

Technical and Bibliographic Notes / Notes techniques et bibliographiques

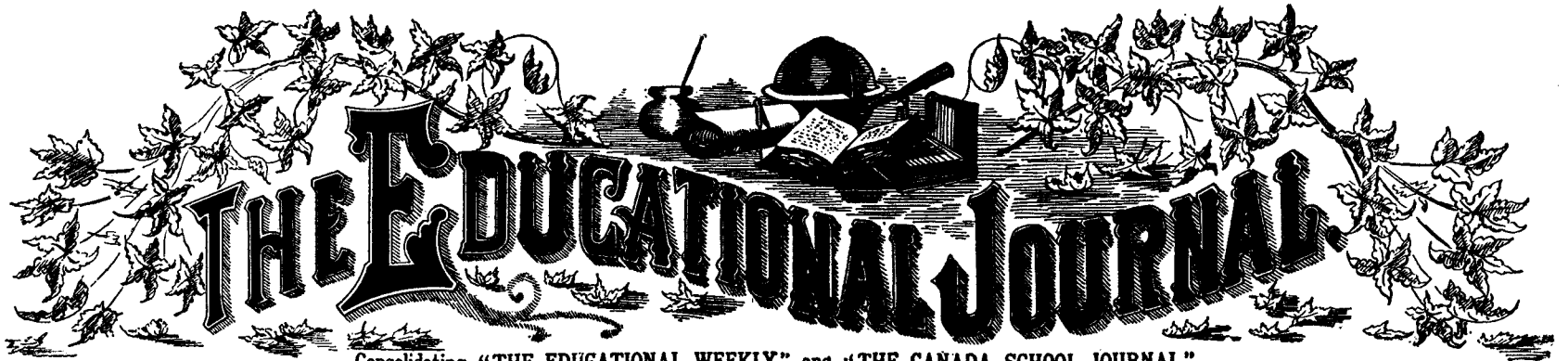
Canadiana.org has attempted to obtain the best copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

- Coloured covers /
Couverture de couleur
- Covers damaged /
Couverture endommagée
- Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée
- Cover title missing /
Le titre de couverture manque
- Coloured maps /
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur
- Bound with other material /
Relié avec d'autres documents
- Only edition available /
Seule édition disponible
- Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure.
- Additional comments /
Commentaires supplémentaires:

Canadiana.org a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /
Qualité inégale de l'impression
- Includes supplementary materials /
Comprend du matériel supplémentaire
- Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées.

Continuous pagination.



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

Subscription, \$1.50 a year.
In Advance.

TORONTO, FEBRUARY 1, 1894.

Vol. VII.
No. 18.

INCORPORATED 1888 **TORONTO** HON. G. W. ALLAN
PRESIDENT

CONSERVATORY OF MUSIC

100, YONGE ST. & WILTON AVE.

University Affiliation for Degrees in Music
Graduating Courses, Scholarships, Medals, etc.
Equipment complete. Students receive a
thorough and artistic musical education.
Voices tested free of charge.

CONSERVATORY SCHOOL OF ELOCUTION
(H. N. SHAW, B.A., Principal.)
Delsarte, Swedish, Gymnastics, Voice Culture,
Literature. Calendar of 132 pages mailed free.
EDWARD FISHER, Musical Director.

DELSARTE

College of Oratory

FRANCIS JOSEPH BROWN, President.
(President of the Elocutionists' Association of
Canada).

The Largest and Most Advanced School
of Oratory in Canada.

DEPARTMENTS:—School of Voice Culture, School
of Physical Culture, School of Dramatic Art,
School of Literature.

For Catalogue, giving full information, address
the President,
FRANCIS JOSEPH BROWN,
The Forum, Toronto.

McMaster University,

ACADEMIC DEPARTMENTS.

WOODSTOCK COLLEGE

FOR BOYS AND YOUNG MEN.
Winter Term opens January 2, 1894

FEATURES.—Physical Culture, Manual Training,
Matriulation, Teachers' Courses.

FACULTY OF INSTRUCTION.—JOSEPH I. BATES
B.A., Ph. M., Principal, The Bible and Latin
and Greek; NEIL S. MCKECHNIE, B.A., English
Language and Literature; DONALD K. CLARKE,
B.A., French and German, and Manual Training;
HUGH S. ROBERTSON, B.A., Senior Mathemat-
ics, Physics and Physical Training; WILSON
R. SMITH, Science and Junior Mathematics;
ABRAHAM L. MCCRIMMON, M.A., Latin and
Greek; R. D. GEORGE, Preparatory Department
College Physician—DR. A. McLAY, Woodstock.

For Information or Catalogue, address the
Principal, J. I. BATES, Woodstock, Ont.

MOULTON LADIES' COLLEGE

FOR GIRLS AND YOUNG WOMEN.
Winter Term begins January 2, 1894.

A healthy Christian home. Full College
Matriulation and Music Courses.

FACULTY OF INSTRUCTION.—ALICE M. D
FITCH, M.A., Principal, The Bible; BLANCHE
HISHOP, B.A., English Literature and Natural
Science; MARY S. DANIELS, B.A., Classics and
Natural Science; HELEN S. SHANKS, Modern
Languages; ANNIE M. MCKAY, Mathematics;
MARY H. SMART, Resident Teacher in Music;
H. GERTRUDE HART, Elocution and Physical
Culture; IDA E. HOGGAN, Preparatory Depart-
ment; MRS. MARY E. DIGNAM, Instructor in
Drawing and Painting; A. S. VOGZ, Piano; W.
O. FORTSHE, Piano and Harmony; MISS
BURKE, Piano.

Students of the course at Moulton College
take the chief subjects of the fourth year in
the classes of McMaster University. Matri-
culated Students can also reside at Moulton
while pursuing their course at McMaster Uni-
versity.

The aim is that students in both colleges
shall be constantly under the same healthy in-
fluences which pervade a Christian home.

For information or Catalogue, address the
Principal, Miss ALICE M. D. FITCH, 34 Bloor
Street East, Toronto, Ontario.

THE NIMMO & HARRISON

Business and Shorthand College

Cor. Yonge and College-Sts., Toronto.

IS IN MERIT AND EXCELLENCE A PEER
TO ALL OTHERS.

Courses of study Thorough, Practical and Reliable

The principals besides being qualified teachers,
both Public and Commercial, are men of practical
experience as stenographers and accountants.
Teachers send for circulars and read what we
have done for others.

OPEN ENTIRE YEAR. CIRCULARS FREE.
R. D. NIMMO, JAS. HARRISON, PRINS.

British American

Business & Shorthand College, Toronto.

THE oldest, most reliable, and most
thoroughly equipped college of the
kind in Canada. Over 5,000 graduates
holding remunerative positions in all
parts of the world. Patronized by the
President of Toronto Board of Trade
and leading bankers and business men
of the country. Send for circulars to

O'DEA & HOSKINS,

Confederation Life Building, Toronto.

CENTRAL

Business College.

Cor. Yonge and Gerrard Sts.,
TORONTO, ONT.

Central Business College

STRATFORD, ONT.

The Largest, Finest Equipped and Most Pro-
gressive Commercial Schools in Canada.

WRITE FOR CATALOGUE.

SHAW & ELLIOTT,

PRINCIPALS.

ALMA

The Leading
Canadian
College
FOR YOUNG
WOMEN.
ST. THOMAS
ONT.

- Courses in Literature, Languages, Music, Fine Art, Commercial Science, Elocution, Junior and Senior Matriulation, University Affiliation.
- Staff of 20 Professors and Teachers (University Graduates and Certificated Teachers) carefully chosen.
- Music.—A staff of seven teachers with an annual enrollment of over 150 students in Piano, Organ, Voice, Violin, Harmony, Musical Theory, etc., etc. Graduates employed in leading colleges.
- Fine Art.—The best Art room in Ontario, well equipped and highest rec. rd in the "advanced work" in Government examinations. Silver Medal for Design and Bronze in China in last Provincial Art Examinations. Three awards for work at the World's Fair.
- PUBLIC SCHOOL TEACHERS admitted to collegiate standing, certificates being accepted pro tanto.
- Full courses under competent teachers in Elocution, Calisthenics, Delsarte, etc.
- Rates for board and tuition from \$40 to \$60 per term; from \$150 to \$200 advance payment. 60 pp. illustrated Announcement. Address

PRINCIPAL AUSTIN, M.A.

THE EDUCATIONAL JOURNAL.

It Pays Advertisers

BECAUSE it possesses the cardinal features that make it profitable to Advertisers: Brightness, Reliability, Honesty, Purity of Tone, Circulation, and the Confidence of its Readers. These are the characteristics that give a paper that QUALITY that shrewd Advertisers seek.

FIFTH EDITION
Indispensable to every live Teacher

Practical Problems

IN Arithmetic

For First, Second and Third Classes

By JAMES WHITE, Public School Teacher.
EDMONTON, ONT.

This book has been prepared especially to suit the convenience of Public School Teachers. It contains about 700 Practical Problems suitable for First, Second and Third Classes in Public Schools. It is very carefully graded, and each principle required to be taught is introduced in logical order. It receives the hearty approval of Teachers and Inspectors.

Read their Opinions.

From ALLEN EMBURY, Esq., Inspector, Peel.

I have examined this little book of Arithmetical Problems, and can give it an unqualified endorsement. The questions are carefully graded, and are especially suited to the wants of our over-worked teachers who have not always the time to devote to the preparation of exercises upon various subjects in the school curriculum. The questions are not stated in the form of propositions; but their statement is incidental, leaving the inner connection of the problems to be discovered by the pupil himself; and in this important feature lies their special adaptability as an educational force. I heartily recommend this book to all teachers wishing to economize time and labor in their preparation for ordinary school work.

From E. TROUGHT, Esq., Teacher, Member County Board of Examiners, Inglewood.

I have examined with some care Practical Problems in Arithmetic for First, Second and Third Classes, by Mr. White, Edmonton. Without the slightest hesitation I say they are the best I have ever seen—the best in selection, the best in grading, and above all, the best for developing the reasoning powers of the child, and for exercising his ingenuity. A special feature of the grading is that the principles which have been introduced are being constantly made use of in the succeeding problems which are in their turn introducing new principles, so that the whole work may be said to be one unconsolidated review. It is a great boon to Teachers.

Price, Bound in Cloth, 25 cts.

THE EDUCATIONAL JOURNAL,
Room 20, 11½ Richmond W.,
TORONTO, ONT.

A BRILLIANT WORK.

Cape Breton Illustrated

Historic, Picturesque and Descriptive
By JOHN M. GOW.

With 30 Full-Page Photo-Engravings.

Cloth, 423 pages 7x9 inches, - \$3.00
Morocco, gilt edges, 8x10 inches, \$5.00

The following words taken from the Preface set forth in the fewest possible words the scope of this strong, brilliant interesting work.

"In this volume it is attempted to account for the American Puritan and for his progenitor, the English Puritan; to discuss the spirit and the genius of the men before whom the weak tyranny of kings hopelessly fell. The ancient town and fortress of Louisburg is described, and the story of both sides is told in detail. There is a short account of the Colonial Struggle between France and England, and of its immediate and remote results. The erection of the United States into a Separate Nationality, and the formation of the Nucleus of the Dominion of Canada. There is also inserted a short History of Cape Breton, with a description of its prospective commercial advantages, and a presentation of its attractions as a summer resort."

The popular, racy style of the author makes the book one of the pleasantest sort of reading. It is a work every intelligent, patriotic Canadian should be proud to possess.

WILLIAM BRIGGS,
PUBLISHER.

A Famous College

The Atlantic Provinces and British Columbia, the territories and provinces between, Bermuda (West Indies), and the United States are TO-DAY represented at

ONTARIO BUSINESS COLLEGE

BELLEVILLE ONT. (23th Year.)
SEND for the new 144 page catalogue.
ADDRESS,
ROBINSON & JOHNSON,
Belleville, Ont.

29-33 RICHMOND STREET WEST, TORONTO

GERMAN LESSONS

H. G. HELLMAN,
OF HANOVER, GERMANY,
Imparts a thorough knowledge of German in a short term at reasonable rates.
18 YONGE ST. ARCADE, TORONTO.

WHEN YOU WANT

SCHOOL SUPPLIES

WRITE SELBY & CO.,
23 Richmond St. W., - TORONTO
Ask for Illustrated Catalogue of Bradley's School Aids and Kindergarten Materials.

TEACHERS WANTED

To take orders for the Unrivalled History of the World during spare time; town or country equally profitable; new plan of selling; liberal commission.

McAINSH & KILGOUR,
Confederation Life Bldg.,
TORONTO.

SOME FEATURES OF THE BUSINESS OF

The Temperance and General Life

ASSURANCE COMPANY

Showing Percentages of Increase or Decrease in 1893 over or under the years with which its business is compared.

ITEMS COMPARED.	93 OVER 92	93 OVER 91	93 OVER 90	93 OVER 89
*Number of Applications	10.0	13.8	46.5	77.3
*Amount of Insurance Applied for	11.3	13.3	41.4	63.0
Number of Policies Issued	10.5	21.0	43.2	71.7
Amount of Insurance Granted	12.7	18.5	39.0	46.4
Number of Policies in Force	19.4	38.3	69.6	111.9
Number of Lives Insured	11.7	36.3	68.3	119.1
Amount of Insurance in Force	16.0	29.5	51.2	73.3
(a) Amount of Assets Gained	42.5	74.5	151.9	336.8
Reserve Liabilities Increased	25.6	62.4	115.9	199.6
Premium Income Increased	7.6	31.0	49.7	76.8
Interest Income Increased	21.5	51.7	145.0	256.9
Loans on Policies in Force	79.5	213.1	259.2	650.8
Surrender Values Paid	221.3	224.3	283.4	2157.6
Amount of Insurance Terminated by Death	-39.7	5.2	40.4	122.2
Commissions, Director's Fees and Salaries	11.2	28.5	47.7	84.8
Medical Fees	15.8	-11.2	31.7	109.7
Travelling Expenses6	30.0	70.6	15.9
ADVERTISING	-14.8	-32.3	-55.1	-51.6
Printing and Stationery	24.7	17.0	-22.3	103.4
HEAD OFFICE SALARIES	13.8	20.0	8.8	8.3
Total Miscellaneous Expenses, OMITTING MEDICAL FEES	-4.8	-15.7	-17.1	-12.8

* Agents' business.

(a) Not including capital.

Each year shows steady gains over any previous year, but no year in the Company's history shows such marked gains in every important feature of its business as 1893.

The business for January 1894, is far ahead of that of any previous January in every feature; that means strength and progress. The above figures which are most important, speak for themselves.

AGENTS WANTED.

CORRESPONDENCE SOLICITED.

HON. G. W. ROSS,
PRESIDENT.

H. SUTHERLAND,
MANAGER.

Head Office: = Manning Arcade, Toronto, Ont.

The Educational Journal.

CONSOLIDATING

"The Educational Weekly" and "The Canada School Journal."

TORONTO, FEBRUARY 1, 1894.

Subscription, \$1.50 a year.
In advance.

Vol. VII
No. 18.

Table of Contents.

PAGE.	PAGE.
EDITORIAL NOTES.....283	SPECIAL PAPERS—
ENGLISH—	Agriculture in Public Schools.....288
Grammar as a Science 284	Mechanism in Education.....288
The Truant, by Hawthorne.....284	BOOK NOTICES, ETC.....289
MISCELLANY—	PRIMARY DEPARTMENT—
The Sunken Ship.....285	Reading.....290
Lord Aberdeen as Governor General.....285	Sight Reading.....291
Syntax by Experiment 285	The First Snow-Fall.....291
How to be an Author.....285	Rhyme for Movement Exercises.....291
The Youngest Editor in the World.....285	LITERARY NOTES.....291
The Blue Jay.....285	MATHEMATICS—
A Curious Number.....285	Correspondence.....292
Be True to Thy Brother.....285	Professional Examination Questions.....292
EDITORIALS—	Remarks.....293
Guard the Queen's English.....286	FOR FRIDAY AFTERNOON—
A Step in the Right Direction.....286	An Awful Story.....293
Recent Educational Advances.....287	What the School Bell Says.....293
A Few Words to Subscribers.....287	When Its Cold.....293
Information Wanted.....287	A New Year's "If".....293
	The Three Volumes.....293
	HINTS AND HELPS—
	The Queen's English.....294
	QUESTION DRAWER.....294

Editorial Notes.

WE hope that a goodly number of teachers are hard at work preparing for the Time-Table Competition. The notice concerning it was inadvertently omitted from our last number.

WE are requested by the Deputy Minister of Education to announce that for the convenience of teachers it has been decided by the Education Department to hold the Examination for Commercial Specialists in July, the first paper to be given on Tuesday, the third of that month.

IN the answer to S. M. in the English Department of the JOURNAL of Jan. 1st, the printers made a sentence meaningless by adding the apostrophe and s to the word "man." As our readers will have perceived, the example should have read, "I saw the man fall." Our attention has just now been called to the error.

VERILY this prosecution of the Education Department for infringement of copyright in the School Readers is a curious affair. One's surprise at the carelessness, not to say want of courtesy, on the part of the Department, in failing to obtain permission from the holders of British copyrights before publishing selections from the works they control, is surpassed only by a stronger feeling touching the course of those who could let the matter pass without notice until the period, for which the contract with the publishing firms had

been made had almost expired, and then bring an action for damages in the courts. It is pretty clear that there is a wheel within the wheel. It is very unlikely that any jury would give the copyright holders damages for what is no doubt a benefit rather than an injury to their property, but it is possible that the action may prevent the further sale of the books until some settlement has been reached. In any event it is to be hoped that the Minister will not be deterred from throwing the publications of the Readers open to the trade. But if there is to be free trade in the publication of the Readers why not in that of all other text-books?

REFERRING to the change announced in our last number, in the replacement of British History on the curriculum as one of the subjects of examination for entrance to High Schools, a teacher writes:

"What is a teacher to do who has happened on a school, in January, which has a large class for entrance, but in which, practically, no British History has been taught since last July? To say the least, it is unfair to him, and this should be kept in sight by the examiners who set the papers for next June."

Our correspondent also asks for some practical hints with regard to the lines likely to be followed by the examiners, in relation to the nature and scope of the work. By consulting the announcement above referred to, he will be able to gain the information asked for. Of course if his predecessor has utterly neglected the subject, thus disregarding the instructions of the Department last August, he has placed his successor at a serious disadvantage. We have no doubt that the discarded arrangement was the better. That the change was brought about by political pressure seems clear, and the fact reflects no credit on either party.

THE HON. DAVID WELLS, one of the foremost authorities on questions of political economy and kindred subjects, in the United States, in a recent magazine article attributes the great commercial and industrial depression in that country to the violation, through ignorance, of the laws which govern trade and commerce. He advocates instruction in such subjects as political economy in the schools, as the best safeguard against the recurrence of such disasters. But it is impossible to

teach everything in the schools. The probability is that too many subjects by half are now attempted in them. The great thing is to have the minds of the children so aroused and directed in the schools that when they go out into the world and all through after-life, they will be prepared to make an intelligent study of every subject which relates in any way to the general well-being. The true teacher builds for the large future, not for the little present. The whole life will be found short enough for the study of the subjects demanding the attention of the active and cultivated mind, and the best test of the school education is, to our thinking, the degree in which impulses and tastes are imparted which make life-long students of those who go out from them, no matter what their future occupations.

"A CAREFUL examination of a list of twenty millionaires showed that only one of them had a college education."

"The suggestion that I would offer is that all young men when starting in life, strive to get that knowledge with which they can gain wealth, which, after all, is the principal thing we live for."

"Let me advise all young men to study that which is practical, and in after life their wealth will cover many educational shortcomings."

The above sentences are from an article by "Pater," in the *Educational Record*. We need not say that we do not quote them to endorse them. Life must be, indeed a pitiable thing, if wealth, vulgar money, "barbaric gold," is the principal thing to be lived for. We believe in practical education; we have no faith in any education which does not impart a sturdy independence, a love of industry, an enlarged intelligence and a power of application and concentration which fit their possessor for success in discharging the practical duties of everyday life and in acquiring a sufficiency of the necessaries and comforts which are the normal reward of honest, well-directed labor. But to train up boys and girls in this materialistic, money-loving age, to regard wealth as the chief end of living, is, to our thinking, a crime against humanity. If there were no higher end to be lived for than money-making, who that has a mind or a heart above sordid help would care to live at all.

English.

All articles and communications intended for this department should be addressed to the ENGLISH EDITOR, EDUCATIONAL JOURNAL, Room 20, 11½ Richmond Street West, Toronto.

THE TRUANT, BY HAWTHORNE.

BY E. J. M'INTYRE B.A., OF THE ST. CATHARINES COLLEGIATE INSTITUTE.

[ENTRANCE LITERATURE, XII].

I.—INTRODUCTION.

THIS lesson is an abbreviated sketch from the second series of the *Twice Told Tales*. Besides the minor omissions, the compilers of the Reader have left out the experiences of the boy and his companion with a group of carpenters and a band of soldiers, whose occupations attracted and delighted the boy till he discovered the likeness of his old master among them. It would be well for the teacher to provide himself with a copy of *Twice Told Tales*, of which cheap editions abound, not only for comparing the extract with the original, but for acquainting the class with other pieces from Hawthorne. Several of the sketches are admirably adapted for such class-work. David Swan, Little Annie's Ramble, The Town Pump, The Snow Image, may be mentioned. Children cannot fail to become interested, and will obtain as well a glimpse of the deep moral truths embodied in them. This teaching and reading of choice literature is the only direct means of culture available for school work; it should be broadened and made to conform with the sympathy and interest of the children. Indeed, we must not forget that our main object in teaching literature is to inculcate a fondness for literature. And if a pupil can, from studying this selection, be led into a course of reading in Hawthorne, very effective literary work is accomplished.

The Truant Boy is a parable. It teaches a lesson of life by representations, which, though not actually true, contain nothing contrary to the nature of things. The Allegory has the same object, but is more intricate and involved, and violates probability. The Vision of Mirza is an allegory; the Little Midshipman is a parable. The parables of the New Testament, such as the Prodigal Son and the Sower, are of the same kind as *The Truant*, though more concise, comprehensive and profound. The Fable violates probability in making inferior animals and inanimate objects act as though endowed with speech and reason. Fables, parables, allegories, are common modes of composition in the literature of Eastern countries.

The first questions that come to our minds in taking up the reading of this sketch are concerned with the boy's name. Where did Hawthorne get it? Why did he choose it? He himself explains. "Because the little boy resembled a flower, and loved to be only what was beautiful and agreeable, and took no delight in labor of any kind." The flower selected is the daffodil, a fitting type of evanescent beauty, and an equally fitting anti-type of labor. Moreover, an old familiar form of the word admits of a suitable contraction.

If the season allows, a specimen of the daffodil should by all means be examined in the class, and the scholars should be encouraged to find out everything possible about this beautiful and interesting flower. A little object-lesson of this character assists wonderfully in the teaching of a class.

No wild flower, except the hyacinth, makes so grand a show as the daffodil, during its short life. No flower either, except the lily and the rose, has received more fanciful tributes from classical poets of all ages. Spencer wrote of them with peculiar affection. He called them, sometimes, daffodilies—

"Thy summer proude with daffodilies dight"

and in another place—

"Strew the green round with daffadowndilies."

These words are familiar extensions of the word daffodil, which is, itself, from the French '*d'asphodelé*.'

Shakespeare, Shelly, Keats, and Wordsworth, all allowed their poetic fancies to hover about this delicately beautiful flower. But the best English tribute to the daffodil is from the pen of Herrick; and in view of the couplet from this poem, quoted at the end of the lesson, the poem might be memorized. It contains a moral pathos of the most touching kind. The poem begins—

"Fair Daffodils, we weep to see
You haste away so soon."

The jonquils are a closely related species of flower, and the narcissus is a general name embracing varieties of daffodils and jonquils.

II.—OUTLINES OF STUDY.

One of the peculiarities of Hawthorne, as an author, is that he is self-contained. Very seldom do we meet with a quotation or an allusion not readily understood from the context. In this respect he is the very opposite of the other great writer, Washington Irving, who shares with him the highest place in American literature. The story and the language in this lesson are both very simple. The author selected the occupations that offered superficial attractions to the boy. The significance of the details of the parable; the changes from direct to indirect narration; the introduction of new paragraphs, will present material for class discussion. Questions like the following suggest themselves:

III.—QUESTIONS AND EXERCISES.

1. What are the three principal features of the boy's character?
2. Why is Mr. Toil represented as a school-master?
3. What is the meaning of "affirmed," "worthy," "character"?
4. What is the use of "else" in the phrase, "anybody else in the world?"
5. What has Adam's expulsion from Eden to do with Mr. Toil?
6. What is meant by the harsh voice of Mr. Toil?
7. What excuse did Daffy make his conscience about leaving school?
8. What did Daffy find unpleasant at school?
9. How would his life at school differ from his life at home?
10. How does "grave" differ from "sedate?" "trudging" from "walking?"
11. Point out what is severe and what is kind in the question the stranger asked Daffy?
12. What is meant by "ingenious disposition?"
13. What is meant by making hay? Explain the process at length.
14. What is the meaning of making hay while the sun shines? Apply this proverb to the case of the Truant.
15. Why is Farmer Toil more disagreeable than his brother, the school-master?
16. What is the birch rod for?
17. Why is the fiddler represented as coming from France? (In the original his name is given as Monsieur Le Plaisir, which means Mr. Pleasure.)
18. When does pleasure become toilsome?
19. Why is the idler represented as coming from Italy?
20. What is the meaning of "torpid?"
21. What is meant by representing that the boy was with the school-master all day?
22. What is meant by the smile of approbation of school-master Toil?
23. What are the good points in the boy's character?
24. What time of the year was it?
25. What was the character of Farmer Toil?

IV.—BIOGRAPHICAL NOTE.

Nathaniel Hawthorne was born in Salem, in the year 1804. He graduated from Bowdoin College in 1825. At an early age he appeared as a newspaper editor and an author, contributing to various periodicals many short stories and sketches. A number of these were collected and published in 1837, under the title of *Twice Told Tales*. They were noticed in the *North American Review* with high praise by Longfellow, and gradually found appreciation from cultured readers. In 1842 another edition appeared with a second collection appended. G. W. Curtis said of them: "They are full of glancing wit, of tender satire, of exquisite

natural description, of subtle and strange analysis of human life, darkly passionate and weird." Hawthorne, being a Democrat, was appointed in 1838 to an office in the Custom House; but in 1841, when the Republicans came into power, he was dismissed, whereupon he retired, to live quietly on a farm. In 1843 he married, and for several years lived in an old manse at Concord, where he wrote "*Mosses from an Old Manse*." Among the masterpieces of his busy life are "*The Scarlet Letter*," recognized as the greatest of American romances; "*Tanglewood Tales*," "*The Marble Faun*." He died suddenly in 1864.

Hawthorne is one of the great masters of English prose. A gentle delicacy characterizes everything he writes, and a pleasing choice of flowing language makes his style peculiarly charming. Unaffected, free, dignified, and singularly lucid, his compositions are suitable for the enjoyment of all classes of readers.

GRAMMAR AS A SCIENCE.

To the English Editor, EDUCATIONAL JOURNAL:

SIR,—In the issue of the JOURNAL for January 1st, while solving some syntactical difficulties for correspondents, you speak of "ye" (understood) as the subject of an imperative verb, and also of a "participle used adjectively." Although you have the authority of text-books on your side in the use of such expressions, even that of our High School Grammar, permit me to call your attention to the fact that they are inaccurate and entirely misleading.

Surely the time has come when Grammar should be considered as a science, and when the matter which falls within the province of the grammarian should be treated scientifically. Let us have the facts of the language and not the hollow assertions of dogma and hoary tradition. Suppose that a mineralogist in tabulating the results of an assay were to put down a certain percentage of an important element in the following fashion:

Copper	- - -	2%
Silver	- - -	3%
Gold (understood)		50%

It looks ridiculous, does it not? And yet how much more ridiculous is it than the custom of grammarians in declaring a subject "understood" where none is expressed?

Our grammarians define a sentence as the expression of a complete thought in words, and then go on quite recklessly to declare that all sentences, that is all expressions of complete thoughts, must consist of two parts, the subject and the predicate. But afterwards, as soon as they come on sentences that do not consist of these two parts, with a total disregard of all scientific procedure they calmly assert that the missing element is at least "understood"! As if the mineralogist in the above hypothetical case, having been employed by a miner in the expectation of finding gold, was determined to enter gold upon his statement in some form at any rate.

Again, grammarians quite correctly state as a fundamental principle that the terms noun, verb, adjective and the rest are given to words in sentences solely on the ground of their functions and relations therein, and that words as individual units have no grammatical (i.e. syntactical) value whatever. But the writers of grammars, and many of the teachers too, seem to forget entirely the fundamental principle, and we find them talking of "nouns used as adjectives," "participles used as adjectives," "adjective-equivalents," and other such absurdities.

It is time for us to take a step forward and leave all this behind us. Such a mode of grammatical study is as much out of place as astrology and alchemy would be in these scientific days.

A. STEVENSON.

Arthur, January 6, 1894.

Mr. Stevenson is always interesting, even when writing on grammar, and everyone will,

we think, enjoy his outspoken remarks given above. As far as touches our own dicta, we have nothing to take back with reference to there being an understood subject to the second person imperative. The verb must, by its nature, predicate an action, state, etc., and this predication of action, state, etc., is inconceivable except in relation to the person acting or suffering, etc. So if we say "Go, at once," the predication in "go" is not absolute and not independent; but is implicitly referred to a subject—the person addressed. That the subject is understood in the sentence and not expressed is due to the fact that the speaker is addressing some one in his presence, rendering it unnecessary to designate the person commanded. But when ambiguity would arise, at once the pronoun enters—"John, you go to school; and Henry, you remain with me." The French, having differences of form, are able even in the first place to do without any expressed subject, as in "dansons!" but in English "How, tread we a measure." The Latin imperative is even more pronouncedly independent of any expressed subject. No one, of course, thinks by "pronoun understood," that it is necessary to express the pronoun in order to complete the sentence. The sentence is complete without it, as language; but dealing logically with the imperative, as in analysis, we must recognize that it shares in the common function of the verb in predicating an action or state with respect to a subject. The recognition of this fact is made by stating the subject as implicit—"understood" by the person speaking and the person spoken to.

ENGLISH EDITOR.

Miscellany.

THE SUNKEN SHIP.

The *Review of the Churches* says: The loss of H. M. S. *Victoria*, with Admiral Sir George Tryon, twenty-two officers, and three hundred and thirty-six men, by collision with H. M. S. *Camperdown*, off Tripoli, Syria, on June 22, has flung a dark shadow over the nation. It has drawn assurances of sympathy from almost all parts of the world. Perhaps the most beautiful of these has been the following lines, which were contributed by the leading American woman of to-day, under the title, "The Sunken Ship," to the *Westminster Gazette* of the 30th ult., and which, by the kind permission of the editor of that journal we here reproduce:

Bright was the sea and still,
Fair shone the Orient coast;
Serene and blue bent the summer sky
O'er England's squadron host,
Was it hand or helm that failed
When the wounds of a friend ploughed deep,
And the salt sea throttled our stalwart tars
And flung them fathoms deep,
As sullenly into the sea
Sank the mighty ship of steel,
While a lightning flash bent the whole world's
glance
Upon that trembling keel?

Alas for the sailor lads,
With their faces fresh and fair!
And alas! for the Admiral grand and brave,
With the frost upon his hair!
And the mighty nation mourns;
She can shape the ship again,
But only the life of heart and home
Could mould those manly men!

O God, that their gurgling breath
On the haunting breezes borne,
Might plead for the speedy death
Of war, by the people sworn!
O God, that the scalding tears
Of mother, sweetheart, wife,
Might seal on the nation's soul
The sacredness of life!

FRANCES E. WILLARD.

LORD ABERDEEN AS GOVERNOR-GENERAL.

LORD ABERDEEN, however, had hardly landed upon Canadian shores before it became evident that he was much more than a mere Governor-General. He was a living man with wide and catholic sympathies, who recognized that while it was necessary to abide strictly within the constitutional limits in all political questions, in non-political questions, which after all occupy three-fourths of human interest, he was in a position which placed upon him and his family the obligation of exercising all the influence which any highly placed and cultured citizen is bound to exercise. There is no doubt but that Lord Aberdeen will find ample opportunity of proving himself a servant in deed as well as in name. There is plenty to be done in Canada, and few men are so capable of doing it as is Lord Aberdeen. Traditionally and personally a Protestant, he has always cultivated the most friendly terms with Catholics, and one of the first and most significant of his actions in the Dominion of Canada was to overcome by a little kindly diplomacy the obstacles which have hitherto prevented the friendly meeting of the Governor-General and the Cardinal of Quebec. It may pass the wit of man to invent any way by which the French Canadian and the Orange Protestant can be prevailed upon to recognize that each are brothers in Christ as well as subjects of the Queen. If it could be done the Aberdeens are the people to do it.—From Character Sketch of Lord and Lady Aberdeen, by W. T. Stead, in the *January Review of Reviews*.

SYNTAX BY EXPERIMENT.

LITTLE JANE had been repeatedly reproved for doing violence to the moods and tenses of the verb "to be." She would say "I be," instead of "I am," and for a time it seemed as if no one could prevent it.

Finally Aunt Kate made a rule not to answer an incorrect question, but wait until it was corrected. One day the two were together, Aunt Kate busy with embroidery, and little Jane over her dolls. Presently doll society became somewhat tedious, and the child's attention was attracted to the embroidery frame.

"Aunt Kate," said she, "please tell me what that is going to be?" But Aunt Kate was counting and did not answer. Fatal word, be! It was her old enemy, and to it alone could the child ascribe the silence that followed. "Aunt Kate," she persisted, with an honest attempt to correct her mistake. "Please tell me what this is going to am?" Aunt Kate sat silently counting, though her lip twitched with amusement.

Jane sighed, but made another effort. "Will you please tell me what that is going to are?" Aunt Kate counted on, perhaps by this time actuated by a wicked desire to know what would come next. The little girl gathered her energies for one last and great effort, and said: "Aunt Kate, what am that going to are?"

HOW TO BE AN AUTHOR.

"ADVISE me as to preparation for literary work." Well, if you must have it in brief, get the best education you can, and keep on getting it. Study the best writers, with constant reference to their matter and their manner. Go into society, observe men and women, fill up your mind with facts, and exercise it by reflection on many topics, big and little. Write, for practice merely, say for five years; and then for another five be content to see your efforts go into the fire or the country paper. After this period of probation you will perhaps find out whether you have any gift for writing or not; not everybody has. The inclination does not necessarily imply a corresponding talent. And of those who make a business of writing, forty-nine out of fifty would do as well or better at something else, and literature would not suffer by their loss.—"Talks with the Trade," in *January Lippincott's*.

THE YOUNGEST EDITOR IN THE WORLD.

Lady Marjorie, daughter of Lord and Lady Aberdeen, has the distinction of being the youngest editor in the world, and her little monthly, *Wee Willie Winkie*, is an almost ideal specimen of what a child's paper should be. It is simple, natural, interesting, and I am glad to

hear that it is likely to have an extended range of usefulness on the American continent. Lady Marjorie is an interesting child, somewhat tall for her age, but still a child at her lessons. She does her editing in the intervals of play time. Like all the rest of the family she is devoted to her mother, who is naturally very anxious that such a child should not be unduly forced into prominent activity.—From Character Sketch of Lord and Lady Aberdeen, by W. T. Stead, in the *January Review of Reviews*.

THE BLUE JAY.

CURIOSITY is largely developed in birds. The blue jay is the most curious as well as the most voluble of all birds. I have been able to differentiate twenty-three distinct utterances in the language, if I may use the word of the jay. On one occasion I left a glass jar containing newts on a large block of sandstone in my front yard. It had not been long there before a jay flew down to examine it. One of the newts made a quick motion, and uttering a cry of surprise the jay flew to a tree overhead. He remained quiet for an instant, as if in profound thought. He then uttered his assembly call, and birds of all kinds came hurriedly flying up in answer to it. In a few moments I noticed in the surrounding trees jay-birds, wood-peckers, sap-suckers, cat-birds, song-sparrows, orioles, mocking-birds, black-birds, peewees and flickers. They made a terrible outcry, but soon became silent, when the jay, which had called them together, flew down to the rock. Several of his most courageous brethren immediately followed him. He went up to the jar and made a careful examination of it and its contents, all the while uttering a low, querulous monologue. Suddenly he uttered three loud, peculiar cries and flew away. The assembly then dispersed. On another occasion I noticed a jay sitting silent and absorbed on the roof tree of a grape arbor. He appeared to be watching something beneath him very intently. On focusing him in my glasses I discovered that he was in a state of great excitement, and was trembling all over. I noticed the direction of his gaze, and soon saw the object of his regard. A large male cat was stalking a hare, and was just crouching to make his spring. He sprang at the hare, but his jump fell short, and the hare bounded away in safety. And then the jay-bird seemed to be fairly overcome with delight. He trounced himself up and down, screaming with sarcastic laughter. He seemed to be jeering and ridiculing the cat to his fullest extent, and the cat seemed to understand him. He dropped his tail and disappeared in the bushes. The jay uttered one last note of derision and then flew away.—JAS. WEIR, JR., M.D., in the *Educational Review*.

A CURIOUS NUMBER.

A very curious number is 142,857, which multiplied by 1, 2, 3, 4, 5 or 6 gives the same figures in the same order, beginning at a different point, but if multiplied by 7 gives all nines:—

142,857 × 1 = 142,857
142,857 × 2 = 285,714
142,857 × 3 = 428,571
142,857 × 4 = 571,428
142,857 × 5 = 714,285
142,857 × 6 = 857,142
142,857 × 7 = 999,999

Multiply 142,857 by 8 and you have 1,142,856. Then add the first figure to the last and you have 142,857, the original number, with figures exactly the same as at the start. Can you explain why?

BE TRUE TO THY BROTHER.

Thou must be true thyself,
If thou the truth would'st teach;
Thy soul must overflow, if thou
Another soul would'st reach.
It needs the overflow of heart
To give the lips full speech.

Think truly, and thy thoughts
Shall the world's famine feed.
Speak truly, and each word of thine
Shall be a fruitful seed;
Live truly, and thy life shall be
A great and noble creed.

—Horatius Bonar.

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.

Terms: One dollar and fifty cents per annum, payable strictly in advance. Clubs of three, \$4.25; clubs of five, \$6.75. Larger clubs, in associations, sent through association officials, \$1.25.

Individual members, subscribing at a different time from that of the formation of the Club, may send their subscriptions to this office. Their orders will be taken at club rates.

New subscriptions may begin at any time. Payment, when by mail, should be made by post-office order or registered letter. Money sent in unregistered letters will be at the risk of the senders.

In case it may be necessary to make change, please send it in two-cent stamps.

The date at the right of the name on the address-label shows to what date the subscription is paid. The change of this date to a later one is a receipt for remittance.

Renewals of all subscriptions should be made promptly.

Subscribers addressing the office on any business will, in all cases, please give the names of the post-offices to which their papers are being sent at the time of writing.

Address all communications except those in relation to advertising to

THE EDUCATIONAL JOURNAL,
ROOM 20, No. 11½ RICHMOND ST. WEST
TORONTO.

ADVERTISING DEPARTMENT.

Rates of advertising will be sent on application to
THE POOLE PRINTING CO., LTD.,
Advertising Managers,
8 AND 10 LOMBARD ST.,
TORONTO.

Editorials.

TORONTO, FEBRUARY 1, 1894

GUARD THE QUEEN'S ENGLISH.

THE subject of spelling, necessarily, we suppose, occupies a prominent place in the school programme. We fear that less attention is given in some schools to the matter of pronunciation. Nothing more quickly reveals the cultivated mind than the habit of accurate pronunciation. Those are especially fortunate who are brought up in homes and amid surroundings in which their mother tongue is habitually used with correct enunciation and accent. Unfortunately for the Canadian youth, such cases are the exception. The rule is that nothing but the most constant care and pains on the part of both teacher and pupil can enable the latter to overcome the force of early habit, and become a tolerably correct speaker of English. But who shall teach the teachers, should it so happen that they are themselves inaccurate or careless?

It is often said that spelling is the ready and universal test of scholarship; that he who cannot spell cannot be regarded as well educated. But this is a test which can be applied only in the comparatively rare cases in which the critic has before him the manuscript of the person whose school-training is in doubt. Some would even deny the soundness of the criterion itself, remembering that many clever men and good scholars have been but indifferent spellers, and that methods of spelling given words are constantly undergoing change.

But the evidence afforded by good or bad pronunciation is given whenever one speaks or reads aloud. A still higher consideration is that much of the cadence and sweetness of the language depends upon the way in which its vowel and consonant sounds are given, and the place and mode in which the syllabic accent is made to fall, etc.

Take, for example, the vowel *u*, which is probably the most troublesome one in the language, especially when it follows *d*, *t*, *l*, or *n*; e.g., in *dude*, *tune*, *ludicrous*, *nuisance*. Nothing but careful practice can enable the ordinary Canadian tongue to give the letter its proper long sound, without slurring on the one hand, or affectation on the other, in such words. And yet nothing is more offensive to a trained ear than the *oo* sound which is so often given to the letter in such connections. Indeed, we once knew a lady teacher, an American, and a graduate of one of the best American ladies' colleges, who contended seriously—such is the force of bad habits—that the *oo* sound is the correct one in such words, and who thought it sheer affectation to refuse to say *toon*, *insti-toot*, etc. The same remarks may be made, with some modifications, with respect to the very prevalent habit of flattening the *a* in such words as *calf*, *half*, etc. In a young country like Canada it is specially desirable that teachers should regard themselves as the guardians of the Queen's English, largely responsible for saving it from being murdered or foully abused by the coming generations.

One way in which teachers can render valuable service in preserving good words from abuse is by special exercises occasionally in the pronunciation of those words which, while closely resembling each other in sound, are really distinct. Most teachers are accustomed, we presume, to drill their pupils upon the distinctions between words similar in sound but differently spelled and applied. Such exercises should always be accompanied with others adapted to bring out the differences in pronunciation between words which are apt to be carelessly regarded as precisely similar in sound. Not long since we saw a useful list of words differently spelled but similarly pronounced and applied, for the use of a class of children. The list was in other respects well prepared and arranged, but strange to say, the teacher, evidently skilful and in many respects competent, had such words as the following included in the list: *Mary*, *merry*; *wear*, *were*; *wore*, *war*; *allowed*, *aloud*; *for*, *fore*; *or*, *oar*, etc. Another and worse case was that of the manuscript of a book which was submitted to us some time since, with a view to publication for the

use of teachers, and which fairly swarmed with errors of the kind indicated.

Every teacher should have a good pronouncing dictionary always within reach of the pupils, who should be taught how to use it. Not infrequently large boys and girls will be found who do not know how to interpret the diacritical marks and other modes of indicating pronunciation used by lexicographers.

A STEP IN THE RIGHT DIRECTION.

THE following memorandum for Principals of schools has been issued by the Education Department:

With a view to secure a more reliable test of the candidates' fitness to pass the non-professional examinations, the Education Department intends to direct the examiners, next July, to take into account the teachers' estimates in addition to the results of the written examinations. In June, therefore, forms will be sent to each Principal concerned, in which those teachers who have been immediately engaged in the preparation of the candidates, will record in percentages, under the head of each subject of examination, their estimates of the candidate's competency, the names being arranged in the order of merit, and the estimates being based on the teachers' personal opinions, and the school examinations and such other tests as may have been applied during the period of preparation. Only the names of those who, in the opinion of the staff, are fit to pass, will be returned; the lowest percentage given being 33½ in the case of candidates for the Primary and the Junior and Senior Leaving examinations; and 25 in the case of candidates for University Matriculation. The report, which will be a confidential one, will be signed by all the teachers who have been immediately engaged in the preparation of the candidates and will be accompanied by a declaration, on their part, that it is, to the best of their knowledge and belief, a correct statement of the standing of the candidates.

The value of the percentages given will, of course, vary in different schools; but with the results before it of the written examinations of all the candidates from a school, it is expected that the Board of Examiners will be able to form a just estimate of the value of each return. Should, therefore, a candidate fail in some subject or subjects and deserve consideration on account of his general good standing, the examiners will allow him the marks to which they decide he is entitled.

There is every reason to believe that this scheme will remove many of the defects that have hitherto existed in the examination system, and that both teachers and pupils may look forward to the midsummer examinations with the assurance that failure in a subject at the written examination will not necessarily lead to the rejection of a really deserving candidate.

This notification is sent to you in order that, having in view the report to be made next June, you and your staff may govern yourselves accordingly.

JOHN MILLAR,
Deputy Minister.

EDUCATION DEPARTMENT,
TORONTO, January, 1894.

This is, to say the least, a step in the right direction. The JOURNAL has always taken the ground that the results of a single examination, conducted by those who have no other knowledge of the merits of the candidates than that which can be gained by reading their papers, produced in all the haste and excitement of an occasion which is to them fraught with serious consequences, cannot be relied on as a fair test of the candidates' abilities and progress. We have always been of opinion that the judgment of the Principal and teachers of the school in which a candidate has received his training should have a very important influence in determining the question of his fitness to enter the classes of a higher institution. There is, it is true, an element of indefiniteness in the proposed arrangement, as it seems to be left to the discretion of the Examiners to determine the value to be assigned to the Principals' reports, but this is perhaps necessary. The results of the experiment will be awaited with interest.

RECENT EDUCATIONAL ADVANCES.

THE following extracts from an article by William De Witt Hyde, LL.D., President of Bowdoin College, in the *Christian World* of January 11th, are worth reproducing, not more for the truth and importance of the views expressed, which are now becoming familiar, than for the admirable clearness and force with which they are set forth. In reply to the question, "What is the end at which Education aims," Dr. Hyde, after specifying some of the special ends of utility which it includes, thus defines its comprehensive end:

"The end of education is to make one at home in the world in which he lives, and friends with all that it contains. The forms of natural objects, the laws of life in plant and animal, the principles of mathematics and physics, the languages which nations speak, and the literature in which they have expressed their sorrows and joys, their hopes and fears, their achievements and their inspirations, the laws of economics, the institutions of society, the insights of philosophy, the ideals of ethics and religion — all these things are man's rightful heritage and it is the aim of education to put man in possession of this rich inheritance."

He proceeds to show that recent advances in Education have brought us nearer to this goal in three ways, viz., by making the range of studies broader; by making the methods of study and instruction more rational; and by making classification of students more flexible. In regard to the first point he says:

"By the introduction of kindergarten methods the child is enabled to begin the study of form at the age of four or five, instead of waiting until he is fourteen or fifteen and able to master the technicali-

ties of geometry; to begin to count and add and subtract actual things long before he can comprehend that arithmetic is the science of numbers; to identify pictures and objects by words long before he has heard such a formidable word as alphabet; to pile up mountains, scoop out valleys, and set out forests, long before he could deal in the old way with geography as the science of the description of the earth's surface.

"The scholar in the primary school can make collections of natural objects and watch the habits of plants and animals years before the old curriculum would permit the study of natural history. The grammar school is beginning to introduce algebra and geometry at a time when the student will take an eager interest in them, in place of the wearisome and profitless harping upon the dry and juiceless rules of commercial arithmetic, and to offer the fresh and enthusiastic study of a new language in place of the monotonous drudgery of analysing and parsing the familiar words and phrases of our mother tongue."

We have been particularly pleased, however, with Dr. Hyde's felicitous mode of setting forth the advances which have been made, under his second head. The reader can compare his ideas in regard to examinations with those of a Western writer whose article we have partially reproduced elsewhere. It is easy to go too far to the other extreme in our condemnation of the examination craze, but there is unquestionable truth in the following:

"Second, the methods of study and instruction are becoming more rational. The time has gone by when a man can assign so many pages in a text-book, and call up a class to repeat the contents of those pages and at the same time call himself a teacher. The business of the teacher is no longer to see that the scholar gets the lesson out of the book, but to see that whether with or without a book the scholar gets a clear, strong, intelligent grasp of the subject of which the book treats. Actual weighing and measuring of actual things by actual scales and measures; actual handling of the things described; actual excursions to the quarry and the mine; actual dissection of the mussel or frog; actual consultation of original documents; genuine effort to think out the problem in philosophy; written reproduction of things seen and felt and enjoyed in literature and life — these are marks of the good teaching of to-day. The text-book is the guide to experiment and the inspiration to research; not as formerly the last word upon the subject the pupil was expected to hear.

With wiser methods of study and instruction are coming saner tests of attainment. Less stress is placed on memory and more on power. In actual life the practical test of efficiency for the scholar is not, how much information can you repeat by rote without looking at your book, but it is, What problems can you solve, what presentation of a case can you make with all your books and tools before you? We are coming to see that the true test in school is the same as the true test in life. And when this principle is fully recognized we shall

no more expect a scholar to be able to dump upon an examination paper all that he has learned during a term, than we shall expect him to disgorge in crude form all the food that he has eaten during the same length of time. Not retention merely, but assimilation; not capacity to hold, but power to use, is the test of the worth of a course of study; and the examination should be so framed as to test power to utilize the results of training, rather than the glibness with which crammed information can be written out or repeated.

ANNOUNCEMENT.

THREE PRIZES FOR BEST TIME-TABLES.

AS intimated in last number, THE EDUCATIONAL JOURNAL is authorized to offer three money prizes, of Five, Three and Two dollars, respectively, for the best three Time-Tables for use in the Public Schools of Ontario. Following are the conditions prescribed:

(1) The Time-Tables must be suited for an Ontario Public School of forty or fifty pupils, divided among the following classes: First Book, Part I; First Book, Part II Second Book class; Third Book class; Fourth Book class; Fifth Book class—all under one teacher.

(2) The Time-Table must show clearly

(a) What is desk work?

(b) What is "floor" or "class" work?

(c) The time at which the desk work is to be examined?

All manuscripts for competition must be mailed not later than the first day of March, 1894. Each manuscript must be signed at the top with a motto or *nom de plume*, and accompanied with a sealed envelope bearing on the outside the same motto or pen-name, and containing the true name and address of the author.

The names of the examiners will be announced in a later number.

Every Public School teacher in Ontario is interested in this matter. We hope for a very large and vigorous competition. The approved time-tables will be published, with the names of the authors, in THE EDUCATIONAL JOURNAL, for the benefit of all its subscribers.

INFORMATION WANTED.

WE have a letter, with money enclosed, from a subscriber whose address we are unable to make out. The word looks like "Vuce," but there is no such post office or railroad station in Canada, so far as we can ascertain. Will the writer please write us again, giving the address to which the paper is sent?

Special Papers.

*AGRICULTURE IN PUBLIC SCHOOLS.

BY JOHN SIMPSON, ELDER'S MILLS, ONT.

(Concluded from last number.)

ASSUMING that there are ample reasons why Agriculture should be taught in our schools, what steps should be taken to enable the teacher to teach the subject successfully, and what might be considered a sufficient and necessary syllabus of Elementary Agriculture in our Public Schools? France, in introducing the teaching of Agriculture, began with the training of her teachers, a step worthy of imitation by other nations. The teachers of the Primary Schools are taught in the Normal Schools, which number one hundred and sixty, having an attendance of nine thousand teachers in training. Professors of Agriculture are appointed by the Government to give instruction on that subject. Their duties are of a three-fold nature, namely, to give instruction to the teacher in training, to hold conferences with the farmers, and to carry out any investigation suggested by the Government. The work is as yet in only the first stage of development, and although all rural children of France have not been reached and the end aimed at has not been accomplished, the success achieved has been encouraging. Undoubtedly much depends on the teacher. To be successful he will need to feel a genuine interest in the progress of Agriculture. He must be acquainted with the principles of the science, and the rational method of teaching it. But in the case of the teacher brought up in the city, who knows little about farming, and who, perhaps, is making the teaching profession a means by which to earn a little money, the difficulty will be hard to surmount. Certainly it is necessary that some training should be given before the work is taken up.

It would be unwise to attempt or look for too much at first. Let the work be introduced gradually. The great difficulty under which the rural teacher already labors, is not that he does too much, but that he attempts too much in his endeavors to teach all the subjects of the curriculum to the various classes of his ungraded school. But some subjects already receive more attention than they deserve.

The aim in teaching the subject should be chiefly to create a love for Agricultural pursuits. The teacher must endeavor to counteract this tendency of boys to leave the farm, by overcoming their dislike to farm labor and inspiring them with ambition to become progressive and successful agriculturalists. He must encourage the idea that the industrious, thoughtful, honest farmer is the most valuable citizen in this Canada of ours—a man to be respected, appreciated, and honored by every member of the community.

Next let us look for a moment at what might be accomplished in the Public Schools, as contained in the text-book. The subject of Agriculture is an exceedingly broad one, so broad that it cannot be adequately condensed in its entirety into a single text-book suitable for teaching in common schools, unless permission is given by the Department for giving it much more space than is now occupied by the present text-book. In examining that book, condensation is carried so far as in some instances to create obscurity. The chapter entitled, "Outlines of the Principles of Feeding," is too difficult for the mind of the young child, and should not be attempted save with advanced classes. The book itself is so clearly written that intending teachers should have no difficulty in mastering the subject, but the short course now open at the Ontario Agriculture College, Guelph, would be a material help to them in giving them hints and ideas in reference to the mode or modes of teaching to be adopted. In teaching it there should be instruction on the nature of the soil. This is most essential. The

young student should be taught to discern the difference between soils, to know the merits and defects of the various soils he may meet. We might suppose that much of this could be learned at home, but his home experience is usually limited and defective. Hence the advantages in the study of this subject. It transforms his narrow personal experience into science.

Next the plant should be studied, and the various ways of absorption and sources of food. This branch of the subject leads us to an important practical question: How do soils become exhausted and how may they be restored? It is said that the farmer can, by practical experience, obtain sufficient knowledge of these matters, but from lack of scientific information he is not in a position to gain the knowledge that would help him solve the difficulty. Agriculture remained at a stand-still for a thousand years until it began to be studied scientifically.

Next in order is the treatment of the different methods of tillage, or the various processes by which the soil is prepared for the seed, and under this head would be included drainage. The value of drainage is not merely in the removing of the superabundant water, but also in equalizing the temperature of the soil, in assisting in its pulverization, and in facilitating those necessary chemical changes by which the soil, when exhausted, gains from percolating water, from the air, and from ingredients of the fertilizers applied to it, the fertility which it has lost through cropping. This should be fully explained and emphasized in the scientific presentation of the subject at school.

Then should come a description of the different crops and their various requirements in the matter of soil, seeding, cultivation and harvesting, the rotation which should be employed in distributing them over the farm, and the best uses that can be made of them.

The rotation of crops is a subject that never can be fully understood except by those who have studied the subject scientifically. Yet it is of the greatest practical importance, since by it the farmer is able very considerably to delay the exhaustion of the soil which, as we have already said, continual cropping inevitably produces. The restoration of the soil can in no way be effected unless by artificial means, and here is where many practical farmers make a great mistake, where even a very little scientific training would do a world of good. This latter fact can be borne out by the experience of the farmers of England, where the crop per acre steadily diminished, despite careful tillage, well-chosen rotation, and the free use of home restoratives. Nor did it show any increase in the wheat crops until the practice of using artificial fertilizers was adopted.

Following the useful crops should be a treatment of the weeds of the farm and how best to get rid of them. It is said that there are at least ten weeds in Ontario which are specially injurious to farm crops. Some are, of course, more abundant than others. Out of this number the average farmer, it is said, can scarcely identify more than half, although the others may be on the farm and steadily and surely gaining such headway as will cause them greatly to impair the powers of production in a few years. Hence the necessity of young students being taught to recognize these noxious plants, to study their habits, and how best to root them out.

Then should follow a study of the diseases to which crops are subject, and of the means of preventing them, also a study of the injurious insect pests which, if left unheeded, will soon destroy the labors of the husbandman.

Next should come the subject of feeding, which, though the most important, is the most difficult. In regard to this part of the subject I can only take time to say that without some scientific training the stockman must be a mere mechanic, doing that which he sees others do, without being able even to guess why or wherefore. But I have gone sufficiently far in this part of my subject to enable you to see what

departments of Agriculture could be taken up and made both interesting and beneficial to the country boy. But the subject as it is on the curriculum is there, not with an inducement to take it, but with a penalty. The seeming indifference as to their taking it will be likely to continue unless it be again put on as an optional bonus subject, or more time be allotted to it on the curriculum and it made compulsory. We have good reason to believe that many of the rural schools have not yet introduced the text-book. The number of schools that take it up can be judged by the fact that out of three hundred and thirty-seven rural candidates who wrote at points near Toronto, seven tried the paper on that subject.

In conclusion let me say that what I have suggested does not involve any upsetting or overturning of the present system of education, but rather an adaption to Agriculture as far as possible of subjects now upon the curriculum. Instruction in Agriculture in our schools may be limited, but if nothing more be done than to start our rural pupils thinking, to give them an impetus or a turn in the right direction, to develop in them a taste for Agricultural study and investigation, to arouse in them a desire to know more and to read more about agricultural affairs, and especially to increase in them respect for their work and a pride in their calling, then the most important end of their education will be attained.

The lesson is obvious: If Canadian Agriculture is, as we believe it is, the foundation of all our industry and the principal support of our material well-being, then in order to maintain our position in the world in the face of the world's competition, it must be made more scientific, and if it is to be made more scientific the place to begin the work is in our Public Schools.

MECHANISM IN EDUCATION.

FOLLOWING is the closing summary of a pamphlet on the above subject, by a Western writer, Mr. Lewis Freeman:

FIRST.—These examinations are all addressed to a system of formalized and drilled-in knowledge, put into definition and set phrase, necessitating only verbal memorized answers, thus destroying the breadth, vitality and freedom of the teacher's work.

SECOND.—To these examinations is affixed a numerical valuation of knowledge, a per cent. system which is the bane of all true education. Its tendency is toward drudgery, narrow work, brutality, cheating, jealousy, loss of temper, want of self-control, nervous irritability and selfishness on the part of the teacher; it harms character-building, prostrates health, and prevents true education being carried on.

THIRD.—These examinations are stated and general. They give a definite time for drill, and the fever of unrest. Questions are out of the course, substitutions and alterations are illegally made, and the pupil is at the mercy of the least change of phrase from his teacher's way of statement. The standards of estimating work are different, being frequently as much as twenty per cent. apart, and the marking often loose and unconscious. Numberless temptations toward a deflection from the right are offered. Accidental interruptions of work, epidemics of sickness and absence, change of teachers, differences in nationality, local position and home culture, together with other causes, make these general examinations, especially as respects figures, almost valueless, while the time and labor mis-spent are a detriment to solid work.

FOURTH.—These stated, comparative, percented examinations become a mere mechanism of drudgery and tricks, a kind of sleight-of-hand dexterity, not unlike the juggler's who swallows ten knives. We have thus, blank books filled with little phrase-definitions of what requires vivid portraiture; concert-recitations where the lazy work with the lips and not with the brain; the use of old school reports, question books, past examination papers, precious kept for

*A paper read at North York Teachers' Convention.

their narrow grooved ways of putting things; the hunting up of "tips," "pointers," and "probable" questions; experiences of adroitness in "catch" and mechanical work. Well has an able educator called this teaching, "preparing wares for the educational market." The teacher is a drudge in this grind and the child the victim. The nervous strain of this cramming breaks down the health of both.

FIFTH.—These percent. examinations present direct temptations toward deceit, cheating, injustice and fraud on the part of teachers and pupils. The pressure of competition induces a wish to get rid of every child of poor capacity. Instead of his friend and well wisher, the teacher becomes a judge and an enemy; and the school-life of the pupil, instead of being a joy in doing what little he can, is a misery because he cannot equal others, or come up to a high pressure standard. The teacher's anxiety about the low marks of these poor pupils culminates in a desire to have the pupils reduced to a lower grade, or to have them quit school. If there were no results to threaten her, she would gladly bear with them and let them get what good they could. Numberless pupils have been pushed out of school in this way, who if the passion for results had not been so active, would have secured more education.

SIXTH.—A large increase of corporal punishment is another effect of these examinations. The tired, overworked teacher, goaded by the harrowing apprehension of failure in the race for competition, becomes nervous and loses self-control and judgment. The dull boy fails to come to time in figures, and the teacher, in her own interest, punishes him ostensibly for laziness, but really, for incompetency.

SEVENTH.—Those examinations destroy broad teaching. The definite number of questions, their narrow character, their adaption to numerical valuation, and their leaning toward formal and prepared answers, all force the teacher into rut work. Explanation, analysis, vivid description, pictorial illustration, incidental interesting knowledge, are all wasted here. Only "what will pay" in per-cents is taught in the baldest and most succinct form.

EIGHTH.—They limit the amount of work which otherwise could easily be done, and thus induce a great waste of time and effort. Haste is made over the prescribed course, which is generally finished in about two-thirds of the interval between examinations, thus giving the remaining third for review and drill. In this latter useless routine of stationary work the animus of study is lost, and the pupil, as has been said, "is simply marking time."

NINTH.—These frequent examinations prevent and pervert natural growth. The knowledge gained by hot-house memoriter work is not retained, digested, assimilated, or reproduced. They lead to superficiality, disgust at learning, and mental indigestion. Organized uniformity and stereotyped monotony are not good soils for growing brains. The eternal cramming and tortures of our schools is not growth for life and duty, and this examining and examining is the gardener who is always showing us the roots of his growing plants to prove that they are growing. No abiding training for after life; no habits of self-help, self-activity, or self-acquired knowledge, remain from it.

TENTH.—This rote education is a moral evil. Outside of the direct immoral effects before mentioned, it is a perversion of character. The dignity, interest and value of knowledge is obscured by self, which is absorbed in the low motive of showing what it can do better than others.

ELEVENTH.—This mechanical pressure of examinations is promoting fearful physical debility. The strength and blood which ought to go to bone and muscle in growing children, is expended in a torturing over-pressure. In our schools, the amount of written work is far too great for our children. Impairment of sight, nervous disease, prostration, deficient vitality

are insidiously cultivated. By such insensible degrees is the child's system undermined that parents fail to see its full extent. Over-pressure, over-stimulus, nervous anxiety, over-study, the excitement produced by scolding, punishing, and cramming teachers, is not a healthy field for a child's development. And almost entirely this system of things comes from the species of competitive examinations now in our schools.

TWELFTH.—The use which is made of the examination figures is degrading and demoralizing to both teachers and pupils. They are tabulated, circulated, compared and made a basis for stimulation and intimidation. They are made to arouse jealousy and strife. They are placed in newspapers to gratify self-love, and made objects of desire. They are used to grade and place in positions of shame, pupils of poor capacity, thus branding the work of the Almighty's hand. They are used to depress the stupid, and over excite the gifted. The evils of this system are far greater than any good which might be derived from it.

Book Notices, etc.

The Lady of the Lake, by Sir Walter Scott, pp. 192. New York: American Book Co.

This little volume adds one more testimony to the suitability of Scott's poetry for school use. An introduction, brief but clear foot-notes, and a concise glossary make this well-printed edition well adapted for supplementary reading.

* *

Progressive French Reader, Pt. II. Edited by H. H. Curtis and Z. R. Gregor, pp. 158; price 50 cents. Montreal: William Drysdale & Co.

This volume is an excellent school book. A series of extracts, chiefly from classic sources, followed by French and English questions on the text for oral exercises, brief notes, and vocabulary make up this successful work. The typographical arrangement of the notes could be made clearer and the binding more tasteful.

* *

Language Lessons. Grammar Lessons. Price 30 cents; pp. 58. By J. A. MacCabe, M.A., LL.D. Toronto: Copp, Clark Co.; Boston: Ginn & Co.

We are glad to see that the merit of this book and our warm commendations of it in the JOURNAL have resulted in the issue of a special Canadian edition. We note certain changes, particularly in the treatment of the interjection, which we found inadequately treated in the first edition, which are all in the direction of making the little work a still greater help—as it is an indispensable help—to the teacher of elementary grammar.

* *

German Grammar by Eisenbach, revised and rewritten by W. C. Collar, A.M. Revised by C. S. Curtis, pp. 242. Boston: Ginn & Co.

The grammars now before us in its simplest, most practical form, affords a concise, simple and practical elementary grammar and exercise book of German. The teachers who are struggling with the H. S. German Grammar in the hands of young pupils will find pleasant relief in the well-graded exercises of this book. The vocabulary possesses the unique feature of marking the accent and quantity of German words, e.g., *mitbringen* (˘ - -), *mitnehmen* (˘ - -).

* *

Stories from Canadian History. Edited by T. G. Marquis, B.A., pp. 96, price 25 cents. Toronto: The Copp, Clark Co.

We congratulate Mr. Marquis that in the busy work of teaching he has found time to arrange and abridge the "Stories of New France," written by Miss Machar and himself into a form available for school use. Such stories will be a relief to the dry details of constitutional history which occupy so much of the authorized Canadian text-book, and will naturally lend themselves to the method of teaching history by story, the only method practicable with young pupils.

Brigitta, von Berthold Auerbach With introduction and notes by J. H. Gore, Ph. D., pp. 115. Boston: Ginn & Co.

Professor Gore has abridged Auerbach's novelle, 1880, by the omission of many descriptive passages, preserving, however, the continuity of the story. The result is a brief, charming story suited for school use. The picture of German peasant life in the Black Forest, with its local coloring and touches of dialect, and the almost tragical story of the sweet peasant-princess, Brigitta, under the sinister influence of the Rittmeister, make up one of Auerbach's simplest but most interesting stories.

The editor supplies foot-notes that explain whatever difficulties will be encountered in sight reading.

* *

English Composition, by A. G. Newcomer, pp. 250. Boston: Ginn & Co.

This volume is the most sensible treatment of composition for high school pupils that has yet appeared. The author shows admirable good sense in discouraging the choice of abstract subjects and encouraging the observation of life and the world around us. Following sound pedagogical principles, he begins his course with simple narration, illustrating by model narratives followed by charming exercises, leading up to embellished and ampler incidents and detailed autobiography. Similarly he treats description and exposition. Such a volume used in the schools will result in sound, healthy, mental growth in a subject which, more than any other, has been the cause of pretension and artificiality in children's minds. We congratulate Professor Newcomer in giving teachers a schoolbook at once so original and so admirable.

* *

Bell's English Classics. (1) Shakespeare's *Julius Cæsar*, ed. T. D. Barnett, pp. 138; price 2/.

(2) Massinger's *A New Way to Pay Old Debts*. With introduction and notes by K. Deighton, pp. 134; price 2/6.

(3) Johnson's *Life of Addison*. With introduction and notes by F. Ryland, M.A.

(4) Lamb's *Essays of Elia*. With introduction and notes by K. Deighton.

(5) Byron's *Childe Harold*. With introduction and notes by H. G. Keene, M.A. London: George Bell & Sons.

If England has been long in waking up to the necessity of a study of English Literature in its grammar schools, the truth must be admitted that she is showing signs already of being very much awake. The excellent series of English Classics issued by the Clarendon Press, MacMillan, Moffatt and Page, and other eminent publishers, give abundant evidence that education has taken in literature an essential branch of instruction in English schools. The latest claimants for public favor are Messrs. Bell, who are rapidly issuing a series of English Classics that bid fair to rival in popularity the older series that we have referred to.

The volumes before us are uniformly bound in serviceable grey cloth and are printed on good paper with (except the *Julius Cæsar*), clear new type. The list of editors prepossesses one in favor of the volumes. Mr. Deighton is well known by his school editions of Shakespeare and Tennyson; Mr. Ryland by his "Chronological Outlines of English Literature"; Mr. Keene by his "Manual of French Literature." Mr. Barnett's notes to *Julius Cæsar* often show how school editions of Shakespeare should not be annotated, "You ought not walk," l. 3, for example, which is perfectly modern usage, affords a peg on which to hang a dissertation of half-a-page on the history of the word. So too, "laboring day," l. 4, offers—in this case more pardonably—an opportunity for an unsatisfactory account of the relations of the participle and verbal noun. Were these etymological notes only more thorough, we might regard the work as a miscellaneous course on English etymology with an introduction entitled, *Julius Cæsar*, by William Shakespeare. But being what they are, we fail to see any reason for their existence.

We should like to ask Mr. Barnett what becomes, while these etymological hunts are going on, of all the interest in the scene of the tribunes and the mob. The teacher, however, who takes only as much of the editor's etymological padding as will illustrate the meaning

of the text, with other excellent explanatory notes, will find the editor serviceable. Mr. Deighton, with more experience, has still the taint of the same evil of preferring etymology to the text; but that is lost sight of in our gratitude in having a handy text with excellent introduction of Massinger's best play. Students will now be able to know Overreach at first hand. The *Life of Addison*, *Essays of Elia* (a selection), and *Childe Harold* have been carefully and successfully prepared; praise is specially due the last mentioned.

.

My Saturday Bird Class, by Margaret Miller; D. C. Heath & Co., Boston. (Price 30 cents.)

This interesting little book gives us a concise account of the observations and investigations made by a class of young girls and boys, who, interested in nature, gave up an hour of their Saturday afternoons to study bird-life. The methods of the teacher in directing the work of the class are good and certain to increase immeasurably both the interest and knowledge of the children.

The work is finely illustrated and gives at the end of each chapter notes from "Samuel's Birds of New England" and "Cones's key to North American Birds" that will be of great advantage to the teacher. The book is divided into twelve chapters their titles being as follows:—The Robin; Billy Wren's Housekeeping; Screech-Owls; Cuckoo and Cow-bunting; Fly-catchers; The Bird Class at School; A Picnic; Migration. R. L.

Primary Department.

READING.

RHODA LEE.

IV.

A—It has occurred to me that a word or two regarding class arrangements may not be amiss at this time. In a graded school the First Book class is generally a large one, averaging about sixty pupils. In one of this size I have found it advisable to divide the children into three groups, calling them Highest, Second and Lowest classes. The last mentioned is generally composed of those who enter late in the term or are very backward. The individual oversight that is absolutely necessary could not be given if an attempt were made to teach the class as a whole. The class I have at present is divided as follows:—Highest, twenty-six; Second, twenty; and Lowest, fourteen. These classes are of course at different stages of advancement, and to keep a definite statement of the progress made I have arranged on the black-board three columns in which is placed the new letter as soon as taught. Lists of words which can be made from the letters as we proceed I keep in a book for the purpose, adding to them year by year. The following shows the work covered by the different classes at an early date in the term:—

HIGHEST.	SECOND.	LOWEST.
<i>m, a, t, s, p, e</i>	<i>m, a, t, s, p,</i>	<i>m, a, t, s, p,</i>
<i>c, r, h, o, d,</i>	<i>e, c, r, h, o, d,</i>	<i>e, c, r, h,</i>
<i>n, f, l, i, b,</i>	<i>n, f, l, i, b, u,</i>	
<i>u, g, w, y, ar,</i>	<i>g, w.</i>	
<i>sh, ee, oo, ch,</i>		
<i>j, v, x, z,</i>		
<i>th, ou, ea, ai,</i>		
<i>ay, ng.</i>		

While one class is at the board the others are employed in busy-work such as the above shows them capable of doing.

B—Lessons on "ea" and "ai, ay."

LESSON I. Introduction of "ea."

Teacher writes on blackboard the letters "ee." These are known to the children as the *twins*. Teacher explains that one little twin had to stay in the house sometimes and that the other one still desiring to say her own name asked "a" to go with her and help. Hand in hand, *e* leading the way, they said the same as "ee." Having fixed the fact that *ea* says the same as *ee*, the teacher proceeds to give a few exercises in coalescence; sounds words such as *scream*, *repeat*, *leaflet*, etc., making the sounds some distance apart and class recognizing the words.

As many as possible of the following words are then given either as ear-exercises—teacher saying the word and class writing on slate—or as eye-exercises, in which the children read the word from the black-board. Sentences may be given also, containing as many of the words as possible for additional sight-reading:—

<i>tea</i>	<i>steal</i>	<i>preacher</i>
<i>sea</i>	<i>leaf</i>	<i>teacher</i>
<i>meat</i>	<i>steam</i>	<i>repeat</i>
<i>meal</i>	<i>read</i>	<i>repeatedly</i>
<i>mean</i>	<i>dream</i>	<i>leaflet</i>
<i>seat</i>	<i>cream</i>	<i>streamlet</i>
<i>beat</i>	<i>steam</i>	<i>dearest</i>
<i>fear</i>	<i>spear</i>	<i>nearest</i>
<i>dear</i>	<i>sheaf</i>	<i>cheapest</i>
<i>tear</i>	<i>teach</i>	<i>neatly</i>
<i>lean</i>	<i>peach</i>	<i>dearly</i>
<i>lead</i>	<i>reach</i>	<i>speaker</i>
<i>leap</i>	<i>preach</i>	<i>peacock</i>

LESSON II. Introduction of "ai" and "ay."

A wanted to say her own name without the aid of the silent "e" as in *came*, *late*, etc., went to *letter-land* and found "i" ready to go with her. Together they said "a" but neverdared go at the end of a word. "I" was timid and always wanted another letter to follow her as in *pail*, *fair*, etc. However "a" wanted to say her name at the end of a word sometimes, so went away and got "y" to go with her. Y, a big brave letter liked to go at the end of a word, as in *may*, *tray*, etc. This may seem to be a very extended introduction but in reality it takes very little time and impresses most satisfactorily the facts that *ai* are never seen at the end of a word, while *ay* are seldom seen anywhere else.

Words for writing and sight-reading:

<i>pail</i>	<i>stair</i>	<i>afraid</i>	<i>waiter</i>
<i>sail</i>	<i>stain</i>	<i>despair</i>	<i>gaiter</i>
<i>tail</i>	<i>saint</i>	<i>detain</i>	<i>Spain</i>
<i>gain</i>	<i>paint</i>	<i>sustain</i>	<i>painless</i>
<i>rain</i>	<i>grain</i>	<i>complain</i>	<i>painter</i>
<i>chair</i>	<i>train</i>	<i>restrain</i>	<i>entertain</i>
<i>chain</i>	<i>trail</i>	<i>refrain</i>	<i>entertainment</i>
<i>may</i>	<i>say</i>	<i>pray</i>	<i>defray</i>
<i>day</i>	<i>slay</i>	<i>bray</i>	<i>stairway</i>
<i>gay</i>	<i>stay</i>	<i>fray</i>	<i>pathway</i>
<i>lay</i>	<i>gray</i>	<i>stray</i>	<i>away</i>
<i>bay</i>	<i>tray</i>	<i>play</i>	<i>astray</i>

STORIES FOR REPRODUCTION.

ONE LITTLE CANDLE.

(TO BE USED FOR LANGUAGE AND ETHICS.)

"ONE night a man lighted a candle and began to go up a long, winding staircase.

"Where are you going?" said the little candle.

"Away up high," answered the man; "higher than the top of the house where we sleep."

"And what are you going to do there?"

"I am going to show the ships out at sea where the harbor is," said the man, "for we stand here at the entrance to the harbor, and some ship far out on the stormy sea may be looking out for our light even now."

"Alas! no ship could ever see my light," said the little candle, "it is so very small."

"If your light is small," said the man, cheerily; "keep it burning brightly, and leave the rest to me."

Well, when the man got up in the top of the lighthouse—for it was a lighthouse they were in—he took the little candle and lighted the great lamps that stood ready there with their polished reflectors behind them.

In a little while they were burning, steady and clear, throwing a great, strong beam across the sea. Then the lighthouse man blew out the taper and laid it aside. But it had done its work. Though its own light had been so small, it had been the means of kindling the great lights in the top of the lighthouse, and those were now shining brightly over the sea, so that ships far out knew where they were, and were guided safely into harbor."—*Primary Educator*.

THE STORY OF A LEAD PENCIL.

BY A. B. Y.

LENNIE was writing a composition, or rather, instead of writing, she was thinking about—well, other things.

"Now this lead pencil," she thought, "this is a funny thing. I guess they just bore a hole in the wood and pour the hot lead in, and when it gets cold it is a lead pencil."

"No, ma'am," said the lead pencil, jumping up and dancing around very pert, "I am not made that way at all, I'll have you understand. Now what do you suppose I am made of?"

"Why, lead, of course," meekly said Lennie.

"Now, that's where you are wrong," continued the pencil. "I am not made of lead; in fact there is not a particle of lead in my composition. I am made of graphite. Now listen and I will tell you about it. Graphite is a mineral substance. This is powdered, mixed with water and freed from grit. Then it is mixed with clay and forced through holes to make the leads. These are straightened, dried, cut into suitable lengths, and laid on flat pieces of wood, with a groove for that purpose, and another piece of wood is glued on. The pencils are then cut by machinery. The wood used in making me is a kind of cedar grown for the purpose."

"Dear me, that is interesting," said Lennie, as she raised her head from her

book; but she found her pencil in her hand, and not dancing around the table.

Tell how lead pencils are made.—*American Teacher*.

THERE are seven results, called school virtues, which are attained in every good school. These are (1) regularity, (2) punctuality, (3) neatness, (4) accuracy, (5) industry, (6) silence, (7) obedience.—Dr. E. E. White in *Primary Educator*.

SIGHT READING.

TO BE CUT OUT AND MOUNTED ON CARDBOARD.

FRED'S birthday comes next week. He will be six years old.

Nellie lost her mit to-day. It was a red one. She feels very sorry. I hope she will find it again.

Harry has a little pug dog. He and his brother give it a bath every Saturday. They call him Jim.

I like to draw on my slate. Ma showed me how to make a house that looks like ours. I put the number over the door. It is 346.

We have a snow-man in our yard at home. He has a hat on his head and a broom in his hand.

Fanny puts out a plate of crumbs every morning after breakfast. The poor little sparrows have hard work finding anything to eat in this weather. I think she is a kind little girl.

Valentine day comes in this month. My teacher is going to let us write a little letter on paper and take it home for a valentine.

Tom has a new pair of skates. He got them on Christmas day. He can skate a little, but cannot go alone very well.

Last week Fred and Willie Smith made a rink in their yard, and on Saturday they asked a lot of boys to come and try it. They all said they had far better fun than if they had gone to the real rink.

"Let us go into our desks very quietly," said the slates, and they slipped in like so many feathers. How happy the little girls and boys who owned the slates were when teacher looked up and smiled. Then she said: "Are the slates really away."

THE FIRST SNOW-FALL.

JAMES RUSSELL LOWELL.

The snow had begun in the gloaming,
And busily all the night
Had been heaping field and highway
With a silence deep and white.

Every pine and fir and hemlock
Wore ermine too dear for an earl,
And the poorest twig on the elm-tree
Was ridged inch-deep with pearl.

From sheds new-roofed with Carrard
Came Chanticleer's muffled crow;
The stiff rails were softened to swan's-down,
And still fluttered down the snow.

I stood and watched by the window,
The noiseless work of the sky.

And the sudden flurries of snow-birds,
Like brown leaves whirling by.

I thought of a mound in sweet Auburn,
Where a little head-stone stood;
How the flakes were folding it gently,
As did robins the babes in the wood.

Up spoke our own little Mabel,
Saying, "Father, who makes it snow?"
And I told of the good All-Father
Who cares for us here below.

Again I looked at the snow-fall,
And thought of the leaden sky
That arched o'er our first great sorrow,
When that mound was heaped so high.

I remember the gradual patience
That fell from that cloud-like snow,
Flake by flake healing and hiding
The scar of our deep-plunged woe.

And again to the child I whispered,
"The snow that husheth all,
Darling, the merciful Father
Alone can make it fall!"

Then with eyes that saw not, I kissed her.
And she kissing back could not know
That my kiss was given to her sister,
Folded close under deepening snow.

RHYME FOR MOVEMENT EXERCISES.

THIS is east and this is west,
Soon I'll learn to say the rest;
This is high and this is low,
Only see how much I know.
This is narrow, this is wide,
Something else I know beside.

Down is where my feet you see,
Up is where my head should be;
Here's my nose, and here my eyes,
Don't you think I'm getting wise?
Now my eyes wide open keep,
Shut them when I go to sleep.

Here's my mouth, and here's my chin,
Soon to read I shall begin;
Ears I have as you can see,
Of much use they are to me!
This my right hand is you see,
This my left, as all agree;
Overhead I raise them high,
Clap! clap! clap! I let them fly.

If a lady in the street,
Or my teacher I should meet,
From my head my cap I take,
And a bow like this I make.
Now I fold my arms up so,
To my seat I softly go.

—Selected.

THERE is no limit to the probabilities of one's power to excel himself. But so long as a man has only to keep a little ahead of his neighbor, he has a dull spur wherewith to prick the sides of his intent. If that neighbor sticks fast, that is the end of the competition; after that both stick fast. On the other hand, when a man feels the necessity of bringing his future deeds into competition with his own past, there is no limit to the possibilities of life with him.—*Sunday-school Times*.

"If you have should a dozen children, no two of them would be alike in disposition," observed an experienced matron to a young mother who was exclaiming over the radical differences between her two boys. This admission is one belonging to the liberal tendency of our modern time. The idea that a family of children resemble peas in a pod, and are to be treated alike, is being replaced by the more scientific opinion that there are natural differences which must be considered. Modern children are not to be managed in groups. It is necessary to deal with them separately. This requires more time, more care, more intelligence than the old way; it requires special preparation for parenthood and the cultivation of good qualities in the guardians who are to exercise discriminating government. The nineteenth century makes large demands of us and nowhere greater than in its demand for superior character.—*Childhood*.

Literary Notes.

Do people really love trashy literature, or do they read it chiefly because it is cheap and easily accessible? Much light is thrown on this inquiry by the experience of *The Forum*, which is at the very farthest remove from sensationalism. This leading monthly reduced its price from \$5 to \$3 a year, and discovered almost instantly that the number of readers of serious literature in the United States was as great—or well-nigh as great—as the number of readers of the "popular" magazines. The publishers report a continuous increase, and an increase at a faster rate since the January number appeared than before. The edition for February will, it is believed, be larger than any edition of any review ever hitherto published anywhere.

THE name of Oliver Wendell Holmes in the list of contributors to the February *Atlantic Monthly* is a reminder of the Autocrat's unbroken connection with the magazine. Francis Parkman is the subject of this latest poem by Dr. Holmes. Two more significant names in American letters could hardly be brought together. A valuable portion of the same number is devoted to H. C. Merwin's article on Tammany Hall—a clear, dispassionate statement of the great political machine's methods and achievements. Another article of special interest is "The Educational Law of Reading and Writing," by H. E. Scudder, which carries out the *Atlantic's* purpose of giving its readers from time to time papers of special interest to teachers in schools and colleges. Houghton, Mifflin & Co., Boston.

IN *The Popular Science Monthly* for February, Dr. Andrew D. White contributes the first of a new group of his Warfare of Science papers under the special title of "The Visible Universe." The recent death of Prof. Tyndall gives occasion for an account of "Tyndall and his American Visit," containing some interesting letters, which is furnished by Miss E. A. Youmans. There is also an estimate of the man and his work in the Editor's Table. Prof. Wesley Mills, M.D., writes on "Heredity in Relation to Education," and suggests to teachers that they can learn much as to the proper treatment of their pupils by observing the characteristics of the parents. Each of the eight or ten other articles has its special interest for thoughtful readers. New York: D. Appleton & Co. Fifty cents a number, \$5 a year.

THE complete novel in the February number of *Lippincott's* is "The Picture of Las Cruces," by Christian Reid. The scene is laid in Mexico, and chiefly in the ancient house of a noble family. Gilbert Parker's serial story, "The Trespasser," reaches its sixth chapter with sustained interest. "Dr. Pennington's Country Practice," by Butler Munroe, is a lively and amusing story. "Dick," by George Grantham Bain, tells of an office-boy whose unobtrusive virtues wrought a reform among editors and reporters. "A House that Jack Built," by Philo Andrews Tucker, is a quaint sketch with a moral. Among other papers are "A Study of Pawnbrokers," "The Science and the Art of Dramatic Expression," "Norwegian Hospitality," "Freaks." In "Talks with the Trade," the question, "Have Young Writers a Chance?" is discussed. There is the usual amount of poetry.

AMONG the thirteen valuable articles, covering a wide range of subjects, in the February *Forum* (reduced to \$3.00 per year), are two important papers on the "Great and Pressing Problems of Poverty," "Relief for the Unemployed," by Mrs. Josephine Shaw Lowell, perhaps the greatest authority on this class of subjects in America, and "The Personal Problem of Charity," by the Rev. Dr. Lyman Abbott; an entertaining review of literary production in the Victorian era, pointing out the peculiar tendencies of literature in its several branches, by the distinguished critic Frederic Harrison; a suggestive paper by Mr. Oscar Chrisman of Clark University, on a new department in education, namely, "The Scientific Study of Child-life," which is a most fruitful field now of educational experiment and development; and a striking article by Prof. J. H. Hyslop of Columbia College, to show that the so-called religious teaching both in the public schools and in our higher institutions is really no religious teaching at all—a thankful article which goes to the bottom of a radical defect in our general educational methods.

Mathematics.

All communications intended for this department should be written on one side of the sheet only and should be addressed to the Editor, C. Clarkson, B.A., Seaforth, Ont.

CORRESPONDENCE.

Our acknowledgements are due to the following correspondents for solutions of the problems whose numbers are given opposite the names.

- RUSTICUS, Toronto, 96, 97, 98, 99, 100.
- W. BICKELL, Branchton, " "
- C. S. BURTON, Elmvale, " "
- LILLIE E. PENNY, " "
- E. MOSGROVE, KIRKFIELD, " "
- E. T. SEATON, Port Dover, " "
- J. A. TAYLOR, Pickering College, 97, 98, 99, 100.
- Unsigned, " "
- A. PATTERSON, Wallacetown, 96, 97, 98, 100.
- J. A. SHORT, Pakenham, " "
- W. H. DAY, Innerkip, 96, 97, 98.
- L. S. O., Brantford Y. L. College, 97, 99, 100.
- C. R. CLAPP, Waterford, 98, 100.
- W. J. KEARNEY, Bosanquet, " "
- W. E. GIBSON, South Mountain, " "
- W. N. CUTHBERT, Verschoyle, " "
- J. D. NICOL, Eganville, 92.
- A. N. SCARBOW, Bruce Mines, 96.
- D. McMILLAN, Lorneville, 68.
- H. C. W., West Oxford, 68.
- D. J. McLEAN, Strathroy, Nos. 3, 18, 19 for 1894.
- Unsigned, Strathroy, Nos. 3, 19 for 1894.
- E. KESNER, Fairplay, Colorado, solved several problems but his letter has unfortunately been mislaid.

All the friends in this excellent array of names deserve the thanks and the best thanks of the readers and the supporters of the JOURNAL.

SOLUTIONS.

No. 68.—Sept. 1893; No. 26, p. 146, Pub. Sch. Arith., D. McMillan sends the following:

Bot. 50 yds. for \$7.62, part at 13c., part at 18c. Now 25 yds. at 13c. and 25 yds. at 18c. would cost \$7.75, an excess of 13c., which shows that we have too many yds. of the dearer cloth. 26 yds. at 13c. and 24 yds. at 18c. would cost \$7.70. The excess is reduced 5c. by taking 1 yd. less of the dear and 1 yd. more of the cheap cloth, or 1c. by taking $\frac{1}{2}$ yd. less of the dear and $\frac{1}{2}$ yd. more of the cheap cloth, or 13c. by taking $\frac{1}{2}$ yds. less of the dear and $\frac{1}{2}$ more of the cheap; i.e., $2\frac{1}{2}$ yds. less than 25 = $22\frac{1}{2}$ yds. of the dearer cloth; $2\frac{1}{2}$ yds. more than 25 = $27\frac{1}{2}$ yds. of the cheaper cloth.

N.B.—A senior third class pupil ought to understand this solution.

H. C. W. proceeds in this way:

$$\begin{array}{r} 13 \quad \quad 18 \\ \hline 13 \quad \quad 13 \\ \hline \quad \quad \quad 112 \end{array} = 762$$

$$\begin{array}{r} 13 \quad \quad 13 \\ \hline \quad \quad \quad 650 \end{array}$$

Draw a line on the blackboard representing the piece of cloth, dividing it into two parts, the left part representing the number of yds. at 13c. and the right part the number of yds. at 18c. Draw a second line under the first, equal to it, representing the same piece of cloth at 13c. per yd., placing the figures as in the diagram.

Now it is easily seen that the cost of the piece of cloth at (13c. and 18c.) exceeds the cost of the cloths at 13c. by the value of the 18c. piece at 5c. per yd. For the difference in the values of the two pieces of cloth is seen to be in the right-hand pieces, one of which is 18c. per yd., the other 13c. per yd. But the difference of the values is 112c. the right-hand piece or the 18c. piece at 5c. = 112c.; hence there are $22\frac{1}{2}$ yards on it and $27\frac{1}{2}$ in the remainder.

N.B.—After all, why not use an equation? Are public school pupils now-a-days prohibited from using simple equations? See how easy it is when x = No. yds. at 13c.; y = No. of yds. at 18c.:

$$\begin{array}{l} x + y = 50; \\ 13x + 18y = 762; \\ \therefore 13x + 13y = 650; \end{array}$$

$\therefore 5y = 112, y = 112 \div 5$, and no one will think of trying to make it more plain why 112 is to be divided by 5. H. C. W. struck a good trail, however, when he represented the price to the eye by means of lines, but it is plain that he ought in some way to use rectangles. Price \times No. = value; length \times breadth = area; hence if the length of the rectangle represent the number of yards and the breadth represent the price per yard, the area of the rectangle must represent the value of the cloth, each square unit in the rectangle corresponding to unit of value in the total price of the cloth. Now very likely before another moon has waned several of our correspondents will have found an improved geometrical representation of the relations in this problem which will appeal still more successfully to "the trusty eye." The thing seems possible; who will be the lucky person to hit on a perfect geometrical method of exhibiting to the eye the clue to the labyrinth of mystery surrounding the operation, $112 \div 5$?

The following neat solutions are by Mr. Burton:
No. 96.—Area of smaller end of cone $7^2 \times 2^2 = 154$ sq. ft.
Area of larger end of cone $(\frac{3}{2}7)^2 \times 2^2 = 478.063$ sq. ft.

Geometrical mean 271.333 sq. ft.
Volume = $(154 + 478.063 + 271.333) \times \frac{1}{3}$ height = 2710.19 cub. ft. Ans.

No. 97.—Find volume as in No. 96: $(113.143 + 176.785 + 141.428) \times \frac{1}{3}$ height = $862.71 +$ cub. ft. $862.71 + \times$ No. of gallons in cub. ft. $(6\frac{1}{2}) = 5391.96 +$ gallons. Ans.

No. 98.—Minute hand travels over 60 minute spaces in 60 minutes, therefore to travel over $20 + d$ min. spaces (d equals No. of min. spaces between fig. IV. and min. hand at time required) $20 + d$ minutes will be required.

Again the hour hand travels 5 min. spaces in 60 minutes.

$\therefore 2d$ min. spaces in $12 \times 2d = 24d$ minutes.
It requires the same time for the hour hand to travel $2d$ min. spaces as it does the min. hand to travel $20 + d$ min. spaces.

$\therefore 24d$ min. = $20 + d$ min.
 $d = \frac{20}{23}$ minutes \therefore time is $20\frac{20}{23}$ min. after 4 o'clock. Ans.

No. 99.—Let s = sum and a = rate per cent.
 $s(\frac{100+a}{100})^2 = 648.96$

Again $s(\frac{100}{100+a}) = \$576\frac{1}{2}$
 $s = \frac{7500}{13} \times \frac{100+a}{100}$

Then $\frac{\$7500}{13} \times \frac{100+a}{100} = \$648.96 \times (\frac{100}{100+a})^2$
 $(100+a)^3 = 1124864$
 $100+a = 104$
 $a = 4\% =$ rate. Ans.

Substitute for a : $s = \frac{\$7500}{13} \times \frac{100+4}{100} = \$600.$ Ans.

No. 100.—During the time the minute hand travels over one minute space the hour hand travels over $\frac{1}{12}$ of a min. space and the second hand travels over 60 min spaces.

Let x be the number of min. spaces passed over by the minute hand at the time required, then

$$2(25 \text{ min. sp.} - x \text{ min. spaces} + \frac{x}{12} \text{ min. sp.}) = 60x - x \text{ minute spaces.}$$

$$\therefore x = \frac{25}{11}, \text{ i.e. } \frac{25}{11} \text{ min. after 5 o'clock. Ans.}$$

No. 100. (a). Sent by A. L.—A man can row 4 miles an hour in still water and takes 1 hour 12 min. to row that distance up a river. How long will it take him to row down again?

SOLUTION BY THE EDITOR.—The stream has increased the time by $\frac{1}{5}$ of itself, hence the rate has been decreased by $\frac{1}{5}$ of itself. See *Clarkson's Problems* Chap. IX. etc.; $\frac{1}{5}$ of 4 = $\frac{4}{5}$ mile = rate of stream per hour. Down rate = $4\frac{4}{5}$; time = $4 \div 4\frac{4}{5}$ hr. = $51\frac{1}{5}$ min.

No. 100 (b). Sent by SUBSCRIBER.—If a man start out with \$100 to buy cattle at \$10 each, sheep at \$3 each, and geese at 50 cents each, so as

to purchase altogether 100 animals, how many of each must he get?

SOLUTION BY THE EDITOR.—If c, s, g , represent the numbers of cattle, sheep and geese respectively we have the equations, $c+s+g = 100$; $10c+3s+\frac{1}{2}g = 100$. We have only two equations for three unknowns, which shows that the problem is indeterminate and may have no solution or may have an unlimited number of solutions. Multiply the second equation through by 2 and subtract the first and $19c+5s = 100$; i.e. $3c+\frac{1}{2}c+s = 20$. Now from the "nature of the beasts" purchased, c and s must be whole numbers, hence $3c+s$ is a whole number, and as 20 is also a whole number, $\frac{1}{2}c$ must be an integer. If we put $c = 1, 2, 3, 4, 5$, etc. we find that 5 is the only value that gives a solution. If we take, $c = 5, s = 1$ and $g = 94$; but if we take $c = 10, s = g = 0$, which is not admissible, the only answer therefore is 5 cattle, 1 sheep, 94 geese.

PUBLIC SCHOOL LEAVING EXAMINATION.

Our friend J. S. requests us to publish some test papers suitable for this grade of work. In algebra he will find abundance of fresh material in the *Public School Algebra on the Inductive Plan* (Toronto 1894, 30 cents). Nearly every primary geometry gives a fair supply of easy exercises, for example *Hamblin Smith's Geometry*, Bk. I., *McKay's Euclid*, Bk. I., *Pott's Euclid*, Bk. I., etc. One of the best books in print for a class beginning the subject is by President Hill (Ginn & Co., Boston). For those who wish to know how to teach geometry to young pupils it is a very valuable book, and the price is small. A postal card will bring the catalogue of the publishers with price which we do not now remember. The pressure on our space is at present so great that we cannot at present publish papers in algebra and Euclid, but the following papers in arithmetic are exactly suited to our friend's wants and they have also a wider interest to teachers generally.

PROFESSIONAL EXAMINATION QUESTIONS.

SECOND AND THIRD GRADE TEACHERS—STATE OF NEW YORK.

No. 1.—October 1893.

1. Using the sign of per cent., write (a) one hundred twelve per cent.; (b) three and three-eighths per cent.; (c) three-sixteenths per cent.; (d) sixty-nine one hundredths per cent. Reduce each of these per cents. to the form of a decimal.

2. Find the square root of .01296. (Correct to three decimal places.)

3. An agent having in his hands \$3,150 of his principal's funds is instructed to invest it in barley at 48c. per bush., after retaining his commission of 5%. How many bush. should he buy?

4. If the premium paid for insuring a building is \$132, and the rate charged is $\frac{1}{4}\%$, what is the face of the policy?

5. If $\frac{3}{7}$ of a stock of goods be sold for $\frac{2}{3}$ of what the stock cost, what is the per cent. of gain or loss?

6. If one-fifth be allowed for matching and waste, how many sq. ft. of lumber will be required for flooring and ceiling a porch 17 ft. 4 in. by 7 ft. 6 in.?

7. The net price of a furnace sold at 30%, and 10% off from list-price is \$151.20. Find the list-price.

8. What fractional part of $\frac{1}{4}$ of a gallon is $\frac{3}{8}$ of a pint.

9. Make and solve a problem illustrating the practicable application of least common multiple.

10. The difference in time between two places is 2 hrs. 33 min. Find the difference in longitude.

RESULTS.

- 1. (a) 112%—1.12. (b) $3\frac{3}{8}\%$ —.03375. (c) $\frac{3}{16}\%$ —.001875. (d) $\frac{69}{100}\%$ or .69%—0.69.
- 2. .113+
- 3. 6.250 bushels.
- 4. \$16.500.
- 5. $8\frac{1}{3}\%$.
- 6. 325 square feet.
- 7. \$240.
- 8. $\frac{1}{10}$.
- 9. Answers will differ.
- 10. $38^\circ 15'$.

No. 2 — December 1893.

1. Using proper symbols of abbreviations, write (a) a number containing all the denominations of Troy weight; (b) a number containing all the denominations of the table of English money; (c) a number containing all the denominations of square measure.

2. Give all the arithmetical classifications applicable to the number 824.

3. At \$38.50 per ton for steel rails, what will be the cost of rails weighing 80 pounds to the yard, for 90 miles of track?

4. $8 \times 3 + 8 - (13 - 4) \times (19 - 15) = (18 - 10) \times 7 - (?) - 33 \times 3$. Find the missing number in the equation.

5. Reports in the Bureau of Labor Statistics from three manufacturing establishments show that in one the average weekly wages paid to 262 operatives was \$12.85, in another to 355 operatives \$13.84, and in the third to 128 operatives \$15.11. Find the average weekly wages for all three establishments.

6. Two highway districts buy a road machine for \$285 and pay the freight from the manufactory, one district paying $\frac{2}{3}$ and the other $\frac{1}{3}$ of the entire cost. The cost to the first district being \$127.50, how much was charged for freight?

7. Reduce 3 pks. 7 qts. 1 pt. to the decimal of a bushel.

8. If a jeweller marks goods 50% above cost, what discount from marked price can he give a customer, and still make 33 $\frac{1}{3}$ % profit?

9. If Tennessee 6% bonds are selling at 87, how much money must be invested in them to secure an annual income of \$750?

10. Find the face of a note given for two months without interest, and discounted the day it was made at a bank at 6% per annum, the proceeds being \$97.

RESULTS.

1. (a) . . lb. . . oz. . . pwt. . . gr.
- (b) £ . . s. . . d. . . far.
- (c) . . sq. mi. . . A. . . sq. rd. . . sq. yd.
- . . sq. ft. . . sq. in.
2. 824 is even, integral, abstract and composite.
3. \$487.872.
4. 34 $\frac{1}{2}$.
5. \$13.71
6. \$12.50.
7. .984375 of a bushel.
8. 11 $\frac{1}{3}$ %.
9. \$10,875.
10. \$98.03.

REMARKS.

1. The *Public School Arithmetic* has been divided into two books as we suggested last September, but the division is no improvement and the supplement will not be of much service to the schools, notwithstanding the fact that it contains some good work. If the teachers of Ontario wish to know whether the ideas we expressed in September can be successfully carried out, a book just issued in Boston supplies the proof. Had the book been printed when we wrote our article, most people would have thought that the Editor had simply appropriated the plan of Atwood's *Complete Arithmetic* (D. C. Heath & Co., Boston). The first part costs 45 cents, the second part 85 cents, and they contain 200 and 382 pages, size 5 $\frac{1}{2}$ x 7 $\frac{1}{2}$ inches, well bound in cloth and leather. One of these books would outlast a whole dozen of our Public School Arithmetics. The contents are arranged for what they call the 4th, 5th and the 6th, 7th and 8th grades. It would greatly assist our teachers to find out precisely what they need if a copy of this book could be placed on every teacher's desk, and the book would be a great help in other ways. Observe that no one connected with the JOURNAL has the most remote interest in the sale of this book, rather the reverse. We must have better tools—better text-books; teachers must lead the way in procuring them and the political clap-trap of "cheap, cheap," must be exposed and silenced. Let the leaders of the profession take the initiative at the conventions.

2. RUSTICUS sends the following equations for solution:

No. 22. $-x + y + z = 11$; $x^2 + y^2 + z^2 = 49$; and $yz = 3x(y - z)$. The roots appear to be 2, 3,

6. Can some one find all the roots and give a concise solution?

3. A FRIEND whose name and address have been lost, states that he finds great difficulty in dealing with the mensuration of solids and asks for the names of some good books on this subject. We mention *An Elementary Treatise on Mensuration* by E. J. Henchie (Moffatt & Paige, London, 3/6); *Mensuration for Beginners*, by I. Todhunter (Macmillan & Co., New York); and *The Elements of Plane and Solid Mensuration* with copious examples and answers, by F. G. Brabant (Longmans, Green & Co., New York, 3/6). The latter is a complete work, the first will suit public school work best.

4. Many correspondents send questions to the JOURNAL that could be best answered by sending a postal card to the EDUCATION DEPARTMENT asking for the official circular, which would give full information. Everything relating to courses of study, examinations, school law, etc. should be addressed to the Deputy Minister of Education, Toronto. Every teacher ought to have the circulars relating to the Entrance, P. S. Leaving and Primary Examinations for ready reference in regard to drawing, book-keeping, penmanship, botany, physics, etc. An ignorant man is one who does not know the commonplaces of his daily work—like the reader of the JOURNAL who asks for the solution of a problem in January that was solved several times in different ways last autumn.

5. A great many correspondents have received private replies to their letters this month which we hope will be of use to them in their imperishable work that will outlast the pyramids, yes the solar system itself. The spirit of self-help which is conspicuous among the readers of this periodical is a most hopeful sign for the coming century.

For Friday Afternoon.

AN AWFUL STORY.

There is a little maiden
Who has an awful time;
She has to hurry awfully
To get to school at nine.
She has an awful teacher;
Her tasks are awful hard;
Her playmates all are awful rough,
When playing in the yard.
She has an awful kitty,
Who often shows her claws;
A dog who jumps upon her dress
With awful muddy paws;
She has a baby sister
With an awful little nose,
With awful cunning dimples,
And such awful little toes!
She has two little brothers,
And they are awful boys;
With their awful drums and trumpets,
That make an awful noise.

Do come, I pray thee, common sense;
Come and this little maid defend;
Or else, I fear, her awful life
Will have an awful end. —Selected.

WHAT THE SCHOOL BELL SAYS.

It is wonderful what unlike things
The school bell says to the boys when it rings!
For instance, the laggard, who drags along
On his way to school, hears this sort of song:

O—suz—hum!
Why did I come?
Study till four—
Books are a bore!
O how I wish
I could run off and fish.
See! there's the brook,
Here's line and hook.
What's that you say?
Hurry up—eh?
O—hum—ho!
S'pose I must go
Study till four.
Books are a bore!

Then the boy who loves to be faithful and true,
Who does what his parents think best he should do,
Comes bravely along with satchel and books,
The breeze in his whistle, the sun in his looks;
And these are the thoughts that well up like song,

As he hears the old bell with its faithful ding-dong:

Cling, clang, cling—
I'm so glad, I could sing!
Heaven so blue,
Duty to do;
Birds in the air,
Everything fair.
Even a boy
Finds study a joy!
When my work's done
I'm ready for fun,
Keener my play
For the tasks of the day.
Cling, clang, cling—
I'm so glad, I could sing!

These are the songs which the two boys heard,
When the school bell was ringing, word for word,
Which do you think was the truer song?
Which do you hear as you're trudging along?
Don't be a laggard!—far better, I say,
To work when you work, and play when you play!
—Journal of Education.

WHEN IT'S COLD.

When needles are in your fingers and toes;
When icicles hang from the snow-man's nose;
When the frost on the pane makes sugary trees,
And wagon-wheels over the hard ground wheeze;
When the toughened old farmer flings round his arms
As if he'd throw them across two farms;
When ears are rubbed and noses are red,
And sheets are like ice in the spare-room bed;
When water-pipes burst, and wells freeze up,
And the tea isn't hot when it leaves the cup;
When stray dogs coming along the street
Never stand for a second on all four feet;
When little boys cry if they have to be out,
And are heard for a full half-mile if they shout;
When the day is as clear as the thoughts that fled
Out into the world from Shakespeare's head;
When the air about seems as still as a rock,
And a sudden noise is a sudden shock,
And the earth seems deserted, lonely, and old—
You are pretty sure that it's pretty cold!
—St. Nicholas.

A NEW YEAR'S "IF."

If any little word of mine
May make a life the brighter,
If any little song of mine
May make a heart the lighter,
God help me speak the little word,
And take my bit of singing
And drop it in some lonely vale.
To set the echoes ringing!

If any little love of mine
May make a life the sweeter,
If any little care of mine
May make a friend's the fleetier,
If any lift of mine may ease
The burden of another,
God give me love, and care, and strength
To help my toiling brother!

THE THREE VOLUMES.

Life is a story in volumes three,
"The Past," "The Present," "The Yet To Be."

The first is finished and laid away,
The second we're reading day by day;

The third and last of the volumes three
Is locked from sight. God keepeth the key.
Toronto. —LIZZIE WILLS.

THE nineteenth century makes large demands of us, and nowhere greater than in the demand for superior character.—Wm. A. Mowry, Salem, Mass.

THE important question when a pupil leaves school is not how much he knows, but how much he is, how much he can bring to pass.—Supt. Emerson, Buffalo.

"How much for this porcelain bust of Louis XVI?"
"Forty marks."
"Forty marks? Why the head, as you see, is cemented on!"
"Quite true; but you must certainly be aware that Louis XVI was beheaded!"—Fliegende Blätter.

Hints and Helps.

THE QUEEN'S ENGLISH.

WE clipped some time ago an article from *The Schoolmaster*, commenting on a book which was published a year or more ago in England, by an author who wrote under the pseudonym of "Anglophil." Some extracts from the articles may yet be useful as well as interesting:—

Having half-excused the talkers, the writer proceeds to remind us that *Litera scripta manet*, and to assert that "it is the writers, not the speakers, who make and mar a language." The book consists very largely of

FAULTY SENTENCES WITH CORRECTIONS,

and the writer justly prides himself upon the number and variety of his examples. We may cull a few samples of the author's method. Thus he deals with sentences containing alternative subjects, one singular and one plural, and the temptation to make the verb agree with the nearer subject, *e. g.*,

One's own room, or two rooms, are really a home.

In choosing his verb, the writer is on the horns of a dilemma, and Anglophil solves the difficulty by re-casting the sentence:

One's own room is really a home; if one has two rooms, so much the better. Before we have turned over many pages, we find the author at war with those terrible pronouns—the cause of shoals of errors. Here is a sample:

"There was scarcely a girl who did not regard the old ladies as their best of friends."

This class of error is easily corrected, but immediately after we are reminded of what is "a felt want"—a singular personal pronoun, corresponding with "their," and applicable to either sex. Thus in the pillory we find:

Putting everyone else at their ease.

Syntax requires "his" or "her" in place of "their," but probably the speaker means both "his" and "her"; the word he requires does not exist, and the poverty of our language must partly excuse his mistake. After more about the pronouns, our author lays down the rule in regard to nouns of multitude—are they singular or plural?

"In deciding whether the former or the latter should be employed, it is necessary to consider whether the idea conveyed by such noun is that of unity or plurality; that is to say, whether the notion of a whole or that of a number is the more prominently presented to the mind by the term used; in the first case the verb and pronoun should be in the singular number, in the second in the plural."

And as typical instances we may quote:

The Government is treating with the Home Rulers.

The crowd were inattentive; part of it were talking and part of it were eating oranges.

"People," we learn, should be used only in the collective sense; in far too many cases it is wrongly used for "persons." The common error of using an objective for a nominative is condemned, *as, e. g.*—

It must have been her (she).

Anglophil shows true instinct in deprecating the undue use of superlatives. He would replace most of our "mosts" by "verys," reserving "most" for full-dress and truly superlative occasions. He is down on another intensitive suffix and would banish "ever" as meaningless from all such sentences as this:

What ever has he done?

After putting us right in the use of "as," "so," "such," and some of their relatives, he lays down a rule about negatives and quasi-negatives that will not be universally accepted. Thus

"I don't intend to stand" should be "I intend not to stand."

If the latter is preferred by the purist, the former

is the more idiomatic, and it is sanctioned by the well-known Latin analogue.

"He says he has not done it"—*negat se fecisse*.—"He denies that he has done it," in other words the negative is attracted into the principal verb.

On the other hand the misuse of "only" is one of the most common and palpable of all our grammatical blunders. Closely akin in the misfortune of misusage are "scarcely," "never," "hardly," "seldom," "even," and others whose proper function is fully illustrated. In the controversy that is waged around "Two first" *v.* "First two" and analogous forms, Anglophil unhesitatingly supports the latter.

FULL JUSTICE IS DONE TO THE PREPOSITIONS, and we have chapters on wrong prepositions, superfluous prepositions, omitted prepositions, and misplaced prepositions. Naturally the verb claims a great many pages, and common errors are corrected; thus the author warns us against the usual "try and" for "try to," as in

I will try to (not and) do all you wish.

Superfluous "theres" are properly excluded, and then we come to sections on "to be," "to have," "to do," past tense and participial forms, and so forth. That classical *crux*, the sequence of the tenses, has its counterpart in English, and well-constructed exercises guide us through the mazes.

THE SUBJUNCTIVE MOOD

is dealt with very carefully and fully, the general rule being thus perspicuously set forth:

The subjunctive mood, then, exhibits an event or action as contingent, conditional, or uncertain. It is preceded by a conjunction, expressed or implied, and is accompanied by another verb. There is one other very important point to be considered before deciding whether the subjunctive or indicative mood should be used, namely futurity. The subjunctive mood is necessary when these two conditions concur; when the action or event is of a conditional, contingent, or uncertain nature; and when the action or event has reference to a future time. Neither contingency alone, nor futurity alone, permits the use of the subjunctive mood. When contingency and futurity are *not* united in the event or action to be expressed, the indicative mood is required; when they *are* united, the subjunctive.

The examples are numerous and well chosen, and an intelligent study of them may help to lengthen the waning career of the "doubtful" mood.

Question Drawer.

D. G. F.—No. 6 copy book is no doubt meant. But its use is not compulsory. The work may be done in any blank book. The examiners are instructed to make no discrimination.

C. W. J. would like to procure portraits of the successive Governors-General of the Dominion, suitable for the walls of the school-room. We do not know whether or where such portraits can be procured. Does any reader?

L. A. AND OTHERS.—Withrow's History of Canada is probably the largest and fullest single volume of the History of Canada available. Bryce's, somewhat smaller, is also a good work. Either of these can be procured through us or any of the booksellers advertising in our columns.

PANSY.—Copies of the School Law are, we think, on sale at the Education Department. Write also the Deputy Minister of Education, Toronto, for circular giving qualifications for Third-Class Certificates. This will contain Literary Selections. Ask also for circular re Entrance Examinations.

D. N. W.—Write to the Deputy Minister of Education, Toronto, for circular containing Prose and Poetical Selections and all other subjects prescribed for Fifth Class. We are not aware that any notes in these selections have been published, but we will try to have notes on some of them at least in subsequent numbers of the JOURNAL.

IN "Question Drawer" of your last issue of the JOURNAL, an inquirer asks for approximate time an average child should spend in each reader. My experience has been as follows: Part First, 1½ years; Part Second, 1 year; Second, 1 year; Third, 1 year; Fourth, 1½ years. This gives the pupil six years which is about correct, if he attends regularly.—W. H. CLARKE.

SUBSCRIBER asks what are the seven principles of writing? He also wishes us to recommend a work in penmanship. We are not aware that there are just seven principles of writing—no more, no less, nor are we prepared to select any work on penmanship for special recommendation. Perhaps some teacher of penmanship among our readers can throw some light on the subject.

J. W. M.—There are now forty-four States and five Territories in the American Union. There are forty-five County and District Municipalities in Ontario, which is probably what you wish to know. Of these Algoma, Nipissing and Rainy River are Districts, while in several cases two or three counties are united in one municipality, as Lennox and Addington; Stormont, Dundas and Glengarry, etc.

E. A. H.—The Commercial Forms, of which at least two examples pertaining to the set in Book-keeping are required for the Public School Leaving Examination, are given in the blank books prepared by R. H. Eldon (Gage & Co.) Toronto. They are such as notes, drafts, cheques, acceptances, bills of exchange, account-sales, etc. It would pay you to buy a good work on book-keeping, such as those generally used in business colleges.

E. A. T. and several others ask us to publish lists of the literary extracts prescribed for Entrance and for Public School Leaving examinations. To keep publishing these from number to number, as they are asked for, would occupy too much space in the JOURNAL. Moreover, it is quite unnecessary to do so, as the circulars containing them may be had on application to the Education Department. Please read the remarks of the Mathematical Editor at the end of his column. We endorse them.

W. G. C.—The following certificates are awarded at the final examination in the School of Pedagogy: High School Assistants and Specialists' Certificates after a session at the school; and First-Class Certificates to candidates who, holding a Second-Class Certificate, and having completed the twenty-first year of their age on or before the close of the session, have had two years' successful experience in a Public School, or who, holding a Second-Class Certificate, have attended a session of the School of Pedagogy.

A. B.—As the Departmental Regulations prescribe for Fifth Form "Bookkeeping, Single and Double Entry," we should suppose that the "ten foolscap pages" of school work should embrace both. Your Inspector can no doubt give you the exact information required. For second question see answer elsewhere in this Drawer. In regard to your third question we have no information save what is given in the Departmental circular. If you have not that, write to the Department for a copy. If this is not clear, apply to the Inspector or to the Deputy Minister of Education. Perhaps your fourth suggestion may be carried out. We do not know whether all the papers are now procurable.

A SUBSCRIBER says that he finds that his Part First and Second Book Classes (presumably French children) although able to read the French exercises in the Bi-lingual readers expressively and fluently, completely fail in the reading of the corresponding English lessons, although considerable effort has been made to assist them in the preparation. It must be borne in mind that to the majority of the French children the English is a new language. They do not know the meanings of the words, and the constructions are strange to them. The essential thing in teaching any new language is to get the pupil as soon as possible into the way of thinking the thought as the people who use that language do, not as we do. This will, of course, require much time and patience. Perhaps some teacher of larger experience in the use of the bi-lingual books may be able to give our correspondent some useful hints. "Subscriber's" other requests will be, as the leaders of the government say, "carefully considered."

Children

who are thin, hollow-chested, or growing too fast, are made Strong, Robust and Healthy by

Scott's Emulsion

the Cream of Cod-liver Oil. It contains material for making healthy Flesh and Bones. Cures Coughs, Colds and Weak Lungs. *Physicians*, the world over, endorse it.

Don't be deceived by Substitutes!

Scott & Bowne, Belleville. All Druggists. 50c. & \$1.

CRANSTON'S NEW SCHOOL MUSIC

At 10 per cent. Discount for Cash with Order.

And Recitation Dialogue Books

Of all kinds 10, 15, 25 and 35 cts.

The Student Minstrel, a new book of Glees, Choruses, etc., for schools and colleges.
The University Song Book, paper, 90c., cloth, \$1.25.
The College Song Book, paper, 75c., cloth, \$1.
Golden Thoughts in Song, most delightful and original book, 35c., \$3.50 a dozen.
Merry Songs, a new and choice book, 35c., \$3.50 a dozen.
Silvery Notes, by S. G. Hanson, 15c., \$1.65 doz.
Merry Melodies, the BEST OF ALL for the Public School, paper 15c., \$1.65 a dozen, board 20c., \$2.25 a dozen.
Also Maps, Globes, School Books, etc., all at 10 per cent. cash on all orders for one or more. Books of any kind for School, Home or Church. Send for what you want or ask prices.

J. K. CRANSTON,
GALT, ONT.

Lessons in

Entrance

Literature

FOR 1894.

Edited by Fred H. Sykes, M.A.

PRICE 25 CENTS.

Sent Post Paid on Receipt of Price

The EDUCATIONAL JOURNAL

ROOM 20,

111 RICHMOND ST. W., TORONTO.

The Educational Journal.

BOOK SUPPLY DEPARTMENT.

FOR the convenience of our subscribers who have been accustomed to order educational and other works noticed in our columns through the office of publication

WE PROPOSE TO CONTINUE

for the present at least, to furnish such books by post or express at the advertised prices.

THE LESSONS IN ENTRANCE LITERATURE

we shall continue to publish in our English Department, but as many teachers will not care to await the slow process of publication in this way we have made an arrangement with the publishers by which we are enabled to send the book promptly by mail, postage paid on receipt of the

PRICE 25 CENTS.

Other books furnished to order as soon as they can be procured from the publishers.

ADDRESS,

The Educational Journal,
Room 20,
111 1/2 Richmond Street West,
TORONTO.

THE FISK TEACHERS' AGENCY

32 CHURCH ST., TORONTO.

It furnishes a medium of communication between Teachers and School Boards. Many good positions in North-West and elsewhere now vacant. Terms to teachers on application. No charge to School Boards. When in the city call and see us.

W. O. McTAGGART, B.A., Manager.

Guaranteed Foot Balls.

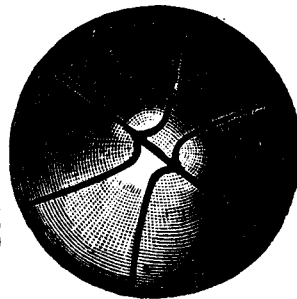
"THE SCOTCH KING"

SOLD ONLY BY J. K. CRANSTON, GALT.

EVERY BALL FULLY TESTED AND PROVED O. K.

THE Best Quality, Shape & Rubber CRANSTON'S "SCOTCH KING"

No. 5 \$3.00, less 10% Cash Discount.



FOOT BALLS

Only One Quality Sold.

Tomlinson's Patent Shape.

Mailed or expressed free on receipt of price, with book of directions and rules free.

Numerous testimonials read like this:

DEAR SIRS,—Our boys and club are greatly pleased with the Foot Balls they received.

W. A. HUTTON,
Prin. P. Schools

Tilbury, Jan. 20, 1894.

PRICES:

No. 3, \$2.00 less 10% for cash	Net \$1.80
" 4, 2.50	" 2.25
" 5, 3.00	" 2.70
" 6, 3.50	" 3.15

Our Shin Guards at 50c., 75c., \$1 and \$1.25 prepaid are the best value in Canada. Send for sample set.

For Maps, Globes, Dictionaries, and Black-board Slating send for price lists. We give 10% cash discount on all books and supplies wanted.

J. K. CRANSTON,

WHOLESALE AND RETAIL,

GALT. - - ONTARIO.



The Cyclostyle Duplicating Apparatus—For Duplicating, Writing, Drawing, Music or Typewriting.

Two thousand exact copies from one writing, each copy having all the appearance of an original. Simple, rapid, clean and durable. Endorsed by upwards of 2,000 firms, corporations and institutions throughout the Dominion. Invaluable for teachers and schools for reports, examination papers, circulars, blank forms, instructions, notices, maps, and all classical work. Used in most all our colleges, and rapidly being taken up by our principal schools. Write for circulars and testimonials.

CYCLOSTYLE CO.,

16 KING ST. EAST. - - TORONTO.

Commence at once with Vertical Writing

No progressive teacher will be satisfied without giving this system a fair trial. So far it has established itself wherever tested. Business Men, School Inspectors and Leading Educators everywhere are commending it and urging its introduction. Our book presents a carefully planned and thoroughly tested system, contains eleven cuts illustrating position, pen-holding etc., more than 100 copies systematically arranged for all classes of learners.

All subscription orders have been filled, and we shall now be prepared to mail books the day the order is received. Price \$1.00. Write for club rates.

Newlands & Row,
KINGSTON, ONT.

OFFICIAL CALENDAR

—OF THE—

EDUCATIONAL DEPARTMENT

February:

2. First meeting of High School Boards and Boards of Education. [P. S. Act, sec. 106 (1); H. S. Act, sec. 13 (1).]

March:

1. Minutes of County Council to Department, due. [P. S. Act, sec. 114.]
- Inspectors' Annual Reports to Department, due. [P. S. Act, sec. 155 (5).]
- Inspector's summary, township and village Reports to Department, due.
- Auditors' Reports on the School Accounts of High School Boards, and the Boards of cities, towns, villages and townships to Department, due.
- Financial Statements of Teachers' Associations to Department, due.
- Separate School Supporters to notify Municipal Clerk. [S. S. Act, sec. 40.]

NOW READY

Dedicated to the Teachers of Canada.

Patriotic Recitations

AND Arbor Day Exercises.

SELECTED AND COMPILED BY

HON. GEORGE W. ROSS, LL.D., Minister of Education, Toronto.

FULL CLOTH, 8VO., 390 PAGES. - - - PRICE, \$1.00

LIBERAL DISCOUNT TO THE TRADE.

THIS volume is essentially Canadian—the first of the kind ever published—and is brought out to meet an expressed desire for such a work in connection with school holiday gatherings specially, and generally for occasions of a similar nature. It is composed of four parts, viz.:

- PART I.—A TALK WITH TEACHERS.
- PART II.—CANADIAN PATRIOTISM.
- PART III.—UNIVERSAL PATRIOTISM.
- PART IV.—ARBOR DAY.

FROM THE PREFACE.

"The patriotic selections are of two kinds, Canadian and general. The greater number of the Canadian selections appear for the first time for the purpose of recitation. They breathe a genuine Canadian spirit and are, moreover, generally of high literary merit. Many of the other selections have become common property for the purpose of public declamation. They have not, however, lost their value either as exercises in elocution, or as the embodiment of a substantial and stirring patriotic sentiment."

In the large list of notable Canadian poets, from whose works selections are taken, are the following names:

- | | | |
|------------------------|----------------------|--------------------------|
| Hon. Joseph Howe, | Thos. O'Hagan, M.A., | Miss E. Pauline Johnson, |
| Chas. G. D. Roberts, | Robt. Kernigan, | Mrs. Harrison (Seranus), |
| Miss Machar (Fidelis), | Chas. Sangster, | A. M. Taylor, |
| A. McLachlan, | J. D. Edgar, | Thos. McQueen, |
| Miss Vining, | T. D'Arcy McGeie, | Ellen M. Boulton, |
| Dr. Dewart, | Chas. Mair, | Mrs. S. A. Curzon, |
| Helen M. Johnson, | W. T. White, | Arthur Weir, |
| Rev. W. Wye Smith, | Dr. Massie, | W. P. Lett, |
| K. L. Jones, | Wm. Kirby | Chas. Mair, |

Extracts from speeches of the following Canadian Orators, are given as prose recitations:

- | | | |
|------------------------|--------------------|-----------------------------|
| General Brock. | Hon. A. Mackenzie. | Sir Wm. Young. |
| Sir John A. Macdonald. | Principal Grant. | N. Flood Davin. |
| Hon. George Brown. | Dr. Ryerson. | Sir Richard Cartwright. |
| Lord Dufferin. | Hon. E. Blake. | Hon. R. Harcourt. |
| Lord Lorne. | Sir Oliver Mowat. | Sir John Beverley Robinson. |
| Sir Daniel Wilson. | Dr. McCaul. | W. J. Rattray. |
| Hon. W. Laurier. | Dr. Withrow. | Dr. Ormiston. |

No teacher or pupil in Ontario is obliged to purchase this volume as a textbook for school purposes.

The compiler has no financial interest in the publication. He has given his arduous services solely for the gratification of providing, for those who desire to use it, a collection of literature from the best Canadian sources, which, while it endows and ennobles the intellect, will also develop and cultivate a pure patriotic spirit in Canada's sons and daughters.

Warwick Bros. & Rutter, = TORONTO
PUBLISHERS, ETC.

ESTABLISHED BY A. PIDDINGTON

Mammoth Book Store

We have constantly in stock Educational Books of all kinds. Also the late works in Science and General Literature. Any book not in stock supplied on short notice, if in print. All mail orders filled promptly.

RISSEY & CO., - Successors to R. W. DOUGLAS & CO.
248 Yonge Street, Toronto, Ont.

CANADIAN OFFICE & SCHOOL FURNITURE Co. Ltd.
PRESTON, ONT.

FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS

OFFICE, SCHOOL, CHURCH & LODGE FURNITURE

SEND FOR CATALOGUE.

Vannevar & Co. Can Supply any Book You Want.

Books not in stock will be ordered from any part of the world with the Utmost Despatch.

Orders by mail will receive prompt attention.

VANNEVAR & CO., Educational Booksellers. 438 Yonge St., Toronto

Ye Olde Booke Shoppe

Inspectors, Teachers, and Students can have any Book they require by return mail, by dropping me a card.

University, College and High School Books, new and used Books for the School of Pedagogy, Normal School, and Preparatory Normal School Course.

Classical Teachers send for that admirable little book of "Latin for Sight Translation."

Books for School Entertainments. In fact any Educational work.

ADDRESS
FRANK PORTER, - 353 Yonge Street, Toronto

INK. "A Boon and a Blessing!" "An end to the Bothering Carriage of Ink."

DUCKETT'S "WORLD'S FAIR" MEDAL INK-POWDER,

Dissolves in cold water, producing the best and cheapest Black School Ink known. Genuine ink—not Aniline Dye. Writings with aniline inks smudge if wetted even months after being written, whereas writings with DUCKETT'S become waterproof by the action of the air. **NOT SPOILED BY FREEZING. NEVER MOULDS. NO DREGS.**

In canisters for half-gallons, gallons, or two gallons. Over 30,000 one-gallon canisters have been ordered by the Irish Education Department for supply to Irish National Schools.

Canada Agents: THE COPP, CLARK CO., TORONTO; W. DRYSDALE & CO., MONTREAL; D. & J. SADLER & CO., MONTREAL AND TORONTO.

St. Ann's Convent, Prince Albert, Saskatchewan, N.W.T.:—"Madame Collings testifies that DUCKETT'S Ink-Powder makes not only the cheapest but the very best School Ink we have ever used."

THE LATEST. THE BEST.

SIXTH EDITION

—OF—

Arithmetical Problems

—FOR—

Senior and Entrance Classes in Public Schools,

—BY—

G. H. ARMSTRONG, Principal Niagara Street School, Toronto.

This edition contains nearly 900 Problems. The Entrance Papers for the last twelve years are appended, also the Public School Leaving Examination Paper for 1892. The answers to all the Problems are given. No other work possesses these features. Seventy-five per cent. of the Public Schools of Ontario use it, also several Commercial Colleges.

READ WHAT TEACHERS AND INSPECTORS SAY OF IT:

I am highly pleased with your Arithmetical Problems for Senior classes. It suits my Entrance candidates exactly. A book such as this is needed by every Fourth Class pupil.—Geo. KIRK, Head Master M.S., Chatham.

I have just examined your Arithmetical Problems for Senior classes. The problems are very suitable and the collection must prove very valuable to teachers. I heartily commend it.—G. D. FLATT, B.A., P. S. Inspector, Prince Edward.

After a careful examination of your "Arithmetical Problems for Senior Classes," I find them well graded and very suitable for the purpose intended. The teacher who uses them for home or class work, will save himself a vast amount of labor, and in all probability secure to his pupils much better results.—J. S. DEACON, Inspector, Halton.

I have no hesitation in saying that for the purpose for which it is intended the work is infinitely the best with which I am acquainted. Its strong point, to my idea, is the logical sequence in the problems by which the pupil is almost insensibly led on step by step until he reaches quite a difficult style of question. The printer, too, has done his work very well, and there are but few typographical errors. I shall certainly recommend every teacher in my inspectorate to use a copy.—J. C. MORGAN, M.A., Inspector, Barrie.

High School for Girls, Montreal.
PRINCIPALSHIP VACANT.

The Principalship of this school, open to ladies only, is now vacant. The school has in attendance from 400 to 500 pupils, and its course of study extends from the Kindergarten to the University. The teaching staff consists of a Principal and about twenty assistants. The duties of the Principal require tact, discretion and good manners, and call for considerable powers of government and administration. Applications should give full particulars respecting age (which should be between 30 and 45 years), character and disposition, social status, professional qualifications, experience, etc., and should be accompanied by testimonials and references.

The present occupant of the position now receives a salary of \$1,500 per annum. Her successor must assume duty not later than 1st September next, or earlier if possible.

Communications and applications should be addressed as soon as possible to
E. W. ARTHY,
High School, MONTREAL.

Head Office, Toronto. Incorporated 1896.

THE EXCELSIOR LIFE INSURANCE CO'Y

HOW TO OBTAIN A PENSION

The Coupon Annuity Bonds, as issued by this Company, are peculiarly adapted to the needs of Clergymen, Doctors, School Teachers, and all others who desire a guaranteed competence for themselves after the lapse of a certain number of years, or absolute protection for their families in the event of previous death. These bonds are most liberal and attractive in form, the rates are materially lower than on any other level premium plan issued. On receipt of a postal card with your age and address, full particulars will be mailed you. This Company issue the most attractive plans of insurance in existence. Gentlemen wanted to act as district or local representatives of this staunch and popular Company. Address
E. F. CLARK, Managing Director.

QUICK STUDY. LATIN and GREEK at sight. Use our "Interlinear Classics." Sample pages and Catalogue of School Books, free. C. DESILVER & SONS, Pubs., Phila., Pa. Address all orders, wholesale or retail, to THE BAKER & TAYLOR CO., 740 Broadway, N.Y.

REMINGTON Standard Typewriter

Librarian House of Commerce
114 1/2 St. East. TORONTO

GE BENGOUGH
Tel. 12- May 93.

The Educational Journal,
Room 20, 11 1/2 Richmond St. W.,
TORONTO.

THE EDUCATIONAL JOURNAL is printed for the proprietor on the 1st and 15th of the month by THE POOLE PRINTING CO., LTD., 8 and 10 Lombard Street, Toronto, who are also managers of its Advertising Department.