given:

The pupil is first asked to express a thought about the book, the crayon and the schoolhouse. These and other expressions are placed upon the blackboard, and the name "sentence" is given to each expression. The pupils soon see and state that "a combination of words expressing a thought is a sentence." By observing the sentences it becomes apparent that there are two distinct parts in every sentence, one part expressing that of which something is said, and the other part telling what is said of that expressed by the first part. The definitions of subject and predicate are accordingly made from these facts.

**ETYMOLOGY.**—The parts of speech and their properties are also learned by observation. Sentences as before are written upon the blackboard, and the attention of the pupils is directed to those words which name objects of thought, or things of which we may think. A noun, then, is seen to be a word which names an object of thought. By this definition which they have made the pupils should point out the nouns in many written and printed sentences until the nouns of any sentence which they understand are quickly recognized.

From what has been said it will be seen what use should be made of the book. It may be used by the pupils after the topics have been taught, chiefly for guidance in accuracy of statement and in furnishing suitable sentences for illustration and study.

Much practice will be found necessary before the parts of speech can be readily distinguished and named. It is well for the pupil also to give definitions as he names the parts of speech.

When the parts of speech can be readily distinguished they may be taken up separately, begin-

ning with the noun. As before, present to the pupils sentences containing nouns having various uses and properties. As these uses and properties are distinguished they should be classified, named and defined. The following example will illustrate the method of teaching the kind and properties of all parts of speech. Place several sentences upon the blackboard; as,—

The boy lost his knife in Boston.  
John bought an apple for his sister.  
The man's coat was torn.  
William's sister Kate went to the city.  
The girls went to the concert.  
There are seven days in a week.  
The dog is named Donald.

First ask the pupils to select those nouns which name an individual object. The nouns, *Boston, John, William's, Kate and Donald*, would be selected, to which the name *proper* would be given by the teacher. Proper nouns should then be selected from the reading-books and defined. The other nouns will be seen to be, not the names of individual objects, but the names of classes of objects. These are named and defined as before. Further classification of the kinds of common nouns, as collective, abstract and verbal, may be made in the same way, and each kind be defined.

Numbers and genders are easily taught. The pupils' knowledge of language will enable them to distinguish and define these terms at once. Cases are also easily recognized and defined when it is known that there are only two case-forms of nouns—one used to denote possession, and the other all other relations. The subjective and objective relation of nouns should be indicated in parsing, and in the case of pronouns the names of the cases should be given. Persons of pronouns should be taught by placing before the pupils many sentences in which different forms are used to indicate whether they denote the speaker, the person spoken to, or the person or thing spoken of. The pupils will see that only some pronouns have person, and will call these *personal* pronouns. The cases of pronouns should be taught in a similar manner, and when the various forms indicating the different relations are easily distinguished and named the definition should be given. The inflection will follow, and should be made, as far as possible, by the pupil alone.

The other parts of speech and their properties should be taught in the same way. First present many examples of the fact which it is desired to teach, and when the fact is well understood, lead the pupils to apply the knowledge gained in many different sentences.

**SYNTAX.**—The right construction of sentences is the object of the study of grammar, and its rules should be considered as soon as possible after the study of grammar is begun. Greater interest in the study will be awakened when its practical bearing is seen, and a greater variety and amount of practice in correcting false syntax will be had by learning the rules of syntax early in the course. As soon, therefore, as the properties of the parts of speech are known, their rules of construction should be learned. The rules are taught in the same way as are definitions. Put upon the blackboard many sentences like the following:

John struck his ball.  
I saw him in the city.  
He taught me to read.  
Etc., etc.

By observing these sentences the pupils will be led to see the changed forms of the nouns and pronouns in different relations, and will also discover that in certain relations the same form is used. From the facts thus learned the rules will be made.—*Prince's Courses and Methods.*

WE see one teacher who is never satisfied until he secures his pupils' possession of clear ideas upon a given subject; another, who will let them go off with confused and imperfect ideas; and a third, who will think his duty done when he has stuffed them with mere words—with husks instead of grain.—*Payne's Science and Art of Education.*

A MORAL, sensible and well-bred man  
Will not affront me, and no other can.

—*Cowper.*



## BUSINESS NOTICES.

WE direct attention to the announcement of the merits of the "Concise Imperial Dictionary." It is our intention to handle this Dictionary in connection with the JOURNAL, and we offer it in the best binding, and the EDUCATIONAL JOURNAL for one year, both for \$5.50, plus 14 cents for postage. Subscribers who are paid in advance may deduct the amount they paid for one year, send the balance, and have the book at once. This gives the party the JOURNAL for \$1.00.

THE holiday season is, in many cases, the season also for removals and accepting new positions. We trust that no teacher who now gets the JOURNAL, and who changes his location, will forget the formality of notifying us, so that the necessary change may be made in the address. This should be attended to in any case, even if the visits of the paper are no longer desired. Otherwise, under our present rule of not cutting off a teacher's name unless he wishes it, the paper will continue to go to his old address at his risk. A post-card is sufficient for all purposes of notification; and this courtesy may save both the subscriber and the publishers much unpleasantness at a later period. It is rather a severe punishment, when our sole offence is that of trusting a subscriber, to be told that the party left the locality months ago, and knows nothing about the paper. A notification in all cases of removal is suggested under every form of business rule. We hope that every teacher who removes may feel that he needs his paper as much in his new location as he did in the old.

## TEACHERS' CONVENTIONS.

West Leeds, at —, April 2nd and 3rd.  
Oxford, at Woodstock, April 2nd and 3rd.  
Norfolk, at —, April 17th and 18th.  
Peel, at —, April 17th and 18th.  
Dufferin, at Shelburne, April 24th and 25th.  
South Essex, at Kingsville, April 24th and 25th.

*Editorial.*

TORONTO, APRIL 1, 1890.

## THE TEXT-BOOK QUESTION.

THE usual annual debate in the Legislature on the text-book question has been held. It was hardly to be expected that anything new should be elicited. The complaints with regard to the frequent changes in text-books, whatever force they may have had in the past, cannot be said now to carry much weight, for of late the changes have been few, and the Minister of Education says that they will be few for years to come. We are not sure that there is not now more danger of such changes being made too seldom than of the opposite. Additions to knowledge and improvements in methods are constantly being made in various departments of study and instruction, and it is highly desirable that the school books should always embody the results of the best efforts and latest discoveries. We are inclined to think that it is one of the serious defects of the present system of providing text-books that it tends to make the substitution of one for another difficult. The interests of the publisher have always to be taken into the account. Moreover, the tendency of the "one book" system is to discourage all competitive efforts on the part of authors and teachers to improve the character of the books in use.

We have often expressed our opinion in reference to the system now followed in regard to the selection and publication of text-books. We need not go over the ground. The tendency is to the establishment of monopolies, both in the preparation and in the manufacture

of school books. The natural stimulus to ambition and effort is taken away. The power of choice which should, we think, in the very nature of things, devolve to a certain extent upon the teacher, is removed and, however his taste and judgment may disapprove of the style and method of the prescribed book, he has no alternative but to use it in his classes.

We are well aware that there is a good deal to be said on the other side. The cost of even a single set of text-books is often a serious matter to the parents, and it is necessary that they should be protected against the danger of frequent and capricious changes. By having the immense number of books required in the elementary subjects made by a single firm, the cost of production should be greatly lessened, and the expenses of parents and guardians lightened in proportion. But we do not think these and other considerations usually urged are really of sufficient weight to counterbalance the very serious objections we have hinted at. Nor can we conceive of any very plausible reason why, when a new text-book in a given subject is required, there should not be free and fair competition amongst both authors and publishers, decisions being left in each case to competent and impartial Boards. Such an arrangement would free the Education Department from the necessity of having direct relations with authors and publishers, such as are always more or less embarrassing, undesirable and dangerous.

We do not propose, however, to discuss these questions again at length. We are glad to give the Education Department ample credit for the excellent work it is doing in various directions. Its policy in the matter complained of has been repeatedly endorsed by the people. We cannot believe they will very much longer remain content with a system which tends to discourage authorship by Canadian educators, to repress enterprise amongst Canadian publishers, to take away all power of choice, and so all necessity for comparison and exercise of judgment in regard to text-books, on the part of Public school teachers, and which is for these and other reasons generally condemned by the best educators in other countries.

## THOSE "ANNOTATED EDITIONS."

WE are somewhat surprised to see so clear-headed an educator as Mr. William Houston "earnestly hoping," in a recent letter to the *Mail*, that the annual change of English texts in the University curriculum may have the effect of "killing off the annotated editions." Mr. Houston writes no doubt, from the "coign of vantage" afforded by a large library, where he is surrounded on every hand by books of all sorts, books of reference included. But even so, he should be able to project himself mentally into the place of the country school teacher or pupil, to whom such a thing as an encyclopædia or a biographical dictionary is inaccessible, and whose source of information is often notes or nothing. We quite agree with Mr. Houston on

the main point. We think an annual change of text will have a good effect upon teacher and pupil. But why compel the one or the other to evolve the thousand and one bits of incidental information needful to throw light upon the text, out of the depths of his own unaided consciousness? Why forbid either or both the pleasure and the help which come from comparing notes with others in regard to the meaning of obscure passages?

"With ready-made notes and comments in the hands of the pupils no teacher can do the best work." And why not, pray? The proposition is not self-evident, and Mr. Houston is not the man to ask us to take it upon authority. Of course the pupil will not be permitted to have the notes before him in the class-room. If he has used them outside the class-room he has done so either intelligently or otherwise. If he has memorized them in an unintelligent, mechanical fashion, how long will it take the skilful teacher to ascertain the fact, and cause the student to realize how much worse than worthless is that kind of thing? But suppose the pupil has conned the text in the light of notes, as many unquestionably do, to good purpose, and has gained clear ideas thereby, in what way will this prevent the teacher from doing his best work? What a saving of labor it is to the true teacher to be relieved from the necessity of dwelling upon mere details. What an opportunity is afforded him to plunge *in medias res*, to enter into the very mind and heart of the author, and to carry his class as far as possible with him.

That there is such a thing as the abuse of "notes," no one can doubt. The subject matter of annotations is of various kinds. A large part of them usually consists simply of facts of various kinds, more or less necessary to the intelligent reading of the text. These must be got from some quarter, or the pupil must wait for the teacher's explanations before he can read the passage with intelligence. Is it not better that the pupil should look them up beforehand, than that the brief half-hour in the class-room should be taken up with them. There is, of course, an advantage to the student in learning to search out such things for himself, but this presupposes access to books and other advantages which are not usually within his reach at this stage of his course. Surely it is better that he should get the information from his notes, than fail to get it at all.

As to notes of a higher kind, explanatory, critical, etc., they may be stimulating and strengthening, or they may be the reverse. There are notes and notes. But so there are teachers and teachers. The chances of being of the better kind are not wholly against the written notes. If the inquiry were made of those who have acquired usefulness and distinction as scholars and educators, we believe that Mr. Houston would be surprised to find how many have been indebted to the help and inspiration given in the despised notes, for mental awakening, enlargement and stimulation during the earlier years of their student life.

## DEFECTIVE VISION IN SCHOOLS.

THE following abstract of a paper read at the Canadian Institute on Saturday, March 22, 1890, on Defective Vision in the Public Schools, by Dr. G. Sterling Ryerson, Professor of Ophthalmology in Trinity Medical College is from the *Empire* of March 24th:—

A paper on "Defective Vision and Color Blindness" in the Public schools is of special interest to educators. Dr. Ryerson said that during the past year 5,253 children in the Public schools have been examined, with the assistance of Dr. Wishart, as regards defective vision. Of these 2,726 were boys and 2,527 were girls; 193 boys and 260 girls were found to be under-sighted, an average of 8.6 per cent.; 78 boys and 138 girls were short sighted, an average of 4 per cent. Of the 5,253 children tested, 668 were found to have visual defect of some kind, an average of 12.7 per cent. The percentage of defect varied in different schools, the smallest percentage being found in Queen Victoria school, Parkdale—4 per cent. of under-sight and 6 per cent. of short-sight; whereas the highest was found in the Elizabeth Street school—25.4 per cent. of under-sight and 31 per cent. of short-sight. The percentage of Upper Canada College was 4.1 per cent. under-sighted and 7.3 per cent. short-sighted. In Wellesley, 7.7 per cent. under-sighted and 10.3 per cent. short-sighted. Taking the classes from senior first to senior fifth, the short-sighted increased from 2.5 per cent. to 8.6 per cent. The lecturer held that the great difference in percentage of short-sight in different schools was caused by imperfect window space, wrong position of desks, the use of ground glass in windows, the size of the playground, height of surrounding buildings, and, last but not least, the home surroundings of the children. He considered that the Queen Victoria school was the best lighted and ventilated he had visited, as were also the surroundings the best—a wide view over the lake, plenty of play room, and the absence of surrounding high buildings. Dr. Ryerson especially condemned the desks used by the junior classes as hurtful to the eyes and spine. With these exceptions, he believed the hygienic surroundings of the children to be exceptionally good, and pointed to the very low percentage of short sight, only 4 per cent., in proof of his contention. He thought that the School Board was to be congratulated, and thought that small as was the proportion of defect, it might still further be diminished by abolishing the ground glass windows, the desk-seats of the junior classes and the exercise of more care in placing the desks with regard to light. The proportion of defect found in Philadelphia in a similar examination, was 4.27 per cent. In Germany it varied from 10.9 to 80 per cent. 2,726 boys were examined for color blindness; eighty-four were found more or less color blind—about 3 per cent. Of 1,671 girls eleven were color blind—about 0.6 per cent. In two schools over 5 per cent. of color blindness was found—in one as low as 1.6 per cent.

## Question Drawer.

(Concluded from page 345).

those prescribed for High schools, which open on January 7th, close on Thursday before Easter, re-open first Tuesday after Easter, close on first Friday of July, re-open on last Monday of August and close December 22nd.]

WHAT drawing books are to be filled and sent in by those wishing to write at Third non-professional examination?—M. J. D.

[Those prescribed for Form I. of the High schools; that work is described as "free-hand, practical geometry, perspective, object drawing and industrial designs." The marks assigned to drawing are awarded as the result of the examination of the candidate's drawing-books in this form as above described; but either work done in the drawing-books authorized for High schools, or work equivalent thereto in character and amount will be accepted by the Department.]

1. A PERSON wishes to build a boat that may be sailed in six feet of water. Is there any rule by which he can determine the weight his boat must be if length and width are given? If so, exemplify.

2. Why is it that the needle of a compass will turn constantly to the north?

[1. The load a boat will carry depends on the quantity of water it displaces. This quantity can be found in cubic feet by taking the dimensions of the boat and counting each cubic foot equal to 62½ lbs. The heavier the material of the boat, of course, so much more will be subtracted from the carrying load. But a boat may be built that will only just support itself in the water without sinking. A great deal depends on the shape of the boat as far as swiftness is concerned, but this has nothing to do with the load it will carry. The depth of the water, so long as it is sufficient to float the craft, has nothing to do with either speed or weight carried. Many of the largest river boats on the Mississippi can float when loaded in three or four feet of water, while some ocean steamers draw thirty feet. We do not know of any rule such as seems to be asked for.

2. We do not know of any reason beyond the fact that the earth is a magnet and the needle is a magnet. The pole of one attracts the opposite pole of the other; but this is an ultimate fact, and no more admits of explanation than does any other ultimate fact in physics, e.g., that a cubic inch of gold is many times heavier than a cubic inch of sodium. A magnet will attract iron or steel, but we cannot tell why, neither can we tell how it is that magnetism will act even though a piece of glass be interposed between the magnet and the iron, while glass would cut off a current of electricity. It is an ultimate fact in the present state of our knowledge of physics.]

WHY does a top or a bicycle retain its perpendicularity while in motion, but fall as soon as it ceases to move?

[A bicycle retains its perpendicularity while in motion because the act of falling causes it to turn in that direction so as to bring the point of support more directly under the centre of gravity than it would be without the motion. A rider by turning the bicycle so as to keep the supporting point (on the average) directly under the centre of gravity retains his seat indefinitely, as in walking. It is a deduction from Newton's first law of motion that a top in rapid rotation tends to turn about its shorter axis. If this axis is not vertical on starting, the friction of the support makes it gyrate slowly, and approach perpendicularity in opposition to the force of gravitation. While the axis is perpendicular the only disturbing force is friction of air, etc., which is insufficient to overcome the equilibrium until the speed is so much lessened that the centrifugal force of the whole is no longer great in proportion to the action of gravitation on the irregularities of position induced by friction. It is, however, very difficult to explain such a matter briefly. The better way is to procure books and study the subject thoroughly.]

1. BEFORE a fall of rain the temperature is raised. Explain.

2. Give an experiment to prove this.

3. Will the following experiment be right:—Fill a glass flask half full of water. Boil till all the air is expelled from the flask. Cork tightly. Invert, and pour cold water on the flask, when the boiling will begin again.—P.M.

[1. The temperature of the air may be raised before a rain by various causes, such as (a) the calm that usually precedes a storm, (b) dryness of the upper air allowing more of the sun's heat to reach the earth, (c) overspreading of clouds or vapor-laden air when the earth is already warm, which prevents the radiation of its heat into space, (d) the accumulation of vapor near the surface of the earth caus-

ing the air to absorb radiant heat which would otherwise pass through to the ground. 2. Consult a book on Physics regarding the Theory of Exchanges, and the behavior of vapors with regard to radiant energy, where the necessary experiments will be found. 3. The experiment is all right, but does not apply to this case.]

1. WHEN pupils are asked to draw the Maritime Provinces, as on last Entrance Examination, what Provinces are they supposed to draw?

2. Where are Caidon Sow and Inch Cape Rock? (III. Book.)

3. What is the source of the Hudson River?

4. Which is the authorized Dictionary?

5. Is it right to classify nouns as Common and Proper, and Common nouns as Collective, Gender, Abstract, etc?

6. How are verbal nouns distinguished from gerunds?—J.A.C.

[1. New Brunswick, Nova Scotia and P.E. Island. 2. Inch Cape or Bel Rock is a dangerous ridge of rock, partly uncovered at Spring-tides, which lies about twelve miles south-east of Arbroath, and nearly opposite the Firth of Tay, on the east coast of Scotland Caidon Sow. Where does it occur? You should give reference. 3. It rises in the hills to the west of Lake Champlain. 4. Stormonth's (smaller and larger), Skeat's Etymological Dictionary (cheap unabridged edition), the Concise Imperial Dictionary. 5. Yes. But what do you mean by "Gender," in this connection? It must be a slip of the pen. 6. The verbal noun is called a gerund when it is itself governed in an oblique case and with its verb-force governing a case.]

[E. T. S.—We know of no place where the examination papers, set during the last few years by the Education Department, can be bought.]

1. CAN a fee be collected from (a) non-resident pupils, (b) pupils over twenty-one, and what amount in each case, if any?

2. (a) Will there be a paper set on Agriculture or Temperance and Hygiene at the next Entrance Examination, or both? (b) What text-books are authorized? (c) Are the subjects, Temperance and Hygiene, combined in one book or two separate books?—READER.

[1. (a) Yes—not to exceed fifty cents per month for each pupil. (b) Yes, we suppose so, seeing that they are not of the school age which entitles them to free admission, but we do not think the Act fixes any fee. 2. (a) One will be set on Temperance and Hygiene. So far as we know it is not yet decided whether one will be set in Agriculture. The Department has been waiting to see if the text-book could be got ready in time. We have seen no recent announcement. (b) (c) The "Public School Temperance" is the only book on the authorized list.]

WHAT is meant by giving any one the "Free dom of the City"?—F.E.F.

[The person upon whom the distinction is conferred is entitled to all the privileges of citizenship without having to pay taxes like other citizens.]

[K.H.F. and others.—Following is a recipe for the gelatine pad about which you inquire:—Gelatine, 1 ounce; glycerine, 6¼ fluid ounces. Cooper's gelatine and pure concentrated glycerine answer very well. Soak the gelatine over night in cold water, and in the morning pour off the water and add the swelled gelatine to the glycerine heated to about 200° Fah. over a salt-water bath. Continue the heating for several hours to expel as much of the water as possible, then pour the clean solution into a shallow pan or on a piece of cardboard placed on a level table, and having its edge turned up about ¼ inch. Roll round to retain the mixture, and let it remain for six hours or more protected from dust. Rub over the surface a sponge slightly moistened with water, and let it nearly dry before making the first transfer. The receipt for making the aniline ink required was given in Question Drawer, in number for March 1st.]

WE have been asked to publish time-table of Teachers' Examinations for July next. Will try to find room in next issue. This, with other Question Drawer matter, is crowded out of this number.

## Special Papers.

## THE SCHOOLMASTER IN FICTION.

(Concluded from page 343).

copy books. In this old building many a Dutch lad felt the force of the schoolmaster's rod, and realized the truth of the old adage, "Spare the rod and spoil the child." We are told that the weakly puny striplings were passed over with indulgence and the tough obstinate sturdy urchins given a double portion. Ichabod "boarded around" among his patrons and was supposed to make himself generally useful by bringing up the cows or rocking the cradle when necessary. Besides these duties he was a kind of travelling newspaper, and his periodical visits were eagerly looked forward to by the old Dutch housewives, who enjoyed nothing better than to spend the long winter evenings in gossip with the schoolmaster, and listen to his tales of goblins and witches in which he devoutly believed.

Add to all this that Ichabod had a weakness for the plump Dutch maidens and that they looked upon him with great favor, and we have a fair idea of how he passed his time.

My sketch would be incomplete did I not notice the productions of Edward Eggleston, an American writer who has devoted more than ordinary attention to the fate of schoolmasters.

In his first serial story, "The Circuit Rider," he gives us a picture of an Irish schoolmaster who taught in Western Ohio when that State was being settled. This Irishman, Brady by name, was a kind-hearted, genial old gentleman, who prided himself upon his grammar and boarded around much after the fashion of Ichabod Crane. But instead of entertaining his friends with stories of witches and ghosts he treasured up all the accounts of murders and sudden deaths that he had ever heard of and retailed these in payment for bed and board. He fell in love with a widow who had a son a Methodist preacher. Now both the schoolmaster and the widow were very much in awe of this son, who was a mere boy, and for many years they put off their marriage simply because Brady said that he could not ask a boy's permission to marry his own mother. In the end, however, they were married and the ceremony was performed by their son.

Eggleston has since written two stories in which schoolmasters figure prominently. Ralph Hartsook, the hero of "The Hoosier Schoolmaster," represents a very different type of teacher from any before noticed. His education was good, his methods of teaching modern and his love of truth and honor dearer to him than life. His devotion to his helpless friends, his fight against unscrupulous enemies and his final triumph will long give the story a warm place in the hearts of teachers.

In conclusion I would say that while a comparison with our professional ancestors may be much to our own credit, let us not be too hasty in pronouncing judgment upon a class who undoubtedly did much good; remembering that their opportunities for culture were limited and their lot cast in days when a little education went a long way.

Let us rather make this an opportunity for reflecting upon our individual fitness for the calling in which we are engaged; let us ask ourselves a few plain questions concerning our ideal school and our success in attaining that ideal.

The teaching profession of to-day have advantages in the way of education and professional training never dreamed of by teachers a quarter of a century ago, and the parents of this age have a perfect right to demand that the training of their children be placed in the hands, not of machines who sit at a desk and hear lessons, but of men and women who know how to teach lessons; men and women who have a proper conception of the mighty work entrusted to their care; who recognize that they are, day by day, helping to form character for eternity.

Let us congratulate ourselves that Ontario teachers are such men and women that, as a class, they are not a "godless crew of hirelings," as represented by that slanderer of our profession, Josiah L. Bernis, but a conscientious, honorable race of men and women laboring in the highest work known among men, that of training the future generation to make better use of their lives than was made by their fathers and mothers.

## Mathematics.

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

WE direct special attention to the following original article by PROF. N. F. DUPUIS, of Queen's University, Kingston. So far as we are aware, it contains two practically useful rules that have not before been in print. Our readers will easily observe that these rules can be applied quite as readily as the ordinary rule for "casting out nines." After they are once understood the mechanical application of them may be done very quickly without the use of the pencil. If we might presume to suggest an amendment, or rather a shortening, we would state the first rule thus:—To the first digit on the right add three times the second and twice the third, and to the fourth add three times the fifth and twice the sixth, &c., &c. This would help the rapidity of the mental calculation so that a boy in the III. Class could easily determine whether the given number were a multiple of 7 or 13. All our readers will join us in thanking Prof. Dupuis for giving us these two missing links in the theory of divisibility.—MATH. EDITOR.

## DIVISIBILITY BY SEVEN.

WE have very simple and convenient rules by which to determine when a given number is divisible by any of the nine digits except seven.

I here give and prove a rule for examining as to divisibility by the number 7.

The rule applies directly to a number consisting of six digits, but, of course, by supplying the places of the missing digits by ciphers, it applies equally well to any number with less than six digits. Call the digits, counting from the extreme right, the first, second, third digit, &c., then the rule is:—

To the sum of the first and second add twice the sum of the second and third; and to the sum of the fourth and fifth add twice the sum of the fifth and sixth. If the difference of these results is divisible by 7 the original number is divisible by 7.

Ex. 1. 898394. Here  $4+9+2(9+3)=37$  and  $8+9+2(9+8)=51$ . The difference of these results is 14, which is divisible by 7.

Therefore 898394 is divisible by 7.

Ex. 2. 68457.  $7+5+2(5+4)=30$ ; and  $8+6+2(6+0)=26$ . The difference is 4, and the number 68457 is not divisible by 7.

When the number consists of more than six digits, it is to be separated into groups of six digits counting from the right, and the same process is to be applied to each group, adding together results of the same kind and then taking the final difference.

Ex. 3. 12122 | 924058.  
 $8+5+2(5+0)+2+2+2(2+1)=33$ , and  
 $4+2+2(2+9)+2+1+2(1+0)=33$ .  
And the number is divisible by 7.

Ex. 4. 741 | 586914 | 037586.  
 $6+8+2(13)+4+1+2(10)+1+4+2(11)=82$ , and  
 $7+3+2(3)+6+8+2(13)=56$ . The difference is 26 and is not divisible by 7. Hence the number is not divisible by 7.

## TO PROVE THE RULE.

Let a number of 8 digits, for example, be  $h.10^7 + g.10^6 + f.10^5 + e.10^4 + d.10^3 + c.10^2 + b.10 + a$ .

Dividing each term by 7 we have as remainder,  $3h+g+5f+4e+6d+2c+3b+a$

And if this is divisible by 7 the original number is also divisible by 7.

We notice that the remainders begin to repeat themselves after the first six, and that any rule which applies to a number of six digits will apply also to one of any number of digits by being properly used.

Now since the remainders above will still be divisible by 7 when increased or diminished by any multiple of 7, we may write them

$-2f-3e-d+2c+3b+a$ ,  
or  $a+b+2(b+c)-\{d+e+2(e+f)\}$ .

And this being divisible or non-divisible by 7 shows that the original number is divisible or non-divisible by 7. Hence the Rule.

In a precisely similar manner it may be proved that as a test of the divisibility of a number by 13 we have the following rule:—

To the sum of the first and second add nine times the sum of the second and third, and to the sum of the fourth and fifth add nine times the sum of the fifth and sixth. If the difference of these results is divisible by 13 the whole number is so divisible.

This rule applies also primarily to a number of six digits, but can be extended exactly as in the case of the rule for seven. The similarity of these rules is somewhat remarkable.—N. F. D.

ONE of the most useful exercises in mathematics is to find a variety of solutions for the same problem. This is especially true of those exercises in elementary algebra designed to cultivate facility in the manipulation of complex quantities that require mechanical skill in making proper use of symmetry.

Factor  $(a^2 + 2bc)^3 + (b^2 + 2ca)^3 + (c^2 + 2ab)^3 - 3(a^2 + 2bc)(b^2 + 2ca)(c^2 + 2ab)$

FIRST SOLUTION.—The expression is evidently symmetrical and of the type  $x^3 + y^3 + z^3 - 3xyz$ ; and we know that the factors of this are

$(x+y+z)(x^2+y^2+z^2-xy-yz-zx)$ . Hence one factor must be  $(a^2+2bc)+(b^2+2ca)+(c^2+2ab)$ , that is  $(a+b+c)^2$ . One factor found. The second factor is  $(a^2+2bc)^2 + \&c - (a^2+2bc)(b^2+2ca) - \&c.$ , six terms corresponding to  $x^2+y^2+z^2-xy-yz-zx$ .

Now we will take these two and two, and expand. Take the first and fourth, viz.,  $(a^2+2bc)^2 - (a^2+2bc)(b^2+2ca)$  and expand. From this expansion we can write down the other two by simply changing a to b, b to c and c to a; thus we get

$a^4 + 4a^2bc + 4b^2c^2 - a^2b^2 - 2ca^3 - 2b^3c - 4abc^2$   
 $b^4 + 4b^2ca + 4c^2a^2 - b^2c^2 - 2ab^3 - 2c^3a - 4bca^2$   
 $c^4 + 4c^2ab + 4a^2b^2 - c^2a^2 - 2bc^3 - 2a^3c - 4cab^2$

This process of writing down analogous expressions by symmetry is very easy but very important, since it saves most of the actual labor. The second column and the last cancel. Thus we have left  $a^4 + b^4 + c^4 + a^2b^2 + b^2c^2 + c^2a^2$

$+ 2(a^2b^2 + b^2c^2 + c^2a^2 - a^3c^3 - ac^3 - a^3b - ab^3 - \&c.)$ , which evidently consists of perfect squares and double products, and is plainly  $(a^2+b^2+c^2-ab-bc-ca)^2$ . Observe the separation of  $3a^2b^2 + \&c.$  into  $a^2b^2 + 2a^2b^2$  &c., so as to develop the symmetry. Hence the whole expression is =

$(a^2+b^2+c^2-ab-\&c.)^2(a+b+c)^2$  and these are the four factors. It is plain that the product =  $a^3+b^3+c^3-3abc)^2$

SECOND SOLUTION.—As before, Expr. =  $(x+y+z)(x^2+y^2+z^2-xy-yz-zx)$

And as before  $x+y+z=(a+b+c)^2$

Now the second factor

$=(x+y+z)^2 - 3(xy+yz+zx)$   
 $=(a+b+c)^4 - 3(xy+yz+zx)$ . (A)

The question now is to substitute for  $3(xy+\&c.)$ .

Now  $xy=(a^2+2bc)(b^2+2ca)$   
 $=a^2b^2+4abc^2+2b^3c+2ab^3$ , and by symmetry,

$yz=b^2c^2+4bca^2+2c^3a+2bc^3$   
and  $zx=c^2a^2+4cab^2+2a^3b+2ca^3$ . Add these columns.

Sum =  $(a^2b^3 + \&c) + 4abc(a+b+c) + 2(a^3b+b^3a+\&c.)$

$=(ab+bc+ca)^2 + 2abc(a+b+c) + 2(a^3b+b^3a+\&c.)$   
 $=(ab+bc+ca)^2 + 2(ab+bc+ca)(a^2+b^2+c^2)$   
 $=R^2+2RS$ ; if  $R=ab+bc+ca$ ,  $S=a^2+b^2+c^2$

$\therefore 3(xy+yz+zx)=3R^2+6RS$ . Returning to (A) we see that

$(a+b+c)^4 = [a^2+b^2+c^2+2(ab+bc+ca)]^2$   
 $=(2R+S)^2=4R^2+4RS+S^2$

Hence the whole of (A) =  $R^2 - 2RS + S^2 = (S-R)^2$   
 $=(a^2+b^2+c^2-ab-bc-ca)^2$ , as in the first solution.



*Hints and Helps.*

## FIVE MINUTE EXERCISES.

THESE exercises in letter-writing were prepared for the lowest class in the High School, New Haven:

1. Write to a merchant in another city, asking for samples and prices of goods.
2. Write a formal note inviting an acquaintance to a social gathering at your home.
3. Write a formal note accepting an invitation to dinner.
4. Decline an invitation to accompany a friend to a concert.
5. Write an informal note to a friend in a distant town, inviting him or her to make you a visit.
6. Write an informal note announcing some good news.
7. Write a note to accompany a Christmas gift which you send to a friend.
8. Write a note asking a person to contribute money to some good cause.
9. Write to some noted man, asking for his autograph.
10. Write a note of congratulation to some American author on his birthday.
11. Write a note asking a stranger to exchange with you stamps, coins or curiosities.
12. Write a note commending some book which you have recently read.
13. Apply for a situation as clerk, book-keeper or teacher. State briefly your qualifications.—*Pennsylvania School.*

## CULTIVATE THE LANGUAGE FACULTY.

HE who can express his thoughts readily, correctly and felicitously, and who has thoughts worthy of expression, occupies a much-to-be-desired vantage ground in the warfare of life. I fear that some of our teachers are not sufficiently impressed with the importance of this group of subjects. They are too often content with fragmentary answers, barely indicating that the pupil possesses

the requisite knowledge. They do not insist upon full and grammatically complete answers which would develop power of expression. Familiar conversations in which the pupils take part, descriptions by them in their own words of what they observe, frequent written abstracts of their lessons, in history and in science of common things, would give them an easy mastery of their own language.—*Supervisor McKay, Nova Scotia.*

HE that hides a dark soul and foul thought,  
Benighted walks under the mid-day sun;  
Himself is his own dungeon. —*Milton.*

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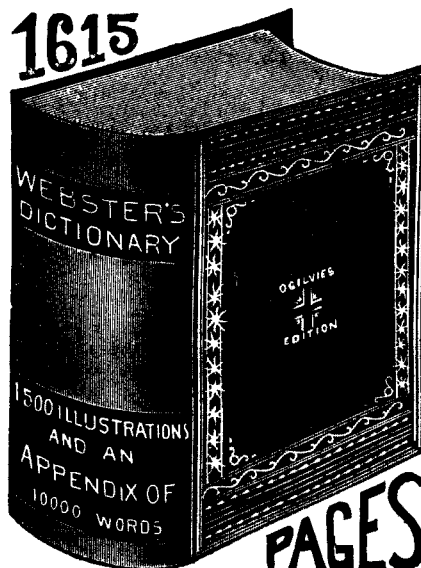
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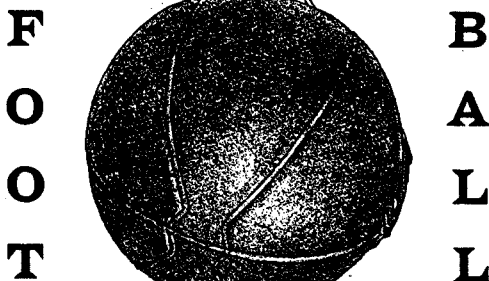
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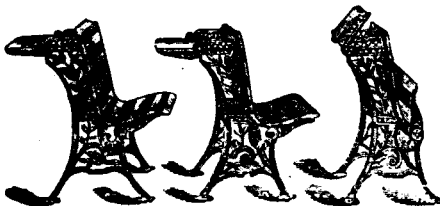
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