

NATIONAL LIBRARY  
CANADA  
BIBLIOTHÈQUE NATIONALE

601/0/2185/3-6  
c.2  
5066

# The School

(Registered)

---

Vol. IV                      Toronto, December, 1915                      No. 4

---

	PAGE
Editorial Notes - - - - -	297
Hester How - - - - - <i>James L. Hughes</i>	300
Physical Education and the Strathcona Trust <i>Ethel M. Cartwright</i>	306
In the Classroom - - - - - <i>F. H. Spinney</i>	311
Solving Problems in Physics and Chemistry <i>G. A. Cornish</i>	313
Diary of the War ( <i>Continued</i> ) - - - - -	317
Letter Writing - - - - - <i>F. H. Spinney</i>	319
A Lesson in Grammar. (Junior IV Class) <i>A. N. Scarrow</i>	322
A Literature Lesson for Second Book Classes (Grades III and IV) - - - - - <i>F. E. Coombs</i>	326
Little Tots' Corner for December - <i>Helena V. Booker</i>	330
War Maps and How to Study Them - <i>G. A. Cornish</i>	334
Nature Study for December - - - <i>G. A. Cornish</i>	335
Studies in Literature - - - - - <i>O. J. Stevenson</i>	341
Teaching Notes—First Lesson - <i>Thornton Mustard</i>	342
The War and the Schools - - - - -	345
Primary Art for December - - - <i>Margaret D. Moffat</i>	350
The Designing and Collecting of Book Plates <i>M. J. Ayearst</i>	352
Art in the Public Schools - - - <i>W. L. C. Richardson</i>	359
Picture Study - - - - -	361
Hints for the Library - - - - - 299, 316, 321, 325, 333, 382	382
Notes and News - - - - -	366

Copyright, Canada, 1915, by W. J. Dunlop.

Address communications to THE SCHOOL, Bloor and Spadina, Toronto

Edited by Members of the Faculty of Education,  
University of Toronto

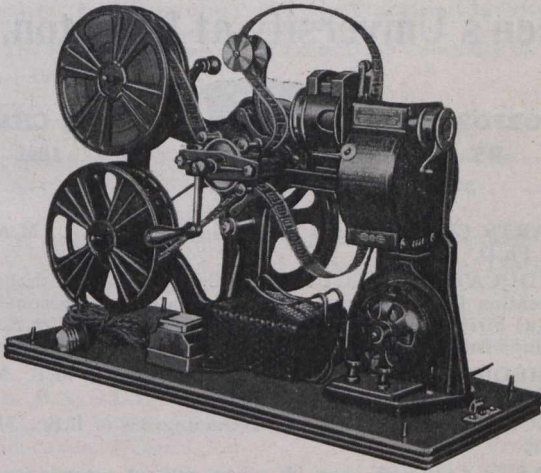
\$1.25 per annum.

15 cents per copy.

UNIVERSITY OF TORONTO PRESS  
TORONTO

COPY DEPOSITED NO.

31034



## Motion Pictures for the School

For years educators have realized the wonderful school-room possibilities of moving pictures. They have realized that "seeing is understanding" with children. The absorbing interest of the pupil in any kind of motion picture produces, unconsciously, an ideal concentration of the mind upon the lesson thus explained.

### Difficult Subjects

Many subjects which are difficult to teach by text-books (geography, history, biology, the natural sciences, etc.) are made intensely interesting on the film. Mechanical and industrial processes, plant development, animal growths and transformations, and countless other instructive facts, may be impressed in a way that will never be forgotten.

Until the perfection of the Pathéscope, however, it was impractical to make any wide use of motion pictures except in colleges and universities. The expensive, complicated, large machines, using dangerous, inflammable film, requiring special rooms and the service of experienced operators, could not be used in the ordinary school-room.

### Intelligibly Taught with the Pathéscope

All these obstacles are surmounted in the Pathéscope. It is light, portable, inexpensive in operation, simply constructed, and can be operated as easily as a player-piano. It uses special non-inflammable film—no more dangerous than a text-book. Is operated from any electric-light socket or storage battery, and can be moved from one classroom to another with the greatest ease.

Educational films in great variety are supplied by the Pathéscope Film Exchanges, and may be purchased outright or obtained on an exchange basis.

One or two Pathéscopes, with a library of selected films, are as necessary in the equipment of a modern school as blackboards or dictionaries.

## Pathéscope of Canada, Limited

NEW NORDHEIMER BUILDING, TORONTO



## Queen's University at Kingston, Ont.

**INCORPORATED  
BY**



**ROYAL CHARTER  
1841**

THE ARTS COURSE leads to the degrees of B.A., M.A., D.Sc. and Ph.D.

THE EDUCATIONAL COURSES, under agreement with the Ontario Education Department, are accepted as the professional courses for (a) First Class Public School Certificate; (b) High School Assistant's Interim Certificate, and (c) Specialists' Interim Certificate.

THE MEDICAL COURSE leads to the degrees of M.B., M.D. and C.M., D.Sc.

THE SCIENCE COURSE leads to the degrees of B.Sc., M.Sc. and D.Sc.

THE ARTS COURSE may be taken without attendance, but for degree one year's attendance is required.

Calendars may be had from the Registrar, GEORGE Y. CHOWN, B.A., Kingston, Ont.

## SCHOOL OF MINING

*A College of Applied Science  
Affiliated to Queen's University*

**KINGSTON, ONT.**

THE FOLLOWING FOUR-YEAR COURSES ARE OFFERED  
FOR DEGREE OF B.Sc.

- (a) Mining Engineering
- (b) Chemistry and Mineralogy
- (c) Mineralogy and Geology
- (d) Chemical Engineering
- (e) Civil Engineering
- (f) Mechanical Engineering
- (g) Electrical Engineering

For Calendar of the School and further information, apply to the  
SECRETARY, SCHOOL OF MINING, KINGSTON, ONT.

# The School

A Magazine devoted to Elementary and Secondary Education in Canada

*Editorial Board*: The Staff of the Faculty of Education, University of Toronto

*Managing Director*: W. J. DUNLOP, B.A.

*Advertising Manager*: W. L. C. RICHARDSON.

## PROVINCIAL REPRESENTATIVES

*Alberta*: G. F. McNALLY, M.A., Principal, Normal School, Camrose.

*Manitoba*: W. H. CLIPPERTON, La Verendrye School, Winnipeg.

## News Editors

*Saskatchewan*: R. F. BLACKLOCK, Registrar, Department of Education, Regina.

*Quebec*: SINCLAIR LAIRD, M.A., B.Phil., Head of the School for Teachers, Macdonald College, Que.

*Nova Scotia*: PROFESSOR L. A. DEWOLFE, Normal College, Truro.

*New Brunswick*: R. B. WALLACE, Chief Clerk, Department of Education, Fredericton.

## ADVISORY BOARD

- R. A. FALCONER, M.A., LL.D., D.Litt., C.M.G., President, University of Toronto.  
H. T. J. COLEMAN, B.A., Ph.D., Dean, Faculty of Education, Queen's University.  
CHAS. G. FRASER, President, Ontario Educational Association, Toronto.  
R. H. COWLEY, M.A., Chief Inspector of Public Schools, Toronto.  
J. H. PUTMAN, B.A., D.Paed., Chief Inspector of Public Schools, Ottawa.  
W. H. BALLARD, M.A., Chief Inspector of Public Schools, Hamilton.  
C. B. EDWARDS, B.A., Inspector of Public Schools, London.  
JOHN JEFFRIES, B.A., Principal, Jarvis Street Collegiate Institute, Toronto.  
A. C. MACKAY, LL.D., Principal, Technical School, Toronto.  
W. E. GROVES, Principal, Ryerson Public School, Toronto.  
HONOURABLE BOUCHER DE LA BRUÈRE, D.C.L., Superintendent of Public Instruction, Quebec.  
H. J. SILVER, B.A., Superintendent, City Schools, Montreal.  
W. S. CARTER, LL.D., Superintendent of Education, New Brunswick.  
H. V. B. BRIDGES, M.A., LL.D., Principal Normal School, Fredericton.  
A. H. MACKAY, LL.D., F.R.S.C., Superintendent of Education, Nova Scotia.  
ALEXANDER MACKAY, M.A., Supervisor of Schools, Halifax.  
DAVID SOLOAN, B.A., LL.D., Principal, Normal School, Truro.  
W. A. MCINTYRE, B.A., LL.D., Principal, Normal School, Winnipeg.  
DANIEL MCINTYRE, M.A., LL.D., Superintendent, City Schools, Winnipeg.  
D. P. MCCOLL, B.A., Superintendent of Education, Saskatchewan.  
T. E. PERRETT, B.A., Superintendent, City Schools, Regina.  
JOHN ROSS, B.A., Chief Inspector of Schools, Alberta.  
E. W. COFFIN, Ph.D., Principal, Normal School, Calgary.  
ALEXANDER ROBINSON, LL.D., Superintendent of Education, British Columbia.  
WILLIAM BURNS, B.A., Principal, Normal School, Vancouver.

THE SCHOOL is issued every month except July and August. The publishers guarantee a full year's subscription if claims for numbers lost in transit are made within a reasonable time.

Discontinuances are not made until notice has been received and all arrears have been paid. In such cases the **exact address to which numbers have been mailed** must be given.

The publishers wish to be notified **promptly** of change of address. **Both old and new addresses must be given**, or the name cannot be found. Notifications should reach this office by the 20th of the month in order to affect the next number.

Remittances should be made by Express, Postal, or Bank Money Order. Subscriptions, \$1.25 per annum; in United States, \$1.50. Single copies, 15 cents.

**Address all communications to THE SCHOOL, Bloor Street and Spadina Avenue, Toronto, Canada.**



## Ontario Department of Education

### Teaching Days for 1915

High, Continuation, Public and Separate Schools have the following number of teaching days in 1915:

January.....	20	July.....	
February.....	20	August.....	
March.....	23	Sept. (H. Schools, 18)...	21
April.....	16	October.....	21
May.....	20	November.....	22
June.....	20	December.....	16
	119	(High Schools, 77)	80
		Total.....	199
		Total, High Schools.....	196

#### DATES OF OPENING AND CLOSING

Open.....	4th January	Close.....	1st April
Reopen.....	12th April	Close.....	29th June
Reopen.....	1st September	Close.....	22nd December
Reopen (H. Schools)	7th Sept.		

**NOTE**—Christmas and New Year's holidays (23rd December, 1915, to 2nd January, 1916, inclusive), Easter holidays (2nd April to 11th April, inclusive), Midsummer holidays [from 30th June to 31st August (for High Schools to 6th September), inclusive], all Saturdays and Local Municipal Holidays, Dominion or Provincial Public Fast or Thanksgiving Days, Labour Day [1st Monday (6th) of Sept.], Victoria Day, the anniversary of Queen Victoria's Birthday (Monday, 24th May), and the King's Birthday (Thursday, 3rd June), are holidays in the High, Continuation, Public and Separate Schools, and no other days can be deducted from the proper divisor except the days on which the Teachers' Institute is held. The above-named holidays are taken into account in this statement, so far as they apply to 1915, except any Public Fast or Thanksgiving Day, or Local Municipal holiday. Neither Arbor Day nor Empire Day is a holiday.

# Ontario Department of Education.

The Minister of Education directs attention to the fact that, when some years ago the Ontario Teachers' School Manuals were first introduced, Boards of School Trustees were furnished with a copy of each bound in paper, free of charge, to be placed in the School Library. For the same purpose, a copy of the "Golden Rule Books' Manual" was supplied free last September to all Public Schools, and the Manual entitled "Topics and Sub-topics" has also been supplied free to schools where there are Fifth Forms.

In future, however, the Manuals must be purchased by Boards of Trustees and others as follows:

(1) Paper-bound copies of the following Ontario Teachers' Manuals, free of postage, from the Deputy Minister, Department of Education, Toronto:

Teaching English to French-speaking pupils, 15 cents.

Manual Training, 25 cents.

Sewing, 20 cents.

(2) The revised editions of the following Ontario Teachers' Manuals, bound in cloth, from a local bookseller, or the publishers, The Copp Clark Co., Ltd., Toronto:

Primary Reader, 13 cents.

History, 14 cents.

Arithmetic, 20 cents.

The Golden Rule Books, 19 cents.

The following Ontario Normal School Manuals, bound in cloth, from a local bookseller, or the publishers, the Methodist Book and Publishing House, Toronto:

Science of Education, 32 cents.

History of Education, 29 cents.

School Management, 30 cents.

The Manual on Manners, 25 cents, from a local bookseller, or from the publishers, McClelland, Goodchild & Stewart, Toronto.

A discount of 20% off the prices of the Manuals listed under (2) above is allowed when the books are purchased from the publishers, express or postage charges being extra.

The Grammar, Geography and Nature Study Manuals will be ready by the 1st of January, and others will be issued as soon as possible.

A copy of "The Syllabus of Physical Exercises for Public Schools" was presented to each School Library by the Executive Council, Strathcona Trust. If any school has not yet received a copy, application should be made to "The Secretary, Executive Council, Strathcona Trust, Ottawa", and not to this Department. The Syllabus may be obtained by others from the publishers, The Copp Clark Co., Ltd., Toronto, 25 cents.

Toronto, November 9th, 1915.



# THE CANADIAN BANK OF COMMERCE

SIR EDMUND WALKER, C.V.O., LL.D., D.C.L., President  
JOHN AIRD, General Manager H. V. F. JONES, Assistant General Manager

**Paid-Up Capital, \$15,000,000 :: Reserve Fund, \$13,500,000**

*Main Office—*  
**KING & JORDAN STREETS, TORONTO**

*Branches of the Bank in Toronto*

Bloor and Dufferin Sts.	Parliament St.
Bloor and Lippincott Sts.	Queen and Bathurst Sts.
Bloor and Yonge Sts.	Queen East
College St. and Dovercourt Rd.	Spadina Ave. and College St.
Danforth and Broadview Aves.	West Toronto
Earlscourt	Wychwood
Gerrard St. and Pape Ave.	Yonge and College Sts.
Market	Yonge St. and Eglinton Ave.
Parkdale	Yonge and Queen Sts.

## SAVINGS BANK ACCOUNTS

Interest at the current rate is allowed on all deposits of One Dollar and upwards. Careful attention is given to every account. Small accounts are welcomed. Accounts may be opened and operated by mail.

## Get Ready for the February Competition in Art

For PUBLIC SCHOOL COMPETITION

**A Decorative Design suitable for working in Embroidery Silk on a Crash Table Drape**

The design is to be conventionalized from some natural form and painted in flat washes of neutral colours during or before December and January.

For HIGH SCHOOL COMPETITION

**A Decorative Design suitable for working in Embroidery Silk on a Crash Centre Piece for a Library Table**

The design is to be conventionalized from some natural form and painted in flat washes of neutral colours during or before December and January.

Two sets of three prizes will be given, one for Public School work, the other for High School work.

**FIRST PRIZE:** One Reeves' U. T. S. Box of Water Colours, containing eight colours in china half-pans and two finest camel hair brushes.

**SECOND PRIZE:** One Reeves' Water Colour Box containing four tablet water colours.

**THIRD PRIZE:** One Box of Reeves' Greyhound Pastels.  
**HONOURABLE MENTION** in THE SCHOOL for meritorious work.

### CONDITIONS—

- (1) The sheets must be sent flat, and with sufficient postage for return.
- (2) Each sheet must have on the back
  - (a) the pupil's name, address, and form.
  - (b) the teacher's signature to certify that the piece of work was done by the pupil claiming it.
- (3) All work should be on the paper authorised by the Department of Education.
- (4) The sheets must reach this office by February 1st, 1916.

*Send only the best.*

Address—**THE SCHOOL, Bloor and Spadina, Toronto.**

# Teachers

may receive

## Assistance by Correspondence

from

## University of Toronto

preparatory to

# Free Summer Courses

in

Faculty Entrance

Normal Entrance

Commercial Work

Free Summer Courses are also offered in Household Science, Vocal Music, Manual Training, Kindergarten-Primary Work and Auxiliary Class Work.

Decide now to attend the Session in 1916 and improve your status as a teacher.

Assistance by Correspondence begins in September.

Apply at once for further information to

Dr. A. H. ABBOTT,

Secretary, University Extension,

University of Toronto.



## What is a Municipal Debenture?

*Those who have money available for investment in small or large sums and to whom safety is first and paramount cannot do better than select municipal debentures.*

*They are available in sums of approximately \$100 and upwards and yield from 5% to 7%.*

*A copy of our leaflet, "**What is a Municipal Debenture?**" will be sent to you on request and without obligation on your part.*

### A. E. AMES & CO.

*Investment  
Bankers*

Union Bank Building, Toronto

*Established  
1889*

*53 King St. West*

# The School

*"Recti cultus pectora roborant"*

## Editorial Notes

**The War and the Schools.**—Soon after the opening of the school session of 1914-15 the Minister of Education of Ontario instructed the schools of the Province by circular to teach "the war; its causes and the interests at stake, and the relations thereto of the various nations concerned". Of necessity the Minister's circular was couched in very general terms. The war had just begun. Causes and events were too new and too confused to be classified for use in the schools. Early in the present school session the Minister issued his second circular on the war and the schools. This circular pays a well-deserved tribute to the zeal with which the teachers have performed their duties in connection with the war during the past year. All schools, Public, Separate, Continuation and High, must continue to teach the war. All examinations, from the promotion tests in the elementary grades to the Honour Matriculation and Faculty Entrance tests at the end of the High School courses, must recognize the war as one of the compulsory school subjects. Moreover to teach the war will now mean more than to teach history. It will also include the geography of the war especially in those classes where geography is a regular school subject. In suggesting a curriculum of the war the circular becomes quite specific. Causes and events are now sufficiently remote to be seen in perspective and organized for classroom use. To assist the schools in interpreting the details of the curriculum, which, by the way are tentative and in no sense obligatory, the circular adds a carefully-chosen list of reference books and journals. THE SCHOOL appears in the list. It will make a special effort to organise the war material for use in the schools in the terms of the curriculum.

**The Superannuation Committee.**—With the close of the second stage in the history of the Ontario Superannuation Scheme,—its consideration by the Teachers' Institutes of the Province—all teachers can afford to pause a moment and offer a silent vote of gratitude to the Superannuation Committee of the O.E.A. In season and out, amid doubt, indifference, and opposition it has never lost faith in the merits of its case. With unflinching patience it has piloted the Scheme past the



various sections of the O.E.A., past the Department of Education, and past the Teachers' Institutes. It remains now to carry it past the Legislature. THE SCHOOL believes that the faith and patience of the Committee will achieve this last victory. And so it calls upon all Ontario teachers to join in an expression of gratitude to the Committee and especially to those members who have borne the greater burdens of the day, the chairman Principal R. A. Gray, and the Secretaries, Principal W. Scott, and Principal C. G. Fraser.

**Teachers' Institutes.**—A reader of THE SCHOOL who attends many Teachers' Institutes promised the editor 'some notes on the Institutes'. He was in a querulous mood when he wrote his first note.

"Every Institute," he writes, "should have its critic. This critic should be expected, or required, to speak without fear or favor. The printed programmes of the Institutes will not escape him. It matters not who is responsible—the secretary or the printer. Errors in punctuation, spelling, and composition are a reflection upon the Institute and should not pass unnoticed. Nor should the errors in pronunciation, or expression, or statement of fact of which the members of the Institute or their official visitors are sometimes guilty go unchallenged. It is the aim of the Institute to teach. A wise and tactful critic may sometimes teach more than the papers and discussions of the Institute." THE SCHOOL does not endorse its reader's suggestion. Where would Institutes find their critics? Where would most critics find work to do?

**Cost of Text-Books**—The United States Bureau of Education has made an inquiry into the cost of the text-books in use in the elementary and high schools of the United States. Neglecting California which has for some years printed its own books for the elementary schools, the total school enrollment of the United States was 18,213,786 in 1913 and the total sales of text-books amounted to \$14,261,768, or an average of 78.3 cents per pupil for the year. This average of 78.3 cents per pupil for school books is 2% of the total cost (\$38.31) of public education per pupil for the year! Examined in another way the cost of school books is a charge of only fifteen cents per head of the total population of the United States!

It is interesting to note, the Bureau's report continues, how small, relatively, must be the profits of the competing publishing houses, how slight a part of the total expenditure for education is the cost of school books, and how cheap would be the compulsory introduction of the free school book system.

A similar study of the school book situation in Canada would be instructive. The official editor of Ontario's school books could easily make that study.

**Teachers of Discontent.**—The journalists of the State of Delaware have been discussing recently the problems of rural communities. The schoolmaster, some journalists declare, is the teacher of rural discontent. By inference he is the most effective teacher of rural discontent. The better the teacher the greater the discontent! If he is a wise teacher, the journalists claim, he teaches only what he knows—and he knows only the city. As an ambitious teacher his thoughts flit from the common life around him in the country to the 'wider horizon' of the city. He so teaches that his boys want to be heroes, great soldiers, poets, judges, statesmen and his girls to be Jenny Linds and Florence Nightingales. Neither boys nor girls wish to live the simple life of the countryside.

These are not new charges. They are made in varying forms by all sorts of public men—editors, clergymen and politicians. Nevertheless they are not true charges and teachers everywhere begin to resent them. Rural discontent is measured by the loss of rural population. This loss occurs in countries where there are no teachers. It is greatest in districts which are badly supplied with schools and teachers. Teachers are not ignorant of the country. More teachers-in-training come from the farms than from the towns. Neither their early training, nor their school subjects, nor their school books teach them to find the 'wider horizon' in the city. All boys and girls whether of the town or country want to be heroes and heroines. Heaven forbid that any teacher should attempt the cruel, the impossible task of repressing that desire!

Let us have less talk about the teacher as the cause and cure of rural discontent. Let editors, clergymen, and politicians who feel so strongly in the matter go back to the land and practise what they preach—or cease preaching.

---

## Book Review

*Principles of Physics*, by W. E. Tower, C. H. Smith and C. M. Turton. 466 pages. Published by P. Blakiston's Son & Co., price \$1.25. This High School text-book in physics covers the usual course of the American text, and covers it in very much the usual way—the preface to the contrary. The authors profess to abolish the mathematical demonstrations and yet the algebraic formula appears at times. Many of the experiments described are merely hinted at and would prove of little use, for instance on page 110 an experiment is described to illustrate the acceleration due to gravity, which no pupil would understand and the illustration accompanying it would produce "confusion worse confounded". If an experiment is described at all the description should be so complete that the pupil reading the book would understand it thoroughly. This cannot be said of some experiments in this book. The mathematical problems—which are numerous—are quite as difficult as in the ordinary physics texts which it professes to supplant. It is a very ordinary book.

G. A. C.



## Hester How

[Formerly Principal of Hester How School, Toronto]

JAMES L. HUGHES, LL.D.

THE late William H. Howland, at one time Mayor of Toronto, and one of Toronto's most intelligent and practical philanthropists, said to me in the year 1879, "Do you know that there are boys living in groups away from home in this city who make their living by stealing?" I was surprised at his question and told him I had never heard of such groups of boys. "Come with me on Sunday morning," said he, "and I will introduce you to one of these groups." I went with him as requested, and in a coal shed about one hundred yards north of Osgoode Hall, and less than one hundred yards from University Avenue, we found eleven boys ranging in age from nine to fifteen years. They called themselves "The Gang". The oldest boy was captain of the "gang", and his younger brother, thirteen years old, was lieutenant. There was no furniture of any description in the little shed and not even a piece of old carpet on which to sleep. Their only supplies at the time of our visit on Sunday at 10 a.m. consisted of part of a bottle of whiskey and a few dried herrings. One boy, ten years old, had recently joined the "gang"; most of the others had been away from home for months. Lieut. Mike — had been fourteen times in jail, although he was only thirteen years old. He was clearly the leader though not the captain.

They presented a new problem to me. They were perfectly at home with us. Mr. Howland had met them before, and they evidently liked him and trusted him. He told them I was "square" and that I liked boys. We had a talk with them and proposed that they should go to a school in a little mission chapel near their headquarters. He said he was to provide everything but the teacher and the books and supplies, and that he was quite sure I would recommend the best man in the city to teach them.

They finally took a vote in a meeting led by the captain, and the vote was unanimously in favour of the school. The captain reported the result to us by saying, "Well, gents, we are going to have a try at school, and if we like it we'll stick".

I asked the boys if they knew other boys or girls in the neighbourhood who did not go to school; and also if they would invite them to come to their school too. They agreed to do so and they kept their word. There were over twenty pupils in the school as soon as we were

ready to open it. When we left the boys with a hearty handshake to seal our contract I said to Mr. Howland, "We have no man on our staff who can make a success of that school".

"Why," he replied, "you surely have the best men in Ontario in Toronto." "The best we can get," I said, "but I would put a woman in charge of the school."

He thought I was not in earnest, but I soon convinced him that I was, and he fully agreed that the right woman might be the ideal teacher for the position. I told him we had two ladies on our staff either of whom would in my opinion succeed—Mrs. Arthurs and Miss How—both women of unusual power.

After carefully considering the matter I sent for Miss How, and after describing all the conditions I told her that I intended to nominate her as the teacher of the new school. She was naturally modest in her estimate of herself, and at first she pleaded with me not to consider her, saying she did not think she was at all qualified for the great work I offered her.

I finally said, "Have you realised that for more than two years I have been sending boys occasionally to your class from long distances, sometimes past three or four other schools?"

"Yes, I have," she replied.

"Did you know why I sent them?"

"No!" she said.

"My reason was simply that these boys had got beyond the control of their teachers, their principals and their parents. Most of them had been beaten unmercifully in school and at home and the beating simply made them more hardened and more defiant. When I finally had to decide between expulsion and you I tried you. My experiment was a success. When I sent these boys to you they were coarse, rude, resentful boys warped in their moral natures. When I next met them on the street they met me with smiles, not frowns, and they never failed to speak cordially to me. You had wrought the change."

"I was not conscious of doing so," she replied.

"That is your certain proof of special power for the work I ask you to undertake," I said, "your voice and your smile are the best positive reformatory agencies I have yet discovered, and I believe you can do this great work better and with less friction than any other woman or man I know." When she saw her duty she did not longer shrink from it. She went with me to see Mr. Howland. He was charmed by the sweetness and nobility of her character, and his hearty, manly approval of my choice greatly comforted and encouraged her.

The members of the School Board for a time objected to my proposal to put a woman in charge of "the wild boys," but they ultimately



agreed with me and Miss How was transferred from Winchester St. to the new mission school.

She and I agreed that she should never on any occasion administer corporal punishment, and that higher and more character-developing ideals given by experience, not words, should take the place of all forms of coercion or punishment.

She almost broke down under the strain during the first month, and more than once came to ask me to transfer her to some other school. I always tapped some new source of faith in her heart, and so far as I could, inspired her with visions of success that gave her new hope.

Six weeks after she began her new work she came to my home, and said, "I think Mike must be whipped". He had that afternoon used language to her before the class which was grossly vulgar and blasphemous. I had to agree that the best way to impress him and his companions would be to use the only instrument of punishment and the supreme evidence of authority with which they were acquainted. "But," I said, "you must not punish him yourself. I will ask the truant officer to punish Mike on Friday afternoon, and you must tell the pupils that I made the decision, not you."

The truant officer went to the school on Friday afternoon. Mike was called out and told he must be punished for what he had said. He jumped through an open window, and three large boys threw their slates at the head of the officer.

Miss How and the officer came to my office after school and reported the failure of our plan. I simply said, "Do not re-admit him till he pleads for admission".

On the following Tuesday Mike came and asked to be allowed to come in. Miss How told him that I said he could not return till he received his punishment. He went away, but returned next day. Again he was told that he must receive his punishment. He said, "All right, I'll take it".

"But the officer cannot come back till Friday," said Miss How.

"If you let me in now, I'll take it on Friday," replied Mike.

"Look me in the face and say that," said Miss How, "and I will trust you, Mike."

Mike's look and tone were assuring. He was admitted, Miss How explained the conditions, and Mike took his punishment in a manly way on Friday.

The wonderful attractiveness and the uplifting influence of Miss How are shown by this story. Mike had been fourteen times in jail; no one was making any effort whatever to get him back to school, but the drawing power of Miss How and her work was too strong to be resisted. He was willing to be punished publicly in order to get back to her, and

he apologised without being compelled to do so for the language he had used.

For thirty-five years in a rapidly enlarging field Miss How continued, with gentle tone and winning smile and loving heart, to guide thousands of children by operative processes into a consciousness of power and duty and to lift the shadows from their lives.

At the end of the first year the Jesse Ketchum prizes were to be awarded. Mr. Ketchum left a sum of money by his will the income from which was to be used to give prizes in the schools to the pupils whose punctuality, attendance and conduct had been most satisfactory during the year. The first prize in every case was a bible. Miss How came to me near the close of the year and said, "I am glad to tell you that Mike's conduct has been so good that he is entitled to the first Ketchum prize".

"Good," I replied, "give it to him."

"But," said she, "the first prize is a bible and Mike is a Roman Catholic."

"Give him his choice," I advised.

Miss How did so and Mike took the bible, although the other book cost as much as the bible.

Mike became a thoroughly respectable man in Toronto and has a fine family.

Hundreds of stories of her transforming influence might be related, and they, better than any language describing her power, her unselfishness and her remarkable success in transforming the school and the district, reveal the character of the woman. One other story must suffice.

The truant officers discovered a boy fourteen years of age who had never been in school. His father or his mother had been in jail more than half the time since he was born. He had brought himself up independently most of his life and in most degrading surroundings. He had to be alert to live. Within the narrow range of his degrading experience he was keenly alive. Outside of it he was pitifully ignorant. His language was luridly profane. He was compelled reluctantly to go to school.

Three months afterwards he wore a red sash as the leading captain of the school to seat the other pupils and their friends, and he superintended five other boys who cut the 1630 gifts from the great Christmas tree and handed them to me to give to the children who had made them for their parents and their brothers and sisters. This is an illustration of the way in which Miss How, Miss Sims, Mrs. Warburton and Miss Fortune, her truly great assistants in early days, kindled the con-



sciousness of power, responsibility and service in the lives of the children of the district in which her school was situated.

Mrs. Warburton, teacher of the newsboys in the school, had to go to the hospital. I sent the best occasional teacher available to take her place. Unfortunately a new boy, a Syrian who had lived in one of the worst parts of New York, came to school the morning after Mrs. Warburton left. He was given a seat in the front row. He was larger than most of the boys in his class. He began almost at once to show off his New York tricks. The teacher reproved him, and admonished him, and finally said, "If you do anything like that again I will send you to Miss How". He was not long in "doing it again".

"Go to Miss How," shouted the teacher. The boy told her to go to another place whose name begins with H. The teacher was helpless. The boy who had never been in school till he was fourteen was now nearly seventeen years of age. He arose at the back of the room, walked to the front, and looking threateningly at the Syrian said, "Did you hear what she said to you?"

The Syrian looked defiant and made no answer. P—— stepped closer to the Syrian, and in tones that demanded an answer said, "Did you hear what she said to you?"

The Syrian replied "Yes!"

"Then do what she told you or I'll throw you downstairs." The Syrian got up. "Come on now," said P——, "I'll go with you for fear you might lose your way."

The unfortunate waif who had no training till he was fourteen recognised the value of law and order, and his responsibility as a good citizen to support constituted authority.

P—— married when he was twenty, and when I last saw him he had a responsible position and most enthusiastically told about the new baby.

So during her thirty-five years of work in the densest centre of almost hopeless poverty, and often of degradation, Miss How was the intellectual and moral leader of the children and often of their parents. She and her self-sacrificing assistants were the purifying and uplifting influences of the district. She had children from nearly every country in Europe to train, but a smiling face and a winsome face form a universal language, and all classes kindled at her touch. Her word of appreciation made goodness seem more sublime and her look of disappointment and sorrow when one of "my boys" did anything mean made meanness seem more mean.

By night as well as by day she and her fellow teachers worked with the children, training them in making their own clothes, in repairing boots, and in various departments of manual training, with the assistance of voluntary helpers who were always happy to co-operate with

her. To help her in her undertakings was a coveted honour. There were no more enthusiastic helpers in the world than her pupils while they were in school, and many of them were ever ready to co-operate with her after they were grown up. One of her boys married and lived in Hamilton. He was a brakeman on the Grand Trunk. He had to come down on an early train, and had to spend five hours every day in Toronto waiting for his afternoon train to Hamilton. As soon as he could get away from the station he went day after day to the old school to study some and to render loving service when he could to Miss How and the teachers in her school.

She was one of the first workers in raising a "fresh air fund" to send children to farms in the country for a vacation. She was an enthusiastic mission worker among the older people of her district. She taught a class of twenty young women in the Sunday School of the Northern Congregational Church, and she trained them all to do loving service for her girls and boys and for their fathers and mothers.

A short time before her death a fine modern school was erected for the work she had made so successful. It very appropriately bears her name—the *Hester How School*.

She was a great developer of character, an inspired teacher and a true woman.

The teacher closed her talk on the life of General Jackson by saying, "He was a great hero. He went through many hardships, but to the last remained undaunted."

Some credible efforts were made the next day in recalling the events in General Jackson's career.

"Now, James," said the teacher, at the close of the recitation, "tell us how General Jackson met his end."

James arose with perfect confidence in his memory of the previous day's lesson.

"General Jackson was a great hero. He went through many hardships, but at the last he became unjointed."

A certain college professor, who writes a Horace Greeley hand, tells this story at his own expense. He had written a marginal comment on one of the student's themes, and shortly afterwards the student came to him and said:

"Professor C ---, I was unable to read what you wrote on my paper, and my parents also could not decipher it. I then called on my uncle, a lawyer, and he finally managed to read it for me."

This is what the professor had written: "Your penmanship is scarcely legible."—*Lippincott's*.

There was once a teacher who taught what they brought her and thought should be taught.

But she thought if she taught what she thought should be taught there'd be less of it coming to naught.—*School Education*.



# Physical Education and the Strathcona Trust

ETHEL M. CARTWRIGHT

Physical Director of the Royal Victoria College, McGill University, and of the McGill School of Physical Education, Montreal.

**L**ORD STRATHCONA'S object in founding the Trust which bears his name was two-fold:

1. To provide all school children in the Dominion with systematic physical education.

2. To encourage military training in the schools by the formation of cadet corps, which would be accompanied by a natural stimulation of patriotism.

The founder's foresight has been amply justified. By the organisation of the Trust, a Dominion-wide interest in physical education has been stimulated. Those who have developed and carried on this work must be gratified not only by its success in the past but by its vast possibilities.

The conditions which must be accepted by a Province before participating in the benefits of the Trust, are as follows:

(a) Physical training to form an integral part of the curriculum in every school, or public educational establishment maintained mainly out of public funds, at which a teacher holding a certificate other than that of the lowest grade is employed.

(b) A certificate of ability to instruct in physical training to form part of every teacher's certificate, other than those of the lowest grade, granted by the Education Department of the Province.

(c) The Education Department to undertake to encourage the formation of cadet corps, including the practice of rifle shooting under suitable conditions by the older boys, in all educational establishments under its control.

(d) The system of physical training adopted to be that in force in the elementary public schools in Great Britain (which has been recently revised in view of the latest developments in Sweden, Switzerland and other countries), with such modifications therein as the local conditions of any Province may show to be necessary.

(e) The Education Department to undertake to require, within a specified period, all teachers who are already in possession of its certificates other than those of the lowest grade to qualify themselves to instruct in physical training (subject to the exemption of such teachers as are physically unable to qualify, or are nearly at the end of their term of service), so that in every school there shall be at least one teacher capable of imparting the necessary instruction.

A later paragraph in the regulations states clearly the relation of the Militia Department to the Provincial Departments of Education:—

The Militia Department will, on its part, aid the Education Department by affording the necessary facilities to the teachers of both sexes to qualify themselves in physical training, by providing instructors until such time as the provincial authorities are in a position to undertake this duty themselves.

The Militia Department has carried out its part of the contract with the utmost energy; and has set a good example to the education departments, when the time comes for the provinces to fulfil their part of the contract. The future of physical education in the schools is assured if the educational authorities face the situation with equal zeal, when they work out a permanent scheme in place of the present temporary one.

It is clear from the agreement already quoted, that the Trust does not take upon itself the task of providing physical education for schools. Lord Strathcona's desire was to give a strong and vigorous impetus to the movement; to use a practical method of suggesting to the Provinces that here was a branch of education that needed organisation. It is the duty of the individual Departments to see that this suggestion bears fruit.

But we must be prepared to go further still. Now is the time for the educational authorities to be keenly alive to the physical education situation, its problems, and their responsibilities. The time has come to get certain questions clear: what is the best kind of physical training practicable under the conditions of our schools? What difference should be made in the work required of rural and town schools? How much time per week should be allotted? Most important of all, what is the best method of training the teachers, both rural and town, whom we require to teach this subject, whether as grade teachers, or as specialists devoting their whole time to it? These are educational questions of immediate practical importance at this stage of development.

The type of physical training hitherto provided for students in Normal Schools and for grade teachers must be considered temporary and tentative. It has been good as far as it has gone, but limited and not sufficiently in touch with educational procedure.

I feel sure that the Department of Militia and Defence will be the first to agree when I state emphatically and unreservedly that the military teacher, be he ever so good, is not the right person to teach physical exercises to women. Nor is his training the best preparation for one who has to instruct men teachers in the methods of physical education adapted to schools. For it is inevitable that his experience should have been with grown men, whereas the fundamental problem of the school is the adaptation of physical exercise to the varying needs of boys and girls in the successive stages of their growth. This is no disparagement of the military instructor's training; the simple fact is that it has a perfectly definite object, which is different from that of the school teacher. And it remains true no matter how excellent that training may have been.



It so happens that the large majority of teachers are women. Men teachers are not able to judge women's physical capabilities, or to make the right allowance for their periodic variations. For the same reason they cannot help girls and women on matters relating to hygienic living as effectively as a woman teacher can. It is not reasonable to expect that men should be able to teach exercises to women with the comprehensive understanding possible to women teachers. It follows from this that one of the outstanding educational needs is the provision of training to meet this particular educational requirement.

Is it not time that Canada awoke to the fact that she possesses no recognized College of Physical Education where women and men can receive thorough training for other than military purposes?

Every High School ought to have an instructor, whose general education is a guarantee of equal standing with the other members of the staff, competent in all the physical activities of the school. Expert knowledge is necessary here, because the children both in games and exercises need varying treatment adapted to age and physique.

Every Normal School needs an instructor who is able to train teachers to make the best use of hygiene lessons and physical exercise in the widely different conditions of town and rural schools. A Normal School has a great opportunity for service in sending out teachers interested in the questions of personal and public hygiene, whose knowledge will be not only a great help to their pupils but a valuable asset to the community.

The question of inspection is difficult in any of our Provinces. But each Province should possess one or two or more expert inspectors of physical education. The ordinary inspector cannot be asked to add another important and technical subject to his all too lengthy list. This method makes a farce of inspectorship. Teachers with a very limited experience of a subject need expert supervision. That it is not impossible to devise means of bringing the majority of teachers within the reach of periodic inspection and additional instruction, the Teachers' Institutes, the various summer schools and camps have shown.

An expert in physical education is not one who can perform and teach a few exercises, but one with a good knowledge of anatomy and physiology; with an intimate knowledge of the mechanism and effects of bodily movements; with some training in school and public hygiene, physical diagnosis and medical gymnastics; with a wide range of folk dancing, games and athletics for all ages. To this should be added a thorough acquaintance with school conditions and needs, some study of educational psychology, and above all, practice in teaching under skilled oversight.

This knowledge is not obtained at a six weeks' or two months' course. However admirably short courses are conducted they can only be regarded as a stepping stone to something better. Teachers in other branches are not considered specialists after six weeks' or two months' training. Why do we demand less training from people in whose hands we place the physical education of our children? This is a serious question when we realise the fact that faulty physical training, due to ignorance, can sometimes do actual permanent injury.

All this must be changed if we are to keep up with other countries like the United States, England, Sweden, Scotland, Denmark, etc., where such colleges as the Central Institute, Stockholm; The Osterberg College of Physical Education, Kent, England; Chelsea Physical Training College, London; Dunfermline College of Physical Education and Hygiene, Scotland; Sargent Physical Training College, Boston; Posse School of Physical Education, Boston and many others, offer courses varying from 2 to 4 years of full time instruction. From these the best private schools and other institutions employing physical directors, have to obtain their supply.

It is not possible to get the subject upon a final basis until we can offer the type of training previously described to all those who look to occupying the highest posts in the profession. This is of course true of every profession, but the other professions have already their institutions of higher learning. Much of the money now paid out as grants and bonuses might be utilised for this purpose. It has been pertinently asked why should either the military or educational authorities pay the expenses of teachers attending courses for instructors in physical education? The expenses of teachers training to become specialists in other subjects are not paid; they have always to pay for their own training under similar circumstances. Their natural reward is in a fair salary based on the qualifications they have gained. There seems no reason for the Militia Department to pay the cost of instruction in Normal Schools, in view of the fact that the subject now forms part of the ordinary curriculum of the fully equipped Normal School, and is a natural charge on the educational authorities. There is still less for paying any bonus to students in Normal Schools. The case of the ordinary grade teacher who is suddenly asked to obtain an extra certificate is different; it is only just that the authorities should bear the cost. But this is only a temporary charge which will quickly be removed as all teachers become trained in the ordinary course.

Brief reference may be made to the increase in the number of Universities in the States possessing a Department of Physical Education with a Professor who is a medical man with expert knowledge of every branch of gymnastics. These Departments exist because the



United States has been quick to see the intimate connection of scientific physical training with true all round education. Toronto and McGill have made a beginning in this direction, and will doubtless do much more when their long-promised Gymnasias are ready. At both physical education is required of women students only;\* but medical examination is compulsory for all undergraduates at McGill. The beginnings of a Physical Education School such as I have advocated have also been made at McGill, which is now in its sixth session with 28 regular students: its diploma course calls for three sessions' work.

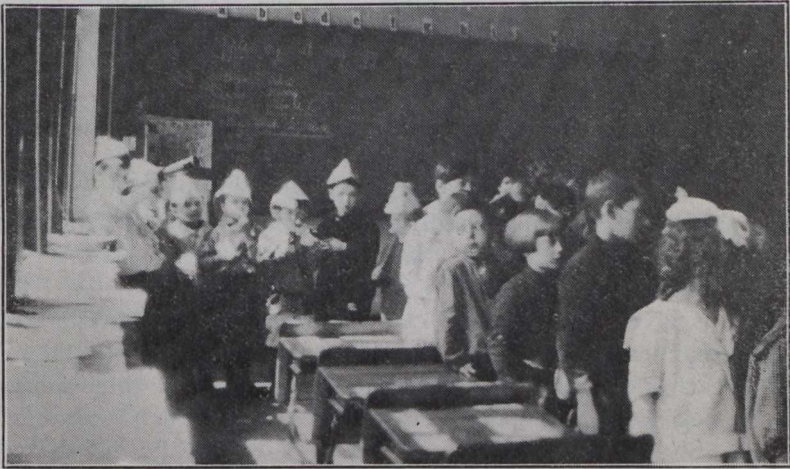
I dream of a day when we shall have at least one College of Physical Education, where experts are trained for the Dominion. In that day the training of the grade teacher who is to teach educational recreative gymnastics (games, folk dancing and athletics), as ordinary subjects, will be in the hands of a woman expert attached to the Normal School.

The cadet corps work both within and without the school will be in the hands of the Militia Department. In this way the school work and the military work can progress side by side, each the complement of the other. The gymnastics of the future will equip the boy as a "citizen soldier" far better than the training he is now receiving. Where in Canada, outside a few city playgrounds, are organised games being taught in the Public Schools? I recall with pleasure the admirable work, educational, physical, recreative, being done by the voluntary Association of Boy Scouts. But I know of only one town where games are being steadily conducted for all children in all schools.

I believe that every boy and girl should have the opportunity of learning to play games correctly under supervision. This branch of education is all the more necessary where we consider our ever-increasing emigrant and foreign population. I do not know which is the more remarkable, the ineptitude of so many emigrant children for games, or the rapidity with which they develop under the influence of organised play. When all children are taught to play games for the sake of the game, with true appreciation of their opponent's skill; when they are taught to scorn to win by questionable means, and to take a beating with dignity and courage, then, and not till then shall we cease to witness unsportsmanlike play and behaviour at prominent public matches. This state of affairs is not only a national disgrace, but it is detrimental to the characters of players and spectators alike. And the physical work in school is one of the best ways of curing it.

---

\*Since the above was written, McGill has put in force a schedule by which every first year student in the Faculties of Arts and Applied Science is assigned to some particular form of recognised exercise, on which he is to spend a minimum of two hours a week. A wide option is allowed, covering games and sports, military drill and gymnastics.



## In the Classroom

FREDERICK H. SPINNEY  
Principal, Alexandra Public School, Montreal

### IV.

“WHAT kind of day is it, Sam?”

“It is raining.”

“Who knows a verse that tells about the rain?”

Up went many little hands. Willard was called upon, and recited  
“The Rain is Raining All Around”

Then all the pupils went to the window to see the rain; and while they were standing there they recited the selection in concert.

All ran to their seats. Then quickly and skilfully the teacher sketched on the board the “umbrellas” here and the “ships at sea”. This gave a vivid picture of the beautiful stanza. It is necessary to review the picture many times, in order that the children will not learn the poetry as *mere words*.

This entire language lesson, which so appropriately pictured the state of the weather, did not last more than ten minutes, and yet every pupil had stood, moved about the room, and recited or described the illustrations, etc.

The visitor was so well pleased with this lesson that he returned on the following day just as the teacher was examining all the little hands held out for her inspection.



"How did you make your hands and face so clean this morning, Frank?"

"I washed them myself, and cleaned my nails with a brush, and I shined my shoes, too."

"When you came downstairs, the first person you saw was—?"

"The boy with the milk."

"And what did you say to him?"

"I said 'Good Morning', and he said 'Good Morning, little man'."

"Did you smile?"

"Yes, and the boy laughed."

"Let us give Frank a good clap for beginning the day in such a splendid manner."

The teacher explained to the visitor that on two or three mornings of each week she called upon one pupil to relate his first experience of the day. She knew the home conditions of each child, so she could thus ask the most appropriate questions. At the close of the session she often asked for the experiences of the previous evening. Thus did she associate the activities of the home with those of the school.

A reading lesson of fifteen minutes followed this morning exercise. *Every pupil had a share in that lesson.*

"Now, we'll have a march around the room, and smile on account of the pleasant sunshine."

The "band" started off ahead. The music was somewhat crude; but it added to the benefit of the exercise because it helped everybody to "smile." The teacher joined in the march with as much zeal as the children.

And how that marching stirred up the air! The cheeks of all took on a fresh glow; the eyes sparkled; body and mind were brought into a receptive attitude for the next lesson.

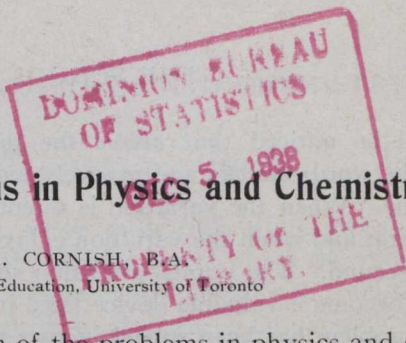
Of all the physical exercises done in the classroom, marching is by far the best: and this is especially true when the pupils are led by a "band"

Many teachers fail to do good work because they and the children are not in the best physical condition. All are too intensely occupied with lessons to the neglect of matters a thousand times more important.

Of course, in order that a class may run to the window to see the rain, or march around the room with a very *amateur band*, the teacher must have full control. When she once secures that control, this variation from the ordinary routine will add to her power, for it will suggest absolute confidence in herself. Children admire teachers who are resourceful and self-confident.

---

"My little man, do you know what becomes of liars when they die?"  
"Yes, they are buried and lie still."—*Up-to-date Farming.*



## Solving Problems in Physics and Chemistry

G. A. CORNISH, B.A.  
Faculty of Education, University of Toronto

**A** VERY large proportion of the problems in physics and chemistry in the High School work bears on the application of certain laws in which one quantity varies with another. The variation may be direct or inverse and as the quantity, as the square or as the square root of the quantity.

It is proposed to describe a method of solving these troublesome problems, that has been tried for several years with great success. It brings all such problems, no matter in what variety of ways they may be stated, under one kind of solution, so that if the pupil once clearly understands this solution, any problem in variation in physics or chemistry can be solved with ease. The method of solution does not consist in memorising a formula and blindly substituting figures for letters in it; such methods are baneful to the High School pupil and should have no place in elementary work. I can best illustrate the method by taking a number of examples and showing how they should be treated.

*Example 1.*—If 300 litres of air is measured at 25° centigrade and 780 millimetres pressure, what volume would it occupy at 0° centigrade and 760 millimetres pressure?

$$25^{\circ}\text{C} = 25^{\circ} + 273^{\circ} = 298^{\circ}\text{A}$$

$$0^{\circ}\text{C} = 0^{\circ} + 273^{\circ} = 273^{\circ}\text{A}$$

	TEMPERATURE	PRESSURE	VOLUME
First case . . . . .	directly 298° A	inversely 780 mm.	300 litres
Second case . . . . .	273° A	760 mm.	X litres

As the temperature is lowered from 298°A to 273°A the volume is decreased in the same proportion as the variation is direct; therefore the volume at 273°A is 300 litres  $\times \frac{273}{298} = 274.83$  litres. As the pressure

is lowered from 780 mm. to 760 mm. the volume is increased in the same proportion, for the variation is inverse; therefore the volume at 760 mm.

is 274.83 litres  $\times \frac{780}{760} = 282.06$  litres.



It will be noticed that above the temperature and pressure are marked the words *directly* and *inversely* indicating how they vary with the volume. When the variation is direct the second is always placed over the first and when the variation is inverse the first is always placed over the second. The pupils' attention should be called to this and it will soon become a valuable device fixed in his mind.

This problem has been solved in two steps but the pupil should be able to write down the solution as follows

$$300 \text{ litres} \times \frac{273}{298} \times \frac{780}{760} = 282.06 \text{ litres.}$$

The steps of any such problem in variation are:

(1) Reduce all numbers to the terms in which they vary. If centigrade temperatures are given they must be reduced to absolute. If the variation takes place as the square or as the square root of quantities, these quantities should be squared or the root extracted or these operations should at least be expressed.

(2) Place the data in the order given above, *always placing last* the quantity with which the other quantities vary. In the gas laws the volume is placed last for the gas laws give the variation of the pressure and temperature with the volume. If the problem deals with the vibration of stretched strings the vibration frequency is placed last as the rules give the variation of tension, length, diameter, etc., with this quantity. Give the unknown quantity the value  $X$ .

(3) Put down the first volume, vibration frequency or whatever it may be. Then multiply it by the various fractions to convert it from the conditions of the first case to that of the second and equate it with the second volume or vibration frequency or whatever it may be.

(4) Solve for  $X$ .

*Example 2.*—If 300 litres of gas measured at  $35^\circ$  centigrade and 800 millimetres pressure has the pressure increased to 1100 millimetres, to what temperature must it be raised in order that it will still occupy the same volume?

(1)  $35^\circ\text{C} = 35^\circ + 273^\circ = 308^\circ$  absolute.

(2)

	TEMPERATURE	PRESSURE	VOLUME
First case.....	directly $308^\circ$ A	inversely 800 mm.	300 litres
Second case.....	$X^\circ$ A	1100 mm.	300 litres

(3)  $300 \text{ litres} \times \frac{X}{308} \times \frac{800}{1100} = 300 \text{ litres.}$

$$(4) \quad X = \frac{300 \times 1100 \times 308}{300 \times 800} = 423.5^{\circ}\text{A or } 150.5^{\circ}\text{C.}$$

This problem which generally seems quite difficult is solved by this method with the same ease as the regular one in which the volume is to be found. If the pupils are at a loss to know whether the 308 should go over the  $X$  or vice versa, tell them to give the  $X$  any specific value as 100 and to decide in what position it will go and then to replace the 100 by  $X$ .

Let us now apply this method to several other problems.

*Example 3.*—A 16-candle-power lamp at 20 feet gives a certain intensity. At what distance must an 18-candle-power lamp be placed to give twice the intensity?

(1) Squares of distance are 400 and  $X^2$ .

(2)

	CANDLE POWER	DISTANCE SQUARED	INTENSITY
	directly	inversely	
First case.....	16	400	1
Second case.....	18	$X^2$	2

$$(3) \quad 1 \times \frac{18}{16} \times \frac{400}{X^2} = 2.$$

$$(4) \quad X^2 = \frac{18}{16} \times \frac{400}{2} \therefore X = 15 \text{ feet.}$$

One more example will be sufficient to show the comprehensiveness of the method.

*Example 4.*—A wire .5 millimetre in diameter of 4.9 density and 100 centimetres long when stretched by 25 pounds gives the note C. What must be the tension of a wire .2 millimetres long, of density 6.4 and 150 centimetres long to give the note G, in the same octave.

(2)

	DIAMETER	TENSION	LENGTH	DENSITY	VIBRATION FREQUENCY
	inversely	directly	inversely	inversely	
First case....	.5 mm.	$\sqrt{25}$	100 cm.	$\sqrt{4.9}$	1
Second case..	.2 mm.	$\sqrt{X}$	150 cm.	$\sqrt{6.4}$	$\frac{3}{2}$



$$(3) \quad 1 \times \frac{.5}{.2} \times \frac{\sqrt{X}}{\sqrt{25}} \frac{100}{150} \times \frac{\sqrt{4.9}}{\sqrt{6.4}} = \frac{3}{2}$$

$$\sqrt{X} = \frac{3}{2} \times \frac{.2}{.5} \times \sqrt{25} \frac{150}{100} \times \frac{\sqrt{6.4}}{\sqrt{4.9}}$$

$$X = 5.1+$$

In such questions it is a good plan occasionally to drill on the steps so that the pupils will not work entirely by rule, but will reason each step. In connection with the last problem I often ask such a set of questions as this.

Q. Under what conditions is  $1 \times \frac{.5}{.2}$  the vibration frequency? A.

When the diameter is .2 millimetres, the tension is 25 pounds, the length is 100 centimetres and the density is 4.9. Q. Under what conditions is

$1 \times \frac{.5}{.2} \times \frac{\sqrt{X}}{\sqrt{25}}$  the vibration frequency? A. When the diameter is

.2 mm., the tension  $X$ , the diameter 100 and the density 4.9. The whole series can be gone through in that way.

If a teacher attempts this method and the pupils succeed in grasping it the difficulty with variation questions largely vanishes.

---

## Book Reviews

*Jean Baptiste*, a Story of French Canada, by J. E. Le Rossignol. J. M. Dent & Sons, Toronto. 269 pages. Price \$1.50. This is a charming story of *habitant* life, of a young man who had visions of greater things for his own little settlement and like the prophet was "without honour" in his own country. The story has all the appeal that goes with a real Canadian setting.

*In Pastures Green*, by Peter McArthur. J. M. Dent & Sons, Toronto. 361 pages. Price \$1.50. Five or six years ago, Mr. McArthur, after a successful journalistic career in Toronto, New York and old London, went back (or was it forward?) to the land, to his birthplace in Middlesex. This book tells of his experiences on the farm; he maintains that he tells us only the truth about these experiences, but he clothes all the recorded incidents with a romance which few, if any, others have been able to see in similar incidents. The book makes most delightful reading. Though the author never intended that it should form part of a school library, one can see that it could be very useful there. Pupils in rural schools who read this book will view their surroundings in a new light, will be able, for instance, to see a charm in the eccentricities of the meditative cow, will find interesting situations all about them, much superior to anything that the town affords. Might one suggest that when he drives the children to school this winter Mr. McArthur should remain with them for the day occasionally and give us his views of the routine of school work garnished "with humour, poetry, and philosophy"? Every teacher who has lived or taught in the country or who dreams of living there some time will find a huge fund of enjoyment in this volume.

# Diary of the War

(Continued from the November number.)

## SEPTEMBER.

- Sept. 1. General Alexieff appointed chief of the Russian General Staff. Four German aeroplanes bombard Lunéville.
- Sept. 2. Fall of Grodno. Germans capture a bridgehead on the Dvina between Riga and Friedrichstadt.
- Sept. 4. Allan Liner Hesperian torpedoed without warning and sunk off the south coast of Ireland; 25 lives lost.
- Sept. 5. The Tsar takes supreme command of the Russian forces by land and sea. Grand Duke Nicholas transferred to the Caucasus. Turkish destroyer Yar Hissar sunk in the Sea of Marmora. Two Russian torpedo-boat destroyers drive away the Turkish cruiser Hamidieh and two torpedo-boats in the Black Sea. A Mohmand rising on the Indian frontier suppressed.
- Sept. 6. French aeroplane bombardment of Saarbrücken in Lorraine; 75 persons reported killed.
- Sept. 7. Russian victory near Tarnopol in Galicia, 8,000 prisoners and thirty guns captured. Raid on the Eastern Counties by three Zeppelins; 17 killed and 39 injured. Belgian coast bombarded by 30 to 40 vessels of the British fleet; French and British airships bombard Ostend. Germans admit the loss of the U27.
- Sept. 8. Zeppelin air raid on London and Eastern Counties; 20 killed and 88 injured. Further Russian successes at Tarnopol and Trembovla. Heavy German attack repulsed in the Argonne.
- Sept. 9. Further Russian successes at Trembovla; 5,000 prisoners and a number of guns captured. Von Mackensen in possession of Dubno and advancing on Rovno. Germans by use of liquid fire make slight progress between Lingekopf and Barrenkopf. French airmen raid Luttenbach and Grand Pré.
- Sept. 11. Zeppelin raid on the East Coast; no casualties and no damage done. Text of German note on the sinking of the Arabic published. Great German concentration on the Dvinsk-Vilna line.
- Sept. 12. Zeppelin raid on the East Coast; no casualties. Germans reach the Dvinsk-Vilna railway.
- Sept. 13. Russian forces at Vilna threatened with envelopment. Russian forces advance in Tarnopol district. Von Mackensen checked near Rovno. German air raid on East Coast; no casualties. German aeroplane raids Kent coast; seven injured. Admiral Sir Percy Scott placed in command of the aerial defences of London.
- Sept. 14. Russian attacks force the enemy across the River Strypa. At the opening of Parliament British casualties for the army during the first year of war announced to be 381,982. British success in East Africa at Maktan.
- Sept. 15. Germans occupy Pinsk. Violent fighting along the Strypa in Galicia. Germans make progress in the offensive towards Rovno.



- Sept. 16. Duma prorogued until November. British casualties in Dardanelles to August 31st announced to be 87,630. Dvinsk and Vilna encircled by the Germans. German cavalry reach the railway at Molodeczna.
- Sept. 17. British submarine E7 announced to have been sunk off the Dardanelles. Official account of the week's casualties in London from Zeppelin raids gives totals of 38 killed and 124 injured. Germans occupy Vidsy, east of the Vilna-Dvinsk railway.
- Sept. 18. Fall of Vilna. Nine air combats between British and German aeroplanes; two hostile aeroplanes destroyed. French and British fleets co-operate in bombarding German positions on the Belgian coast.
- Sept. 19. Bulgaria mobilises and announces policy of an armed neutrality. Germans reach the Lida line on the Niemen and threaten the Russian retreat from Vilna.
- Sept. 20. French gain a footing on the Aisne-Marne Canal and make progress at Hartmannsweilerkopf in the Vosges.
- Sept. 21. Mr. McKenna introduces a budget which greatly increases taxation. Despatch from Sir Ian Hamilton published describing the Gallipoli operations during May and June. Russians retire successfully from Vilna and also defeat the Germans at Lennewarden on the Dvina.
- Sept. 22. Allied aeroplanes raid Stuttgart and bomb the palace of the King of Württemberg.
- Sept. 23. Greece orders the mobilisation of her army. British make a successful air raid on the German communications near Valenciennes. Russians re-occupy Lutsk in Volhynia.
- Sept. 24. Furious German assault on Dvinsk repulsed.
- Sept. 25. Allies open a great offensive in France. British advance 4,000 yards south of the La Bassée Canal, capture Loos and reach the slopes of Hill 70 north of Lens. Near Hooge they gain 600 yards of trenches. The French gain the cemetery at Souchez and the remainder of the Labyrinth. In Champagne they break the German lines to a depth of two and a half miles on a fifteen mile front, taking 16,000 prisoners and 24 field guns. A British squadron bombards Zeebrugge.
- Sept. 26. French capture Souchez and make further progress in Champagne. British and French gains consolidated; prisoners announced to total 20,000 and guns thirty-three. British occupy Hulluch.
- Sept. 27. British make further progress east of Loos. British captures to date amount to 53 officers, 2,800 men, 18 guns, and 32 machine guns; French to 300 officers, 20,000 men and 70 guns. German offensive in the Argonne repulsed. General Evert defeats German forces near Vileika.
- Sept. 28. British defeat the Turks at Kut-el-Amara on the Tigris. French make progress in Champagne. Germans recross the river Styr below Lutsk. Italian battleship Benedetto Brin accidentally blown up in harbour.
- Sept. 29. French reach Hill 140 in the crests of Vimy, and make progress in Champagne on right centre and right wing.
- Sept. 30. Progress made in Champagne at Hill 185, the Butte de Tahure, and before Ripont.

---

Examiner—"Now, William, if a man can do one-fourth of a piece of work in two days, how long will he take to finish it?"

William—"Is it a contrac' job, or is he workin' by the day?"—*Life*.

## Letter Writing

FREDERICK H. SPINNEY

Principal, Alexandra Public School, Montreal

**I**N response to the article in the September issue of *THE SCHOOL*, we have received a large number of excellent letters which have been forwarded to schools in other parts of the world. We trust that in due time many, if not all, of the young writers will receive the much coveted answers.

Four writers out of five refer to the fact that "the teacher read us the letters in *THE SCHOOL*". This practice seems to have proved a splendid means of arousing interest on the part of the pupils.

For a child to sit down to write a letter to another child in some other part of the world is not a natural activity on the child's part. Motive and interest must both be aroused by the teacher. No better method could be devised than to read letters written by children of other schools and other lands. And when the interest is once aroused, the exercise is one of the most valuable that could be added to a school curriculum. I am led to make this statement after observing the remarkable improvement on the part of pupils who have enjoyed the privilege of such correspondence for one or two years.

Freedom of written expression has a fascination, which, when once experienced, gives a permanent interest to all forms of composition, especially when the writer has a choice of subject matter.

Before taking up a lesson leading to an exchange of letters, the teacher should strive to build up the right attitude on the part of the pupils. She must not be disappointed if she fails to arouse the interest of all. It was never intended that we should *all* do any particular thing equally well. But our school activities should be so wide in their scope as to give each child an opportunity of discovering that particular thing which appeals to him most strongly.

"Let us imagine," says the teacher, "that there are boys and girls in England who would like very much to hear what you have to say about our little village, its population, chief occupation, the climate, etc.

"And I think that they would like to know what you do in school and at home, what games you play, what books you read, what excursions you have made, what animals, flowers, etc., you like and many other matters that you will think of yourself."

If the teacher can thus secure the interest of the children, and make them eager to impart this information and to receive such information



in return, she has accomplished a large part of her function in this activity. If she cannot arouse this interest and enthusiasm, she is not likely to meet with success in developing freedom of expression in written composition.

The following letter is not the *best* of those recently received, but it is so manifestly the natural expression of the child that I deem it worthy of publication.

Okotoks, Alberta,  
October 12th, 1915.

Dear Friend:—

As our teacher was reading us some letters from THE SCHOOL I thought that I would like to write one too. I am twelve years of age and am in the Sixth Grade. We often write letters in school, but we have never sent any away. So we thought that we would like to have these sent to another country.

We have a beautiful brick school. It is on the top of a hill, and we have a splendid view of the town, the river, and the Rocky Mountains. There are five classrooms and from thirty to forty pupils in each room.

We have a Cadet Corps and Girl Guides. I am a member of the Cadet Corps and have a uniform. We drill Tuesdays and Thursdays. Some nights we have rifle drill. We also have a baseball team, of which I am captain. There are what we call East and West teams. In summer we also play cricket. In winter we play hockey.

I often go shooting gophers on Saturday, with my own twenty-two rifle. One Friday night we had a game of "hare and hounds". We picked out two good hares and gave them six minutes' law. Then we followed the scent about five miles, when we found that we were on a false trail. When we reached home we found that the hares were ahead of us.

They have organized the "Home Guards" here. They have target practice on Tuesdays. The rifles weigh about seven pounds. The Cadets have Ross twenty-two's, but they have no ammunition.

Well, what do you think of the war? I think that it is terrible. My uncle is a soldier. There is a Red Cross Society here. They have made many things for the wounded soldiers.

As our time is up I must close,  
Your friend,

HECTOR McNEILL.

There is only one way to learn to write and that is, TO WRITE. Then, the essential thing is to have SOMETHING TO WRITE. Composition has been an unpopular subject for the main reason that we have asked children to perform the impossible—to make something out of nothing.

If a boy has a game of "hare and hounds", there is no difficulty in coaxing him to relate his experiences. He can scarcely make the words come fast enough; there is so much to tell and he is so eager to tell it. Some of that eagerness may be lost when we ask for the account in writing; but the material is in his mind, and we are asking something within his capability of performance.

Again, we very frequently increase the child's distaste for written composition by insisting on a perfect production. Just a free flow of language is all that we should look for at first. At the beginning of each lesson, we should point out the leading mistakes of the previous exercises, and warn the pupils against their repetition. It is a very unattractive task for any of us to rewrite a composition, no matter how fascinating may have been the original performance.

No other subject demands such a display of good judgment on the part of the teacher—tact, sympathy, patience, interest in the activities of childhood, careful observation of individual tendencies. The writer of the foregoing letter is particularly interested in *rifles*. To win his fullest confidence the teacher should learn all she can about that subject, and then question the boy in such a manner as to reveal something of her own knowledge and interest. Treating each pupil of her class in this manner, what a fund of useful knowledge a teacher would acquire in the course of a year; and, what is of far greater importance, how far-reaching would be her influence on the individuals of her class!

As was pointed out in the last issue, it is hardly possible to arrange for an exchange of letters for all the pupils of all the schools interested; but, if each teacher will send *five of the best letters* written by the class to Alexandra School, 160 Sanguinet St., Montreal, with from 3 to 5 cents in postage, an earnest attempt will be made to ensure that answers will be forthcoming. If teachers who have once tried have failed to secure answers it would be well to try again. Explain to the children that, in dealing with hundreds of letters, a number will fall into the hands of teachers who will not take the trouble to make sure that all the letters are answered.

Persistence in this, as in other matters, is the secret of ultimate success.

---

## Book Reviews

*The War Lords*, by A. G. Gardiner. J. M. Dent & Sons, Toronto. 328 pages. Price 25 cents. This volume, by the same author as *Prophets, Priests, and Kings*, is one of *The Wayfarers Library* series. It contains fifteen illustrations, the faces of persons prominent on both sides in this war. It is full of the very best kind of material for the teacher who wishes to increase the pupils' interest in the lessons on current events. It should certainly be in every school library.

*A Woman's Diary of the War*, by S. Macnaughtan. 168 pages, price 35c. Thomas Nelson & Sons, Toronto. This is a very readable little story dealing with details which are not often found in the daily papers. The first chapter is dated August, 1914; the last, June 1915. It is full of anecdotes of the trenches and the hospital. A nice little book for the school library.



# A Lesson in Grammar

JUNIOR IV CLASS.

A. N. SCARROW

Faculty of Education, University of Toronto.

General Topic—Classification of Verbs.

## I. Preparation.

1. The pupils under the teacher's guidance calling up old ideas related to the new presentation.

General statement of aim,—We have learned several ways of classifying nouns, and we wish now to find how verbs are classified.

Let us first recall some of the main points we have learned about verbs.

Divide these sentences into subject and predicate and underline the verb in each.

- (1) Birds *fly*.
- (2) Birds *build* cosy nests.
- (3) Some birds *are* good singers.
- (4) The fish *swims* gracefully.
- (5) The fish *likes* its food.
- (6) The fish *seems* frightened.

Questions: What does the subject do? What the predicate? What is the use of the verb? The verb is the chief word used in making the assertion about the subject.

2. Definite statement of aim—by the teacher.

Our aim now is to see whether we can find differences in the way these verbs make the intended assertion. We want to find a *basis of classification* for the verbs.

## II. Presentation and Comparison.

Compare "fly" and "build" and see whether they make the intended assertion in the same way.

What is the intended assertion in the first sentence? (Underline FLY.)

What is the intended assertion in the second sentence? BUILD *their nests*.

What difference do you notice in the way they make the intended assertion?

"Fly" makes the intended assertion alone; and "build" requires other words with it to make the intended assertion.

Look at "are" in (3) and see whether it is like either of the others.

"Are" like "build" requires other words with it to make the intended assertion.

What would be the result in (2) and (3) if we left out the words after "build" and "are"? The assertions would not be complete.

### III. Abstraction.

Now, what *basis* have we found on which we may classify verbs? We may classify them on the basis of whether they *make the intended assertion alone* or *require other words to complete them*.

Classes: (1) Verbs making an assertion alone.

(2) Verbs requiring other words to complete them.

Let us look at sentences (4), (5) and (6) in the second group and see whether we can divide the verbs on the same basis.

"Likes" and "seems" in (5) and (6) require other words with them to make the intended assertion.

There may be some doubt, or difference of opinion among the pupils, about the verb "swims".

Let us see whether "the fish swims" makes the intended assertion. Almost the same but not exactly.

What makes the difference? The adverb "gracefully" modifies "swims".

Is "swims" complete without the adverb? Yes, but the adverb changes the meaning slightly.

In which class, then, shall we put "swims"?

"Swims" should go with the verbs that make an assertion alone.

### IV. Generalisation.

What, now, is our *basis of classification*?

The basis is whether the verb makes an assertion alone or requires other words to complete it.

Name the verbs that go in each class.

(1) Verbs making an assertion alone—*fly, swims*.

(2) Verbs requiring to be completed—*build, are, likes, seems*.

Verbs of the first class we shall call *Complete Verbs*. Verbs of the second class, *Incomplete Verbs*.

Now, before we *use* these new terms, *complete* and *incomplete*, as applied to verbs you had better take a moment to recall what we have learned about such verbs.

### V. Application.

Let us classify the verbs in the following sentences as *complete* or *incomplete* verbs.

The girls	<i>are</i> at their seats.
The boys	<i>are making</i> a puzzle.
Their books	<i>are lying</i> on the table.
These friends	<i>meet</i> regularly.
They	<i>study</i> their lessons well.



Have pupils divide the sentences, indicating subject, predicate and verb, before classifying the verbs.

Complete Verbs.

are lying  
meet

Incomplete Verbs.

are  
are making  
study

After these verbs have been classified by the pupils without assistance, they should be classified on the board, the teacher guiding by questions. The pupils are thus led to confirm or correct their own conclusions.

An exercise from the Grammar may now be assigned, the pupils to divide the sentences as above and proceed with the classification. These should be corrected as a class exercise.

Further classification of *Incomplete Verbs*.

By investigating the incomplete verbs used above, a *basis for further classification* may be found.

Basis: *How these verbs are completed.*

One class will be found to *express action* directed to an *object* which completes the verb.

The other class will be found to be completed by a word or phrase (noun, pronoun or adjective) having an *adjective value*, defining or *modifying the subject*—subjective completion.

Classes: (1) Verbs expressing action and completed by an object.

(2) Verbs completed by a subjective completion.

This should of course be followed by an exercise as before.

For economy in space the development of the classification of incomplete verbs has been much shortened, but the method is the same as in the general classification into Complete and Incomplete. It should be noted that the first classification includes all verbs, while the second includes only one class from the former.

NOTE:—It is important to emphasize the *need for a basis of classification*. This is true of all classification. Indeed before classification of any of the parts of speech is attempted a general lesson on classification should be given, dealing with all sorts of things, as, pupils, desks, pencils, etc., and showing that any of them may be classified on several different bases. The basis should be found and emphasised in order that the classification may not proceed blindly.

*Classifications of the verb and their bases.*

1. Making a *complete* assertion or *not complete*.

(1) Complete.

(2) Incomplete.

How completed.

(a) By an object—Transitive.

(b) By a subjective completion—Copula.

2. Whether expressing *action* directed to a *receiver* or not.

(1) Transitive.

(2) Intransitive.

Whether complete or not.

(a) Complete.

(b) Copula—having subjective completion.

Note: In parsing verbs, especially in High School work, the second classification alone is usually given, but the first classification should be consciously used by the pupil in arriving at the second.

Example: Our army *won* the battle.

He *seems* content.

“Won” is incomplete, completed by an object, therefore *transitive*.

“Seems” is incomplete, completed by a subjective completion, therefore it is a *copula* and *intransitive*.

---

## Book Reviews

*Rural Denmark and its Schools* by Harold W. Foght. 355 pages, price \$1.40. The Macmillan Co., Toronto. This interesting book deals in detail with the system of education in the rural schools of Denmark describing the elementary rural schools, the agricultural schools, and the folk High Schools. The type is clear and readable; the illustrations excellent. It is full of suggestions for the student of rural school problems and well deserves a place in the teacher's section of the school library. We are told among other things that Denmark (area 15,000 square miles) has twenty normal schools; that the construction of rural schools is regulated by the Ministry of Education; that a gymnasium is compulsory; that the teacher is provided with a tree home and a garden; that the playground is not large but pupils are forbidden to remain indoors during intermission; that teachers seldom remain less than from seven to ten years in the same community; that as a rule rural teachers do not aspire to urban positions because the salaries and the conditions are entirely satisfactory; that a good pension scheme is in operation; that rural teachers are trained for country life and understand its needs; that rural education tends to keep the pupils on the land.

*Canadian Commercial Correspondence and Business Training*, by H. J. Russell, St. John's Technical High School, Winnipeg, 295 pages. The Macmillan Co. of Canada, price 75c. This book supplies a long-felt want for a text in business correspondence for Canadian High Schools and Collegiate Institutes. Teachers of English will find therein a well selected and practical body of exercises, covering the whole field of commercial correspondence, with illustrative material chosen from actual Canadian business practice. From the technique of the letter the student's attention is directed to the various kinds of business letters, as collection letters, circular letters, form letters, letters of application, follow-up letters, etc. Chapters devoted to the recording and filing of correspondence are included. Business organisation, commercial law, banking and advertising are treated in a suggestive way, affording an introduction to the more advanced study of these topics. The printing, binding, and mechanical construction of the text are so excellent, and its need is so urgent at this time that teachers of commercial classes throughout Canada should welcome such a book.

J. F. V.



# A Literature Lesson for Second Book Classes (Grades III and IV)

F. E. COOMBS, M.A.

Faculty of Education, University of Toronto

## THE CHILDREN'S HOUR.

Between the dark and the daylight,  
When the night is beginning to lower,  
Comes a pause in the day's occupations,  
That is known as the children's hour.

I hear in the chamber above me  
The patter of little feet,  
The sound of a door that is opened,  
And voices soft and sweet.

From my study I see in the lamplight,  
Descending the broad hall stair,  
Grave Alice, and laughing Allegra,  
And Edith with golden hair.

A whisper, and then a silence:  
Yet I know by their merry eyes  
They are plotting and planning together  
To take me by surprise.

A sudden rush from the stairway,  
A sudden raid from the hall!  
By three doors left unguarded  
They enter my castle wall!

They climb up into my turret  
O'er the arms and back of my chair;  
If I try to escape, they surround me;  
They seem to be everywhere.

They almost devour me with kisses,  
Their arms about me entwine,  
Till I think of the Bishop of Bingen  
In his Mouse-Tower on the Rhine!

Do you think, O blue-eyed banditti,  
Because you have scaled the wall,  
Such an old moustache as I am  
Is not a match for you all!

I have you fast in my fortress,  
And will not let you depart,  
But put you down into the dungeon  
In the round-tower of my heart.

And there will I keep you for ever,  
Yes, for ever and a day,  
Till the walls all crumble to ruin,  
And smoulder in dust away!

This poem should appeal to pupils of Form II, junior grade, since the experience of *being taken captive by parental love* is one, we trust, that is common to all children.

PREPARATION.—(a) *By Teacher.* Nothing can take the place of the teacher's preparation. We cannot teach what we do not know nor make others appreciate what we ourselves do not appreciate. A close study to determine the central thought and the way the author has endeavoured to *portray* that thought is the first indispensable essential. In this lesson, therefore, see the father's love symbolised in this imaginative play, appreciate the author's arrangement of details to bring out this idea, and above all let the heart of Longfellow throb in you while you study and teach.

(b) *By Pupil.* Sometimes poems contain allusions, comparisons, details, unfamiliar to the pupil yet vital to the appreciation of the poem. For example, pupils must first become familiar with castles, outer walls, turrets, dungeons, banditti, round-towers, before they can enter into the spirit of the above selection in an uninterrupted, unimpeded way. To give this needed knowledge the teacher may collect pictures and tell stories of those days of chivalry when a man's castle was his fortress. These ideas could, subsequently, be made more definite by means of constructive exercises and modelling in clay and plasticine. All this work should be done a week or so before the literature of the selection is taken and no conscious connection should be made between such work and the literature which is to follow. *Give the pupils the key to the interpretation but allow them to use the key for themselves.*

Such remote preparation is, at times, most essential because the great value of literature does not lie in intellectual flights and intellectual conquests, however shrewd and brilliant they may be, but in seeing a common experience illuminated and beautified by an artistic poetic touch. In this poem, therefore, the literature does not consist in explaining such allusions as we have cited above but in the child seeing his own life embodied therein.

The poem may be introduced by a short talk with the children about the hour of the day they like best, why they like it best, what usually occurs during that play-hour, etc. In brief, direct their thoughts to their own pleasures of the twilight hour when their fathers have time to play with them. In psychological language this means bringing to the focal point of attention those experiences which lie basal to the full interpretation and appreciation of the poem. In reality it means shutting our eyes to certain things that we may see other things the better. This phase of the preparatory step is, in my opinion, indispensable, especially with young children. In later years when our habits are more or less fixed it may not require so much emphasis, or may, perhaps, be omitted. But until the habit is fairly well fixed, until the pupil more or less unconsciously learns that real literary appreciation depends upon this very attitude of mind, the teacher should guide the pupils into these channels. This does not mean that the teacher interprets the poem for the pupil. It should *always* be left for the pupil to link up his own individual experiences with those of the poem in his own individual way. It does mean, however, that the teacher has so directed the thought of the pupil that he has reduced to a minimum the possibility of interruption and impediment and has increased to the maximum the possibility and probability of the child seeing his own life mirrored in the poem.



PRESENTATION.—Never present without some definite problem before the class. Some stimulating question which has a direct bearing upon the central thought lends a purpose and vitality to both the reading and the listening. For example, in the above poem the teacher could present some such problem as follows: "I am going to read you a poem which tells how a poet used to spend this twilight-hour with his three daughters. Imagine that you were in hiding some place where you could actually see all their movements and actions. As I read I wish you to decide the thing that you are most certain of regarding the relationship that exists between the father and his three daughters".

Now read or recite—preferably recite—the poem to the class without interruption and without comment. That is, let them see it in its unity and let each one experience the joy of his own discovery. After reading, the teacher should by means of a few well-directed questions strike right at the heart of the lesson. For example: What did the girls attempt to do? Take their father by surprise. What does their attack remind the father of? The Bishop of Bingen? What feeling must have been in the girls' hearts when they acted thus towards their father? Love. Who won in this war of love? The father. What are you absolutely certain of regarding the relationship that exists among these four people? Their great love for one another. Whose love was the greatest? The father's. N.B.—*There should be no attempt at this point to press for a formal statement of the theme. It is sufficient that they have an approximate idea as a working basis.* How many are reminded of similar experiences of your own? Two or three might tell of these experiences. At this point it would be well for the teacher to re-read the poem. I think the present-day tendency is to underestimate the part the ear plays in the real appreciation of literature.

DETAILED STUDY.—This should not degenerate into a mechanical analysis of the poem nor a series of questions on the meaning of words and phrases. It should, however, make clear to the pupil how the author has arranged the details to convey the intended idea. By skilful questioning the teacher should endeavour to vitalise the rich imagery of the poem. The following bare outline is suggestive: What was the first main picture that you saw? The girls preparing for the raid. The teacher now reads the first four stanzas while the pupils fill in the details of the picture. What was the next picture that you saw? The raid. The teacher reads as above the pupils imaging the ideas not merely seeing the words. What was the last picture that you saw? The father taking the girls captive. Read as before.

The detailed study may be completed by finding all the possible evidences of the love of the girls for the father and of the father for his daughters. This will bring to their attention such phrases as: *patter of*

*little feet, voices soft and sweet, sudden raid, castle wall, blue-eyed banditti, round tower of my heart, devour with kisses, Bishop of Bingen, etc.* At this stage of the lesson the pupils could sum up all the evidence and give a more formal statement of the main thought of the lesson. The noteworthy thing, however, is that these words and phrases will be studied, not as isolated words and phrases, but, in direct relation with the central theme. They will not be seen, therefore, as ends in themselves but as means to an end viz., the author's way of portraying the thought of the lesson. This is the only justification that can ever be given for the study of words and phrases in a literature lesson.

SELF-EXPRESSION.—There should always be abundant means for the pupils' assimilation of the poem through self-expression. Encourage expression in various forms. This poem lends itself admirably to dramatisation. The children will enter whole-heartedly into this "pretending game" and cannot but see that this imaginative play symbolises the father's love for his children. Almost endless suggestion for oral composition is to be found in this lesson, as the children tell of similar experiences with their own fathers. Nor should we forget the memorisation of such a gem. Exercises in oral invention where children invent stories to convey the same idea are valuable. All these forms of self-expression will inevitably lead to a fuller appreciation of the poem.

---

Small David drew the pictures of a dog and a rabbit on his slate and handed them to the teacher for inspection. "How is this, David?" she enquired. "The rabbit has six legs instead of four." "Oh," replied the little artist, "I gave it two extra so it could get away from the dog."

---

One day last week George came home from school and said that his class had had a geography examination. One question was, "What is a bay?" He said he had forgotten what the teacher had told them it was, so, thinking of Toronto bay, his answer was, "A bay is a body of water surrounded by land with a gap at each end".—*Toronto Star Weekly*.

---

The teacher looked over her new class and felt sure she was going to get along nicely with the children, for they all looked so bright.

"Now, Jimmy," said the teacher, "let us take the verb 'to be'. What is the past of 'is'?"

"Was," said Jimmy.

"Very good," said the teacher, "and what is the past of 'be'?"

"Buzz!" roared Jimmie.

---

Professor—You say you are engaged in some original research. Upon what subject?  
 Sophomore—I'm trying to discover why the ink won't flow from my fountain pen unless I place it in an upright position in the pocket of a light fancy vest.—*Chicago News*.



## Little Tots' Corner for December

HELENA V. BOOKER  
Wentworth Public School, Hamilton

**C**HRISTMAS! The glamour of fairy-land hangs about the word even in these prosaic days when Santa Claus visits every department-store, takes the children upon his knee, and hears from their own lips what they would like for Christmas. Already the good old reindeer are replaced by automobile or airship; but whatever his mode of travel may be the times never become so prosaic that he will fail to make his way into the homes of the children, for the child who has never known Santa Claus has missed part of his heritage.

The art work for the month may deal with the Bible story of the birth of Christ, and with the visit of St. Nicholas. Children may trace and colour brown the camel and the three wise men; these with the palm-tree and a small star may be cut out and pasted on large sheets of paper, (wrapping-paper will do) thus forming a landscape story. Similarly the shepherd and sheep may be formed into another landscape. In this work allow the child to group his figures as he sees fit. The teacher may form a large composite picture for the wall by choosing some of the best work of the children. Both the palm-tree and our own Christmas tree



Fig. 1

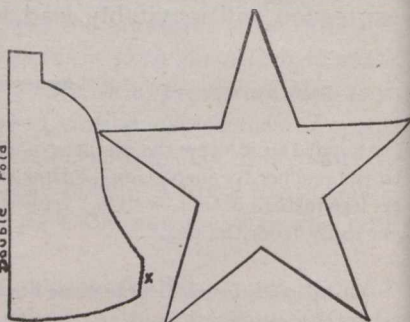


Fig. 2

may be readily drawn freehand by the children if the crayon or chalk is held *under* the hand, and the *side* of the crayon is used with a sideways motion to and fro. The teacher may work with the class beginning at the tip of the fir-tree, and gradually widening out in points. The sketches given are simply to illustrate the motion. The large star and bell may be traced by the pupils, the star coloured yellow, the bell red. These when strung alternately make a pretty border for the room. By folding a long strip of paper as in a concertina, opening out the pattern of the bell, placing the sides marked X on the double folds, and cutting, a long string of bells is obtained. The newspapers teem with pictures of Santa Claus, so that each child may obtain one. When carefully cut out and pasted on white paper a little frame may be made thus:—fold the

diagonals of a square of paper; from the centre cut half way up each diagonal; open, and fold back the points thus made, leaving a space in the centre for the picture. The sleigh in the accompanying illustration may be cut from paper 4x6; fold into 16 as shown by dotted lines;

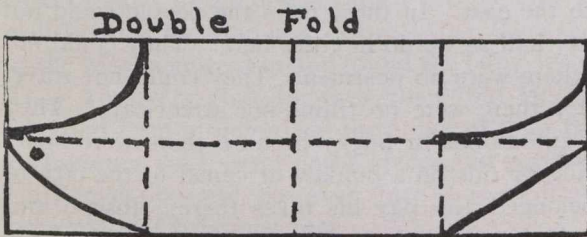


Fig. 3

draw and cut as shown in heavy lines. In work of this kind the teacher should draw the dotted rectangle on the board and draw in each line with the class. Fasten a string through the perforations at the front and we have a "really truly sleigh". If desired the paper may be coloured before folding. From newspapers, catalogues and journals the children may cut pictures of Christmas presents which they would like. On the board or on a 4' sheet of paper draw a large Christmas tree and on it paste these pictures and we have a very realistic Christmas tree. Again, each child may draw a large Christmas tree on paper and on this paste presents for each member of his family. This draws the child away from the selfish side of Christmas. In all pasting work a quick and clean method of using the paste is to give each child a small quantity on a piece of stiff paper. These may be destroyed when the lesson is over.

The music for the following Christmas song was composed by Mr. James Johnson, musical director of the Hamilton Public Schools.

HAVE YOU SEEN THE SNOW-FLAKES.

Have you seen the skaters  
 Skimming o'er the ice?  
 Have you made a snow-man,  
 Tall and straight and nice?  
 Have you seen St. Nicholas  
 With his heavy pack,  
 Sliding down the chimney?  
 In a trice he's back.  
 Have you seen the good things,  
 Dolls and games and toys,  
 Which he leaves behind him  
 For good girls and boys?

Key: C

1 s . m : s . d | t : r |  
 Have you seen the snow-flakes

1 f . m : f . l | s : - |  
 spar-kle as they fall?

1 s . f : r . f | m : s |  
 Have you seen the hear-frost

1 d . t : l . t | d' : - |  
 cling-ing to the wall?

ch. 1 s . f : f . - | m . s : d . s |  
 Then you know Wint-er's here. Hur-

1 t : l : s . f | m . - g . m |  
 rah! Hur-rah for Christ-mas, The

1 f . l : s . t | d' : - |  
 best of all the year.



## THE CHRISTMAS STORY.

1. Long, long ago, before your fathers and mothers or even your grandfathers and grandmothers were born, and even long before that, there was a man named Joseph and his wife named Mary living in a country, far, far away to the east. In those days the people could not pay their taxes at the city hall as we do in cities here. They could not send them by letter for there were no postmen. They could not travel by train nor street-car for there were no trains nor street-cars. They could not even go in an automobile or buggy because there were none. So every man had to walk, or ride on a donkey or camel to the city to which his own people belonged and pay his taxes there. Joseph and Mary set out riding on donkeys to go up to Joseph's city which was Bethlehem. The country they rode through did not look like our country. Although it was the middle of winter there was no snow. The air was warm, the grass green. Instead of maple and chestnut trees, apple and pear orchards, they passed date and fig trees, palm trees and olive trees, and not many of these either for trees are not plentiful there. There would be great stretches of country very bare and empty, with little hills rising here and there, and in some places it would be very hot and dusty. On the way they met crowds of people all travelling to some city to pay their taxes. Many were going the same way as Joseph and Mary, and as they got near to Bethlehem there was a great procession of people coming in from all directions. . . . . We like to keep our birthdays each year, and so on Christmas each year we keep the birthday of Jesus, the little child God sent into the world, to the manger at Bethlehem, many, many years ago.

2. I have told you that the country where Jesus was born was a warm country where they never have any snow or ice, and where it is almost like summer all the year long. Here in our country when winter is coming on the farmer has to put his sheep and cattle into warm barns, and they cannot go out into the fields until the spring comes again. But in the country of Palestine where Jesus was born the sheep and cattle could stay out in the fields night and day, winter and summer. But they could not stay alone because there were wild animals, wolves and bears, which would attack and kill the sheep if they were not guarded. So the shepherds used to stay with the flocks night and day, watching them, keeping them together, finding nice grassy places for them to feed in and clean streams where they could drink. Often the shepherds would be away for days together, carrying enough food with them when they started out. When night came some would watch the flocks while others would wrap their long cloaks about them and lie down on the grass to sleep. . . . . So they went about the country telling everyone

they met about the wonderful baby who was born at Bethlehem, and of whose birth the angels had told them.

3. On the night of Jesus' birth, when the angels appeared to the shepherds in the fields, there were three wise men travelling over a dusty desert road. In the desert camels are the only animals which can travel well, because the sand is so deep. . . . . Over the stable the star stopped, so the wise men went in and found the baby Jesus with Joseph and Mary. They were very glad, for they knew that He was the little Christ child who had been promised, so they opened their bags and gave Him beautiful presents, gold, sweet herbs, spices and perfumes. These were the first Christmas presents, but ever since then we have been giving each other presents at Christmas time.

---

## Book Reviews

Nelson's *History of the War* by John Buchan. Thomas Nelson & Sons, Toronto. This history is issued in monthly volumes at 35 cents each. Volume VII (the one under review) deals with the period "from the second battle of Ypres to the beginning of the Italian campaign". Nelsons have been very enterprising in furnishing information on the present war; their *History of the War* is an excellent guide for the teacher and their *Children's Story of the War*, also issued monthly, (and recommended by the Ontario Department of Education), gives the pupils the narrative of the great struggle in language they can understand.

*On the Writing of English* by George Townsend Warner, M.A. London, Blackie & Son, 1915. Page XI+158. Price 3s. 6d. This is a very unusual book on composition. Addressed to boys by a man who seems to understand them thoroughly, it has been made so attractive that the brighter boys of a High School class will ask for the privilege of taking it home to read. The author attempts to lay down only a few of the very important principles of composition, but he makes them very clear, and illustrates them in an exceedingly interesting manner. In an appendix, he puts sample paragraphs from a dozen well-known authors. This is a valuable book for the teacher of English Composition.

G. M. J.

*The Pet Book*, by Anna Botsford Comstock, 310 pages. Published by the Comstock Publishing Company, Ithaca, N.Y., price \$2.50. The teachers of nature study owe Mrs. Comstock a debt of gratitude for the very valuable literature she has supplied on this subject. A couple of years ago she issued the "Handbook of Nature Study" which has become the one book indispensable to every teacher of the subject, and now comes this other magnificent volume on pet animals, which is very valuable also. This volume tells the teacher just the facts she desires to know about most of the animals that one would wish to keep alive in school for study purposes, and also all the pets a boy or girl would be likely to keep at home. This volume does not ask questions about these animals, like other nature study books, but states the very facts that it is frequently impossible for the teacher to find. All the domestic animals, the fox, monkey, rabbit, squirrel, chipmunk, canary, parrot, crow, owl, pigeon, fish, frog, turtle, crayfish and many others are fully discussed. The characteristics and method of training of the animals are fully described, also their most suitable food and the best kind of house or tenarium for their comfort. It is beautifully illustrated by many pictures reproduced from photographs. Not only is it an excellent book for the school library, but it would make a fine Christmas present for a boy or girl.

G. A. C.



## War Maps and How to Study them

G. A. CORNISH, B.A.

Faculty of Education, University of Toronto

THE eastern front has now become fixed for the winter, in all probability, and it is possible to give its position at different periods during the last six months and these can be marked in on the Daily Telegraph War Map No. 5 in the method already described in THE SCHOOL. The positions at the beginnings of each month will be given.

May 1. It started on the Baltic south of Libau, then curved just east of the boundary through Suvalki, Augustovo, west of Ossovetz, west of Prasnysz, East of Plock, through Skiernivice, Rawa, Pinczov, west of Gorlice, south of Carpathians, through Uszok Pass straight east through Stanislau and along the Dneister river.

June 1. Libau, then along the May 1 line to Rawa then south-east through Sandomir, Jaroslau, Stryg and along the Pruth river.

July 1. From north of Libau through Shavli, Subotsh, then along the May 1st line to Rawa, then east through Radom, to Sokal, then south to the west of Tarnopol.

August 1. Starting at the Gulf of Riga, through Mitau, Kowask, west of Kovno, just east of Suvalki, through Augustovo, west of Ossovetz, through Ostroleka, west of Novo Georgievsk, turning east through Ivangorod, north of Lubin and Cholm, through Vladimir-Volynski, and Sokal, east of Lemberg and along the Dneister river.

September 1. West of Mitau, Friedrichstadt, west of Dvinsk, through Volkomir, east of Olita, west of Grodno, east of Bjelostok, east of Brest Litovsk, through Kovel, west of Dubno, just west of Tarnopol and along the Dneister river.

*Present Line.* It starts on the Gulf of Riga passes east of Mitau, through Fredrichstadt, follows just west of Dvina river to near Dvinsk, then south through Vidzy, just west of Vileika, through Smorgon, just east of Novogrodek, east of Baranovitche, through Lipsk, along Oginski canal to Pinsk, turns south west along the River Pripet through Lub-rezeff then south east through Ratalovka, straight south west of Rovno, east of Dubno and along the Stripa River.

The Persian Gulf Campaign. *Daily Telegraph* War Map Number 6. The British have now taken Kut el Amara on the river Tigris and will probably be in Bagdad before this is published. On the Euphrates they took Nasiriye (not marked on map) which is about twenty miles west of Suk-esh-Sheyuk.

There has been no marked change on the west front during the summer and autumn.

## Nature Study for December

G. A. CORNISH, B.A.,  
Faculty of Education, University of Toronto

**Observations to be made by the Pupils.**—Observe a pigeon or a sparrow as it rises from the ground. Does it jump up? What is the position of the head and neck when it rises? What is the position of the tail? Is the tail spread? Does the wing on the first down stroke touch the ground? Why would it not be harmful for the bird if the wing did strike the ground? In rising is there any resemblance between the slope of the body and that of a kite when the latter rises in the air.

Observe the motion of the wings of a bird. Are both moved together or alternately? In which case are they more outstretched on the down-stroke or on the up-stroke? What is the position of the head and neck of a pigeon or sparrow during flight? Make a list of all the birds you are able to observe whose head and neck have a similar position during flight. Notice any that carry the head differently. Observe the position of the feet of the pigeon, sparrow and crow during flight. What birds' wings make a noise during flight?

Observe a bird during flight and notice how it is able to turn to the right or left. Is its body horizontal while turning a curve? What organ does it use to direct it higher or lower?

Observe which has the steadier flight a sparrow or a pigeon? Which moves its wings steadily and regularly? Which intermittently? Show how this difference of wing movement affects the steadiness of flight. How does the flight of a swallow or of a gull differ from either?

Observe a pigeon during flight to see the shape of the wings. On which side are they concave? On which are they convex? What advantage is this for flight? Are the feathers close together, not leaving any slits toward the tips? Examine the position of the feathers of the wings of a crow during flight to see whether there are any slits between them towards the tips.

*Observations to be made on a plucked fowl at home.*—Are the wings attached nearer the upper or the lower side of the body? Is this an advantage in making the bird stable during flight? Are the wings attached nearer the front or the back of the fowl? Explain the advantage of this in flying. Compare a bird in these two respects with an air-ship and an aeroplane. Does the wing of a bird naturally lie stretched out or folded? Pull the wing of a plucked fowl straight out and let it go. Does it fold up of its own accord? What advantage is this to the bird during flight.



Save the bones of a fowl from the table. Examine the wing bones. Compare them with the bones in your arm. Is there a long bone in the upper part like the bone in your upper arm? Feel your arm from the elbow to the wrist to find how many bones there are in it. Find the same bones in the corresponding part of the fowl. How do they differ from yours. Are there any signs of hand and finger bones in the bird's wing? How many fingers are represented? Break a chicken bone across and compare its cavity in relative size with, say, the marrow-bone in a beef-steak. Examine the socket into which the upper wing-bone sets. Does it allow motion in every direction? Do the bones to which it is attached give a solidly fixed pivot for it to turn about. How is this solidity obtained? Describe the breast-bone. How does it compare in size with the human breast-bone? What fits against the underside of this breast-bone? Is this flesh a muscle? Is the breast muscle the largest on the body? Has a dog, cat or man such a strongly developed breast muscle? What do you think is its use?

When a fowl or better a duck is being dressed examine the abdominal cavity when it is first opened and before any organ is disturbed to see whether great transparent bladder-like air-cells are present. See whether smaller ones are present just under the skin. Would these assist the bird in flying? If so, how?

**Information for the Teacher.**—A bird on the ground when it wishes to rise stretches its head obliquely upward, spreads its tail in the same plane and gives a spring obliquely forward. At the same time it brings its wings down and then up again. The leap has carried it so far off the surface that the wings on the first down stroke do not come in contact with the ground for such action would soon injure the tips which are of great importance in flying. The oblique slope of head, neck, body and spread tail causes it to slide upward like a kite, while the bird is being propelled forward by the rapid strokes of its wings. A swallow on a wire does not leap upward but merely drops from its position and at the same instant uses its wings.

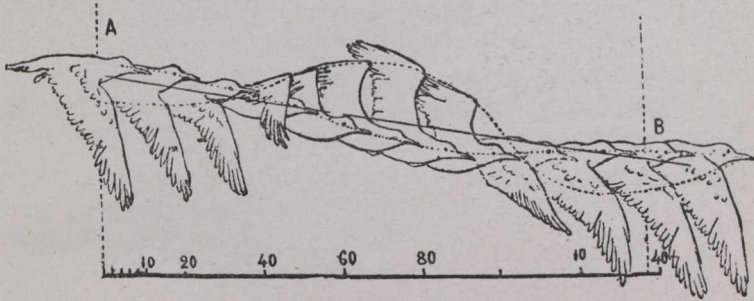
The actual motions of the wings of a bird while in flight are somewhat difficult to observe on account of the rapidity of movement. They both move up and down together and it is the down stroke that produces the motive power. On the down stroke (Fig. 1) the wing is well extended and concave below so that the air strikes it and slides out behind thus sending the bird forward. On the up stroke the wing is relaxed and partly folded so as to offer little resistance and no motive power is given to the bird during this part of the stroke. If a dressed bird is examined the wings are found naturally to assume the folded position, and if one is stretched out it at once springs back to the folded

posit  
wher  
duri  
the  
by t  
Thu  
the  
J  
as p  
bod  
toes  
bod  
ther  
the

pas  
str:  
bal  
hea  
sta  
cal  
tio  
an  
bo  
bil  
for  
an  
is  
to  
th  
th

position. This is due to certain tendons that are put on the stretch when the wing is extended. This is of great importance to the bird during its flight. The down stroke requires great muscular effort on the part of the bird, but on the up stroke the wing is drawn up largely by the stretched tendons, though a small muscular effort is required. Thus while in flight the great muscles used in flying are at rest for half the time; otherwise the muscular effort would soon produce fatigue.

During flight the bird is in such a position as to offer as little resistance as possible to the air. The head is extended forward in line with the body and the feet are usually extended backward behind the body, the toes being drawn close together. The feathers of all the front part of the body slope backward in such a manner as to allow the air to slide over them with the least possible friction. There is not an angle or slope in the whole front part of the body which does not allow the air to slip



(From Marey.)  
Fig. 1

From *A Dictionary of Birds* by Alfred Newton.

A. & C. Black, London.

past with little resistance. Some of the herons do not extend the head straight forward but have it bent in an **S**-like fold. This is probably due to the fact that the extremely long neck would bring the head so far forward that the equilibrium of the body would be disturbed.

It is very important that the bird during flight should possess great stability. We know that aeroplanes meet in the upper air what are called "pockets", which tend to whirl the machine in various directions and very frequently upset it. Birds must meet the same conditions and have adaptations to prevent accidents. The main weight of the body is far behind the point of attachment of the wings. This gives stability to any body moving swiftly forward. A boat that was heavier forward than aft would be very awkward. It will be noticed also that an aeroplane resembles a bird in this respect also, for the centre of gravity is always located well behind the centre. Again the wings are attached to the upper part of the body so that the main weight hangs well below the point of suspension. All airships and aeroplanes imitate birds in this respect also. A top-heavy machine would soon meet disaster, and



when we watch a bird buffeting successfully the most tortuous winds we see how stable the body is, owing to the point of attachment of the wings being well up and forward on the body.

Some birds of long flight move the wings steadily at an even rate and move forward in a bee-line. Such are the ducks and pigeons. Others like the sparrows and woodpeckers, which are short fliers, move jerkily up and down. This is due to the fact that they move their wings for a time when they move upward and then they hold their wings by their

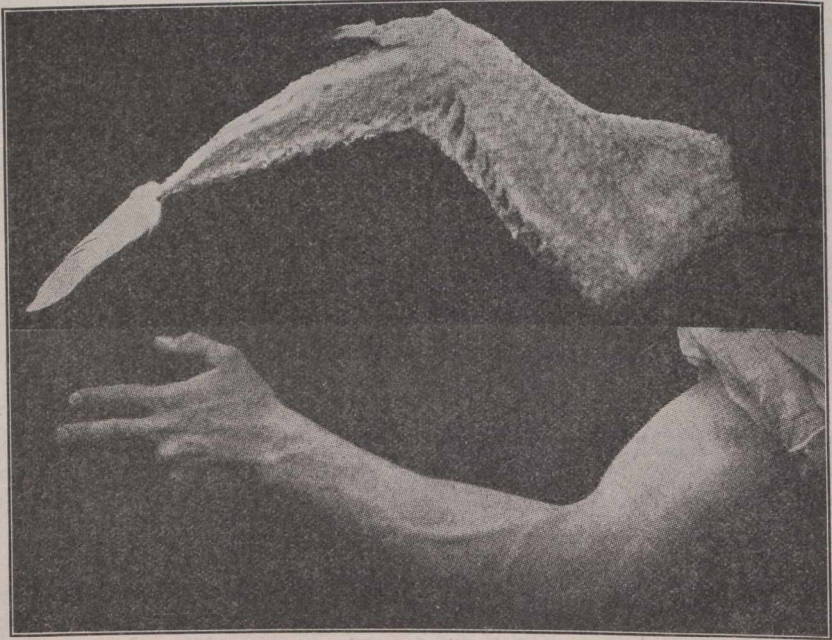


Fig. 2.

Wing of bird and human arm

(From *The Bird* by C. W. Beebe: Henry Holt & Co., New York).

sides when they slide obliquely downward. Such birds are usually short fliers, though during the migration period they are able to fly very long distances. The swallows and the gulls possess the power of gliding. Then the outstretched wings act as sails and carry them long distances without a single flap. Only birds with long, pointed wings possess this power.

Birds are able to direct their course with the utmost precision. A sand-swallow can dart into its burrow in the cliff without a moment's hesitation and with unerring aim. The dexterity with which an insectivorous bird will pursue a butterfly leaves no doubt as to the mechanical perfection of the steering apparatus. The wings are very important in this respect; to make a sudden turn to the right the left wing is lowered

the upper is raised as can easily be observed during the gyrations of the swallow; but the head and tail also play their part. The tail plays a still more important role in the changing of the vertical direction. In ascending and descending the tail is spread and directed at different angles.

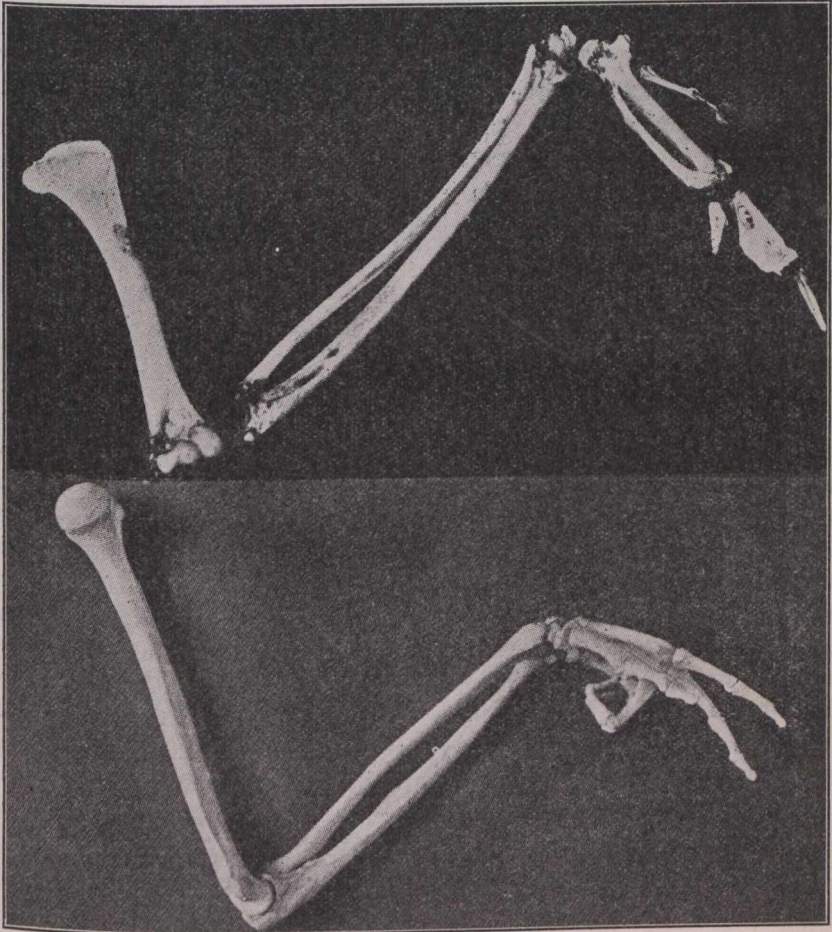


Fig. 3.

Upper is skeleton of bird's wing. Lower is skeleton of human hand.  
(From *The Bird* by C. W. Beebe: Henry Holt & Co., New York).

The structure of the wing is very similar to that of our arm as can easily be observed by an examination of the skeleton (Figs. 2 and 3). There is the powerful bone of the arm, and the two strong bones of the forearm joined rigidly together. The hand bones are greatly prolonged and more completely joined together than in the human hand in order to give a longer and more rigid surface for the attachment of feathers. It has a



shallow ball-and-socket joint that gives it the utmost freedom of movement in any direction. This pivot on which it moves is formed by the union of three powerful bones that make the foundation of the wing firm and rigid.

The most remarkable feature about the skeleton of the bird is the breastbone which in man is a narrow rod-like series of bones. In the bird it is a broad plate lying on the under surface of the body and along the middle of it runs a prominent projecting ridge. In the angle formed on each side lies the massive muscle that pulls the wing down and hence this muscle is the motive power of the whole bird. The broad breastbone gives a good surface for attachment of one end of the muscle, the other being attached to the base of the wing. When the muscle shortens in contraction the wing is pulled down.

The bones of a bird are hollow, lacking marrow, and in this respect they differ from the bones of other animals. This leaves them with the requisite strength but adds considerably to their lightness, and of course the lighter the weight to be carried the more easy the flight. The importance of this characteristic must not be overestimated, however. Most birds can fly with the greatest ease even when carrying a very considerable weight. If the wing bone of a bird is broken the bird is able to breathe through the fracture even if its windpipe is closed. This shows that the hollows of the bones are connected with the lungs and probably the hollow bones are closely related with the process of respiration. The body cavity is filled with large air-sacs that are supposed by some to be of great value in buoying the body up during flight; but this is certainly a mistake, for such a sac could only buoy it up if it caused the body to swell up and displace more air and then its buoyant force would be very small indeed unless the internal temperature of the bird and the temperature of the air were greatly different. If the air-sacs were filled with hydrogen and attached to the outside of the body it would be quite different—then they would be true buoyant organs. They are probably more important as aids to respiration or in giving stability to the body, but in just what manner is by no means certain.

---

“Do animals possess the sentiment of affection?” asked the teacher.

“Yes, ma'am, almost always.”

“Correct,” said the teacher. Turning to young Harold: “And now tell me what animal has the greatest natural fondness for man?”

With but a slight pause the little fellow answered: “Woman.”—*American School Board Journal*.

---

Teacher—What lessons do we learn from the attack on the Dardanelles?

Prize Scholar—That a strait beats three kings, Dad says.—*Judge*.

## Studies in Literature

O. J. STEVENSON, M.A., D. PAED.  
Normal School, Toronto.

[NOTE:—The following are intended merely as appreciations of certain well-known poems, and no attempt has been made to indicate methods of teaching. From time to time, studies of poems from the Readers or from the prescribed literature will be included.]

### LEAD, KINDLY LIGHT.

Lead, kindly Light, amid th' encircling gloom,  
    Lead Thou me on;  
The night is dark, and I am far from home,  
    Lead Thou me on.  
Keep Thou my feet; I do not ask to see  
The distant scene; one step enough for me.

I was not ever thus, nor prayed that Thou  
    Shouldst lead me on;  
I loved to choose and see my path; but now  
    Lead Thou me on.  
I loved the garish day; and, spite of fears,  
Pride ruled my will: remember not past years.

So long Thy power hath blest me, sure it still  
    Will lead me on  
O'er moor and fen, o'er crag and torrent, till  
    The night is gone,  
And with the morn those angel faces smile,  
Which I have loved long since, and lost a while.

NEWMAN.

*Lead, Kindly Light* was written by Newman under rather unusual circumstances. In December, 1832, in company with a friend, he had taken a trip to the south of Europe, and in the following May he set sail from Palermo to Marseilles, on his return to England. The boat was becalmed for a week in the Mediterranean and it was during this time that *Lead, Kindly Light* was written. For some time previous to this Newman had been in a despondent state of mind, chiefly owing to conditions in church and state of which he did not approve; but before deciding to return, he had become firmly convinced that he had a great work to do, a mission to perform, in England.

There is no doubt that in *Lead, Kindly Light*, he expresses his own personal feeling at this time, the feeling that in going back to England he was about to engage in a struggle, the outcome of which he could not



see, and for which he needed the strength and guidance of the divine spirit. And so he likens his own condition to that of the lonely traveller who is far from home and who has been overtaken by darkness. His path is beset with dangers. Before him lies the barren moor, the fen, the rough crag and the roaring mountain torrent, which he must cross before 'the night is gone'. But with the morning light he hopes to reach the end of his journey and be welcomed home again by loving friends. Even when the sun was shining he was not without fear, but he was too proud and too self-willed to ask for help to guide him on his way; but now that the darkness has fallen and every step is fraught with danger he feels the need of guidance, and he gives himself over humbly to his guide whose "kindly light" will lead him safely step by step upon his way.

When *Lead, Kindly Light* was written it was not intended for use as a hymn; but it was set to beautiful music and is now a favorite hymn among worshippers of every creed. The reason why it appeals to so many classes of people is no doubt because it expresses the fears and longings, the sense of weakness and the need of guidance which is common to us all. The mood of the poem is the mood of one who feels that the world about him is dark and that his path is beset with difficulties and who feels the need of the divine light—the "kindly light" of the poem to lead him and guide him on his way; and the figure of the poem is so simple and the form and the music are so beautiful that the worshipper finds in it the language of his own heart.

The most beautiful tune to which the hymn is sung is *Lux Benigna*, which is said to have taken form in the mind of the composer, Rev. John B. Dykes, as he was walking through the busy thoroughfare of The Strand.

When the hymn first appeared it was called *The Pillar of the Cloud*, because it was in a pillar of a cloud that the Lord went before the children of Israel when He led them out of the wilderness.

*"And the Lord went before them by day in a pillar of a cloud to lead them the way, and by night in a pillar of fire, to go by day and night. He took not away the pillar of the cloud by day, nor the pillar of fire, by night, from before the people."*

### TEACHING NOTES—FIRST LESSON.

THORNTON MUSTARD

Normal Model School, Toronto

*Preparation.*—Remarks by the teacher about travelling at night in a rough and dangerous country, and the need of a light to guide one's feet aright.

*Presentation.*—Stanza I read from the blackboard by the teacher, pupils following with the eye. The other stanzas are covered and presented as the lesson progresses.

*Discussion.*—The teacher gets from the pupils an outline of the apparent meaning of each stanza and places it on the board.

*Interpretation.*—Teacher presents or describes the painting "Lead, Kindly Light" in the "Famous Hymn" series, developing the true meaning of Light. With this as a key the real meaning of the poem is worked out by the pupils and placed on the board by the teacher, paralleling the former outline, which is then erased.

*Summary.*—This new outline is then condensed into three phrases under a heading.

*Details.*—The significance of certain words and phrases is hinted at, but fuller discussion is reserved for the Second Lesson.

*Conclusion.*—Poem is read thoughtfully by teacher or volunteer pupil.

## BLACKBOARD SUMMARY

	<i>Apparent Meaning</i>	<i>Real Meaning</i>	<i>A Prayer</i>
Words of Stanza I	A traveller through the country calls upon his light to guide him through the darkness step by step to his home.	A traveller through life calls upon Christ to guide him through the shadows step by step to Heaven.	For GUIDANCE in the <i>Present</i>
Words of Stanza II	He admits that in the bright sunshine he despised his light but hopes it will forget.	He confesses that in the pride of life he despised Christ but hopes He will forgive.	For FORGIVENESS of the <i>Past</i>
Words of Stanza III	Now he feels sure his light will continue to lead him past the dangerous places until in the morning he reach home and loved ones awaiting him.	Now he trusts that Christ will continue to lead him through the temptations of life until in the New Day he reach Heaven and loved ones gone before.	For TRUST for the <i>Future</i>

---

"COME NOT, WHEN I AM DEAD."

Come not, when I am dead,  
 To drop thy foolish tears upon my grave,  
 To trample round my fallen head,  
 And vex the unhappy dust thou would'st not save.  
 There let the wind sweep and the plover cry:  
 But thou, go by.



Child, if it were thine error or thy crime  
 I care no longer, being all unblest:  
 Wed whom thou wilt, but I am sick of Time,  
 And I desire to rest.  
 Pass on, weak heart, and leave me where I lie:  
 Go by, go by.

This poem does not contain a story, but only suggestions of a story which the reader may piece together in a number of different ways. The speaker is evidently an unhappy old man who is reproaching his daughter because she will not marry a man of his choosing. He has evidently met with misfortune, perhaps through his own wrong-doing, for he speaks of himself as "unhappy" and "unblest". His daughter's marriage to a rich and titled suitor might yet save his wealth and his good name, but she is determined to marry only the lover of her choice.

In the father's reproach there is a mingling of sadness and grief,—with a note of selfish pride running through it all. He says in effect to his daughter: "You are responsible for my downfall, and when it is too late you will bitterly regret your wrong-doing. But since you will not save me now, your foolish tears, when I am dead, will only vex my spirit and disturb my rest".

It is quite possible, of course, to put an opposite interpretation on this poem. Imagine a heartbroken father (or mother) addressing a wayward daughter, who in spite of all that he can say or do, is determined to throw herself away on a worthless lover. The father reminds her that after he is gone it will be too late for her to make amends for her weakness or wrong-doing.

---

#### NOVEL WAR VIEW.

It is something in these times to get a novel view of the war. Two workmen were discussing it, obviously under the influence of a great deal of unofficial news. "It'll be an awful long job, Sam," said one. "It will an' all," replied the other. "You see, these Germans is taking thousands and thousands of Russian prisoners, and the Russians is taking thousands and thousands of German prisoners. If it keeps on all the Russians will be in Germany and all the Germans in Russia. And then they'll start fresh all over again, fighting to get back to their 'omes."

---

"The persistency with which children see in a fable some other moral than the one which was intended that they shall see is often distressing," remarked a Philadelphia instructor of the young. "I had recited to one little boy the story of the wolf and the lamb, and had followed it up with the remark:

"And now, you see, Tommy, that the lamb would not have been eaten by the wolf had he been good and sensible."

"Yes, I understand," said Tommy. "If the lamb had been good and sensible we should have had him to eat."—*Lippincott's Magazine*.

## The War and the Schools

[We publish herewith part of a Bulletin, recently issued by the Department of Education of Ontario, in which outlines of a course of study on the present war are given. THE SCHOOL has made arrangements to give, beginning in the January number, articles on all of these topics so that teachers will be provided with all the material necessary for teaching the subject.—EDITOR.]

In an announcement of November, 1914, the Minister of Education drew the attention of the teachers of the Province to their responsibilities in connection with the momentous War in which Britain and her allies are still engaged, and directed them to teach "its causes and the interests at stake as well as the relations thereto of the different nations directly or indirectly concerned" as part of the Course of Study in history for every pupil in every school of the Province so far as they can be intelligently taken up in the different grades. The Minister now acknowledges with pleasure the zeal with which the teachers have accepted their new responsibilities. In the schools they have taught the War. Outside the schools they have organized and collected patriotic and Red Cross funds, provided comforts for the troops, assisted the recruiting sergeants, and where conditions permitted it, even volunteered for service. Nor have they failed, in the schools or outside, to make clear the truth that "while each of the Overseas Dominions is mistress in her own house, her welfare is bound up with that of the British Islands and that she owes loyal and filial service to the Mother of Nations".

The War has now entered upon its second year and the schools have entered upon their second session since the War began, and the Minister is confident that the teachers of Ontario will accept their responsibilities during the second session with the same devotion as they exhibited during the first. It will again be one of their duties to teach the War, as set forth in this Circular, to all the pupils of all the schools. As the War continues and events crowd upon one another, this duty becomes more difficult of fulfilment. To assist the teachers, the Minister has, accordingly, prepared the following outlines, which, however, are to be regarded as suggestive only:

### OUTLINES

#### I. THE REMOTE CAUSES OF THE WAR

##### (a) *A Brief Study of the Geographical Background:*

The British Empire, its parts and their situation; essentially a maritime Power.

Germany's situation with regard to Russia and France, and to ocean outlets for trade.



Germany's increase in industry and trade with her need of new markets and her desire for colonial possessions.

Distribution of races and nationalities in Europe, especially of the Slavs, Germans, Italians, and French.

Forms of government, economic conditions of the nations at war.

(b) *A Brief Study of the Historical Background:*

The rise of the Balkan States, the Balkan Wars of 1912-13, Russia's relations to the Balkan States.

The rise of Prussia since 1805, the war with Denmark, the war with Austria, the Franco-Prussian War, the German Empire and the dominance of Prussian ideals, the growth of the German Colonial Empire.

The recovery of France after 1870, French colonial expansion.

The Triple Alliance and the Triple Entente, the growth of armies and navies in Europe.

II. THE IMMEDIATE CAUSES OF THE WAR

Austria's attitude toward Serbia after the assassination of Archduke Ferdinand; Germany's responsibility for instigating Austria's attitude and for refusing all compromises.

Attempts of Britain, France, Italy, and Russia to preserve peace.

Claims of Belgium against violation of her neutrality; attitude of various parties toward agreement for her neutrality.

Germany's explanations of her violation of Belgium's neutrality.

III. THE WAR

(a) *A Brief Study of the Method of Conducting the War:*

The army with its various arms of service, the equipment and uses of each in the War.

The navy with its various types of war vessels, the uses and equipment of each.

(b) *A Brief Account of the Events of the War:*

NOTE—The list given below ends with September, 1915. Teachers may use it as a guide in making their selections from the events of the War thereafter.

*Western Front:*

Advance of Germans through Luxemburg and Belgium toward Paris, battle of the Marne, German retreat to the Aisne, fall of Antwerp and conquest of Belgium, attempts to break through to Calais, long-drawn-out war of the trenches.

*Eastern Front:*

Russian invasions of East Prussia, Galicia, and Bukowina; Austro-German invasions of Courland and Poland, retreat of Russians, fall of Warsaw.

*The Balkans and Western Asia:*

Invasions of Serbia, campaigns in the Caucasus, in Persia, in the valley of the Tigris and Euphrates and near the Suez Canal, the struggle at the Dardanelles.

*Austro-Italian Front:*

Italian invasion of Austria.

*Colonial Front:*

Capture of German colonies in the South Pacific by the British, in Africa by the British and French, in Asia by the Japanese and British.

*The Naval War:*

Engagements in the North Sea, off Coronel, near the Falkland Islands, at the Dardanelles; the hunting down of commerce destroyers; submarine warfare; the blockade of Germany and Austria by the allied fleets.

## IV. THE OVERSEAS DOMINIONS AND THE WAR

India's share in the War.

Unanimous response of the Overseas Dominions; the part played by Australia and New Zealand in the South Pacific, in Egypt and at the Dardanelles; the work of Botha in South Africa; Canada's volunteer army, its training, its transportation to Europe, its share in the War.

## MODIFICATION OF OUTLINES

As already stated, the outlines given above are only suggestive, and they must be modified to suit the average age and maturity of the grade concerned. To assist the teachers in making these modifications the Minister recommends as follows:

*(a) The Continuation and High Schools, and the Collegiate Institutes*

The outlines have been prepared to meet primarily the needs of the Upper School. While, accordingly, a general adherence thereto is recommended for this grade, it is suggested that stress be placed upon the Remote and the Immediate Causes of the War, particularly with the classes in Modern History (Second Course). With the same general adherence to the outlines but with modifications to suit the age and standards of the pupils, the stress in the Middle School might be placed upon the Immediate Causes of the War and upon the share therein of the British Islands and the Overseas Dominions, and the stress in the Lower School upon the share of the British Islands and the Overseas Dominions in the War and upon such geographical topics as it has made especially significant.



(b) *The Public and Separate Schools*

The comments made above upon the instruction in the Lower School of the High Schools apply equally to the instruction in Form V of the Public and Separate Schools. In Form IV, the outlines must, of course, be greatly modified and reduced. In it, the Remote Causes of the War will call for little attention, as also the significance of geographical and economic features. Pupils of this Form will exhibit interest in the events of the War and in the methods of conducting it. Their attention should be directed, in particular, to Canada's share in the struggle.

In the Forms below Form IV, the outlines must be abandoned. In Forms I and II, the teacher should content himself with stories and the reproduction of stories of persons, places, and peoples made prominent by the War. In Form III, he should add to such stories accounts of great events from the current history of the War, and readings from "The Children's Story of the War". In these Forms, as in Form IV, the instruction should be made concrete by oral composition, with pictures and maps from journals and papers, with models of boats, aeroplanes, etc., from the manual training department, and with visits, where practicable, to training grounds, model camps, aircraft exhibitions, etc.

## EXAMINATIONS

### DEPARTMENTAL

As in 1914, the Minister now directs that an adequate knowledge of such topics from the history of the War as may be suitable for study in each school grade be required as one of the tests for promotion. And he, again, announces to all candidates concerned that, at the Departmental examinations of 1916, at least one and not more than two full questions upon the War will be asked in each examination paper in history, of the character indicated by the foregoing outlines and recommendations, except in the paper on Ancient History. He also announces that, with due regard for the grade of each examination, geographical features, such as cities, islands, mountains, waterways, trade routes, made especially significant in the War, may form the subjects of questions in the Departmental examination papers in geography, provided that in each case such geographical features come within the scope of the regular curriculum in geography.

### UNIVERSITY MATRICULATION

On behalf of the Universities represented on the Matriculation Board, the Minister also announces that, at the pass and honour Junior Matriculation examinations of 1916, at least one and not more than two full optional questions upon the War will be set in each examination paper

in history, of the character indicated by the foregoing outlines and recommendations, except in the paper on Ancient History. As already intimated, however, the additions to the school courses are prescribed by the Minister as obligatory on candidates for University Matriculation as well as on the other pupils of the school.

### TEXT-BOOK AND REFERENCE LIBRARIES

The Department has prescribed "The Children's Story of the War" for use in Forms III, IV, and V of the Public and Separate Schools and in the Lower School of the High and Continuation Schools and Collegiate Institutes.

For Reference Libraries, it is recommended that selections be made from the following list of Periodicals, Books, and Pamphlets:

#### I. PERIODICALS

The School. . . . . A Magazine published by the Faculty of Education, Toronto. . . . . annual subscription, \$1.25

This magazine has made a feature of war topics since March, 1915, and will continue to publish monthly throughout the school year, for the use of the teachers of the Province, articles upon the topics of the Outlines given above, upon the current events of the War, and upon the sources and uses of material, such as war maps, war diaries, pictures, etc.

The Round Table. . . . . A Quarterly Review of the Politics of the British Empire. . The Macmillan Co., Toronto. . annual subscription, \$2.50.

---

#### JOKE ON UNCLE JOE.

While campaigning in Iowa ex-Speaker Cannon was once inveigled into visiting the Public schools of a town where he was billed to speak. In one of the lower grades an ambitious teacher called upon a youthful Demosthenes to entertain the distinguished visitor with an exhibition of amateur oratory. The selection attempted was Byron's "Battle of Waterloo," and just as the boy reached the end of the first paragraph, Speaker Cannon gave vent to a violent sneeze. "But, hush! hark!" declaimed the youngster; "a deep sound strikes like a rising knell! Did ye not hear it?"

The visitors smiled and a moment later the second sneeze—which the Speaker was vainly trying to hold back—came with increased violence.

"But hark!" bawled the boy, "that heavy sound breaks in once more, and nearer, clearer, deadlier than before! Arm! Arm! It is—it is—the cannon's opening roar!"

This was too much, and the laugh that broke from the party swelled to a roar when Uncle Joe chuckled: "Put up your weapons, children; I won't shoot any more."

---

It was the first time that four-year-old Willie had ever seen a snake; and, as it writhed and squirmed along, he ran into the house to tell of his discovery. "O mother," he exclaimed, "come here quick. Here's a tail wagging without any dog."



## Primary Art for December

MARGARET D. MOFFAT,  
Assistant Supervisor of Art, Toronto.

**C**HRISTMAS time is drawing near once more, and with it comes the spirit of giving. Let us plan our December work to encourage this spirit in the children. Very simple articles, thoughtfully planned and carefully executed, will make little gifts to take home for mother, father, sister or brother.

The following list of articles is suggested as being possible for junior grades:—cards, folders, book-covers, doilies, book-marks, cornucopias, boxes with decorated covers, blotters, calendars.

Motifs suggested for use in decorating the above are holly, mistletoe, Christmas trees, candles, evergreen, Christmas seals, stars, pictures suggestive of Christmas cut out and mounted.

In Junior First classes allow some latitude, but in higher grades use only one motif on each article. Children in the Second Book may add a carefully printed or written greeting or Christmas motto. Pupils in Senior Second may make a more extensive booklet, containing an illustrated story of their own composition, and having a decorated cover. The Christmas colours are red and green.

Christmas cards may be cut out of stiff paper. The decoration should be planned to follow the lines of the card. Corners may receive special attention. (See illustrations).

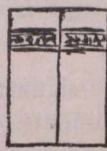
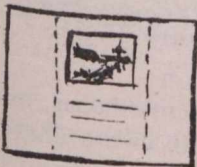
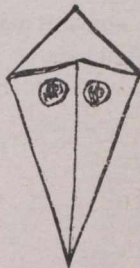
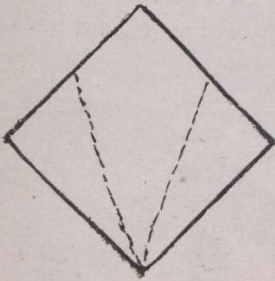
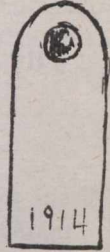
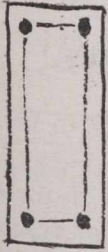
Folders make a more important looking form of Christmas cards. They present a choice of several spaces for decoration. All of these should not be used. Carefully print or write your Christmas message on the inner side, and decorate only the outside of the flaps, or leave the outside plain and place decoration on the inner side of the flaps. Both methods are shown in illustrations.

If boxes are made decorate the covers along the lines of construction, that is, at corners where diagonals meet, or parallel to edges.

Blotters may be decorated along the same lines as box covers and held together with brass paper fasteners or a ribbon of appropriate colour.

A set of green or red paper doilies for the Christmas dinner table makes an interesting problem for juniors. Cut the papers round in shape, fringe the edges with the scissors, and decorate with a wreath of holly, mistletoe, or Christmas greens.

Cornucopias are easily made (see illustrations) and may be used to hold Christmas goodies.





## The Designing and Collecting of Book-Plates

M. J. AYEARST.

Form IVB, The University of Toronto Schools.

**I**N the following essay an attempt has been made to indicate to those taking the Art courses in High Schools, a profitable field of design and an interesting hobby—the making and collecting of book-plates.

What is a book-plate? Although rather misleading, the term is descriptive of a more or less ornamental label, glued on the inside cover of a book to denote ownership. During Public School days at least, most boys are content with writing in the fly-leaf of their school books, some such rhyme as,

“Steal not this book  
For fear of strife,  
For the owner carries  
A big jack-knife,”



Fig. 1.



Fig. 2.

followed by the owner's signature, with the skull and cross-bones, and various other embellishments. But when old enough to own a library and take an interest in books, the former vandal hesitates even to write his name in some treasured volume, and so he adopts a book-plate.

The first known English plate is that of Sir Nicholas Bacon, engraved in 1574. Cardinal Wolsey had a gorgeous hand-painted affair but it could hardly be called a book-plate. However, the last quarter of the seventeenth century saw wood-cut book-labels used extensively. These

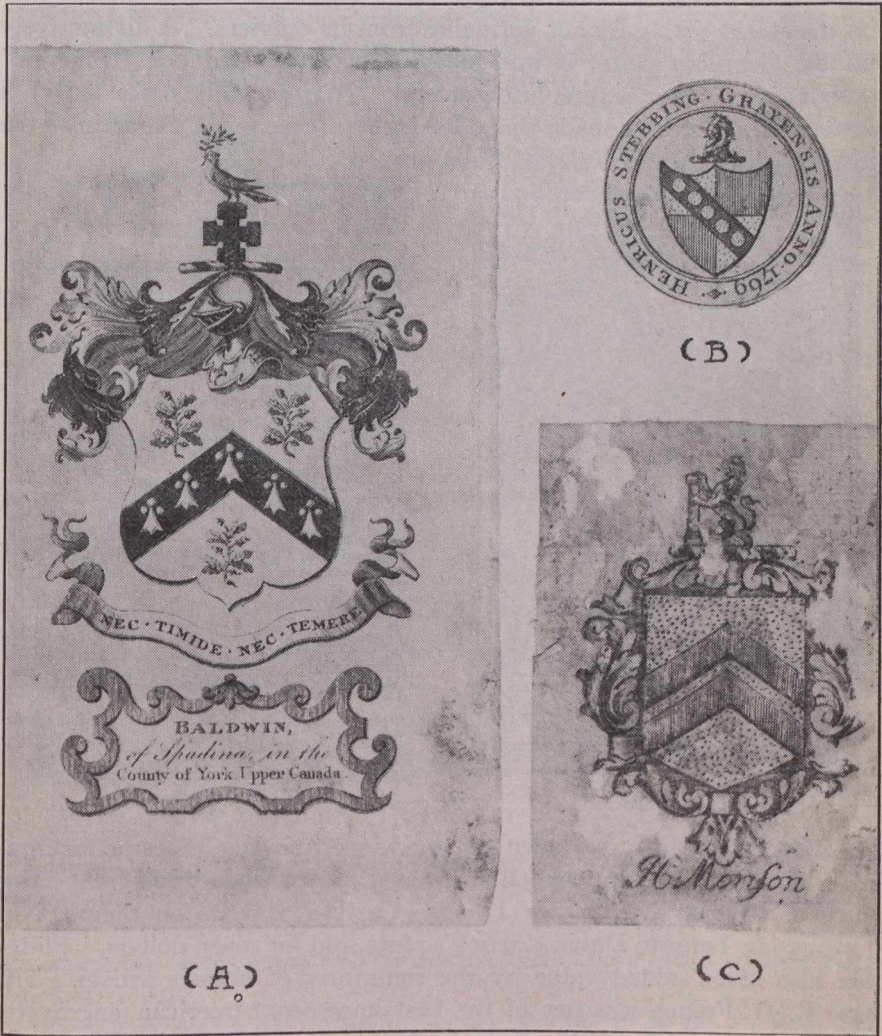


Fig. 3

were as a rule very plain, but after the restoration of Charles II, more complex plates appeared. They were all Armorial, that is, they depicted the owner's coat-of-arms, and at this time, the mantling or ornamental cloth, supposed to hang from the helmet and encircle the shield, usually took a form similar to the enormous periwig, then in vogue. An example



of this type is found in plate (1). The next style was much poorer in design. For it an elaborate shield bordered by scallop-work and fish scales figured extensively. This was during the Queen Anne and early Georgian period. Then came the "Chippendale" plate, a splendid example of which is found in plate (2). This style used a shell border on the shield with garlands springing from its crevices. A distinctively middle Georgian plate, it was followed by the "Urn" or "Festoon" design, often very severe but graceful. It principally consisted of a festooned urn with a spade-shaped shield on or near it. Sometimes the urn was omitted and the shield was draped.



BOOK-PLATE

BY HAROLD NELSON

Fig. 4.



BOOK-PLATE

BY HAROLD NELSON

Fig. 5.

After this what are known as "modern Armorial" became fashionable, but few have any particular interest except when some great name such as Charles Dickens or Thomas Carlyle, appears on them. Not long ago in Toronto David Garrick's plate sold for seven dollars. Plates are also given added value by the signatures of famous artists. The late E. D. French was one of the best known of American engravers. Example No. (13) is the plate he engraved for Queen's University. This artist sometimes got five hundred dollars for engraving a single plate, and examples of his work have sold for as high as ten dollars. However, such prices are very unusual and although I possess some very interesting old plates, I have never paid more than twenty-five cents for one. I have inserted three of these merely because of their unusual interest. The Baldwin plate, No. (3A), was among the first Canadian



exlibris (a term synonymous with book-plate) and belonged to one of Ontario's most prominent families. It is a typical Victorian "modern armorial" design. When this plate was removed the tiny circular one, (3B) bearing the date 1769 was found beneath it, while it in turn surmounted H. Monson's plate (3C), which from its lettering and design I judge to be very old. Plate No. (12) belonged to Lord Cornwallis, a British commander in America during the revolution.



Fig. 6.



Fig. 7.

It will pay any reader who is interested in the subject to visit old second-hand book stores, where, as a rule numerous examples may be found. If permission can be secured from the proprietor to examine his stock for plates many will be discovered. Old classics usually yield the best results.

It is easy to spoil the binding of a valuable book by an improper method of removing the plate. Well I remember making a temporary enemy of my cousin by attempting to remove a book-plate from one of his volumes by steam, and causing the old leather binding to split and curl up. Of course there are methods which, with a little care will not injure the frailest cover. One of the best of these is to lay several layers of damp blotting paper on the plate and press with a hot iron. The heat and moisture causing the gum to loosen, it may then be easily lifted.



To appreciate thoroughly old book-plates, at least a rudimentary knowledge of heraldry is necessary. This may be obtained from books in any good reference library. I found A. C. Fox-Davies' works to be most helpful. Standard works on *exlibris* will also be found. Egerton Castle's "English book-plates" is one of the best.

But to turn to the artistic side of the subject. Although much fine engraving is found in old plates the modern *ex-libris* usually has more artistic merit. Even many of the simple black and white line cuts often used, are to be preferred as examples of design. For instance, examine the work of Harold Nelson, Nos. (4) and (5). These drawings are much superior to many of the old plates although reproduced very cheaply. No. (5) is an ecclesiastical plate, made for a Cardinal. Mr. Nelson is, I believe, together with Graham Johnston, the best exponent of this type of design; viz., the brush drawings which represent the old



Fig. 8.

wood-cuts by reproducing their strong, definite lines. Nos. (6), (7) and (8), also follow this type. I designed the latter for use in my school books and so put the school coat-of-arms in the corner. No. (9) is a splendid engraving by Mr. Alexander himself. The design is beautifully balanced as well as suitable. Miss Jessie Hunter has a dainty and graceful *ex-libris* No. (10), unusually well-fitted for a lady's plate. Although any amount of scope is given for the subject, it should always be appropriate. In No. (11), my design for a University Schools book-plate, the owl typifies wisdom and the laurel tree, success. The School arms together with those of the University of Toronto appear at the top.

Art teachers could easily arrange a book-plate competition among the more advanced pupils—the best design to be accepted and used as the school *ex-libris*. Line cuts can be obtained so cheaply that the cost is negligible.



Fig. 9.

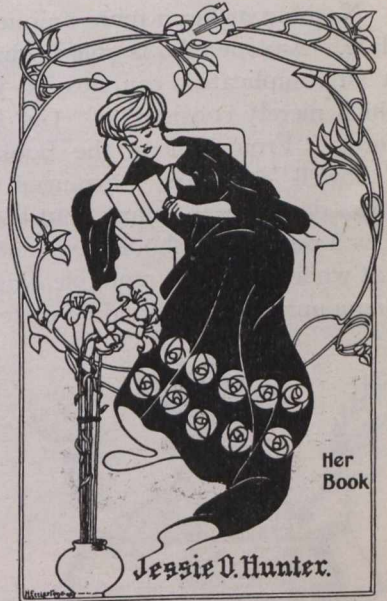


Fig. 10.



Fig. 11.



Nothing makes a more unique Christmas present than a good book-plate. Anyone who is able to draw a neat little design, it need not be at all complicated, can succeed in this. I have seen a splendid plate which merely consisted of "Old English" decorative lettering with the words, "From Among the Books of Charles Francis, and Elizabeth Hallowell Saunders," arranged in a lozenge-shaped design. Some plates do not bear a name, but leave a blank for an autograph.

As a warning, it should be stated that while nothing is more pleasing than a unique and individual plate,

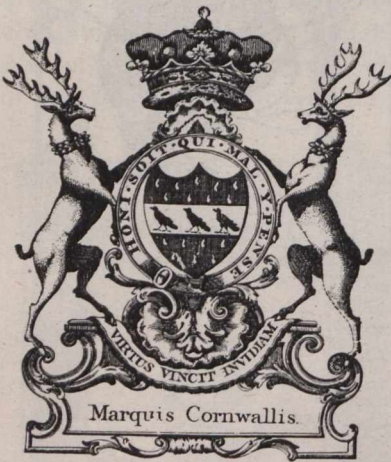


Fig. 12.



Fig. 13.

the design should be neither freakish nor comic. Clear, legible lettering is indispensable.

I believe enough has been written on the subject of *ex-libris* for the present. As public reference libraries are numerous, I shall leave to those of my readers, who are interested, the pleasure of further investigation, of collecting old plates, and of designing new ones.

---

Professor—Gentlemen, instead of the ordinary recitation this morning I will substitute a written examination. (Great excitement; two men near the door cut during the disturbance.) I am a great believer in the honour system, so I will not exercise any supervision over you. However, for convenience, I will have you sit two seats apart. Although I have implicit confidence in your honour, I will divide the class into two divisions and give each alternate row a different question. You will please bring your notebooks to my desk and leave them there, lest they get in your way and interfere with your writing. While the examination goes on I will stroll around the room, not for the purpose of supervision, but simply to benefit my liver. The examination will now begin.

# Art in the Public Schools

W. L. C. RICHARDSON

University Schools, Toronto

**T**HIS month we publish, with the permission of the Ontario Department of Education, the 1915 examination paper in Art for Junior Public School Graduation, a set of drawings made in answer to these questions which might serve as a reasonable standard to be expected of senior pupils in Public School, and some samples of pupils' work which will furnish information regarding what others are actually achieving. A critical inspection of these questions and answers may not only prove interesting to pupils who expect to be writing next year and to their instructors, but should also furnish helpful suggestions to all teachers of Art in the higher grades of Public School.

## JUNIOR PUBLIC SCHOOL GRADUATION.

### ART.

NOTE 1:—A separate sheet of drawing paper shall be used for each answer.

NOTE 2:—The size and the placing of the drawings will be considered in the valuation.

NOTE 3:—The use of the ruler and other mechanical instruments is prohibited except in question 2.

#### Values

- |    |  |
|----|--|
| 25 | 1. Trim, if necessary, to a pleasing form and paint in water colours the flower spray submitted to you.<br><small>NOTE:—The spray should show a good stem and leafage, if possible a bud or buds, and at least one flower.</small>   |
| 25 | 2. Design a birthday card within a rectangle five inches by eight inches, using in a decorative border a conventionalised form of some part of the flower spray submitted for question 1. Print the words BIRTHDAY GREETINGS upon the card in a colour to harmonise with the background and the decorative border. Paint the background and the border in two tones of neutral green, making the background the lighter. The lettering should be half an inch high and suitably spaced.<br><small>NOTE:—It will be sufficient to finish a side and an end of the border.</small> |
| 25 | 3. Make an outline pencil sketch of the object which has been placed at an angle before you. The drawing at its greatest width should not be less than six inches. Do not erase the light trial lines, but strengthen the correct lines.   |
| 25 | 4. Represent either in pencil outline or in silhouette with brush and ink (a) a boy (side view) fishing, or (b) a girl (back view) skipping. Each figure should be about six inches high.  |





By Thomas Webster, R.A.

In the Guildhall Art Gallery, London.

OR

4. After a study of the picture on the opposite page, answer the following questions, writing your answers plainly and concisely in pencil upon a sheet of drawing paper:—

- 3+4= (a) What should the children represented in this picture be doing? Give  
7 reasons for your answer.
- 8 (b) What does the expression of the faces tell you? Give reasons for your  
answer.
- 2+3= (c) Where is the centre of interest in the picture for the person viewing it?  
5 Give reasons for your answer.
- 5 (d) Give the picture an appropriate name.

#### THE ANSWERS TO PICTURE STUDY.

(a) They should be studying.

They are in school, as is indicated by school books, school bags, slate, and dunce's cap.

(b) The expression of the faces tells us that some condition of affairs at the front of the class-room has led to a relaxation of strict discipline. This is indicated by the general amusement, by the boy "stealing a bite", and by the couple "talking in school".

(c) Our interest centres in the amusement of the group of three boys, whose smile is catching. Without knowing the cause of their mirth, we want to smile too. Our interest in each of the other children is subordinate to, or emphasizes, our interest in this central group.

(d) Such a name as "Amusement in School", or "Idle Moments", or "The Smile" (which is the title given to the picture by the artist) should be accepted. The picture should not be called "The Dozing Master", or "The Absent-minded Teacher", or by any name suggested by something outside the picture.

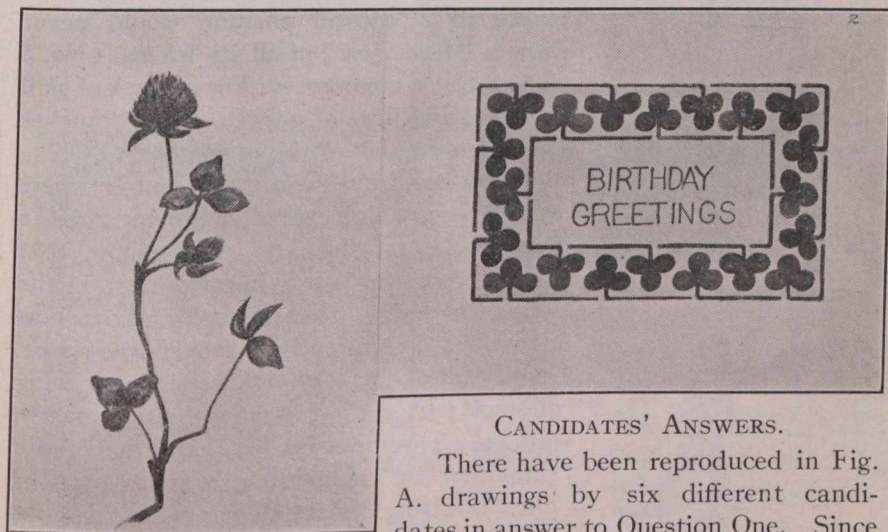


Fig. 1

#### CANDIDATES' ANSWERS.

There have been reproduced in Fig. A. drawings by six different candidates in answer to Question One. Since the colour in these coloured drawings

Figs. 1, 2 and 3 are the Chief Examiner's answers to his own questions.



has not been reproduced, their most noticeable defect is not shown. Many of the candidates used the most intense colours which they were able to get from their colour cakes. They seemed to need

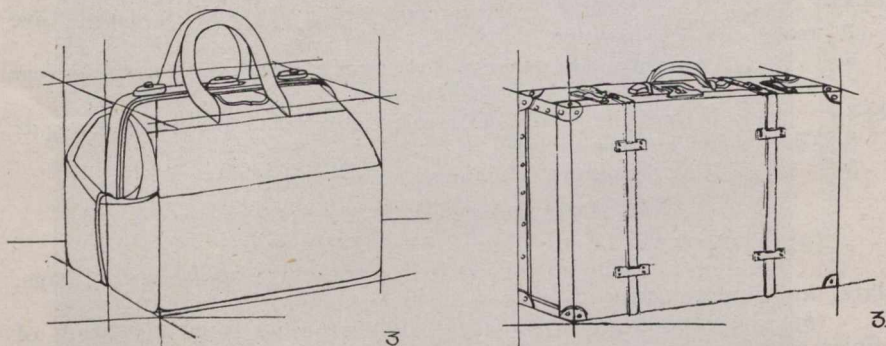


Fig. 2.

further instruction in the graying of the bright primary and secondary colours by adding to each a touch of its complement. Reproductions



Fig. 3

No. 2 and No. 6 show a praiseworthy attempt to secure depth in the drawing of the leaves. In the other drawings, only a "face view" of every leaf is attempted. Have pupils tilt their flowers in different positions and watch the changes that take place in the outlines of each leaf. A flower placed in a natural position would never show a "face view" of all its leaves. No. 5 shows quite a common weakness—lack of skill in indicating lines of growth. The branches should GROW out of the stem.

Drawings from even those centres where work of a very high character is being done in most phases of the Art course show that there is room for much improvement in the subject of design. Very few pupils knew how to make a design motive from a flower shape. Nearly all of them used a realistic drawing of some part of the flower for their decorative border. The shape chosen should have been simplified by reducing curves to straight lines, omitting certain elements and perhaps shifting others. Drawing No. 2 of Fig. B shows the best effort to secure a conventionalised form, though No. 3 shows better move-

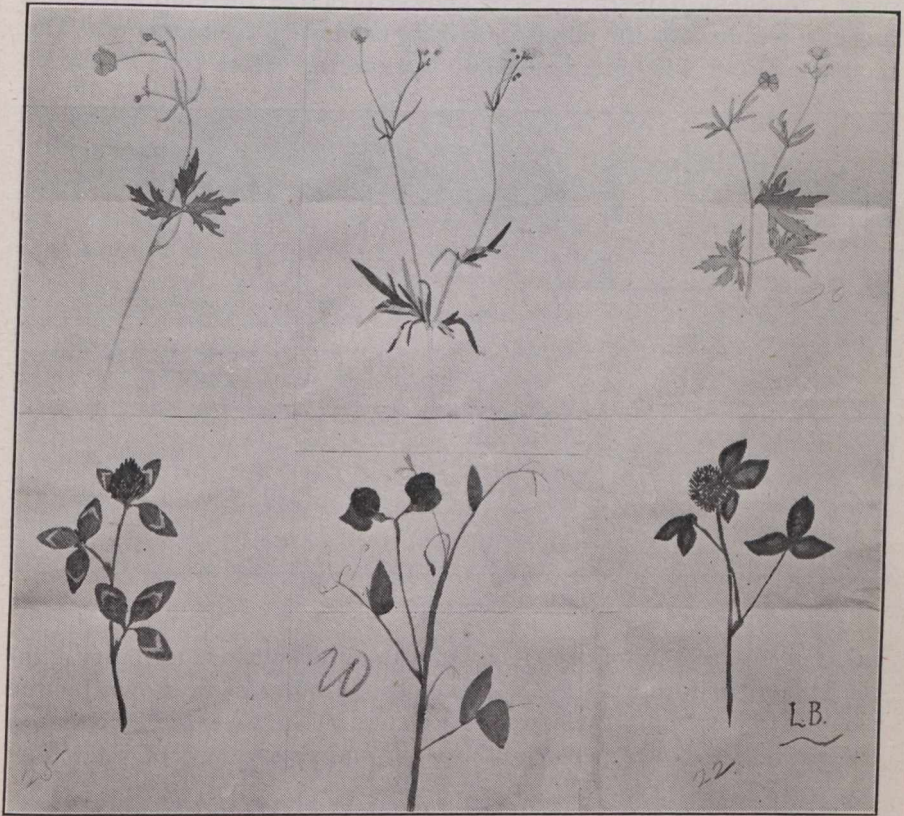


Fig. A.

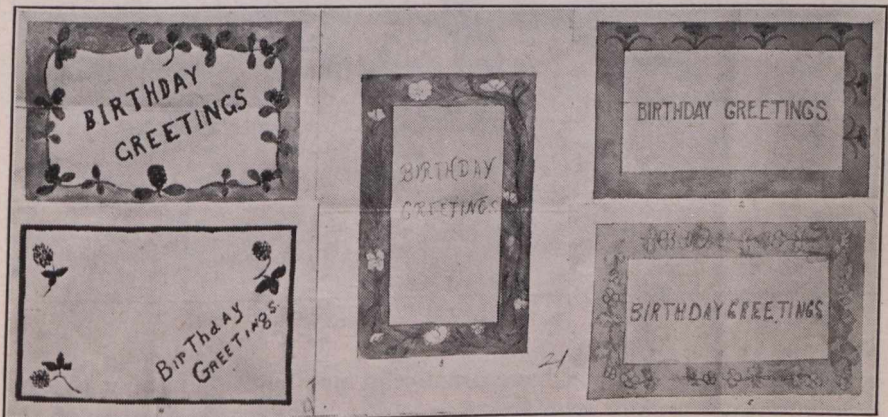


Fig. B



ment. Mechanical instruments are allowed in design, therefore great care must be required of the pupils in making accurate measurements. The rectangle in No. 5 is quite noticeably inaccurate. More time should be

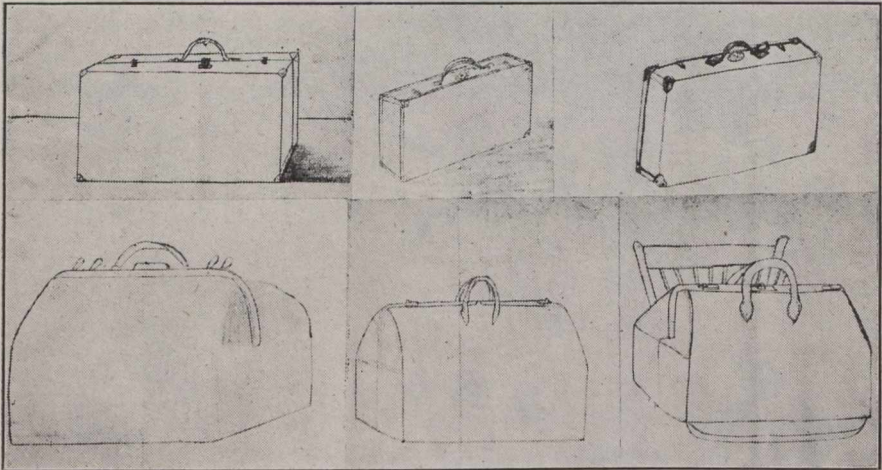


Fig. C.

spent in teaching lettering. The main requirements are legibility, simplicity and uniformity. Such a lack of uniformity as is shown by the combination of capital and lower-case letters in No. 2 was quite a common error. Pupils should memorise the form and proportions of the letters

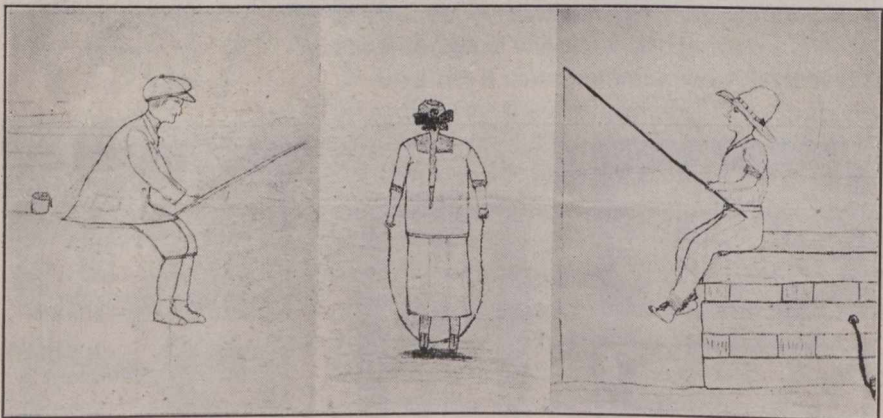


Fig. D.

of a suitable alphabet and have practice in making combinations to form words that are usually seen by themselves, such as the names of the days of the week or months of the year, titles, announcements or signs.

At first squared paper is of the greatest assistance. Have the pupils estimate the number of squares required for the letters and spaces in given words and adapt their size to the given space.

In planning to letter a book-cover or any such article, have pupils first make their plan for the letters upon a separate piece of paper. When the word or the group of words is carefully sketched in the same size that they wish to use on their cover, have them place their plan exactly above the space where they wish their lettering to go, and copy the word or words neatly. They might copy with the brush directly or use a pencil, afterwards covering the lines with brush strokes.

In object drawing pupils should be taught to compare and test the large proportions of their sketch with those of the object first. Then how easily the details fit into their respective places! How hard otherwise! They should block in lightly the different parts in order of importance until they are all lightly drawn in with faint, cobweb lines, without erasure of errors. Later the correct lines may be duly emphasized over the others. Evidently candidates did not take advantage of "blocking in" lines to help them get the permanent form. In drawings No. 1, 4, 5 and 6 of Fig. C, though the objects were placed to show both front and end, yet they were not drawn at an angle. No. 2 shows too great an angle and no foreshortening. No. 3 is better but not sufficiently foreshortened. No. 4 shows lack of foreshortening. No. 6 affords an illustration of the tendency of many children to add unnecessary details.

A study of the answers to Question Four (Fig. D) will enable teachers to estimate their pupils' ability in figure-drawing in comparison with the results being achieved in other places.

---

Teacher (correlating language lesson with current events)—How would you define chivalry, Anna?

Anna—Chivalry is when you are cold.

"What's the row, sonny?"

"Why, th' examinin' doctors have just been here an' that's a 'physical deficient' knocking th' stuffin' out uv a 'perfect spec'men'!"—*Life*.

#### IN THE CYCLONE BELT.

Teacher (catching a culprit looking out of the window): "Willie Wimble, you stop that!"

Willie (watching tornado approaching): "I'll try, if it comes this way."—*Judge*.

Mr. Rhetoric—"Talking about literary style, there goes a man noted for his finished sentences."

Miss Grammar—"Indeed! Is he a novelist?"

Mr. Rhetoric—"No; an ex-convict."



## Notes and News

[Readers are requested to send in news items for this department].

Since last issue we have received the following news of the class of 1914-15 in the Faculty of Education, Queen's University: W. C. Johnson, B.A., is on the staff of Berlin Collegiate Institute. A. E. Thompson, B.A., Miss Agnes Johnston, B.A., and Miss Florence Elliott, B.A., are on the staff of Kingston Collegiate Institute. W. G. McNeil, B.A., is on the staff of Orillia Collegiate Institute. Miss Nora Dewar, B.A., is on the staff of Ridgetown Collegiate Institute. Miss Marie MacMinn, B.A., and Miss Beatrice Gilhooly, B.A., are on the staff of Ottawa Collegiate Institute. P. M. Shorey, B.A., is on the staff of Brantford Collegiate Institute. J. A. Fugere, B.A., is teaching in Plantagenet High School; W. H. H. Green, B.A., in Williamstown High School; Miss Mary Hubbs, B.A., in Waterford High School; J. L. Medcof, B.A., in Kemptville High School; A. W. Adamson, M.A., in Whitby High School; Miss Eva Cumming, B.A., in Cornwall High School; R. D. P. Davidson, B.A., in Alexandria High School; A. W. Ferguson, B.A., in Walkerton High School; K. S. Hill, B.A., in Madoc High School; Miss Myrtle V. Reynolds, B.A., in Kincardine High School; J. S. Jackson, B.A., in Listowel High School; Miss Katharine MacKay, B.A., in Amherstburg High School; Miss Ella Rolston, B.A., in Metcalfe Continuation School; Miss Margaret Smith in Norwood High School; J. H. Philp, B.A., in Lucan High School. H. V. Clarke is on the staff of Belleville Public Schools. Miss Margaret Elmer, B.A., is on the staff of Russell Continuation School. Miss Mae Gardiner, B.A., is teaching in North Gower. A. R. Bush, B.A., is Principal of the Continuation School at Plattsville. Miss Nellie Spooner, B.A., is teaching in the Central Public School, Kingston. Miss Roberta Sillers, B.A., is teaching in Ottawa Ladies' College. G. E. Reaman, M.A., is lecturing in Woodstock College in the position left vacant by Professor Reithdorf.

Already we have received particulars of the enlistment for active service of a considerable number of teachers. The first part of the list will be published in the January number, the first *war number* of this school year.

Miss Cartwright, Physical Director of the Royal Victoria College, Montreal, to whose energy and ability is due the foundation and success of the McGill School of Physical Education, has been granted a year's leave of absence. She has enlisted in the Massage Corps under Major Dr. Barrie Lambert. She is at present in a camp of 1300 convalescent soldiers in England, as one of a staff of six masseuses.



## Eliminate Tedious Work and Save Valuable Time

For every lesson in which a blackboard outline map of Canada is needed, why prepare one by means of a stencil. This represents a considerable amount of work that could be entirely eliminated by having at hand the

### Imperial Blackboard Outline Map of Canada

Size 66 x 48 inches.

It has the outlines permanently lithographed on the best quality slated cloth and, being copied from a Johnston Map, is absolutely accurate, which is more than can be said of one made with a stencil. It can be rolled up and put aside for the next lesson with all your previous work preserved intact, while your regular blackboards are left clear for everyday work. Just think what a help and saving this Map will be to you, and at comparatively low cost.

- Mounted on plain wood rollers.....\$4.00
- Mounted on hollow tin spring roller and portable board...\$5.50

Do not continue to waste valuable effort and time. Send us your order now, or write for further particulars of all slated maps.

---

**The GEO. M. HENDRY CO., Limited**  
**Educational Equipment**  
 215 Victoria Street - Toronto, Ont.

When writing advertisers, please mention THE SCHOOL.



At the International Typewriting Contest held at the Annual Business Show, New York City, October 25th, 1915, Miss Hortense S. Stollnitz, a student in the Bay Ridge High School, Brooklyn, N.Y., broke all previous records in the Novice Class by sixteen words per minute, making a record of 114 words per minute net, for fifteen minutes writing from copy. The second on the list, Mr. William D. Miller, made a record of 108 words per minute net, and the third, Mr. George Zeihl made a record of 107 words per minute net. All three of these writers learned touch typewriting from Charles E. Smith's "Practical Course in Touch Typewriting" published by Isaac Pitman & Sons, 2 West 45th Street, New York. As such records for one-year students were never dreamed of a few years ago, the results are a noteworthy triumph for the superiority of the Balanced Hand Method of Touch Typewriting as exemplified in Mr. Smith's book.

The McGill School of Physical Education opened its sixth session (4th winter session) on Nov. 10th with an entry of 21 regular students in the Diploma course and 7 in the Remedial Gymnastics and Massage Course; these numbers are likely to be increased, and a large number are expected to take single subjects. Miss Cartwright is absent on leave this session, and the following have been added to the staff: Miss Wren, graduate of the Chelsea College, London, England; Miss E. Oughtred, B.A., and Miss MacCallum, graduates of the McGill School. Miss Hurlbatt, Warden of the Royal Victoria College, has been added to the Executive in Miss Cartwright's place.

Miss Jane Lush, recently of Brooklyn, N.Y., but previously of Ontario, has been appointed Principal of the School Department, Hospital for the Feeble-Minded, at Orillia.

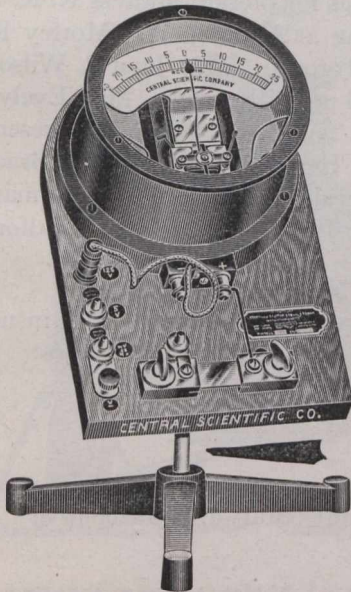
R. H. Dobson, M.A., of the High School staff at Lethbridge, Alberta, has been promoted to the principalship of that school.

The Rainy River Teachers' Institute, which met this year at Fort Frances, has the following officers for next year: Hon. President—Inspector W. J. Hamilton, B.A. President—Mrs. Ella Darlington. Vice-President—F. V. Damude. Secretary-Treasurer—F. H. Huffman. Executive—Miss Ella Stevens, Miss Viola Yound, J. M. Johnston.

On page 204 of our November number, in Professor Crawford's article "On Pronouncing Latin", the printer's omission of a line destroyed the sense of the sentence. This sentence should have read: "The general rules for the position of accent are that words of two syllables are accented on the penult, and that words of more than two syllables are accented on the penult if that is long and on the antepenult if the penult is short".

News of the class of 1914-15 in the Faculty of Education, University of Toronto, since last issue is as follows: Miss Mabel M. Williams is on the staff of Tillsonburg Public School. William Clark is on the staff

## NEW LECTURE TABLE METER



No. 2529.

MADE BY THE  
WESTON ELECTRICAL INSTRUMENT  
COMPANY

EXPRESSLY FOR THE  
CENTRAL SCIENTIFIC COMPANY

SIX ELECTRICAL MEASURING  
INSTRUMENTS IN ONE

**Galvanometer--Milli-Voltmeter--Mil-Ammeter**  
**Voltmeter (5 and 125 volts)--Ammeter (25 amperes)**

This instrument consists of a zero center Weston Mil-Ammeter having a glass front, so that the entire movable system may be seen. The zero is in the center of the scale, so that no time need be wasted in determining the positive terminal of the circuit. It is an extremely sensitive instrument, and having no suspensions, mirrors, or adjustments to get out of order, is always ready for use.

It is so mounted that it may be used in either of three positions, vertical, horizontal, or inclined at a convenient angle.

Among its many uses are the following:

Measurement of voltage, amperage and resistance of batteries.  
Determination of resistance, conductivity, etc., of the various metals.  
Measurement of the Thermo-Electric effects of different metals.  
Current Indicator in Wheatstone Bridge work.  
Lecture Table Galvanometer.

It is unnecessary to emphasize the excellences of the Weston type of construction, for instruments of this make are in such general use and are giving such perfect satisfaction that the mere mention of the name is a sufficient guarantee of accuracy and fine workmanship. This instrument has been made according to our design and can be obtained only through us.

**Price, Net \$30.00**

OUR CATALOGS ARE OUR SALESMEN

Catalog M—Physics and Chemistry  
Catalog N—Biology  
Catalog P—Physiography

Catalog Q—Lantern Slides  
Catalog W—Wireless Telegraphy  
Catalog X—Agriculture

Any of the above catalogs sent free to teachers on receipt of request stating institution and department.

*Our Canadian Representative will instruct you as to duty free importations.*

### CENTRAL SCIENTIFIC COMPANY

Manufacturers of Laboratory Appliances

412-420 ORLEANS STREET - - - CHICAGO, U.S.A.

Canadian Representative—GEORGE DUNHAM.

OFFICE AND SHOW ROOMS:

ROOM 42, TORONTO ARCADE, YONGE ST., TORONTO, ONT.

When writing advertisers please mention THE SCHOOL.



of the Toronto Public Schools. Miss Mary H. Gibson and Miss Belle Johnson are teaching in Uxbridge Public School. F. M. Gould is teaching near Uxbridge. Miss Edith Murray has for present address R. R. 1, Staples. Miss Mary E. Miller is teaching at Middleport. Morley R. Shier is on the staff of Earl Grey School, Toronto. Miss Jean R. Wilson is Principal of a two-roomed Public School near Blenheim. Miss Evelyn M. McCutcheon is teaching at Hastings. A. B. Lucas has for present address R. R. 1, Vienna. Miss Eva M. Henry is on the staff of Bradford Public School. Miss Catharine Schwalm is teaching at Mildmay, Ont. Miss Gertrude Henry, formerly of Iva, is teaching in Bradford Public School.

#### **Addressing of Mail**

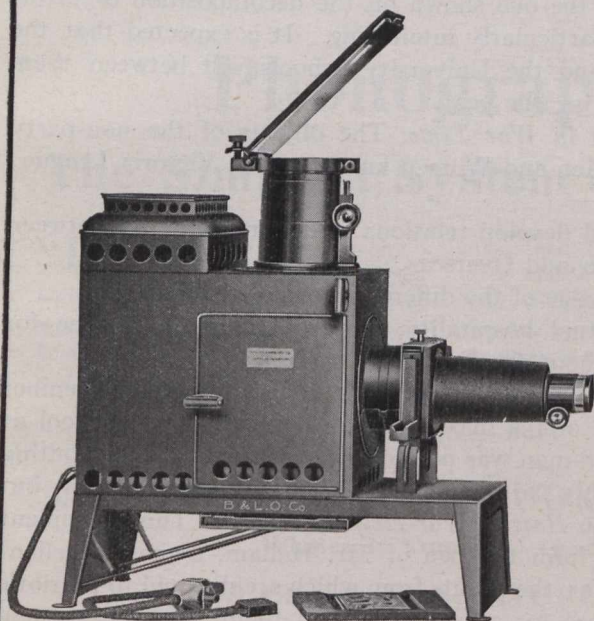
In order to facilitate the handling of mail at the front and to insure prompt delivery it is requested that all mail be addressed as follows:

- (a) Regimental Number.....
- (b) Rank.....
- (c) Name.....
- (d) Squadron, Battery or Company.....
- (e) Battalion, Regiment, (or other unit) Staff appointment or  
Department.....
- (f) CANADIAN CONTINGENT.....
- (g) British Expeditionary Force.....
- (h) Army Post Office, LONDON, England.....

Unnecessary mention of higher formations, such as brigades, divisions, is strictly forbidden, and causes delay.

E. T. Bell, B.A., formerly of the science department of Brantford Collegiate Institute, has a similar position this year in Oakwood Collegiate Institute, Toronto.

The students of the Faculty of Education as well as the boys of The University Schools were entertained during the month of October by the demonstration of the Pathéscope moving-picture machine under the direction of Mr. Hall. The peculiar merit of this machine is that it renders possible the free use of the moving-picture lantern in any ordinary school that is supplied with electric light. Indeed one form of the machine manufactures its own light. The Pathéscope films, which are adapted to this machine alone, are non-inflammable, and thus the usual troubles about insurance regulations are avoided. The machine is very simple in its operation and on one of the occasions it was managed by Mr. Hall's son, a boy in attendance at The University Schools. The number of the films is large and their variety great. As was natural at this time in our history, the films on military scenes proved especially popular. The Faculty students voted the film on the School of Cavalry at Ypres as one of the best. There are many also of a scientific and



A  
NEW  
BALOPTICON  
WITH  
Mazda Lamp

**INCREASED BRILLIANCY.** The 1000-watt nitrogen filled Mazda Lamp exceeds in illumination a 35-amperes alternating current arc lamp. Yet it consumes only 9 amperes.

**SIMPLIFIED OPERATION.** This lamp is lighted the same as any ordinary electric lamp. Requires no attention. Perfectly safe and can be operated by a woman or child.

**NOISELESS.** Obviates disagreeable humming sound characteristic of the arc lamp with alternating current.

**PROJECTS SLIDES AND OPAQUE OBJECTS.** Opaque objects (6 x 6") either English or American size slides. Instant interchange between the two forms.

Write for circular to  
The Canadian representatives

**THE TOPLEY COMPANY**  
OTTAWA



educational nature and the one shown on the decomposition of ultra-rapid movements was particularly interesting. It is expected that the Faculty of Education and the University Schools will between them purchase a machine during the year.

*The Victoria League in War Time:* The objects of the non-party Association of British Men and Women known as the Victoria League are set out as follows:—

1. To encourage and develop relations of closer sympathy between Fellow-Britons at Home and Overseas.

2. To spread knowledge of the different parts of the Empire.

3. To organise mutual hospitality, and to secure a welcome for British subjects throughout the Empire.

During the War the League has been fortunate in having as member Mr. G. H. Hallam one of the masters in the famous Public School at Harrow. This energetic man was not content with merely contributing to the League's "Monthly Notes" and writing its *Empire Calendar*, but needs must organise the *Harrow War Help Movement*. This movement has published, mostly from the pen of Mr. Hallam, a most excellent series of *Notes on the War*, the profits from which are devoted to patriotic purposes. The notes, so far as we have read them, are well-written, clear, accurate and concise and in such a style as would stir the blood of the most apathetic of us. For the budding adolescent they are "just the thing". We can confidently recommend the series to teacher and pupils. Each number costs 1 cent—reduction for quantities. Apply to the Harrow War Help Movement, Harrow, near London, England.

#### NEW BRUNSWICK.

C. J. Hanson, B.A., formerly Principal of the Riverside Consolidated School, has been given a lieutenant's commission in the 104th battalion, now being mobilised at Sussex. Four students at the University of New Brunswick and one from the Provincial Normal School recently enlisted for overseas service.

The York and Sunbury Teachers' Institute was held at Fredericton, on September 23rd and 24th. Papers were read by F. C. Manning on "The Teaching of Latin"; Miss Nettie Moore on "Nature Work"; John E. Page, M.A., on "The Teaching of Geography"; R. B. Fraser, B.A., and Miss Alice Wiggins on "Discipline". Lessons were given in reading by Miss Margaret Lynds, Miss Etta Alexander, and Miss Elsie Mills. There was a discussion on Rural School Problems led by Inspector R. D. Hanson, B.A.

The combined Teachers' Institute for St. John & Charlotte Counties was held at St. Stephen, Sept. 30th and Oct. 1st. Papers on the following subjects were presented, viz., English grammar, by W. J. Shea, B.A.;

# Phonography

## The Simplest System of Writing

"ISAAC PITMAN Phonography is conceded to be the most simple, legible, brief and logical system of writing in existence. Its publishers have behind them the plant, capital and experience of 75 years' accumu-

ation, and the co-operation of over three million successful practitioners. Everything that brains and experience can accomplish has been applied to the improvement of the system".

*Appleton's Universal Cyclopedia.*

*Catalogue free from*

### COMMERCIAL TEXT BOOK COMPANY

Wholesale Canadian Agents

383 Church Street, TORONTO.



## WAR MAPS

DON'T BUY EXPENSIVE MAPS  
DURING WAR TIMES

We therefore offer our National Series, published to supply the present demand for an inexpensive but reliable and up-to-date map.

North and South America  
Europe, Asia, Africa, Australia  
Eastern and Western Hemisphere  
British Isles, United States  
World and Hemispheres.

*Mounted on Heavy Cloth and Hardwood Rollers.*

Size of Maps 40 x 58 inches.

Price, each \$1.50.

*Get Our New 1915 Catalogues of General School Supplies.*

Chemical and Physical Apparatus, Biological Specimens, Agricultural Equipment and Laboratory Supplies.

**TORONTO SCHOOL SUPPLY CO., Limited,** 210 Victoria St.  
TORONTO, Ont.

When writing advertisers, please mention THE SCHOOL.



Flags, James Vroom; geography, Miss Annie L. Richardson; methods in teaching, H. S. Bridges, M.A., Ph.D., Supt. of St. John Schools; music in Public Schools, Miss Catherine Robinson; drawing, H. H. Hagerman, M.A., of the Provincial Normal School Staff.

On the evening of the first day a public meeting was held. Dr. W. H. Laughlin gave an address on medical inspection in schools. Addresses were also made by Premier George J. Clark, Dr. W. S. Carter, Chief Superintendent of Education, Dr. H. S. Bridges, and W. M. McLean, B.A., Inspector of Schools.

The Albert Co. Teachers' Institute was held at Hillsborough, Oct. 7th and 8th. Papers were read on English literature, by Miss Freda Wier, B.A.; geometry, by Geo. J. Marr, B.A.; drawing by Miss Ina Steeves. Lessons were given on agriculture, by R. P. Steeves, M.A., Director of Elementary Agricultural Education; and on physical drill to Grade 4, by Miss Hayward.

A public meeting was held in the evening, when addresses on education were made by the Chief Superintendent of Education, Inspector O'Blenes, M.A., and R. P. Steeves, M.A.

The Kent County Institute was held at Rexton on Oct. 28th and 29th. Papers were read on nature lessons, school gardens, analysis, geography, psychology in the school-room, les fractions, la grammaire française, Notre Profession and Nos Écoles. Mr. Thos. Bowser, Sec'y of the Rexton Board, presented "Rural School Problems".

#### QUEBEC.

The Annual Convention of the Protestant Teachers' Association was held in the Westmount High School on October 14th, 15th and 16th. This was the largest convention on record, the attendance reaching the large number of one thousand and six members. It was not only the largest, but also the liveliest convention there has been for many years and it is not likely an experiment will be made in taking the convention to other towns in the Province. Montreal and its neighbourhood is the most central and convenient city. The Mayor and Chairman of the School Board gave addresses of welcome and the Westmount School Commissioners held a reception for the teachers. Addresses were given by Sir William Peterson, Dr. Coleman of Queen's University, Professor Evans, Dr. Lynde, Dr. Hamilton and Mr. Stanton. Professor Leacock of McGill University gave a characteristic address on the teaching of English, which was much enjoyed by all of the audience. A resolution was passed calling upon the Provincial Government to appoint a Royal Commission to investigate the unreasonable cost of text-books. A new Executive was elected as follows: President, Miss Amy Norris. Vice-Presidents, Mr. E. M. Campbell, B.A., Dean Laird, M.A., B.Phil.,

## SUPPLEMENTARY READING

**EVERYMAN'S LIBRARY.** 721 titles. Cloth, 25c.

Annotated. 64pp. and 12pp. classified catalogues sent post paid on application.

**VERITY SHAKESPEARE (Pitt Press).** Cloth, 25c. by special arrangements with publishers (Cambridge University Press).

The biggest value in individual plays, with notes.

**SELECTED PLAYS—SHAKESPEARE**—containing: **Midsummer Night's Dream, Merchant of Venice, As You Like It, Henry V., Julius Cæsar, Coriolanus, Hamlet, Macbeth, King Lear.**

With Illustrations, Glossary and Notes. Cloth, 35c. complete.

**JUST PUBLISHED.**

*Send for our Catalogue of CONSOLIDATED TEXTS—the new method of providing texts for pupils.*

**J. M. DENT & SONS, LTD.,** LONDON and TORONTO



### A Text which Interprets the Present

New ideals in history teaching demand a textbook not only explanatory of the past but interpretive of the present. Who can read intelligently the daily news of the great world conflict without a knowledge of the past conditions which have resulted in the present state of European affairs?

### Outlines of European History

Parts I. and II.

By **James Harvey Robinson**, Professor of History in Columbia University; **James Henry Breasted**, Professor of Egyptology and Oriental History, The University of Chicago; **Charles A. Beard**, Associate Professor of Politics in Columbia University.

Part I of oriental, classical and mediaeval history.  
Part II. The events of the last two hundred years.

Each volume, \$1.50.

### GINN AND COMPANY

70 FIFTH AVE.

NEW YORK



When writing advertisers, please mention THE SCHOOL.



Mrs. W. Irwin, M.A. Rec. Secy., Mr. W. Allen Walsh, B.A. Cor. Secy., Mr. I. C. Vincent, M.A., 2660 Esplanade Ave., Montreal. Treasurer, Miss H. Winn. Curator of Library, Mr. I. Gammell, B.A. Repr. on Prot. Comm., Miss I. E. Brittain, M.A. Pension Commrs., Mr. H. M. Cockfield, B.A., Mr. M. C. Hopkins, B.A. Executive, Mr. H. J. Silver, B.A., Inspector J. W. McOuat, B.A., Miss Agnes James, B.A., Miss E. Binmore, M.A., Miss F. Taylor, Mr. T. I. Pollock, B.A., Miss S. Francis, Mr. W. A. Kneeland, B.C.L., Inspector J. Parker, M.A., Miss E. L. Gale, B.A., Mr. W. Chalk, B.A., Mr. C. McBurney, B.A., Mr. C. A. Adams, B.A., Miss F. Drummond, M.A., Inspector Honeyman, M.A.: Committees of Convention Library, Mr. I. Gammell (Convener), Mrs. Irwin, Mr. Campbell.

The Protestant School Commissioners of Montreal have purchased property for a new school on Ontario Street where it is intended to construct a new Terminal Park school.

The Government night schools opened on October 4th with 31 classes in attendance. The small attendance is due to the special conditions caused by the war. If the Provincial Government does not provide more money they will not be able to stay open until February which generally ends the session.

Miss O'Grady, Kindergarten Supervisor for the City of Montreal is ill and will be absent from her duties for several months.

Mr. Hugh Brownell, grade teacher in the practice school of Macdonald College, died of typhoid fever at Moncton on October 18th.

An examination was held at the Department of Public Instruction, Quebec, on November 19th, for candidates for the Inspector's certificate. Several well-known principals of schools were candidates. The results have not been published.

#### SASKATCHEWAN

Sessions of the Provincial Normal Schools for training of teachers for First and Second Class certificates will open at Regina and Saskatoon on January 3rd, next. Third Class sessions will open on the same date at the following points: namely, Regina, Saskatoon, Yorkton, Weyburn, Estevan, Prince Albert, Moosomin, Swift Current and Wilkie.

Graduates in Arts from a Canadian or other British University and teachers holding First Class teachers' diplomas or equivalent standing will be entitled to admission to the First Class session, provided they have reached the prescribed age, namely, nineteen years in the case of males and eighteen years in the case of females.

For admission to the Second Class session, applicants must hold at least Second Class academic standing, have Third Class Normal or

# ROYAL

STANDARD

## TYPEWRITER

“Compare the Work”

### You Won't Have to “Trade-Out” Your Royals

Lost alignment is the greatest evil in typewriter service.

A typewriter first shows that it is wearing out by losing alignment. A clean, straight line of writing is impossible. The machine is ready to “trade-out.”

The ROYAL ends this greatest evil in typewriter service.

*One bearing in the ROYAL takes the place of many. These vital wearing parts in the ROYAL are simple and strong.*

*Three steel rods, the pivot-bar bearing, the front link bearing and the key lever bearing, carry all the strain, the pounding, the vibration and wear of writing.*

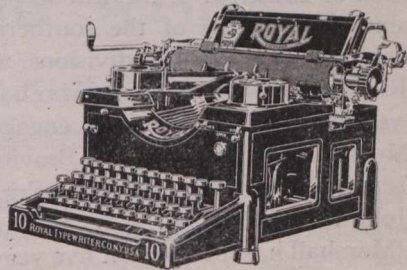
And even when they *do* become worn—as any bearing must—they may be replaced in five minutes by anybody with ordinary mechanical knowledge.

After years of use the ROYAL can be made new again in five minutes and at trifling cost.

Could anything be simpler? The ROYAL ends the great evils of *excessive repairs* and “trading-out” as well as the evil of *lost alignment*.

Get the facts - - -

Write us for our descriptive catalogue S and full information on the “Best built typewriter in the world”.



## FIELD, LOVE & HOUSE

41 Richmond St. W.

Phone Main 2457

TORONTO

Agencies in principal Canadian Cities.



equivalent training and have had at least one year's experience in teaching. The age requirements are the same as those for First Class.

To be admitted to the Third Class session, applicants must hold at least Third Class teachers' diplomas or equivalent standing, and be at least eighteen years of age in the case of males and seventeen years in the case of females.

Each applicant is required to submit a certificate from a qualified medical practitioner that he is physically fit to teach.

Major T. E. Perrett, late superintendent of schools, Regina, has been appointed Principal of the Provincial Normal School, Regina, the position having been made vacant by the resignation of Dr. R. A. Wilson, who has recently accepted a chair in English in the University of Saskatchewan. Major Perrett was Principal during the years 1906-1912, inclusive, prior to Dr. Wilson's term of office. He assumed his duties on August 1.

The position of assistant principal of the Regina Normal School is filled by Mr. J. S. Huff, B.A., who has for several years past acted as Inspector of schools for the Davidson division, and has been engaged in educational work in the Province since 1907.

The following appointments in connection with the staff of Inspectors of Schools have recently been made:

James A. McLeod, Esq., late Principal of Victoria School, Regina, has been appointed successor to Mr. Huff as Inspector of schools for the Davidson district. Mr. McLeod has been associated with the Regina schools since 1911, having previously been employed as Principal of Carlyle Public School.

Mr. C. E. Brown, who for the past twelve years has occupied the position of Principal of the Public Schools at Maple Creek, will for the present have charge of the southern portions of Maple Creek, Swift Current and Gravelbourg divisions, with Shaunavon as centre.

R. D. Coutts, Esq., B.A., who has been appointed Inspector for the Gravelbourg district, has been engaged as Principal of the High School at Moosomin, coming to the Province from Georgetown, Ont., where for seventeen years he had been Principal of the High School.

John Marshall, Esq., M.A., will have charge of the Radville division. Mr. Marshall has for the past five years occupied the position of Principal of the High School at Weyburn and formerly was Professor of English in Queen's University.

The Summer School for Teachers, held at the University during July, was a pronounced success. The number registered at the school was nearly one hundred, and included Inspectors, science teachers of the High Schools and a number of Public School teachers. Lectures were given by Dean Rutherford and Professors Shaw, Bracken, Cutler,

# The Only Grand Prize

(Highest Award) given to  
**DICTIONARIES**

at the  
**Panama-Pacific Exposition**  
was granted to



## WEBSTER'S NEW INTERNATIONAL

For Superiority of Educational Merit.



This *new* creation answers with *final* authority all kinds of puzzling questions such as "How is *Przemysl* pronounced?" "Where is *Flanders*?" "What is a *continuous voyage*?" "What is a *Howitzer*?" "What is *white coal*?" and thousands of others.

More than 400,000 Vocabulary Terms. 30,000 Geographical Subjects. 12,000 Biographical Entries. Over 6,000 Illustrations. 2,700 Pages. The only dictionary with the divided page—a stroke of genius.

REGULAR and INDIA-PAPER EDITIONS.

Write for specimen pages, illustrations, etc.

Free, a set of Pocket Maps if you name this paper.

G. & C. MERRIAM CO., Springfield, Mass.

# THE CHILDREN'S STORY OF THE WAR

NUMBER TWELVE READY

DECEMBER EIGHTH

Attention is drawn to Text Book Regulation 11 (3) of the Dept. Education of Ontario, which requires the use of this publication in all Public and Separate Schools, and in the Lower School of the High Schools.

## THOMAS NELSON & SONS

95-97 KING STREET EAST - - TORONTO



Baker, Greig, Smith, Hogg, MacLaurin, Thompson, and Willing, as well as by Mr. Norman Ross, Miss Twiss, Mr. Bates and others. The University residence was thrown open for the accommodation of the members of the school.

The following new appointments have been made for the session: Dr. R. A. Wilson, formerly Principal of the Normal School, to take charge of English; Dr. J. S. Dexter, M.A. (Wis.) Ph.D. (Col.) Assistant Professor of Zoology; Messrs. F. J. Freer and W. Y. Hunter, instructors in physics and English respectively; Miss Nugent, instructor in public speaking.

Professor Gray, who came to Saskatchewan from the University of Wisconsin as Professor of economics, has tendered his resignation in order to accept a position in Tennessee.

*The Governor-General's Medals, 1915*

The awards of the twenty medals presented by H.R.H. the Governor-General for competition in Saskatchewan schools have recently been made.

The following list shows the grounds on which the medals were awarded, their distribution in the various classes of schools, and the names of the medallists.

One medal for boys for scholarship, athletics and general character; one medal for girls for scholarship, household arts and general character, at: Regina Collegiate Institute—Ward O. Longworthy, Regina; Beatrice A. Brown, Regina. Moose Jaw, Collegiate Institute—Leonard Nelson, Midale; Mary Green, Moose Jaw. Saskatoon Collegiate Institute—Orlando J. Waterman, Saskatoon; Winnifred T. Clare, Saskatoon. One medal for scholarship, athletics or household arts and general character at the Prince Albert Collegiate Institute and each of the High Schools given below: Prince Albert Collegiate Institute—Olga Nodeland, Birch Hills; Yorkton High School—Jane C. Carson, Ebenezer Valley; Moosomin High School—Nelson W. Taylor, Moosomin; Weyburn High School—Thomas J. Darby, Pangman; North Battleford High School—Walter Collingwood, N. Battleford; Oxbow High School—Mary I. Maitland, Oxbow; Estevan High School—Heber A. Henry, Estevan. Two medals for competition in High Schools for the best essays on a subject of Imperial interest connected with the war: Nina Maude MacPherson, Carlyle; Albert C. Anstis, Carlyle. One medal for highest standing in Grade VIII examinations: In rural schools—Ethel V. McMahan, Kinsley; in town or village schools—Janet L. Watson, Saskatoon; One medal for highest standing in Third Class examination, one medal for Second Class and one medal for First Class: Third Class—

## Some More Convincing Evidence

If more evidence were needed to demonstrate the exceptional value of the total abstainer as an insurance risk than what has already been published by this Company, it is found in the following Table covering the experience in the two Departments of the Company for a period of ten years.

YEAR.	PER CENT. OF EXPECTED LOSS	
	Abstainers	General
1905	36.95%	74.23%
1907	37.81%	69.15%
1909	33.50%	48.45%
1911	46.07%	77.89%
1913	40.42%	44.94%
1914	41.83%	71.63%
AVERAGE FOR LAST 10 YEARS		
	39.48%	64.19%

Why not reap the advantages of total abstinence by insuring in a Company which grants the special terms and rates which the above Table clearly shows are deserved by those who can classify for insurance in this department?

The Head Office or any of the Branches throughout Canada will be glad to furnish full information on request.

## The Manufacturers Life Insurance Company

Head Office, Toronto - King and Yonge Streets

Ask for a copy of "Total Abstainers vs. Moderate Drinkers." It will place you under no obligation. The Booklet is free and will interest you.  
A post card to-day will do.

## FROM BLACKIE & SON'S LIST

**THE GROUNDWORK OF BRITISH HISTORY.** By GEORGE TOWNSEND WARNER, M.A., Master of the Modern Side in Harrow School; and C. H. K. MARTEN, M.A., Assistant Master at Eton College. **Complete, 6s.**

**In Two Parts,** price 3s. 6d. each: PART I, 55 B.C.-1603; PART II, 1603-1911.

**In Three Sections,** price 2s. 6d. each: SECTION I, 55 B.C.-A.D. 1485; SECTION II, 1485-1714; SECTION III, 1714-1911.

**A BRIEF SURVEY OF BRITISH HISTORY.** By GEORGE TOWNSEND WARNER, M.A. With 16 full-page illustrations, Maps, Plans, Summaries, &c. Price 1s. 6d.

**ON THE WRITING OF ENGLISH.** By GEORGE TOWNSEND WARNER, M.A. Master of the Modern Side in Harrow School. Price 3s. 6d. net.

**INTRODUCTION TO THE NATURAL HISTORY OF LANGUAGE.** By G. T. TUCKER, Litt.D. (Camb.), Hon. Litt.D. (Dublin), Professor of Classical Philology in the University of Melbourne. Price 10s. 6d. net.

Send for Quotations and full Particulars to

**HAROLD COPP, 33 Richmond Street, West, TORONTO**

Canadian Representative

**BLACKIE & SON, LTD., LONDON, GLASGOW, BOMBAY**



Kathleen M. Savage, Saxby; Second Class—John R. Kershaw, Saskatoon; First Class—Ethel M. Smith, Regina.

## NOVA SCOTIA

The new Willow Street School was opened in Truro, October 4th. It is an up-to-date building with two acres of ground; Miss Josephine Bishop is principal.

The Normal College opened in Truro, September 30th, with the attendance equal to that of last year—which was a record year.

As elsewhere, the Nova Scotia colleges have smaller attendance on account of so many students having gone to the war

Among successful Teachers' Institutes held this fall were those at Musquodoboit and Berwick. Inspector Creighton, Halifax, had charge of the former; and Inspector Robinson, Canning, the latter. At both Institutes, school exhibitions were held, so that teachers who had not attempted school gardening could see the possibilities in that line.

Very satisfactory progress has been made this year in school exhibitions. They have increased about 60% over last year.

Mr. A. S. Crockett, New Glasgow, has been appointed by the Industrial and Educational Press, Montreal, to stimulate a greater interest in Technical Education in Nova Scotia.

---

## Book Reviews

*Language Teaching in the Grades* by Alice W. Cooley, late Assistant Professor of Education, University of North Dakota. Houghton Mifflin Co. 88 pages. 35c. net. Wm. Briggs, Toronto. This little book is quite modern in spirit. The inseparability of the *thought* and the *expression* in real language teaching is stressed to the utter exclusion of the old formalistic methods. It contains a wealth of practical suggestion, particularly along the line of the relation of literature to language teaching. It is quite the best book that has recently come to hand on this particular phase of elementary education.

F. E. C.

*Reading in the Primary Grades* by Frances Jenkins, assistant editor of the Riverside Readers, formerly supervisor of elementary grades, Decatur, Illinois. Houghton Mifflin Co. 125 pages. Price 60c. Wm. Briggs, Toronto. To those teachers who still make the learning of letters, syllables, phonics, etc., the important function of primary reading, this book has many practical suggestions. It neither over-emphasizes nor underestimates the value of such work but stresses the fact that thought-getting must ever be the central motivating force in learning to read. I recommend the book very strongly to the above class of teachers.

F. E. C.

*English and Commercial Correspondence* by H. Heaton Lawson, M.A. London, Blackie & Son, 1914. Pages 192. Price 1s. 6d. This is a useful book on grammar and composition, designed for commercial classes. It deals very fully with correspondence indexing and précis writing.

G. M. J.

# BEAUTY MARRING BLEMISHES



are successfully treated by our expert operators. There is no blemish that the average woman so much abhors as that masculine disfigurement

## SUPERFLUOUS HAIR

Because of extreme sensitiveness many ladies are impelled to resort to the use of applications that temporarily remove the hairs, but which soon increase and strengthen the growth. Our method of Electrolysis, which is the only sure treatment, is safe and assured satisfactory in each case, and is practically painless. Ladies tell our capable operators, "If I had only known this was all I'd have come years ago: it hurts no more than it did to pull the hairs." **If afflicted do as thousands of others have done, come during the holidays for treatment. Satisfaction assured always.**

## MOLES, WARTS, RED VEINS

also permanently eradicated by Electrolysis. We invite consultation. No expense. Skin and scalp troubles successfully treated at home. We do **Manicuring, Chiropody, Shampooing, Singeing, Scalp and Facial Treatments, etc., etc.** Booklet "G" describes our work fully. Mailed on request with sample of Toilet Cream, if 5 cents in stamps enclosed to pay postage and packing.

———— COUPON ————

Kindly send sample Toilet Cream and booklet "G." I enclose 5c. to cover postage and packing.

Name .....

Address .....

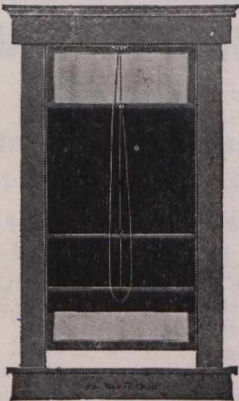
Druggist's Name .....

## Hiscott Institute

57 College St., Toronto

Tel. M. 831

Established 1892



## Draper's Schoolhouse Window Shade

Operates without a roller. Shade cloth cotton duck, without filling—will not check nor crack

**Guaranteed for 8 years.**

Let us send you samples of cloth and estimate on your new or old buildings.

**Luther O. Draper Shade Co.**

SPICELAND, INDIANA, U.S.A.

Dept. G.

## THE TEACHER'S GIFTS

The teacher's activities are many at Christmas and there is not a great deal of time in which to select Christmas Gifts. This is where our catalogue comes in to solve your problems.

A few odd minutes in the classroom or at home can be spent looking through the hosts of gifts you will find in it—then all you need do is send us your order with the names and addresses to which you wish them sent. Delivery will be made just in time for Christmas with your card enclosed and we assume all risk and expense.

Send a card for our catalogue and try this plan this year.

## RYRIE BROS. LIMITED

*Jewelers and Silversmiths*

134-138 Yonge St., TORONTO



## Department of Education.

### PROVINCE OF ALBERTA.

Teachers who contemplate seeking positions in Alberta are advised and invited to communicate with the Department of Education, Edmonton, with respect to recognition of standing, and also to vacancies.

The Department has organized a branch which gives exclusive attention to correspondence with teachers desiring positions and school boards requiring the services of teachers. By this means teachers who have had their standing recognized by the Alberta Department of Education will be advised, free of charge, regarding available positions.

Address all communications to

**The Deputy Minister,  
Department of Education,  
Edmonton, Alberta.**

## Gold Medal Crayons



Highest Award for Crayons  
and Chalks

Medal of Honor

Panama-Pacific International  
Exposition, San Francisco, 1915.

We are pleased to announce this additional award which is the highest ever awarded Crayons and Chalks.

Samples of our Superior Crayons and Chalks together with color charts will be sent on request.

**BINNEY & SMITH CO.**

*Makers of the Gold Medal Crayons*

81-83 Fulton St. - New York  
London Paris Hamburg

## Get a Higher Certificate

**Y**OU can qualify for your non-professional Examination by the aid of our Correspondence Courses. — Instruction for Model Entrance, Normal Entrance, Entrance to Faculty of Education, and similar grades in all Provinces; also for Matriculation into any University; full courses on any subject required.

Our courses give you:

- (1) Carefully arranged Lesson outlines, questions, exercises, as a guide to study.
- (2) Prompt and thorough correction of the tests or examinations given on each lesson.
- (3) The privilege of asking any questions you wish regarding your studies, getting solutions for difficult problems, etc.

Thus you are so thoroughly drilled in every part of every subject that you are ready for anything that may come up at your final examination.

Write us fully regarding your needs. Let us show you what we have done and what we can do. It costs you nothing to find out; it puts you under no obligation; and it may mean a better position and higher salary in the near future.

*Have you seen our list of Public and High School Lesson Helps for Teachers?  
If not, send for it.*

**Canadian Correspondence  
College, Limited**

**Dept. G. Toronto, Canada.**

## BISHOP BETHUNE COLLEGE

Oshawa, - Ontario

*Visitor: The Lord Bishop of Toronto*

**A Residential School for Girls**

*Young Children also received*

**P**REPARATION for the University, Art Department, including drawing, painting, wood carving and art needlework. Toronto Conservatory Degree of A.T.C.M. may be taken at the School. Fine healthful situation. Tennis, basketball, skating, snow-shoeing and other outdoor games.

*For terms and particulars apply to the Sister-in-charge, or to the*

**Sisters of St. John the Divine**

Major St.

**TORONTO**

# CROWN TAILORING CO.

College and Euclid,  
TORONTO

---

UNIFORM  
MANUFACTURERS

---

ARMY

RAILWAY

POLICE

---

CADETS

Correct Military Cut

Regulation Pattern

---

Prices and Samples on  
application.

