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OFFICIAL CALENDAR

—OF THE—

EDUCATIONAL
DEPARTMENT

November:

1. Last day for receiving applications for examination from candidates not in attendance at the Ontario School of Pedagogy.

Night Schools open (Session 1893-4).

I. HIGH SCHOOL ENTRANCE EXAMINATION—
(1) The examination in History will be in Canadian History alone. No questions will be set in British History. The Inspector shall see, however, that the subject is taught orally, and shall report any case of negligence to the Board of Trustees.

(2) Physiology and Temperance are compulsory, and shall take rank with the other subjects for the Entrance Examination. The new text-book in this subject may not be ready before the first of October, and this fact will be taken into account in the construction of the examination papers for 1894.

(3) The work in Drawing is limited to Drawing Book No. 5, and in Writing, to Writing Book No. 6.

(4) The Public School Leaving Examination or some modification thereof, will be substituted for the present High School Entrance Examination as soon as the results of the present changes in the Public School Leaving Examination justify the Education Department in adopting this course.

II. PUBLIC SCHOOL LEAVING EXAMINATION.—The changes with respect to the Leaving Examination are as follows:

(1) The subjects of the Fifth Form may be taught in any school, irrespective of the number of teachers on the staff or the grade of certificate which they may hold. Pupils may write at the Leaving Examination without having passed the Entrance Examination.

(2) The examinations will be conducted by the Board of Examiners having charge of the Entrance Examination, and will be paid for at the same rate per candidate.

(3) Physiology and Temperance are compulsory, and the examination in this subject will include the ground covered by the new text-book.

(4) The subjects of Euclid and Algebra will be included in a small text-book which will be the basis of the examination and will be ready about 1st October.

(5) Agriculture, Botany, and Physics are optional subjects; the course in each to be determined by the teacher, subject to the approval of the Inspector.

(6) The High School Reader will be used for Reading and Literature. The Public School Arithmetic will be enlarged to admit of greater practice in Commercial work, but no change will be made in its price. The additional exercises will be required for the Fifth Form. The text books in the other subjects will be those authorized for Public Schools.

(7) Candidates who obtain Public School Leaving certificates shall be entitled to admission into the classes in Form II. of a High School in all the subjects of that examination, and the Commercial course for the Primary should, if possible, be completed before they enter the High School. Candidates who fail at the Leaving Examination but who obtain 25 per cent. of the marks for each subject, will be admitted to a High School.

III. HIGH SCHOOL PRIMARY EXAMINATION.—
(1) The course prescribed for the Primary Examination with the Science option may be taught in any Public School, subject to the approval of the Trustees and the Inspector.

(2) The amount of school work prescribed for the Commercial course has been reduced and the details of the course modified, especially in Drawing. The examination of all candidates will be conducted by the Principal of the High School and the High School teachers in charge of such subjects, but a written examination will be required, in addition, on papers prepared by the Department. For 1894, any four of the books of the High School Drawing course will be accepted, in the case of candidates for the Primary Examination, in lieu of the prescribed books of the new course, and any two books in the case of other pupils. The work done in Book-keeping in the blank books hitherto used, will also be accepted for 1894.

(3) The whole of Euclid Book I. is now prescribed and will form the subject for examination in 1894.

Minor details of the proposed changes will be found in the Regulations, to which your attention is respectfully directed.

CANADIAN POETS

The New York *World* recently observed: "Canada is raising a rare crop of poets at this end of the century, presumably to put the Mother Country to shame for not producing a successor to Tennyson." We are safe in saying that no Anglo-Saxon country to day possesses poets of greater promise than our own Canada, and it should be the pride of the teacher of patriotic spirit to interest the youth under his care in the literature of their native land. We here present a list of Canadian verse, any book in which contains work that may be read alike with pleasure and pride:

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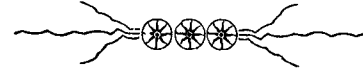
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Vol. VII
No. 11.

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Editorial Notes.

WE are sorry to find that we have overlooked until too late one or two questions sent us for Question Drawer. For answers to questions in Mathematics and English see those departments in next number.

OUR subscribers will please accept our apologies for being a day or two late with this number of the JOURNAL. The pressure of work caused by moving to our new office and arranging details of publication and management must plead our excuse. We hope to do better next time and every time hereafter.

IN referring to the different editorial departments of the JOURNAL in last number we, in our haste, quite overlooked the Science Department. This, in the hands of Mr. Jenkins, will easily take rank among the noteworthy features of the JOURNAL. This department also, we are glad to say, will be continued monthly, with careful reference to the needs of the students of science in the Public and High Schools and Collegiate Institutes.

OUR best thanks are due and are heartily given to the kind friends who have sent us words of congratulation and confidence on our assumption of the full responsibility for the publication of the EDUCATIONAL JOURNAL. Their expressions of appreciation of the work the JOURNAL is doing, and of approval of the new arrangement, would be an additional stimulus, if any were

needed, to do our best to help the teachers in their work and in their efforts to improve the status of the profession, and to labor for the advancement of the interests of education in Canada generally.

AT the convocation of the University of Toronto, a few days since, President Loudon delivered a lengthy and lucid address, dealing largely with the system of management of the University and its colleges, which is somewhat complicated, and is not, probably, very well understood by the public. Chancellor Blake also made a short speech which was enthusiastically received by the audience, though even his eloquence did not suffice to secure respectful attention from the students. What a pity it is that so many of the young men who have attained the dignity of college gowns have not outgrown the juvenile impression that rudeness on public occasions is a sure mark of cleverness, and noise synonymous with wit.

THE annual report of Dr. Barnardo's Homes for orphan and waif children, just received, shows that during the year ending 31st December last, 8,947 fresh cases of children were dealt with. No fewer than 4,363 rescued boys and girls were on an average resident in the Homes. Of the fresh cases admitted during the year, 1,244 had actually been on the streets, sleeping out, or were rescued from common lodging-houses, or the custody of thieves, prostitutes and other persons of abandoned life. During the year, 1,475 boys and girls were sent to situations, or otherwise placed out in life, in Great Britain, and 727 selected boys and girls sent to Canada. Of these ninety-eight per cent. are said to be doing well. There is a good deal of opposition in some quarters to the admission of these children into the Dominion, and much is made of an occasional misdeed by one of them. But, as a matter of fact, the record is a remarkable one. It is doubtful whether were the courses of one hundred Canadian children, taken at random, followed for a number of years, it could be said that all but two were doing well. Dr. Barnardo's and similar institutions are really doing a noble work, and are worthy of every encouragement.

AS WE have so often said, we think that young and inexperienced teachers might be

greatly aided in their work if those who are older in years and labors would more freely give them the benefit of their experience. To this end we propose to ask those who have had years of training in the work to contribute occasionally to a postal card symposium in our columns. We shall be glad if any of our readers will suggest questions in regard to which they would like in this way to get the benefit of the wisdom and experience of others. Meanwhile we venture to propose a question upon which we should like to have brief notes from a large number of our subscribers. The question is one to which we have often adverted. We should state it somewhat as follows: What use, if any, do you make of the self-reporting system in your school, and what is your candid opinion, based on your own experience, with regard to the effects of the system, first, upon the progress, and second, upon the honesty and truthfulness of the boys and girls as a whole? The question of method here seems to us one of very great importance, especially in reference to the effect of different systems of record-keeping and discipline upon the formation of character, which should be regarded as the most important work of the school.

THERE are yet to be found those who contend that the subjects on the Public School curriculum should be confined to "the three R's." An American professor proposes as a substitute "the five L's"—Life, Liberty, Light, Law, and Love. This is an improvement worthy of universal acceptance. Children are *living* beings, and as such need development, not repression. They instinctively love *liberty* and should be made to see, by the experiences of the school, in what true liberty consists. They long for *light*, which means knowledge of truth, and should be encouraged in every effort to obtain it by the free and vigorous exercise of their mental powers. They must be taught subjection to *law* and should learn in school how to distinguish between reasonable and arbitrary rule, and to render willing obedience to the former. Above all, they are susceptible by nature of the emotion and impulse of *love*, the strongest force and the noblest motive in the universe, and they should be enabled to live and grow up in an atmosphere of love. As far as possible—and it is possible much farther than many pessimists suppose—love should be made the motive of all labor, all obedience, all service. Such an education would be education indeed.

Primary Department.

REPRODUCTION EXERCISES.

RHODA LEE.

REPRODUCTION in writing should begin as soon as possible. When the children are familiar with the simple sounds and can write legibly, work may be given on the slates. But before this they should have had a great amount of training in oral reproduction. Work at this stage is of course confined almost entirely to story-telling. We will suppose the story of "Silverlocks" or the "Fairy Cobbler" to have been related to the children. A few days after the story has been told ask your scholars to tell it to you. By skilful questioning draw it all out from them, supplying as little as possible yourself. Stories the children hear at home, at Sunday-school and elsewhere may be told at school. All the language work from the first day at school is a preparation for the written work, and if this be done carefully we shall have little trouble with the writing.

In beginning the written work do not be concerned over the fact that the spelling and construction of sentences are not what they should be. If the thought is there it is good, and the child shows that he has read the story you have given him intelligently, and made the thought his own. Time enough after this to correct the spelling and improve the language.

As to material for reproduction exercises: The best work is the reproduction in the child's own words of something he has read. Stories found in children's magazines, Sunday-school and other papers, supply us with all we require. These cut out and mounted on pasteboard are what we use chiefly. Two or three hundred can soon be collected if the children assist. Of course we use the lessons in the reading books in the same way. As a preparatory step in getting the whole story write a number of questions on the board and ask the children to answer them in writing. These questions should cover the whole story.

Another exercise that might come under this head is that in which the teacher gives the barest outline, or rather suggestion, of a story. For example she says: "I saw last Saturday a party of little girls and boys coming along the road. Their hands were full of purple flowers and pretty leaves. Some of the boys had school-bags full of something that looked like nuts." The children then wrote lengthy stories in which the home-coming described had a prominent place.

Then in the little lessons or talks which some presumptuous people are pleased to term "science," we have material for reproduction exercises. Quite recently my little folks wrote me wonderful accounts of the life and trials of a little water creature called "Tommy Tadpole." The children had found out as much as they could about him at home and elsewhere, and we had heard all the discoveries in school, so that when they were asked to write the story the results were fairly good.

MAXIMS FOR BLACKBOARDS.

CLEANLINESS is next to godliness.
Order is heaven's first law.
A place for everything and everything in its place.
He who does his best does well.
Reward is in the doing.
Honesty is the best policy.
An honest man is the noblest work of God.

Good health is better than wealth.
Not failure, but low aim, is crime.
True worth is in being, not seeming.
Being good is the mother of doing good.
Obedience is better than sacrifice.
Keep good company and you shall be of the number.
There is nothing that costs less than civility.

It always pays to be a gentleman.
Politeness is the outward garment of good will.
Thou shalt rise up before the hoary head.
The noblest courage dares to do right.
Denying a fault doubles it.
Do unto others as ye would that they should do unto you.

Be friendly and you will never want friends.
Think the truth, speak the truth, act the truth.

Kind words are the music of the world.
A person good at making excuses is seldom good for anything else.

—Exchange.

THE THREE KITTENS.

[*Suggestions*: The following needs to be read but once by the teacher, and should then be written by the children. The teacher should write upon the board, Black Cat, White Cat, capitalizing each, and Black-and-White Cat.]

Jack and Jess had three kittens. One was a Black Cat, one was a White Cat, one was a Black-and-White Cat.

All three were play cats. One, the Black-and-White Cat, was a vain cat and a proud cat. He was always telling the Black Cat and the White Cat what monstrous mice he had caught—while they were away.

He was always bragging how much handsomer he was than they. He said the Black Cat was only black, the White Cat was only white, but he, behold him! he was black and white both.

One day he said he could climb the apple-tree, to the tip-top. The Black Cat said she did not think he could. The White Cat said he couldn't get back if he did.

The Black-and-White Cat was vexed, and started up the tree as fast as he could go. He never looked back till he was up where the limbs were small. Then—well, then, when he stopped and looked down, he began to mew? The limb was so small he didn't see how he ever could turn on it to come back. He was very frightened and mewed pitifully.

The Black Cat and the White Cat both laughed and scampered off to the house.

—Exchange.

LANGUAGE LESSONS.

FILL the blanks in the following sentences with "their" or "there":

1. Shall I see you —?
2. The girls have brought — dolls.
3. They have — sewing, too.
4. Are you going — with John and Fred?
5. No; I am going — with — father.
6. — are some grapes on the vines yet.
7. Yes, I left them — to ripen.

Fill in the following with "was" or "were":

1. Where — you staying?
2. I — at a picnic.
3. — you late getting home?
4. — your sisters all there?
5. All but the youngest — there.
6. Who — the other girls with you?
7. The Browns — there and so was Anna Gray.

Change the following sentences so as to make them refer to past time:

1. I close my eyes.
2. Nelly plays on the piano.
3. John holds his pen well.
4. My cat catches mice.
5. The bird sings sweetly.
6. The boy comes with the paper.
7. My pencil lies on my desk.

CLASS RECITATION.

I.

FIVE little rabbits went out to walk,
They liked to boast as well as to talk.
The first one says, "I hear a gun."
The second one says, "I will not run."
The little one cried, "Let's stay in the shade,"
The big one said, "I'm not afraid."
Bang, bang, went the gun,
And they ran every one.

II.

FIVE little mice on the pantry floor,
Seeking for breadcrumbs or something more,
Five little mice on the shelf up high,
Feasting so daintily on a pie.
But the big, round eyes of the wise old cat,
See what the five little mice are at;
Quickly she jumps, and the mice run away,
And hide in their snug little holes all day.
"Feasting in pantries may be very nice,
But home is the best," said the five little mice.

NOTE—Let the fingers of the left hand represent both rabbits and mice, and point to each one as mentioned. At the words "bang, bang," strike the desk with closed fists.

WE do not bring boys here to teach them how to make a living, but to teach them *how to live*. — *Bishop Brooks*.

BLESSED be the humble teacher who, without any chance for the great rewards of fame or money, renders noble service and leaves the impress of a genuine and generous character in one little corner of the world. — *Pacific School Journal*.

IF we work upon marble it will perish; if we work upon brass, time will efface it; if we rear temples, they will crumble into dust; but if we work upon immortal minds, if we imbue them with principles, with the just fear of God and love of our fellow-men, we engrave on those tablets something which will brighten to all eternity. — *Daniel Webster*.

A FAITHFUL, conscientious teacher is God's noble man or woman. The teacher who performs the duties of the school-room as a drudgery is not fit to instruct the young. The noblest work the present generation has to do is to nurture, train and teach the boys and girls now in the common schools throughout the land, that they may be entirely capable to take the places of those now on the stage of action. — *Transeau*.

Examination Papers.

EDUCATION DEPARTMENT, ONTARIO.—
ANNUAL EXAMINATIONS, 1893.

PUBLIC SCHOOL LEAVING.

AGRICULTURE.

Examiners : { CLARKE MOSES.
A. B. DAVIDSON, B. A.

1. State fully the nature and sources of plant-food.
2. What are the principal means adopted by good farmers in restoring impoverished soils to a state of fertility?
3. (a) State the sources and chief value of any four animal artificial fertilizers.
(b) Discuss the merits of lime as a fertilizer.
4. (a) What conditions are necessary to nitrification?
(b) State the best methods of preserving the nitrates in the soil against leaching.
5. Distinguish between trenching and sub-soiling, and state when and why each is beneficial.
6. (a) What is a Silo.
(b) Briefly state the advantages to be derived from the process of ensilage.
7. (a) What uses do forests serve in the economy of nature?
(b) State why and where forest trees should be cultivated on the farm.

Values—1.—5; 2.—10; 3.—6+6; 4.—6+6; 5.—2+10; 6.—2+10; 7.—6+6.

TEMPERANCE AND HYGIENE.

Examiners : { CLARKE MOSES.
A. B. DAVIDSON, B. A.

1. Distinguish natural from artificial drinks, give examples of each, and state fully the advantages of natural over artificial.
2. State fully what are the uses of water in the processes of (a) digestion, (b) circulation.
3. (a) What is the natural standard temperature of the human body?
(b) How is this standard preserved in hot and in cold climates?
(c) How is this standard affected by the use of alcohol?
4. (a) Compare the work done by the heart of a healthy full-grown man under natural circumstances of food and labor and that of a man who takes into his system six fluid ounces of alcohol per day?
(b) What inference would you draw from the comparison?
5. Describe fully the effects of alcohol on the small blood vessels.
6. State fully the action of alcohol (a) as a stimulant, and (b) as a poison.
7. Any person supplying tobacco to persons under 18 years of age, without the written authority of guardian, is liable to be fined or imprisoned.
(a) Give four reasons why you consider this law a good one.
(b) State four injurious effects produced on the human body by the use of tobacco.

Values—1.—2+1+6; 2.—6+6; 3.—1+5+4; 4.—6+6; 5.—10
6.—7+7; 7.—4+4.

HIGH SCHOOL ENTRANCE.

AGRICULTURE.

Examiners : { ISAAC DAY, PH. B.
J. S. DEACON.

1. Explain the terms: tillage, subsoiling, active constituent of soil, leaching, underdraining, and composts.
2. The principal constituents of ordinary soil are sand, clay, and humus.
Describe each of these, and tell its use.
3. What means could one employ to prevent the loss of plant-food by drainage?
4. Name the artificial fertilizers, and tell why each is important.
5. Tell what you can about plowing, under the following heads :—
(a) The time to plow,
(b) The object of plowing,
(c) The points of merit in plowing.

6. Define each of the following, and give an example of each : annual plant, perennial plant, tuber, bulb.

Values—1.—12; 2.—12; 3.—12; 4.—15; 5.—15; 6.—9.

TEMPERANCE AND HYGIENE.

Examiners : { J. S. DEACON.
ISAAC DAY, PH. B.

NOTE.—Any five questions may be taken.

1. Name and describe the substance of which milk is composed. Why is milk better for drinking purposes than alcohol?
2. "It is both false and foolish for any one to boast that he is not a water drinker."
Illustrate this statement fully.
2. "In addition to these sources of liquid food, Nature distils for us the pure liquid."
What sources are meant, and how is the pure liquid distilled?
4. Explain fully the importance of fibrine, and show how alcohol affects it.
5. Relate the story of an Arctic Expedition in which the value of temperance is shown as a preventive of scurvy.
6. "All persons who indulge much in any form of alcoholic drink are troubled with indigestion."
Explain the progress of this disease in drinkers of alcohol.
7. What reasons have we for concluding that drunkenness leads to insanity?

Values—1.—15; 2.—15; 3.—15; 4.—15; 5.—15; 6.—15; 7.—15.

HISTORY.

Examiners : { JOHN SEATH, B. A.
ISAAC DAY, PH. B.

NOTE.—Candidates will take any four questions in British History and any two in Canadian.

I.

BRITISH HISTORY.

1. What caused the "Wars of the Roses?"
Give an outline of their history, naming and locating the principal battle fields and explaining the results of the wars.
2. What led to the conflict between the Crown and the Parliament, which began in the reign of James I.? Give as full an account as you can of the results.
3. Sketch the history of Walpole's administration.
4. Name and give an account of three of the most important reforms since the reign of George III., explaining the importance of each.
5. Write as fully as you can on any three of the following, explaining the interest England had in each of them :
The Eastern Question.
The American Civil War.
The Seven Years' War.
The Crusaders.
6. Give as full an account as you can of any three of the following :
William Pitt, the Elder.
Gladstone.
Marlborough.
Simon de Montford.
Tennyson.
Milton.

II.

CANADIAN HISTORY.

1. Sketch the early settlements of Canada under the following heads :
Jacques Cartier.
Champlain.
The Company of One Hundred Associates.
2. State the causes and the results of the Canadian rebellions.
3. Write full notes on any four of the most important events in Canadian History since Confederation, explaining why each is important.
Values—I., 1.—4+8; 2.—6+6; 3.—12; 4.—4×3=12; 5.—4×3=12; 6.—4×3=12. II., 1.—4+6×4; 2.—6×8; 3.—14.

GEOGRAPHY.

Examiners : { ISAAC DAY, PH. B.
JOHN SEATH, B. A.

1. Define each of the following :—bay, watershed, canal, strait, desert, archipelago, channel, isthmus, peninsula, and cape. Give one example of each, and tell its exact position.
2. (a) Describe the trans-continental route of the Canadian Pacific Railway.
(b) What communication has recently been established between this railway and the Eastern Hemisphere, and of what commercial advantage will this be to Canada?
3. Compare the Dominion of Canada with the United States as to shape, mountains, climate, and products.
4. Sketch a map of Southern Europe, showing the position of Portugal, Spain, France, Sicily, Italy, and Turkey.
5. (a) Why do the people south of the equator have summer while we have winter?
(b) Why do the days become warmer as they grow longer?
(c) When are the days in the northern hemisphere the longest?
6. Name and locate as many as you can of the different regions comprising the British Empire? Which are the more important regions? Why?
Values—1.—10+5=15; 2.—5+7=12; 3.—4×3=12; 4.—12; 5.—5+5+2=12; 6.—5+2×5=12.

THE HERBARTIAN "STEPS OF INSTRUCTION."

THE subject matter of each branch as arranged above is supposed to be divided into suitable lesson-units. In arithmetic, such a lesson-unit might be "The Division of a Fraction by an Integer;" in Geography, "The Basin of a River;" in United States History, "The Battle of Gettysburg." In the teaching of the lesson, the teacher will, according to the theory of formal steps, observe and pass the following stages successively :

- 1.—Preparation, that is, recalling the previous lessons and other knowledge familiar to the child as aids to apperception, indicating also what is the aim of the present lesson.
- 2.—Presentation, the gathering of all the facts on the lesson topic in hand. The method of presenting the facts will, of course, vary with the nature of the lesson.
- 3.—Comparison, viz., of facts with facts to discover their meaning. (A fine field for the cultivation of a most useful mental power, too often neglected).
- 4.—Generalization, that is, the pupil's reaching as the fruit of his own investigation, those conclusions commonly called principles, definitions, laws, rules, formulas, etc.
- 5.—Application, that is the bringing back of the laws and principles already learned and applying them to new particular cases in science, business, and social, political, moral or religious life. This completes the cycle. The pupil starts from individual facts or events, and returns again to them, but this time with power to interpret them. Higher than this no knowledge rises; greater power none can possess. Herbart's system is by no means mechanical, although thoroughly systematized and formulated. On the contrary it brings into the elementary school the charm of reality and invests each subject with greater interest. It promotes correct thinking habits, gives clearer apprehension of knowledge, economizes thought and effort, and furnishes to the pupil the broadest and best basis for future acquisitions. Herbart and his followers have given to Germany a body of over eight thousand enthusiastic teachers, who follow progressive and scientific methods in pedagogy. It is not given to one man to grasp all of truth, or to perfect any system of education, but may it not prove that Herbart, more than any other, has solved the problem of Elementary Education?—*Primary Education.*

The Educational Journal

PUBLISHED SEMI-MONTHLY.

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

J. E. WELLS, M.A., EDITOR AND PROPRIETOR.

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The Educational Journal,

Room 20, No. 11½ Richmond St. West,

TORONTO.

Editorials.

TORONTO, OCTOBER 15, 1893.

TEACHING "MANNERS."

LOOKING over some old clippings the other day, we came upon an article which appeared in the *New York Evening Post*, a good while ago, which is of permanent interest. Its subject was "Manners in Public Schools." This subject was discussed from a United States standpoint. Some of the faults and evils complained of do not, we hope, exist to anything like the same extent in Canada, yet there is reason to fear that there is but too much need for counteracting influences of the kind demanded, in our Canadian schools. The writer, after referring to the demand for moral and religious training in the schools, and admitting the difficulties attending the latter because its efficiency depends so largely upon the character of the teacher, went on to say that there was one branch of ethics which might be taught and should be taught in every school, but which was greatly neglected in the United States, to the great national detriment. This was "what is called manners or 'minor morals.'" "In this field," said the writer, "it is safe to say our common schools do nothing, or next to nothing, and there is none within their reach in which they might do so much."

"We are not now talking," the writer goes on to say, "of the kind of demeanor in ordinary intercourse known as 'politeness,' though this is terribly deficient in nearly all our boys or girls. Little or nothing is done in the schools to combat the mischievous delusion that suavity of

manner is a confession of social or other inferiority, and that in order to preserve self-respect and maintain his republican equality, an American has to be surly or indifferent, after the manner of hotel clerks or expressmen, and too often salesmen and "salesladies" in stores. The result is that we have probably the worst mannered children in the civilized world. And the result of this neglect of the schools is to give a great many young people a dull, unready air—that is, they avoid quick responsiveness, lest it should seem like servile eagerness to please, and the habit of dilatory answering ends in giving an appearance of dullness and stupidity. One of the great uses of schools is to fortify the children of the State against whatever is evil and deteriorating in the political or economical condition of their lives. One of the great uses of American schools should be to fortify American boys and girls against the bad influence, either on mind or manners, of the passion for equality pushed to extremes, and the still more corrupting passion for notoriety fostered by the newspapers."

The article goes on to treat of the filthy and squalid condition of the streets and highways, and the surroundings of the houses, in New York and other cities, and to compare it with the cleanliness of foreign capitals. In New York much of the filth and squalor is due to defective municipal administration, a fact which does not make it any the less offensive and unhealthy. But, unfortunately, similar nuisances, it is said, offend the senses in every town and village in the State. We hope that such a picture would not be true of Canadian towns and villages. We are glad to note a great improvement in Toronto within the last few years, though the city has not yet reached an ideal condition in this respect by any means. How it is in various localities all over the land, we leave it for our readers to judge, each within the scope of his or her own observation. On one point, however, we feel that we cannot speak too strongly. We refer to the vulgar and utterly selfish disregard of the comfort of others which is shown by so many of our own people—our neighbors are, we fear, still worse—in travelling. No one with any regard for the proprieties and niceties of life, not to say with real refinement, can as a rule enter a railroad coach or go upon the deck of a steamboat, after either has been for a time on its way, without experiencing an uncomfortable sense of disgust. It seems as if many people travel only to eat, and the refuse of their lunches is often strewn all over the floors, heaped into corners, if not actually scattered over seats and couches. If we may make a personal reference, we confess that in going to and fro on steamboats this summer, the presence of such debris often detracted seriously from the

pleasure of the trip. We are not aware of being over fastidious, and hence conclude that many of our fellow-passengers suffered from the same cause. There must be something lacking in the moral sense or the moral training of the person who can deposit the refuse of a lunch, or the stubs of his cigars, to say nothing of still more offensive things such as rotten fruits, tobacco expectorations, etc., where they cannot fail to be an offense and a nuisance to his fellow-passengers, and to those who succeed them on car or boat. Surely it is not too much to expect that the coming generation will be so trained in the schools, if not in the homes, that to do such a thing will be for them morally impossible. The *Post* puts this so well that we cannot forbear quoting still further:

"It is not easy to teach neatness to grown men and women, but it is possible to infuse in children a horror of the anti-social practice which helps a great deal to disfigure and vulgarize our cities, and especially this city, of throwing down refuse of whatever nature—peanut shells, bits of paper, ends of cigarettes or cigars, old shoes, hats, ashes, saliva or other excretions—in places frequented by or seen by one's fellow-citizens, such as streets, roads, lanes, sidewalks, public stairways, etc. Our indifference to this practice, which appears to be the result of a long familiarity, is incomprehensible to foreigners. It disappeared from European countries completely fully one hundred years ago. It is now found nowhere in the Eastern hemisphere except in Turkish or other Mussulman towns and cities, and is looked upon as the sure sign of low civilization. It is considered in every European city a grievous offence against a man's neighbors to make any public display of offal or to sit down quietly in the presence of filth or rubbish of any description. A horror of it might be taught to every child in the public schools by any average teacher. To instil it should be one of a teacher's first duties, for it must be remembered that the chief observable superiority of the civilized man over the savage lies in the greater cleanliness of his person and dwelling. Nothing about an Indian encampment is so revolting as the indifference of the inhabitants about their garbage and refuse. If they get it outside their door, it is the most they strive for. When it is remembered that two-thirds probably of the houses, stores and offices in this city deposit their sweepings in the streets, and follow them in many cases with the slops, one has a humiliating sense of our nearness to the Crow or Apache in some of our social usages. No child should leave the public schools without having a dread of refuse ground into him. He should be taught to hate the sight of unswept street or side-walk, of saliva-stained marble or granite, of ashes and refuse of every description, and especially bits of newspapers and ends of cigars, as signs of gross selfishness and a low social tone.

SCHOOL GOVERNMENT AND METHODS.

MR. JOHN IRELAND'S ideas on school government and methods of teaching are, it seems to us, a little mixed and not a little crude or antiquated. In both the physical and the ethical worlds, he says, everything is done by force. But what is force? Perhaps the most universal and fundamental force in the whole universe is that which we call attraction, which in the dawn of philosophy was not unnaturally conceived of as love. If the analogy is worth anything, this mysterious something which binds the worlds of matter together in spheres, and the spheres in world-systems, and the world-systems to their common centre, where the world and the systems of worlds and the whole illimitable universe is

"Bound by gold chains about the feet of God,"

is much more akin to love than to fear. Then by what right does he deem fear a force and love not a force in the ethical world? Have we not ample testimony, both inspired and uninspired, that love is the mightiest force in the moral universe? The "fear of force," by which Mr. Ireland evidently means violence, is, he says, keeping the nations uneasily quiet. That word "*uneasily*" is well chosen. Is that a kind of quiet to be desired and held up as an ideal?—for it is the highest ideals we should seek to realize in the government of the school. Would it not be far better if all the nations were kept quiet, as some happily are, by mutual respect and moral principle? If love cannot be begotten by exhortation it can by kindness, and kindness can surely be made spontaneous. Love can be created by keeping before the mind the facts which beget it, or if not, it can be drawn from the great central Source from which it is ever emanating, as light and warmth from the sun. It is, we suppose, useless to argue with one who takes his stand at Mr. Ireland's view-point, but one cannot help wondering where he has been all his life, if he has never seen the practical demonstration of a school in which the best results in both discipline and progress are gained, and in which the fear of physical torment has no place. We do not say that there may not be incorrigibles among boys, but the ordinary Public School is no place for such. No teacher can rightfully be expected to act as a constable or a lictor.

Mr. Ireland's *dictum* with reference to methods of teaching will, we fancy, evoke from most readers a smile of incredulity. There are few facts better attested than that specialists, who are most enthusiastic

students and must be supposed to understand their subjects, are often the worst failures as teachers. Knowledge of the subject is but one moiety of the qualifications of a good teacher. The other is knowledge of and sympathy with child-nature and the workings of young minds. Without the latter the former can never make a true teacher.

RELIGION AND SUICIDE.

ADVERTING to a discussion lately carried on in some of the English newspapers on such questions as *Is Life a Failure*, *The Right of Suicide*, etc., the *Catholic Educator* says:

"Catholics cannot understand this. They have been taught that a man has as much right to take his own life as he has to take another's; that life is not given to us for our own ends; that the noblest life is that which is spent in doing good to others. Self-denial and cheerful resignation to trials are the results of religious education; self-conceit and careful, cowardly avoidance of trials are the results of secular education. Even from a happiness point of view the religious education has the advantage. How to be happy? Think only of others. How to be miserable? Think only of ourselves. A capital antidote to suicidal tendency is hard work. There is plenty to do on every side of us if we will only open our eyes. Busy people have no time to think of suicide. More religion, more work, more exercise, and a better regulated diet will put morbidness to flight."

Very true! Very good! We have no doubt that the increasing tendency to suicide—if, indeed the tendency is on the increase, as there is too much reason to fear—is the outcome mainly of lack of faith in God and the future life. To implant such faith is the end and aim of all genuine religious instruction. The only fault in our contemporary's argument is in its manifest assumption that a true religious education can be given to order in the public schools. Religion is not a creed but a faith. It is a thing not of the head but of the heart. Evidently the only teacher who is qualified to impart such education is the man or the woman who has not only an intellectual knowledge of the theory of religion but a personal experience of its power. Until some means can be devised whereby Governments can apply reliable tests to discover just what the true religion is, and whether candidates for teachers' licenses are truly religious, it is wrong and absurd for them to prescribe religion as a subject for the school programme, and to require teachers to teach it. Fancy a board of examiners seeking to ascertain by written tests whether A, B, and C are really religious, and capable of giving their pupils a religious training. Such training must, in the very nature of

the case, be given, if given at all, voluntarily, freely, by those who are experimentally qualified, in the home, the church, the Sunday-school, by the wayside, etc. Happy the public school which has a teacher whose daily life is an epistle read and understood by all his pupils.

THE TEACHERS' READING.

WE hope that none of our readers will pass by our "Special Paper" in this number, because it is a little more metaphysical than most of the articles chosen for this department. We take it for granted that, in addition to appropriating and assimilating the more purely practical, which we also try to make the larger, part of the JOURNAL, the teachers like to have in each issue some stiffer, more thought-compelling articles. Mr. Chase's paper will be found not only interesting and suggestive, but also highly valuable in its relations to the study of language. It is not necessary, of course, in reading anything of the kind, that one should agree with the views of the writer on every point. The chief benefit will come in this case, as Mr. Chase points out, to those who look into the language for themselves and form their own conclusions in the light of all the information thrown upon such questions by those who have made them a study. Apart from this, however, it is one of the best means of self-improvement, to go carefully through such a discussion with a writer, and either approve or quarrel with his conclusions. Every teacher of whatever grade should be a student and a thinker.

While upon the subject let us express our opinion that there is another kind of literature which should fill an important place in every teacher's reading—for we take it that every teacher is a reader. We refer to high-class poetry. We have often thought that there is something in the daily work of the school-room which is peculiarly adapted to dull the imagination. If the teacher finds himself or herself falling into humdrum or prosy ways of thinking and looking at things—which, by the way, is a great misfortune—we know no better corrective than spending a little time daily in the companionship of such men as Tennyson, or Wordsworth, or Shakespeare, or Burns. Such reading, when one does enough of it to enjoy it heartily, as almost every one soon will, tones up the mind like a refreshing stimulant, dispelling the boding clouds, and leaving the whole man brighter, more hopeful, and better fitted to do the hard work of life with cheerful courage and energy. Try it, young teacher. Brace up with a little of the poets' elixir every day.

Special Papers.

THE ASSOCIATIVE PRINCIPLE IN LANGUAGE.

BY GEO. A. CHASE, B. A.

THOUGH I am opposed to the study of historical grammar as such in our High Schools, I am fully aware that no teacher can deal with our language in its modern form without having frequent occasion to refer to the changes that it has undergone in its earlier stages; for our language is to-day merely the result of processes that have been going on from the very origin of language itself. It is impossible to separate the present from the past. Moreover, language is the result of the endeavors of the human mind to put itself in contact with its fellow. The human mind that is at work upon language now, moulding its forms and combinations to suit new requirements, is the same mind that has always been at work upon it; and however great may have been the apparent changes in methods of expression, the underlying principles have always been the same—the mind has preserved a rigorous logic, even where it would seem to have acted most arbitrarily.

We are by no means always conscious of this logic; every teacher of language has again and again been brought into contact with the unconscious logic of the mind, with that "dark chamber" of the mind, as it has been called, in which processes are going on that are removed from our direct consciousness. But, whatever may be the case with the action of the mind itself, the making known of the results of this action was from the first a thoroughly conscious one, that is, each sound or combination of sounds, or, it may be added, each gesture or facial expression, carried its own meaning with it and made a distinct impression on the mind of the one to whom it was directed. The lapse of time, however, has brought about great changes, and we see everywhere in language the evidence of old methods of expression that have long since ceased to be active, and that to us contain no significance. We call these changes, "growth of language," but it depends altogether upon their character whether we can call them evidences of the growth of mind as well.

To us, at this late period of the mental development of our race, it seems very absurd to say that the grouping or associating of two conceptions into one could present any difficulty; but a careful study of language shows that at least the expression of such an association—making another mind to perceive and grasp the same—was a formidable task to the primitive thinker. If the indicating of the union of two conceptions into one seems to us now so simple a thing, still more simple would it seem to form what we term a single word—to body forth, as it were, the mental conception by means of a sound-group. It seems so natural a process that we look upon it almost as intuitive. If, however, we reflect for a moment how far such a word as "tree" carries us, how much is involved in it, we shall have some idea of the greatness of the mental power needed to take it all in and sum it all up in one word, more especially if, as Max Muller and others hold, this word arises from the conception itself—is germane to it. Let us suppose then that two conceptions had been successfully united in the mind of an individual; how was that mind to be so brought into contact with another mind that the new found double conception might be communicated? This brings us face to face with the associative principle in language.

We usually say that proximity indicates association. A little test of this statement shows that it is not true, even though the words so placed are suitable for association. If I use in close succession, *man*, *walk*, there is no evidence that by this fact I intend these to be associated in one thought. If they are associ-

ated into one thought in the mind of the speaker there must be some means of showing it.

It is here that pronouns play such an important part, those words whose fundamental idea is *pointing to*, and that alone; no matter what may be their seeming additions in our modern days, their function, without exception, is demonstrative, or the language of gesture. Everywhere throughout our family of languages we find them playing the part of the associative medium, in many instances fossilized, it is true, but in by far the greater number in living, active operation still.

Prof. Sayce speaks of one South American race who cannot converse in the dark, so all-important to them is gesture language, the language of the *demonstrative*. "Ale, Squeery?" enquired the lady, winking and frowning to give him to understand that the question propounded was, "whether Nicholas should have ale, and not whether he (Squeers himself) should take any." Mrs. Squeers, with her winks and frowns, did no more than we do when we nod or raise our hand toward the person we mean by the words, *you* or *he*, words, too, that are useless unless movement of some kind, mental or physical, attend them.

We were surprised when we first learned that the personal endings in verbs, where they occur, are these pronouns tacked on to the word that gives the general conception; so that our additional pronoun or noun is a mere repetition. This is common knowledge now; but what is the philosophy of the phenomenon? Why should not those pronouns be at the beginning rather than at the end of the word? The conception the speaker wishes to make known is the prominent thing in his mind and must come out first; this is followed by the gesture, with the attendant sound toward the individual that is associated with or forms a part of the conception. Thus "I run" would be "run, I," with a motion of pointing to the speaker's self; "you run" would be "run, you," with a motion of pointing to the listener; he runs would be "run, he," with a motion of pointing to the individual, accompanied with the name-word, if gesture alone did not suffice to indicate the individual. But the gesture and the gesture-word seem to have been absolutely necessary, supplemented only by the name-word—in order to secure the association of the conception.

I here assume, for I cannot avoid referring to it, that the primitive conceptions, or let me say *words*, were predicative, not substantive. And although my own study leads me emphatically to this opinion, yet I would not venture on the assumption unless high authority could be found for it. Max Muller in his "Science of Thought," holds this opinion, as does also Prof. Sayce, than whom, to my mind there is no more luminous writer on language. With the latter, indeed with both, the sentence is the foundation of speech, not the mere word as we understand it; the first utterance that communicated a thought was predicative in character; but so accustomed have we become to the union of conceptions to form one of a still wider sweep, that we forget that the individual sound-combinations themselves once indicated conceptions. In other and more familiar terms these simple sound combinations have lost their predicative power and have become mere words.

Among the many unsatisfactory or even irritating remarks found in Earle's Philology, is the one that "very many conjunctions are introduced by pronouns." As instructors, I do not think we should rest satisfied with such a statement. The language is before us as it is before Prof. Earle, and we may investigate for ourselves into the phenomenon thus lightly referred to, and hence have the satisfaction of knowing that we are not the mere echoes of what we hear from others.

Prof. Earle points to one of those fossils of language which show what the the language once was, and which, it may be added, equally

show the almost convulsive efforts put forth by the mind in seeking to bring itself in contact with its fellow. Nor does anything more clearly prove the advances made by our race in intellectual power than do these very conjunctions. They afford evidence that the mind, after getting a full grasp of the thought conveyed in a combination of conceptions, has passed on to regarding that combination as itself a unit—a single conception, and has sought and established a connection between this and another unit similarly formed, and established it by the same means as before, the gesture speech. The same, but yet no longer what it was at first, it has been spiritualized, so to speak; for now the association is no longer between a physical object and some mood of that object, but between mental conceptions alone, where no assistance can be gained from physical movement, but where the whole must be mental.

A common illustration of this conjunction is *that*, which is often pointed out in our grammars as really a pronoun, referring to its substantive idea in the statement that follows. Nothing can be clearer than this. But, through the operation of unconscious logic, as this word and the thought-group following signify the same thing, we deem it superfluous to have both; the part not self-significant being the one that can be dispensed with, is consequently often omitted, but only in one construction, the objective. The moment this thought-unit is made the subject, as we call it, *that* reappears as the first word—expletive, redundant, or some other name, our grammarians call it. Call it custom, habit, what we will, we have not yet thrown off that mark of association. I may even venture to say that we feel its necessity, for even in the objective construction we feel that something has dropped out. Undoubtedly, the time will come when this expletive initial *that*, as well as the object *that*, will be dropped. But as yet, though we may readily say, "I see you are unaware of the occurrence" omitting the associative *that*, yet we cannot say, "You are unaware of the occurrence is plain." We must place *that* at the beginning. If we are asked what is the office or function of *that* in this place, we should be at loss to tell. Only through this principle that I have indicated can its character be seen and seen clearly.

Let us look now at one of our very newest conjunctions, *because*. Apparently, there is nothing of the demonstrative character here; but passing over the "*be*," which, however, Skeat's dictionary says is pronominal, we find in Chaucer and elsewhere, that the older expression was "*be (by) the cause that*." If Skeat's statement about *be* is correct, then there are here *three* pronominal words, three index-hands indicating the association, and it may well be said that this would almost show a convulsive effort on the part of the mind in establishing the association. *The*, a form of *that*, is itself demonstrative, and as such is valueless, unless it points to some definite object, mental or physical. It is not *cause* that it points to primarily, but to something that is itself the cause—the character of "*cause*" being the function of what *the* points to, "*By THE cause*." "What cause?" we may ask. We don't know it yet. Again the mental finger is raised in "*that*" as it points to the thought-group that follows, and we have the chasm bridged by these two mental timbers.

There is still another phenomenon here. Both *the* and *that* have disappeared from the combination, though the latter is seen at times yet. It would seem that this young conjunction, with no history to fall back upon, has had to be content with merely a formal introduction into the language, its two sponsors immediately retiring. In other words, this omission of the associative words points, as in the case of "*that*" formerly referred to, to the fact that we are beginning to feel less need of these physical or gesture helps to association, and to rely upon the character of the associated words, as well for thought-groups as for functions of individual words. May we not explain, by this principle,

Mr. Earle's statement that the modern tendency is to make less use of conjunctions than heretofore, and to rely more upon the thought expressed in consecutive sentences to indicate a connection between them?

Many other conjunctions have a history like that of *because*, such as *while*, the older form being *the while that*, where *while* is purely substantive, the *the* and *that* pointing forward to a fact stated immediately after. "In order that" will soon drop *that*, and *in* will probably combine with *order* as *be* has with *cause*. All prepositions that have passed into conjunctions, as we term it, originally show the same association with *that*; indeed, this association often reappears in some out-of-the-way turns of a sentence in our English of to-day; *after that*, *before that*, *for that*, are seen very frequently. Thus, from the parsing point of view, *that* is the object of the preposition, the clause following being in apposition to it, and when *that* drops out, the clause itself is the object of the preposition.

Though *that*, with its various case-forms and combinations, such as *thus*, *the*, *though*, *then*, *lest*, is by far the most frequently used of these associative pronouns, yet others, such as *as*, *so*, are very common. But it is needless to dwell upon them here. I shall examine only one more of them. Let us take the sentence, "When you spoke I stood up." We call *when* an adverbial conjunction; now, this *when* is the accusative (objective) case of the pronoun *who*, a pronoun that in earlier stages of the language, always pointed to some vague, indefinite, or unnamed object, a function it still retains, except in one instance. How this particular case of *who* came to be associated with the idea of time, we need not inquire now. The sentence given, then, will mean, "You spoke at some point of time not named; I stood up." It will be seen that there is no associative element here—nothing to connect the one fact with the other; *when* points only to some unknown hour in which the speaking took place; a connective is certainly needed, and we find it in the word *then*, which has dropped out on the principle before referred to, but which is still often present in such sentences, and may be readily inserted here. "When you spoke, *then* I stood up." "You spoke at some time or hour which I am ignorant of; whatever hour that was, I stood up at it." The *then* points backward to what makes it significant.

I need scarcely say that our old English shows the same principle in its associatives even more fully than does the modern. I quote one or two little sentences from Sweet's Primer: "Ou *thæm* lande eardodon Engle ær *thæm* the hie hider on land comon," "Nese, *thy* læs ge thone hwæte awyrtwalien," "Dryten astag nither to *thæm* *thæt* he gesawe tha burg." In these we plainly see the *that*, but doubled; again as if the association could be formed only with difficulty.

I have not time to speak of other pronominal conjunctions; but this I must say, that until in the higher forms of our schools these words are looked at in their true character as pronouns, this principle of association, this connective element, will not be grasped. But in studying it we must simply lay aside preconceived notions, previous teaching, and all else that will hamper our free search, and look not only AT but INTO the language itself. That must be ever our book to study from—is the book that is open alike to teacher and to taught.

I hold that these demonstrative words, with their accompanying gestures, are the most natural and therefore the earliest associative element. It has not yet been shown what is the origin of case inflection. Prof. Sayce and others think it will probably be seen to be purely pronominal in its character; certain it is that it is associative, the fundamental part of the word bringing up an object to the mind, and the added sound indicating an association with something else. The whole is therefore a little sentence in its way. One is tempted to regard adjective inflection in the same light—pro-

nominal, pointing to the association of the ideas contained in the words themselves.

But I merely mention these, not dwell on them, and pass on to another, and what I must consider a much later because a much more intellectual principle of association, namely, that in which the idea expressed by one word suggests something further, such as is found in what we term *prepositions* and *transitive verbs*, for the same idea is in both. Here, if I may so speak, the mind supplies its own associative element. The word *to* suggests an *end*, an object in *view*; *strike* or *cut* suggests some object affected, and it is merely needful to utter a name when in both cases the association will be established at once. It will readily be perceived in this connection that where a verb does not by itself suggest anything further, a preposition following immediately would do so; and hence our likelihood to look upon the two as forming one idea, which is certainly often the case, as is evidenced by our free use of what we call "the object of a preposition becoming the subject of a verb in the passive voice."

And now in conclusion I may say that I have merely touched my subject; but it will repay the closest investigation to anyone who will bring a patient mind to bear on it—patient and unprejudiced. And I know of no more exquisite pleasure than in tracking the methods of work of our human mind, methods that leave their traces everywhere in the language. In this pursuit the history of language is essential, but only as a means to an end, not the end itself.

I have confined myself wholly, or nearly so, to our own language, for I feel sure that very much good work can be done in this logical view of language, without reference to any other tongue, though undoubtedly much assistance by way of illustration may be obtained by bringing before the student the fact that the same principles or methods prevail in other languages than our own.

Book Notices, etc.

Any book here reviewed sent post-paid on receipt of price. Address THE EDUCATIONAL JOURNAL TORONTO.

The Step Ladder. A collection of Prose and Poetry designed for use in Children's Classes in Elocution, and for Supplementary Reading in Public and Private Schools, by Margaret A. Klein. Published for the author by A. S. Barnes & Company, New York.

This little book contains a very good selection of choice extracts from such authors as Shakespeare, Dickens, Tennyson, Lowell, Macauley, Louisa M. Alcott, Jean Ingelow, etc., etc., and is well adapted for the purposes intended. The use of suitable books, magazines, extracts, etc., for supplementary reading, is almost indispensable to the proper progress of pupils, especially in the lower grades, in the ability to read fluently and intelligently. They are, in fact, one of the best instruments of education in school or at home, and as such should be freely employed. *The Step Ladder* will be a useful addition to the list.

NOTHING dies, nothing can die. No idlest word thou speakest but is a seed cast into time and grows through all eternity.—*Thomas Carlyle.*

EACH laborer in the vast vineyard of time should have a clear conception of his particular station and its bearing on what lies around him—*W. H. Venable.*

WE must discipline ourselves constantly to form and to break habits, as a means toward the ever-developing realization of the good in us.—*Rosenkranz.*

EVERY teacher should instruct the children to save every book and picture, including the schoolbooks from the primer up, and make that collection the corner stone of a library, growing with every year.—*Supt. Balliet, Springfield, Massachusetts.*

Literary Notes.

OUR *Little Men and Women.* The October issue of this attractive little magazine is as full of timely and striking matter as the magazines designed for the older folk. The delightful little people in "A Little Columbian Grandpa" go to the World's Fair and see Phronsie Pepper and some of their other favorites in the Children's Building, as well as many other interesting things. The instructive bit of Natural History is made as attractive as a fairy tale, and the illustrations are charming. Clearly the days have gone by when dull little "primer" literature was good enough for the children. 10 cents a number; \$1.00 a year. D. Lothrop Company, Publishers, Boston.

THE October number of the *Atlantic Monthly* contains many timely articles of historical and literary value. Chief among these may be mentioned *The Isthmus and Sea Power*, by Captain A. T. Mahan, U.S.N., an inquiry into the future history of the United States in the event of the opening of the Nicaragua Canal; *The Gothenburg System in America*, by E. R. L. Gould, an able paper showing the adaptability of the system governing the sale of liquor in Norway and Sweden to the different conditions of American life; an interesting and impartial paper *The Hayes-Tilden Electoral Commission* by James Monroe, Professor in Oberlin College, and *The Permanent Power of Greek Poetry* by R. C. Jebb, Professor of Greek at Oxford, and the most eminent living English scholar in Greek. Other papers are *The Undertime of the Year* by Edith M. Thomas; *After—The Deluge* by Annie Eliot; *The Tilden Trust and Why it Failed* by James L. High; and Part One of *Two Modern Classicists in Music*—Robert Franz and Otto Dresel—by William F. Apthorp. There is a continuation of Charles Egbert Craddock's *His Vanished Star*, and the opening installments of a new story by Elisabeth Cavazza entitled *The Man from Aidone*. There are several poems and reviews of valuable books, and the usual Comment on New Books, and the Contributors' Club.

THE *Review of Reviews* (New York) comes forward in its October number with a second startling innovation in educational projects, as fresh as and still more unconventional than the Gouin system of language-learning, which it championed last year. Two articles explain the history and *raison d'être* of the Historical Pilgrimage, and tell of the revival of this pleasant institution in England and America, with a most alluring program for the 1894 Pilgrimages. In England, Mr. Stead, the English editor of the *Review of Reviews*, is going to personally conduct a party of Pilgrims to the many points of absorbing historical interest which a two week's jaunt, from London as a centre, will allow. The most eminent men in England will be of the party, and will address it at the famous stopping places. Think of going with Archdeacon Farrer to Westminster and hearing his words on the historical significance of that venerable pile! A. Conan Doyle, the novelist, Canon Fremantle and other celebrities will make speeches at *rendezvous* where they are especially appropriate. But while England perhaps has much more history and tradition to the acre than our new world, the schedule of the American Pilgrims seems scarcely less charming. They will leave Philadelphia and spend some weeks in finding such historical sites as Boston and New York and Long Island and the Hudson can afford. In their own particular fields such men as Richard Watson Gilder, Thomas Wentworth Higginson, Prof. John Fiske, Pres. E. Benjamin Andrews, William Lloyd Garrison, and Thomas Janvier, will join the excursionists and make speeches.

It is only necessary to grow old to become more indulgent. I see no fault committed that I have not committed myself.—*Goethe.*

GOVERN yourself; do not get angry. Never let pupils see that you are annoyed. Nothing delights mischievous or vicious pupils so much as to see that they can annoy the teacher, and they are quick to follow an advantage thus gained. Woe to the teacher who thus places herself at the mercy of "young tyrants."—*Greenwood.*

English.

All articles and communications intended for this department should be addressed to the ENGLISH EDITOR, EDUCATIONAL JOURNAL, 201-203 Yonge Street, Toronto.

NOUNS USED ABSOLUTELY.

THE treatment of the so-called absolute noun presents certain difficulties, difficulties which are by no means cleared away by the grammars generally used. There is a reason therefore for such brief discussion of the subject as the columns of the JOURNAL afford.

The chief difficulty is the clear recognition of what are absolute nouns. The sentence, "They ran ten miles" by no means gives us an example of a noun used absolutely. Here "miles" is purely an adverbial objective noun, modifying "ran." So we should treat: "They rode miles and miles;" "They rode mile after mile;" "They rode on day by day, mile after mile, day after day;" "They sat side by side;" "The prisoner was bound hand and foot." (See *H. S. Grammar*, p. 310 f, and *P. S. Grammar*, p. 170, *contra*.)

Coming to sentences such as the following, we find a difference in the construction.

"High on hors he sat, upon his heed [head] a Flaundrish bever hat."

"She sank to the floor, the thought of her father's peril in her heart."

"He lay down, his heart heavy with sorrow."

"Thence more at ease their minds, . . . the ranged Powers disband."

In these sentences the phrase has in no sense become an ordinary adverbial phrase. The phrases in our first list gave in every case a close limitation of the predicate. The phrases just cited do not closely limit the predicate, but appear rather as abbreviated clauses; "and had upon his head a Flemish beaver hat;" "She sank to the floor for the thought of her father's peril was in her breast;" "He lay down, while his heart was heavy with sorrow;" "Since their minds were thence more at ease, the ranged Powers disband." This difference is the essential test of the absolute noun. The noun that stands in close adverbial relation to the predicate of its clause is never treated as an absolute noun; while the noun standing in its own phrase in which it holds a subjective or objective relation (as shown in an equivalent clause) is an absolute noun.

This will be clearer by reference to the many cases in which the participle accompanies the noun.

"The sun having risen, we continued our journey."

"This done, he departed."

Her father being at the warehouse, she did not yet know of the accident.

The storm increasing, the vessel did not depart.

Here beyond all doubt we have to do with absolute constructions, since phrases such as these have come into English only on the model of the Latin ablative absolute construction. In each case the subjective relation of the noun is clear and unmistakable while the noun is independent of any word in the main clause of the sentence.

There remains but one point—what case has the absolute noun—nominative or objective? It is easiest to deal with the absolute noun+the participle. Here modern usage is strongly in favor of the nominative case with pronouns.

She being down,

I have the placing of the British crown,
Cymbeline iii., 5.

Yet this—at least as late as Milton was by no means always the case. Cf.

The seat

Of Diety supreme, *us* dispossessed.

He trusted to have seized.

Paradise Lost, vii., 141.

On the evidence of the more common use of the nominative case of the pronoun, we may look upon the absolute noun as a nominative.

Historically, however, the absolute nouns are

objective. The Anglo-Saxon used a dative case (= with . . .) of the absolute noun and the participle, so that we should expect the objective case in modern English; it is an accident of the period of confusion of English and French that the nominative case has been given the preference.

FAIRY TALES.

FAIRY tales are adapted, as is nothing else, to the individuality of the child, and especially to the predominating faculty of imagination, which decidedly is to be cultivated, since in this are rooted all the higher strivings. For this reason must the concept matter be poetic. Only poetic thought material allows the imagination full play, especially the fairy tale material, which contains no names of persons or places, whose events are defined precisely neither as to space nor as to time. The child who becomes absorbed in fairy tales, remains longer a child; he contemplates them with delight; he believes in them; he is eager for them; for he himself rises, as do the fairy tales, above the conditions of reality; he vivifies the lifeless; he animates the soulless; he associates with all the world as with his equals, and loses himself in adventurous impossibilities. Thus to favor the childish views of things by means of, to him, congenial fairy tales, cannot react harmfully upon him, because the fairy tale contains, beside that subjective conception which deviates from the nature of things, also an abundance of objective, rational, not only esthetic but also ethic, notions and principles, which lead far beyond the sphere of imagination. They serve especially to exercise the ethical judgment, and, because the circle of acquaintance is extended to include inanimate things, it finds a rich field unlocked, where, on account of the simplicity and correctness of the cases, it learns to decide easily, rapidly and correctly.

A large number of other objective notions also, which relate to the natural conditions of happening, are found in fairy tales, and instruction will treat them, too, in a strictly rational manner, so that, notwithstanding the child's utter abandonment to the fairy tale, the harmful effect that was feared does not take place. For in the child's consciousness, whose parts at first fuse but very slightly, the wonderful fairy-tale content forms an isolated circle, complete in itself, and, instead of hurrying their fusion, the contrast between the supernatural fairy tale products and the present reality should be allowed to stand out very boldly, with the growing confidence of the child in his experience, the actual in the fairy tale will be emphasized less and less, and more weight given to the poetic and ideal truth of the esthetic and the ethic, so that there may remain, as a much desired residue, an ideal tendency of the thoughts and higher reach of spiritual life. If on the contrary there were narrated only what is true and real, it might easily result in a rigidity of conception, which concerns itself only in the most commonplace of sensuous realities, and which has no receptivity, either for the lofty creations of the poets or for the surmising and wonders of religious faith.

But all education must proceed from the individuality only so as to raise the child above it, and to plunge him into universal human conditions. This latter, also, the fairy tale succeeds in doing. As a national tale, reflecting the principal features of the nation, it expands the child's narrow consciousness through the development of the national germ, through the eternal reproduction of the popular conception of nature and the world. As an international tale, it lets the child participate in the universal spirit of childlikeness, which of old belonged to the race as a common possession. And, finally, it widens out the child's consciousness beyond the national and universal child-like, by filling it with the simplest and most original notions in matters of morality, and by the certain generation of the ethical judgment and of the

religious sentiment in the simplest relations which lie within the childish sphere.

Thus do the fairy tales, which are at the same time classic materials, to which old and young love to return, lead from the most individual, from which everything must grow that is to become strong, to the most general, which belongs to man as such. They serve in their sphere both the child nature and the highest purpose of education.—*Professor Ziller, translated by J. C. Zinser, in the Public School Journal.*

CORRESPONDENCE.

F. B.—In the sentence "I should like to go," "should like" is the conditional form of the verb "like." The sentence is an abbreviation of a full sentence such as "I should like to go if I were able." This may be treated as a past indicative to indicate a condition, though in logical force it is a future viewed from the past: compare "I shall go if I like," "I should go if I liked." The past form is a device of our language, in this case to indicate a conditioned clause.

In the sentence "I should be there now," "should" is the principal verb, followed by "be," the infinitive. It is in form a past tense, but like other verbs of its class, such as ought, dare, can, it has come, in the sense of obligation, to have a present force.

In "he may get it if he can," "may" is used as a principal verb—he is permitted. It is present indicative, and has the infinitive "get" depending on it. "Can" is likewise present indicative (=is able).

In "I will be there if I can," "will" is present indicative of the principal verb "will" (=I am willing). For "can" see the preceding sentence.

In "He did not know which was which," the first "which" is the ordinary interrogative pronoun, as will be clearly seen by such a sentence as "He did not know which was his book." The second "which" is idiomatic and peculiar. It is of course precisely the same word as the preceding, but is used with an odd qualitative force, for the sentence means "He did not know which was of one kind and which of another." It retains the selective force (interrogative force) of the former, yet is used attributively. It is therefore the interrogative pronoun with idiomatic force.

WHEN we read, we fancy we could be martyrs; when we come to act, we cannot bear a provoking word.—*Hannah Moore.*

ANY course in English that fails to implant and develop an eager delight, and an appreciative interest in the best English literature, is a sinful failure.—*Prin. C. E. Goddard.*

THERE is no business, no avocation whatever, which will not permit a man, who has an inclination, to give a little time every day to the studies of his youth.—*Wytttenbach.*

NOT many years ago there lived a little lad whose name was Canova. He was very fond of modeling little images out of mud, in which it was his delight to play. "Our little lad will be a sculptor when he grows up," people would say. "I wonder what a sculptor is?" Canova often thought to himself; but he did not know, nor did he care very much, so long as he had clay enough. As Canova grew up, he was sent to the palace of the king to serve in the royal household. One day word was brought that a great festival was at hand. The palace would be filled with guests and a grand dinner was to be served. "Let no pains be spared to make the feast a bountiful one," said the king. Each servant did his best. "Let me mould the butter," said Canova; "that shall be my offering to the king." So Canova took the great mass of butter, and moulded it into the form of a perfect lion. "Whose work is this?" cried the king, as his eye fell upon the golden image before him. "Wonderful, wonderful!" exclaimed the guests. "Bring into our presence," ordered the king, "the servant who moulded this lion." Canova was brought into the great hall. "He is a genius! he will make a great sculptor!" said the guests. "He shall be sent to the greatest sculptors in the country!" declared the king. And so it came about that the little Canova was no longer a servant in the royal palace; but was sent out into the world, when by and by he became one of the greatest sculptors ever known.

Science.

Edited by W. H. Jenkins, B.A., Science Master, Owen Sound Collegiate Institute.

THE HIGH SCHOOL JUNIOR LEAVING
AND UNIVERSITY PASS MATRICU-
LATION.

CHEMISTRY.

- (a) State briefly one of the theories usually held regarding solution.
- (b) Describe two methods of determining the percentage composition of sand and ammonium carbonate present in a mixture of 100 grams of these substances.
2. Explain fully how the composition by weight of pure dry air may be determined. Draw a diagram of the apparatus you would employ.
3. (a) When zinc is added to sulphuric acid and water, hydrogen comes off. Does the gas come from the acid or from the water? Describe experiments which corroborate your answer.
- (b) What is the composition of methane? Describe experiments which prove that your answer is correct. What volume will the products of its combustion occupy at 120°C and 500mm pressure?
4. (a) "Water gas," used in manufacturing gas used for lighting purposes, is made by passing steam into red-hot charcoal. Explain the reaction. What are the products of the combustion of "water gas"? Give equations.
- (b) When houses are heated with hot water passing through iron pipes from an iron furnace, a substance which plumbers call air collects in the uppermost parts of the pipes. This "air" burns with a pale-blue flame and forms a mist on any cold solid held over it. Name the gas and explain its formation by means of an equation. Give also the product of its combustion.
5. (a) How would you change a non-luminous flame into a luminous one? Describe experiments which indicate the chief cause of the luminosity of flame.
- (b) When a coal fire gets low, then throwing much coal on it, or greatly increasing the draft, will frequently put the fire entirely out. Why? Describe an experiment which illustrates the correctness of your explanation.
6. Heat in a flask fitted with cork and delivery tube a mixture of dry powdered quicklime and ammoniac chloride. Pass the gas that comes off into pure water until no more will dissolve. Neutralize this water with pure nitric acid and then evaporate to dryness. Heat on a piece of mica the solid that remains. Name the final products and explain the whole series of changes.
7. Add sulphuric acid to the refuse that remains in preparing oxygen from manganese dioxide and chlorate of potash. Pass the gas that comes off into a hot solution of caustic potash. Explain the reaction that takes place, using equations.
8. Describe and explain what takes place when (a) chlorine water is added to separate solutions of potassic iodide and potassic bromide; (b) sulphuretted hydrogen is added to an aqueous solution of iodine. Give equations.
9. (a) Explain the meaning of the following equation: $H_3PO_4 - H_2O = HPO_3$. How is the operation carried out in the laboratory? What is the test for the last substance or its salts?
- (b) Boil for three hours in an iron ladle a mixture of about four grams of fine white sand, eight grams of caustic potash, and eighty grams of water. Indicate the reaction and describe the properties of the compound formed.

ANSWERS.

gives the weight of the sand; and the other constituent is determined by difference.

2. In a weighed tube place a known weight of copper filings. Pass a known volume of air, dried by passing through tubes containing calcium chloride, over the copper filings heated to redness. After the given volume of air has passed over, cool the tube and again weigh the copper filings. Their increase in weight gives the weight of oxygen. The weight of the given volume of air can be obtained from the fact that 22.4 litres of air at 0° and 760mm Bar., weigh 28.88 grammes.

2. The weight of the air and oxygen being known the weight of nitrogen can be obtained by differences, and from these weights the determination of the percentage composition becomes a matter of simple proportion. A partial diagram is given in the H.S. Chemistry.

1. (a) The gas comes from the acid. Bring together zinc and water, no hydrogen. Bring together zinc and sulphuric acid, hydrogen is evolved slightly. Zinc is an element, therefore the gas comes from the acid.

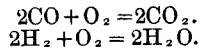
(b) Methane is composed of carbon and hydrogen in the proportions by volume of one of carbon to four of hydrogen.

Set fire to a bottle of methane and hold over the burning gas a dry bottle. Water is formed in the dry bottle. Now water is composed of hydrogen and oxygen, and as there is no hydrogen in the air it must have come from the gas. Into the bottle used to collect the products of combustion of methane pour some lime water. It turns milky, indicating carbon dioxide. Now we know this gas contains carbon which can be proved by passing it over hot sodium. Since there is no carbon in the air it must have come from the burning gas.

One volume of CH_4 when burned forms two volumes of steam and one volume of CO_2 . The two volumes of steam at 120° and 500mm would occupy $2 \times \frac{273}{273+120} \times \frac{760}{500}$ volumes, and the one volume of CO_2 would occupy $1 \times \frac{273}{273+120} \times \frac{760}{500}$ volumes.

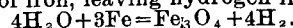
4. (a) The carbon decomposes the water, forming carbon monoxide, and leaving hydrogen free. The mixture of these two gases represents the "water gas."

Products of combustion are carbon dioxide and water.

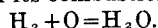


(b) Hydrogen.

The hot iron decomposes the steam, forming an oxide of iron, leaving hydrogen in the pipes.



The product of its combustion is water.



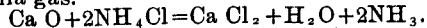
5. (a) (1) By increasing the density of the gas producing the flame. (2) By the introduction of solid particles of matter into the flame.

EXPERIMENTS—In an ordinary gas flame hold a cold tin plate. It becomes covered with fine soot. Into a Bunsen flame sprinkle ground carbon. The flame becomes luminous.

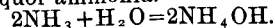
(b) In both cases the temperature of the burning coal is reduced by giving heat to the new matter, thereby lowering the temperature of the whole below the ignition point of coal.

Hold a fine wire gauze over a gas flame. The flame is extinguished, but gas escapes above it. If the gauze be first heated the flame will not go out.

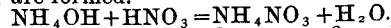
6. Quicklime and ammoniac chloride when heated give calcium chloride water and ammonia gas.



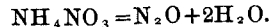
When the ammonia gas is passed into water it forms liquor ammonia.



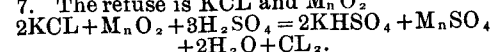
When ammonia water is treated with nitric acid to neutralization, ammoniac nitrate and water are formed.



When this is evaporated water is first driven off and the ammoniac nitrate is decomposed, forming as final products nitrous oxide and water.



7. The refuse is KCl and M_nO_2 .

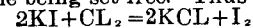


The gas chlorine passed into a hot solution of KOH forms potassium chloride, potassium chlorate and water.

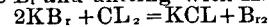


8. Chlorine water added to a solution of potassic iodide (a) gives a yellowish brown color-

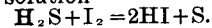
ation to the solution if dilute. This color is due to iodine being set free. Thus



Similarly with bromide of potassium the solution is more of a reddish color, the chlorine displacing the Br. and uniting with K.

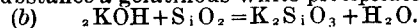


(b) The solution becomes of a yellowish white color due to sulphur being set free. Hydriodic acid is left in solution



9. (a) The equation means that when water H_2O is abstracted from phosphoric acid H_3PO_4 , metaphosphoric acid AP_3O_3 is the product.

The operation may be carried out by heating a quantity of the former acid to the required temperature. Silver nitrate gives with the last substance a gelatinous white precipitate.



Correspondence.

RESOLUTIONS PASSED AT EAST GREY TEACHERS' INSTITUTE.

To the Editor of the EDUCATIONAL JOURNAL.

SIR.—The thirteenth semi-annual meeting of East Grey Teachers' Institute was held in Meaford High School on the 5th and 6th inst. The attendance was fairly good and the programme both interesting and instructive. Mr. Wm. Houston, Director of Teachers' Institutes, was present, and his talks on "English" were much appreciated and closely followed, as evidenced by the numerous questions asked him by the teachers.

During the progress of the meeting the following resolutions were submitted, thoroughly discussed and carried unanimously:

(1.) Resolved, that in the opinion of the teachers of East Grey in convention assembled, the Public School course should end where the High School course begins; also, that as the present course for the entrance examination is sufficiently extensive for pupils of the average age and intelligence, the Public School Leaving Examination be abolished.

(2.) Resolved, that in the opinion of this Association the Public School holidays at Easter should be the same for rural schools as for towns and incorporated villages.

(3.) Resolved, that in the opinion of this Association the taking of a plebiscite, by which the people of Ontario may express their views on a question which we believe affects so materially the educational, moral and financial interests of our Province, is a step in the right direction; and that we as teachers of the youth of this Province pledge ourselves to use our influence for every wise measure which has for its object the suppression of the liquor traffic.

At the concert on Thursday evening, Oct. 5, Miss Florence Brimson, of Toronto, delighted a large audience by her artistic rendering of several vocal selections. Her voice is simply beautiful, and her stage presence most pleasing. Teachers' Institutes, generally, could not do better than engage this talented vocalist for their usual entertainments.

THE SECRETARY.

SCHOOL GOVERNMENT.

To the Editor of the EDUCATIONAL JOURNAL:

SIR.—We must have power, we can do nothing without it. I insist that this power must be of two kinds, mental and physical; a man must know a thing before he can teach it. He must have physical power, though he might not need it; the fact that it is there, and could be used, is a strong argument for order. In the physical world everything is done by force; so, in the ethical world, force is everywhere at work. The fear of force is keeping the nations uneasily quiet. This is what it does in the little school world. Don't begin to palaver about *moral suasion*; we cannot govern men by it, much less bad boys; if it has any use at all, it is as a *salve*. Kindness is a power, but, like every other good thing, is apt to be scarce when it is most needed. It was never clear to me that kindness is spontaneous; it seems to be the effect of some preceding kindness; if my distress evoke your sympathy, and you act, you at once stir my kindness. Love cannot be created by exhortation, necessity or duty, though many attempts are made. If, in domestic troubles,

we had the power to cite it, thousands of families, at the verge of separation, would be held on happily in union. Love must have a cause, and of all causes capable of raising it, a bad boy is the most unlikely. The analysis of boys' badness would carry me too far just now; but I have yet to be converted to the common belief that it is natural; it would be a good thing if it were, for we are not morally responsible for our natures. This badness is youthful heroism taking a disagreeable course. About the way to teach. I never knew a man, that understood a subject, to fail in method; the failure is caused by want of moral principle, a want no Normal School can remedy.

Dracon, Ont.

JOHN IRELAND.

To the Editor of the EDUCATIONAL JOURNAL:

SIR,—I propose to briefly outline a plan whereby the majority of the examiners chosen to read the papers of P. S. pupils, may be P. S. teachers.

I. Each county to constitute an examining district.

II. The papers to be so distributed that no teacher will get his own pupil's papers.

III. The examiners to be (a) The P. S. Inspector or Inspectors in the county; (b) an equal number of H. S. (or Coll. Inst.) principals; (c) three times as many P. S. teachers as inspectors and H. S. principals.

The Public School teachers eligible, to be (1) those holding first-class certificates and doing H. S. entrance or P. S. L. work, or (2) in the event of there not being enough of these, second-class teachers who have done such work for ten years.

IV. Each candidate shall pay one dollar, and the municipality from which the candidate comes shall pay one dollar. This to cover the total expenses of the examination.

V. The P. S. teachers to be chosen by the P. S. inspector or inspectors for three years each. The objections that may be raised are:

(1) Teachers knowing pupils whose papers they examine.

(2) The increased expense.

(3) Examining to be done in some cases by teachers holding second-class certificates.

As to the first objection the use of envelopes similar to those used in the H. S. examinations would obviate the difficulty. With respect to the second objection I may say that the work has been done too cheaply in the past. If it be worth five dollars a candidate to carry out the Primary examination, it is surely worth two dollars to do similarly with the H. S. entrance or P. S. leaving.

The third objection may be removed when we remember that the Educational Department grants, or has granted, specialist certificates to H. S. teachers who have taught successfully for ten years any department of H. S. work. If a P. S. teacher holding a second-class certificate has taught successfully H. S. entrance work for ten years, he should surely be qualified to examine that work.

Yours truly,

C. B. EDWARDS.

London, Ont., 25th Sept., 1893.

LINDEN VALLEY, Oct. 10, 1893.

To the Editor of the EDUCATIONAL JOURNAL:

SIR,—In my paper read before the Ontario Educational Association on the subject of the High School Entrance and Public School Leaving Examinations I discussed the question of so many High School pupils being annually plucked at the primary examination, and I attempted to account for it by stating that it was the raw material; it was the low standard of the entrance examination which allows pupils to enter High School work before they have completed their Public School work. In support of this contention I mentioned that some of my Public School teachers still persist in preparing primary candidates and that they always succeed in passing a larger percentage of their candidates than do the neighboring High Schools and Collegiate Institutes.

My assertion has been further born out this year in the following cases: Mr. John Cundal, Headmaster of the Cameron Public School sent up four candidates and passed them all. Mr. D. McDougall, Headmaster of the Fenelon Falls Public School sent up six and passed five of them.

Does anybody require any further proof to convince him that "the Entrance Examination should be abolished and the Public School Leaving substituted in its stead?"

H. REAZIN.

Teachers' Miscellany.

TRIALS OF A SCHOOL TEACHER.

A DIALOGUE.

Teacher—If there were three peaches on the table, Johnny, and your little sister should eat one of them, how many would be left?

Johnny—How many little sisters would be left?

Teacher—Now listen, Johnny. If there were three peaches on the table and your sister should eat one, how many would be left?

Johnny—We ain't had a peach in the house this year, let alone three.

Teacher—We are only supposing the peaches to be on the table, Johnny.

Johnny—Then they wouldn't be real peaches?

Teacher—No.

Johnny—Would they be preserved peaches?

Teacher—Certainly not?

Johnny—Pickled peaches?

Teacher—No, no; there wouldn't be any peaches at all, as I told you, Johnny. We only suppose the three peaches to be there.

Johnny—Then there wouldn't be any peaches, of course.

Teacher—Now, Johnny, put that knife in your pocket, or I will take it away; and pay attention to what I am saying. We imagine three peaches to be on the table.

Johnny—Yes.

Teacher—And your little sister eats one of them and then goes away.

Johnny—Yes, but she wouldn't go away till she had finished the three. You don't know my little sister.

Teacher—But suppose your mother was there and would let her eat but one?

Johnny—Mother's out of town and won't be back until next week.

Teacher—Now, Johnny, I will put the question once more, and if you do not answer it correctly, I shall keep you after school. If there were three peaches on the table and your little sister should eat one of them, how many would be left?

Johnny (straightening up)—There wouldn't be any left. I'd grab the other two.

Teacher (touching the bell)—The scholars are now dismissed. Johnny White will remain where he is.—*Selected.*

"WHAT IS THE LUMINIFEROUS ETHER?"

A FEW weeks ago Sir Gabriel Stokes, Bart., F. R. S., who now occupies Sir Isaac Newton's Professorial Chair at Cambridge University, gave the results of his investigations on this subject, which he, as a man of science, has made his speciality; the occasion chosen was the annual meeting of the Victoria Institute (at London, England), of which he is President. Sir G. Gabriel Stokes was supported by His Excellency the United States Ambassador to England, and a large number of Home, Foreign and Colonial members. Although the hall was densely crowded in every part, yet many letters of regret at not being able to be present were read from others, among these the Dukes of Argyll, Westminster, Fife, and special communications were also received from Lord Halsbury, Vice-President, and Lord Kelvin, the President of the Royal Society. The report for the year was read by Captain F. Petrie, the honorary secretary, and showed that the Home, Colonial, and American members now numbered 1,450. The Society's scientific work had tended to bring about a truer appreciation of the results of scientific inquiry, and to show that there is an absence of real opposition between Science and Revelation. Sir Gabriel then described the Luminiferous Ether, which had been termed a medium whose vibrations are supposed to cause light, pervades all space, is imponderable and infinitely elastic. He explained the results of the investigations of Home and Foreign men of science into the nature of that substance, and said that it was quite conceivable that further

great discoveries might be made as regards it. What its nature was we could only assume; for instance, the results of modern astronomical calculation had shown that light travelling at the rate of 186,000 miles a second, would take four years say, to go from the nearest star to the earth; now as we saw the fixed stars there must be some link of connection between us and them. There were two theories of light; according to one, light was a substance darted forth from the luminous body, according to the other it was a state of change taking place, propagated by a medium intervening between that body and the observer. Sir Isaac Newton held that there must be such a medium, either material or immaterial, but the question arose how far did it extend; was it indefinite like space? Science could give no answer; if it were limited what was outside it? Was there another system subject to the same or different laws? If there be such then, according to phenomena open to our investigation there can be no communication therewith. But the properties of ether are no less remarkable than its extent, the question whether it gravitates towards ponderable matter, science cannot answer, but if it be connected with gravitation, it cannot be imponderable. Sir Gabriel then referred to the undulatory theory of sound, and to his own suggestion to Faraday, forty years ago, in regard to the possibility of the electricity having an undulatory motion somewhat similar to that of light. Since then Clark Maxwell had shown that the velocity of light agrees with that of electricity, and Hertz had shown that the one exhibits some phenomena of the other.

At the conclusion of the address, His Excellency the Hon. T. F. Bayard, the United States Ambassador to England, as a member of the Institute, moved, and Sir Henry Barkly, G.C.M.G., K.C.B., F.R.S., seconded a vote of thanks for the address. Canon Girdlestone and Admiral Grant, C.B., moved and seconded a vote of thanks to the chair, and the summer list of home and colonial applicants for enrolment as supporters was begun, after which the members and associates held a conversazione in the Museum, where refreshments were served.

MR. NORMAN GALE has written several poems in which his tenderness towards animals has been shown, but none that is so musical and delightful as the poem, "A Shilling Each," in a recent number of the *The Literary World*. It begins thus:—

How shall a man or woman pass unstirred?
A shilling these! One shilling, cage and bird!

I vow to birds my pennies! I will pinch,
Redeeming redstart, yellowhammer, finch.

Let them recover all their greens and blues!
Threadbare my coat shall be and old my shoes.

O sweet to fill my hands with living fluff,
And toss the loves to heaven—joy enough!

Give me to kiss each shining head; to feel
The wildbird in the captive make appeal.

Other stanzas are as follows:—

On Laura's breast at evening I have heard
A heart beat pity for the prisoned bird;

And we have vowed to spend with care; to pinch
For linnet, lark and starling, thrush and finch.

To throw these loves to heaven with a kiss,
Blueward and sunward—that shall be our bliss.

Children of men and brothers of my day,
How long shall feathered joy be thrust away

To find a foot of prison, smoky air,
For that large liberty and country fare

Which tenderness celestial set apart
For woodlark wings and velvet whitethroat
heart?

How shall a man or woman pass unstirred?
A shilling these! One shilling, cage and bird!

For Friday Afternoon. School-Room Methods.

AFTER THE BALL

BY LIZZIE WILLS, TORONTO.

One beautiful day, quite late in the fall,
The leaves were invited to Autumn's ball.
Down from their homes on each bough of each
tree,
Earthward hastened a great company;
And gaily they sped, in their bright array,
Away o'er the meadows, away, away.

Very soon they arrived at Woodland Hall
Which Autumn had chartered to hold the ball.
'Twas a grassy glade stretching far and wide,
The sky was the roof and the walls beside,
For wherever you looked, around, around,
The sky had stooped down till it kissed the
ground.

For partners the leaves had the breezes all,
The blustering winds and the zephyrs small,
The music was furnished by crickets gay
Who had practised for weeks both night and
day,
And the bright robed leaves in the dance swept by
Like a wand'ring rainbow dropped from the sky.

They danced till the sun dipped down in the west,
They danced by the starlight and would not rest,
Till, tired and dizzy, they fell to the ground,
And at last dropped asleep so safe and sound
That they never stirred when at dead of night,
Winter spread o'er them a blanket snow-white.

BOBOLINK.

Bobolink—
He is here!
Spink-a-chink!
Hark! how clear
Drops the note
From his throat,
Where he sways
On the sprays
Of the wheat
In the heat!
Bobolink,
Spink-a-chink!

Bobolink
Is a beau,
See him prink!
Watch him go
Through the air
To his fair!
Hear him sing
On the wing,
Sing his best
O'er her nest:
"Bobolink,
Spink-a-chink!"

Bobolink,
Linger long!
There's a kink
In your song
Like the joy
Of a boy
Left to run
In the sun,
Left to play
All the day.
Bobolink,
Spink-a-chink!
—September St. Nicholas.

Question Drawer.

J. S.—We will endeavor to comply with your requests as far as possible. They are, as the members of the Government say, "under favorable consideration."

H. N.—(1) The authorized History for Public Schools contains an outline of Canadian History, sufficient for the Public School Leaving Examination.

(2) We are not sure that we understand this question. There is a Second Part of First Reader, a Second Reader, a Third Reader, etc.

MESSRS. SELBY & Co., dealers in school supplies and Kindergarten material, have removed from their old location, 42 Church street, to more central and commodious premises at 23 Richmond street west. See advertisement.

RAPID RECKONING.

BY BESSIE L. PUTNAM.

IN practical work, either in school or in actual business life, there is probably no exercise in arithmetic more frequently performed than that of addition. To be able to add rapidly and at the same time accurately is of prime importance. While some are naturally endowed with ability in that direction, there are few things in which practice shows more marked results of improvement than daily exercises in "rapid reckoning."

When all are ready with slate and pencil, the teacher writes the sum upon the blackboard, naming each figure as she writes it. The children follow her work with their pencils. If any one fails to catch a certain figure as it is given, he asks for its repetition *at the time*, that he may be ready to add when the word is given and thus stand an equal chance with the rest. An example six or seven figures square will be large enough to begin with; the size may be increased as they gain speed by the exercise. When the last figure is named the teacher gives the word "add" and all begin at the same moment.

Interest and enthusiasm are increased if the teacher has a watch in hand ready to record the time taken by each one for the addition. The names may be permanently written at one end of the board; then as each finishes he raises his hand or speaks his name, and the teacher indicates the number of seconds opposite. Each pupil should turn his slate over as soon as he gets a result, that no temptation be offered the quicker ones to revise their work while the others are finishing.

When all are through, each in turn reads his result, the teacher placing it upon the blackboard opposite his name. The problem is then added by all the pupils together, the teacher pointing to and naming the figures as they stand upon the blackboard. The result is compared with those given by the pupils individually, and the time noted of the first correct answer.

It will not be long before there will be an appreciable diminution in the time; then a longer example may be given. The whole can be managed, and should be, in such a way that all will regard it a pastime; when it becomes laborious the best results are lost. With a little care not to overdo the matter, pupils will be as eager for it as for a game of ball, while the friendly rivalry will quicken their thoughts and devise numerous methods of abbreviation. Almost unconsciously they will fall into the habit of combining into some groups certain of the figures at the same time that they are adding others; or some of the older ones may be able to add two columns at the same time. The various combinations will be thoroughly learned and used promptly by the pupils; and best of all, the practice is one which gives benefits that are life-long.—*American Teacher.*

MENTAL ANALYSIS.

A MAN sold a horse and carriage for \$230; on the horse he lost 20 per cent., and on the carriage he gained 25 per cent.; did he gain or lose and how much, if $\frac{2}{3}$ of what he paid for the horse equals $\frac{2}{3}$ of the cost of the carriage?

I will indicate in steps or equations one form of oral analysis.

Solution:—

- (1) $\frac{1}{5}$ of the cost of the horse = $\frac{2}{3}$ the carriage's cost.
- (2) $\frac{1}{5}$ of the cost of the horse = $\frac{1}{3}$ of $\frac{2}{3}$ the carriage's cost = $\frac{1}{3}$ cost of carriage.
- (3) $\frac{2}{3}$ of horse's cost = $5 \times \frac{1}{3}$ cost carriage = $\frac{5}{3}$ cost of carriage (horse).
- (4) 20 per cent. or $\frac{1}{5}$ of the horse's cost was lost, so it must have been sold for $\frac{4}{5}$ of cost.
- (5) 25 per cent. or $\frac{1}{4}$ the carriage's cost was gained, hence it sold for $\frac{5}{4}$ its cost.
- (6) $\frac{4}{5}$ of $\frac{5}{3}$ cost of carriage or horse = $\frac{2}{3}$ cost of carriage—its selling price in terms of the horse.
- (7) $\frac{5}{3}$ cost of carriage or horse + $\frac{2}{3}$ cost of carriage = $\frac{7}{3}$ cost of carriage or selling price of both.
- (8) Then $\frac{7}{3}$ cost of carriage must be \$230.
- (9) $\frac{1}{3}$ cost of carriage must = $\frac{1}{3}$ of \$230 = \$75.

(10) And $\frac{1}{3}$ or cost of carriage must = $12 \times \$10 = \120 .

(11) Then $\frac{2}{3}$ cost of carriage (6) = $\frac{2}{3}$ of \$120 = \$150 = its selling price.

(12) \$230 - \$150 = \$80, selling price of horse.

(13) In (4) the selling price of the horse = $\frac{4}{5}$ its cost.

(14) If $\frac{4}{5}$ cost of horse = \$80,

(15) $\frac{1}{5}$ cost of horse = $\frac{1}{5}$ of \$80 = \$20.

(16) $\frac{2}{3}$ or cost of horse = $5 \times \$20 = \100 .

(17) \$120 + \$100 = \$220 cost of both.

(18) \$230 - \$220 = \$10 loss—Answer.

(19) Proof of (1): $\frac{2}{3}$ of \$100 = $\frac{2}{3}$ of \$120.

The last step is of incalculable benefit to the pupil—teaching him to be able to prove his work.—*School Educator.*

FIRST LESSON IN COMPOUND ADDITION.

BY "PRIMARY."

THIS morning we had our first lesson in compound addition, and began with 4 gills = 1 pint.

As material for our lesson we had a pail of water and two measures, one holding a pint, and one holding a gill.

The pupils examined each measure in order to get a concise idea of the size of a pint measure and of a gill measure, so that when the actual measure is not before them they may be able to think of a pint or a gill definitely. It is appalling with what glibness children will tell you there are four gills in a pint, and yet have no conception of either gill or pint.

Then we discussed the difference in size of the measures. We decided that neither potatoes, apples nor tomatoes could be measured by the gill, but that milk, molasses, water, vinegar, etc., could. We measured with our eyes how many gills we could put into the pint, then we proceeded by actual experiment to find how many times we could empty the water in the gill into the pint to fill it.

All the work of measuring should be done by the pupils, the teacher only directing.

The bright, eager pupils must not be allowed to do all the work, the slow, dull ones must have their share.

When satisfied that every one in the class knows the fact, proceed to the application by simple questions, as: How many gills in two pints? in three pints, etc.? How many pints in four gills? in eight gills, etc.? How many pints and gills in five gills, in seven gills, nine gills? If molasses cost two cents per gill, how much will a pint cost?

A man had eight gills of cider. He sold it at five cents a pint. How much money did he get?

The class is ready now for questions in compound using only the denominations pints and gills, as: A milkman after going his rounds had two pints three gills of milk in one can, and one pint two gills in another can. How much milk had he in both cans?

When the pupils can work such questions correctly then put on the blackboard simple examples in compound addition.

AN EXERCISE IN MENTAL ARITHMETIC.

1. "Take any small number you please;
2. Double it;
3. Add two;
4. Multiply it by two;
5. Divide by four;
6. Add the number first selected;
7. Add one;
8. Add four;
9. Subtract twice the number first selected;
10. Multiply by two;
11. Divide by six;
12. Add seven;
13. Divide by three;
14. Add one;
15. Multiply by four;
16. Add four;
17. Add five;
18. Divide by five;
19. Add four;
20. Subtract three,

and you have six. All will have six, no matter what number was first selected." After a good many problems have been tried, and all see that six always results, write the questions on the board and see if your pupils can find out why six must result.

Hints and Helps.

CHANGES OF DOCTRINE.

What I Heard in Institutes, 1873. *What I Hear in Summer Schools, 1893.*

Analysis, parsing, and the correction of false syntax must not be neglected. They are our main reliance. Pupils must wrestle with Milton, Pollok, Byron and Gray, if they would acquire a taste for good literature.

Every teacher of penmanship should be able to analyze letters. Analysis must have a place in the institutes, so that there may be no excuse for its neglect even in the humblest district school. We who are placed over the schools must see to this thing.

Guyot's, Apgairs, or some other good system of map drawing should have a place in every teacher's library, and be taught in all schools where geography is studied. The triangulation of a continent is the first step, and the time spent in learning it is not lost.

Every child must have a slate. The youngest pupils need slates for number work, for language, for simple lessons in drawing, and no really skillful teacher will attempt to get on without this aid.

Parsing and analysis must be banished from the literature class. "To parse a poem is as absurd as to make a chemical analysis of the Venus de Milo." The correction of false syntax brings bad models before pupils—it is a practice to be condemned.

No really first-class instructor now pays any attention to the analysis of letters. The days for drill on "right curves," "left curves," "straight slant-lines," etc., have passed and we can give our time to things of greater moment.

Map sketching by the eye alone must be the rule. Even a simple system of diagrams is highly objectionable, for the reason that pattern work is not what is wanted. "We would train the eye to quick and accurate seeing, the hand to easy and rapid sketching."

Primary and intermediate classes should be provided with tablets or scratch books, instead of slates. In the interest of cleanliness and quiet "the slate must go." "It is both nasty and noisy."

PRAISE AS STIMULUS.

BY M. LOUISE FOSTER, JAMAICA PLAIN, MASS.

EVERY effort had failed and in my mental day-book I had written against Tom's name, "Incorrigible." My inventive faculty for punishment had been worked to the utmost; he had staid "after school," had sat still for a prescribed time, had written words by the hundred on his slate, and sometimes even whole phrases, for in this particular school moral sentences were considered corrective. As a last resort he had been banished from the room. But all in vain, Tom was still uncured. And what was his particular fault? It is hard to define his daily course; it simply did not "work for righteousness." He was an adept in finding out my pet prejudices and adopting them as his pet pastime. His pranks and perpetual good temper won him many friends; every boy might at any time be his "chum." In spite of his vagaries he was a favorite with me too, for he always had an answer ready, delivered with unflinching promptness and good humor. Isn't the quick, mentally active boy always the energetic, obstreperous boy?

One day, Tom had worried me more than usual and I heaved a sigh of relief as I gave out an unusually difficult problem in arithmetic. I knew that he was reduced to order for one while. Pretty soon however, he came up with the problem correctly solved and his eager, exultant face drew from me unhesitatingly, some generous praise and the remark that he ought to be in the next class. I shall never forget the sudden flush and the breathlessness with which he said, "I would work!" It opened my eyes; I saw my mistake; all that was needed was to arouse his ambition and to direct his energies. I had accomplished the former, unwittingly, it is true, but none the less actually; the latter might also be accomplished by means of sympathy and encouragement. And it was; many a time my own patience failed me and then of course, Tom returned to his old obstreperous ways, but we struggled up again and finally succeeded. This little experience did much for me.

As I look back on my own youthful days, I can remember the very small modicum of praise which I received. If I did right, it was no more than was to be expected and therefore nothing to my credit. Of course, I deserved no praise, and I got none; I grew up expecting to do my duty, or take the consequences, and as a

result distrusted much generous praise, which later comes to me from the world outside. Praise from some one whom we value is high reward; it may be bestowed by one even upon whom we do not look with favor and be here also high reward, but it must be impulsively given, generously bestowed, or it loses its value. And why is it not a suitable reward to hold up to our scholars?

Boys and girls have an exceedingly keen sense of justice, and know when they have done well, or at least have tried hard, which often means the same thing to them. But they have little perseverance and that is natural. They are growing mentally and increasing in every way their score of experiences with which to fill up the mental warehouse. Attracted now by this, now by that, they wander here and there like will-o'-the-wisps and stick to nothing. The faculty of stick-to-it-iveness must be cultivated and that is best accomplished through reward. Big and little, young and old, all work on in hope of winning some goal which shall serve as reward for all the labor undergone. Sometimes it is ideal success, sometimes it is material success. With boys and girls it is usually the latter. That success is assured to them by the teacher's praise. The bright boy is like a full-blooded horse, on his mettle, ready to respond to the prick of the spur. He answers the confidence placed in him with worthy generous action, and earns the praise offered him by renewed effort. The average girl does not lag behind the bright boy. And I have noticed that the action of such boys and girls will curb and control comrades of less delicate moral sense, to the abounding advantage of all.

Such a course requires patience and discernment on the part of the teacher. The misdeed stands out in glaring prominence and the condemning looks and words for some reason always seem uppermost. It is so easy to say, "Stay after school, Jones," or "Leave the room, Brown," and then, afterwards, upon investigation, the affair was really most trifling and a laughing word might have changed the whole course of events.

Generous praise and true hearty interest in my scholars are my weapons of discipline and self-protection. Tolstoi has a story in which he tells of the anarchy in a school and its final conquest by the natural interest and curiosity aroused in the scholars. They are not machines, and they resent half-hearted treatment. Praise generously administered is more stimulating than the prick of a sarcastic word, or the sting of the lash.—*Popular Educator.*

SCHOOL MANAGEMENT, ORIGINAL WAYS.

BY A. C. SCAMMELL.

CHILDREN are easily caught by the original; the humdrum never draws them. "This is a fine morning to plant spring P's (peas), children; take paper and pencil and see how many rows you can plant in ten minutes." The slow boy hurries and plants one more row than his neighbor, which so surprises him that he keeps moving all day. The P's, patience, patriotism, etc., may be made a lesson in spelling, penmanship, ethics.

The teacher suspects from John's furtive manner that he is reading a dime novel; she happens that way and says pleasantly, "So you've finished your problems, John, and have gained a little time for reading; so much better than sitting idly; if your book is nice, perhaps I'll read aloud from it, by-and-by." How cheap John feels, as he pushes aside his book, and vigorously attacks an afternoon lesson. He hopes the teacher will forget, but she doesn't; she reads a chapter of "Three Brave Boys of Bangola," reads in the heroic style, and with her own emphasis; what! the scholars all laughing? "It's too ridiculous, teacher! Nothing like that could ever happen," speaks out the critic of the school. The teacher lays the book on her desk without comment, and John never takes it away.

Where is that humming? The teacher waits until she can locate it rightly, then seating herself at the organ, says, naturally, "Fred, I am glad you have learned our new song so quickly. If you will stand beside me, I will play the accompaniment while you sing it." Fred declines, the teacher insists, but there is no further call for solos in that room.

The fortunate teacher knows how to make happy coincidences that will start out a troublesome pupil all right in the morning; while she may be pretty sure of him all day, she does well to have the unexpected near-by, with which she can very quickly head him off, if he attempts to leave the right way.

There is real satisfaction in surprising surly pupils into good nature, and making their faces shine without their consent; the question is, how to keep them so surprised that the frown does not have time to gather on face and heart. An original teacher owns the magician's wand.—*N. Y. School Journal.*

THE SCOLDING TEACHER.

THE scolding teacher can cure himself in one way only. He can not do this by keeping his tongue still, since that most important of human organs must be active and ought to be probably. Let the tongue wag, but cure it by substitution. When scolding words have a tendency to force themselves out, overcome this by substituting words of praise. Scolding represses the youthful mind, praise invigorates and strengthens it. Scolding is as a heavy frost that brings on wither and decay; praise is the cup of cold water to the wearied traveler that refreshes and restores him.

Scolding is weakness—lack of self-control. The pupils know this in every instance. Further, there is no more pleasant, healthful shock for a class when they are expecting certain pupils to be scolded than to hear the better pupils praised. This stroke of thoughtfulness will oftentimes reach refractory or lazy pupils more effectually than a direct reprimand. When scolding is frequent it invariably becomes tiresome and commonplace, and pupils will without exception become callous to it and heed it with little attention. As frost kills the premature buds and keeps back the others, so scolding kills the tender and represses the better impulses.

Praise may also become wearysome if stupidly administered, but it requires more wit and self-control to manage it than scolding. Every one can scold—few can praise. In short, if error there must be, let it be on the side of too much praise rather than of too much scolding. Let us be found occasionally taking a thoroughly enjoyable and enjoying look over our room into faces of our pupils and feel running through us a thrill of real joy and thanksgiving that we are placed over such good, bright children.—*C. E. Phenix, in Indiana School Journal.*

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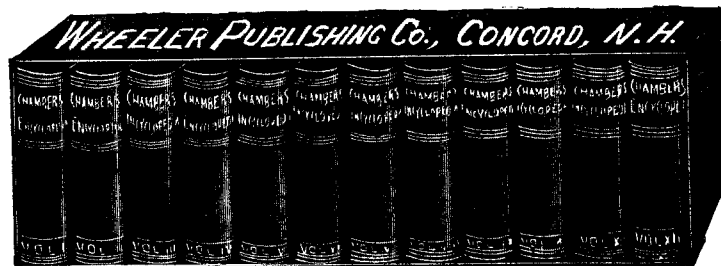
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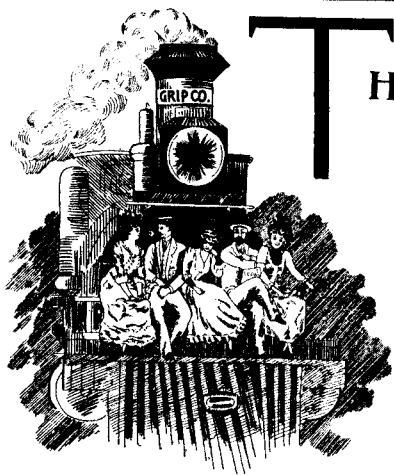
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