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The School

Vol. II Toronto, January, 1914 No. 5

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Address communications to THE SCHOOL, Bloor and Spadina, Toronto

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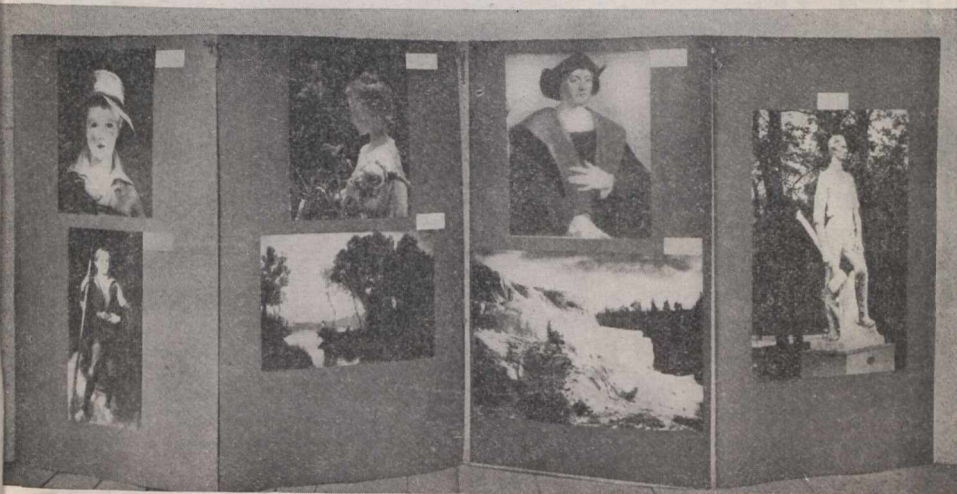
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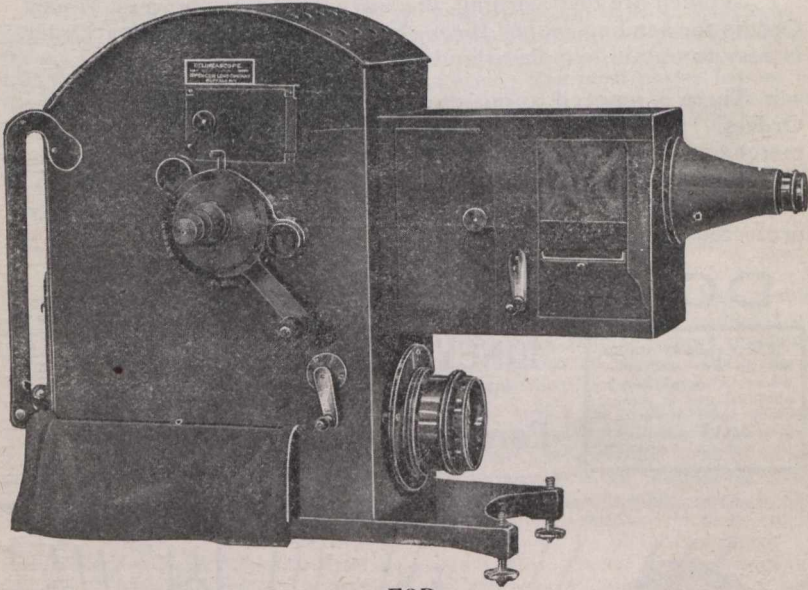


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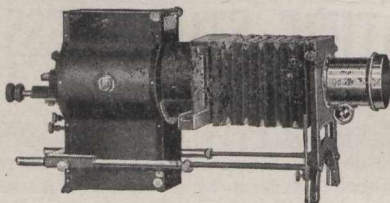
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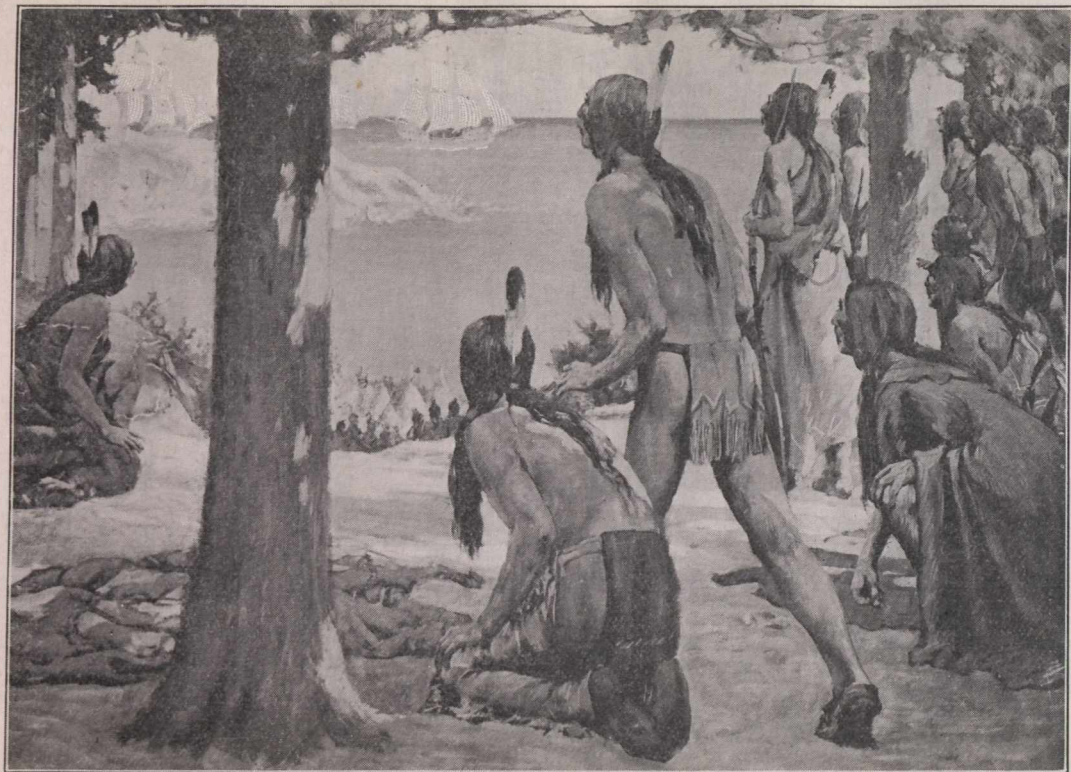
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THE COMING OF THE WHITE MAN.
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Let therefore your Rules to your Son be as few as possible, and rather fewer than more than seem absolutely necessary. For if you burden him with many Rules, one of these two things must necessarily follow; that either he must be very often punished, which will be of ill consequence, by making Punishment too frequent and familiar; or else you must let the Transgressions of some of your Rules go unpunish'd, whereby they will of course grow contemptible, and your Authority become cheap to him. Make but few Laws, but see they be well observ'd when once made. Few years require but few Laws, and as his Age increases, when one Rule is by Practice well establish'd, you may add another.

LOCKE—*Some Thoughts concerning Education.*

The School

“ Recti cultus pectora roborant ”

Editorial Notes

School Books.—The school book problem is once more to the front in the United States. On every side the old cries are heard—poor scholarship, bad printing, excessive cost, monopolies and graft. Each State is groping about for a solution of the problem. As yet most States leave the school door wide open that all publishers may go in and sell what books they may. Some States have gone a little farther and select uniform sets from books already on the market. A few States, a very few, go still farther and both select and publish their school books. But no State is quite content with its solution.

From the general discontent has sprung a new interest in the school book situation in other countries, particularly in Canada. Many requests for information have come to Toronto, and recently, on invitation, Dr. Goggin, the editor-in-chief of Ontario's school books, explained the Ontario system to the Educational Association of the Southern States at Nashville.

Neither the bookmen nor the schoolmen at Nashville could understand the excellence as well as the cheapness of the Ontario books. Cheapness, as Dr. Goggin was able to show, was an inevitable result of the Ontario system. There was uniformity in use throughout the Province. Each authorised school book had full control of the market. There was simplicity in the method of selling. A book in control of the market would sell without the assistance of expensive machinery. As all authorised books sold freely, the bookmen had no unsuccessful school books and were not forced to recoup their losses out of big prices on authorised books. Sailing in safe seas they were content with small profits. Above all the right to publish was bought in the open market. Bookmen competed in not only producing a good book but also in reducing the selling price as near the absolute cost as possible. It was due to this system that the Nashville bookmen believed the selling price to be in some cases below the absolute cost and always perilously near it!

But excellence is not sacrificed to cheapness in the Ontario system. Dr. Goggin was able to point out how many and how effective were the checks upon inferior books. The contract for the publication of any

book defined with great minuteness the material and the workmanship, and the editor's office was equipped to enforce those details to the letter throughout the term of the contract. The contents of the book were guaranteed by the Department of Education. It selected the expert or experts who were to write, edit, or illustrate the book, and the experts who later should revise it. In preparing and revising the book it had the assistance of its own expert officials and of the Advisory Council of Education, a body of educationists elected by the teachers of the Province. When fully revised, the book was put through the press by the editor-in-chief.

Unwittingly perhaps, Dr. Goggin's address was a reply to an article by Mr. C. H. Thurber in the September *Outlook*. Mr. Thurber seems to speak for the publishers. The school book, he says, plays a big part in the life of an American boy. The American teacher, unlike the English teacher, is a man with a book. American school books, he claims, are cheap. They cost the American people not more than $1\frac{1}{2}$ per cent. of the total cost of public education; in fact, "they cost the nation less than chewing gum". And they are good—"the best text-books on earth". And they grow steadily better and cheaper—better publishers, better authors, better illustrations, more accurate, more modern. In the last quarter century they have decreased in selling price at least ten per cent.

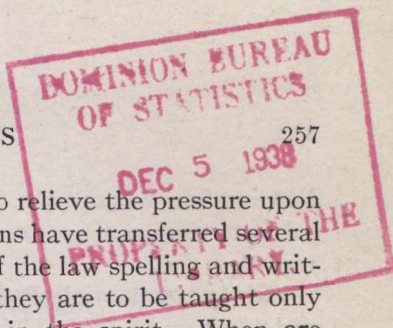
No doubt all this is true. But Dr. Goggin could cite figures to show that during the last ten years the selling prices of Ontario's school books have been cut in two and could point to Ontario school books which, while not one whit inferior in contents or workmanship to American books, sold at one-third the price!

School Records.—In his December article in this journal, Dr. Silcox urged the need of weekly and monthly records of class-room progress. An inspector writes, emphasising the same need. He declares that the average professional life of the Public School teacher is now less than seven years, and that the average of the rural school teacher is less than three years. "Indeed", he adds, "of the 65 teachers in my rural schools last spring, more than 30 left the inspectorate in midsummer." If this condition holds everywhere, one-half the teachers in rural schools change posts each year and all change in two years. The new teacher loses at least one month in becoming acquainted with the classes and their standing in each subject. This loss, suffered by very many rural schools annually and by many low-salaried schools twice annually, becomes in the aggregate a very serious charge against the progress of the rural school. Well-kept school records which place the new teacher at once in possession of information as to the classification and standing of the students will greatly reduce that loss. Shall we not create those records?

Spelling and Writing.—In the effort to relieve the pressure upon the High Schools of Ontario the new Regulations have transferred several subjects to the list of options. In the letter of the law spelling and writing have not been classed as options, but as they are to be taught only "when necessary", they have become options in the spirit. When are they necessary? Assuming for the results of the High School Entrance examination both efficiency and uniformity—and under present conditions this assumption becomes a certainty—uniform competency in spelling and writing prevails throughout the first forms of the High Schools. Spelling and writing then should be everywhere unnecessary—or everywhere necessary. Who, moreover, is to say that spelling and writing are necessary? Obviously not the inspector. A hurried visit, an excited student body, and tests few, abrupt and novel will not provide the safest criteria. To declare these subjects necessary upon such data would be scarcely less happy in results than the practice of submitting definite figures as to failures and successes in the inspector's tests in reading, writing and spelling to School Boards who misinterpret the significance of those figures. No, the principal alone is the safe judge, and he, it must not be forgotten, is the dominant figure in the Entrance Board which a few weeks before declared those first form students competent in writing and spelling! To say that spelling and writing are to be taught in the High Schools "when necessary" is equivalent then to saying that they have become options. This decision of the Department of Education most High School teachers will heartily endorse.

School and Farm.—The *Toronto Globe* publishes on Wednesdays an excellent series of articles on farms and farm life. These articles reveal a very reasonable and very modest conception of the relations of the Public Schools to the farm. An unreasonable conception regards the Public Schools as the one cause of the movement of the rural population towards the cities and the one hope of the movement back to the farm. In truth the Public School does not educate, and has never educated, people away from the farm. The townward movement is a natural economic movement. It prevails in countries where there are no Public Schools and is most marked among people who are illiterate. And it is not the primary duty of the Public School to bring people back to the farm. The Public School even in the country trains for life itself, and all attempts to narrow its function to training for the farm alone will work lasting injury to both schools and people.

This does not mean that agriculture is to be neglected in the Public Schools. It should be taught as a factor in the fulfilment of the main purpose of the school. School gardens, home plots, school fairs, nature study, agriculture and horticulture all assist in training for life itself, and all have their place in a properly constituted programme of studies.



But in that programme there are coequals, not superiors. Like other subjects they must serve, not rule, in time, emphasis, cost and public regard.

Discontent with Public Schools.—"When 500 girls between 14 and 16 years of age in Chicago factories were asked: 'If your father had a good job, so that he could have afforded to keep you in school, would you prefer to stay in school or go to work in a factory?' 412 replied that they would still prefer to be in the factory." This quotation has gone the rounds of the American press and platform and is still doing duty as the text for many a comment upon the Public Schools, their discipline, their courses of study, and their teachers. Many of those comments neglect such factors as the following:

(a) This is Chicago whose foreign-born population is so extensive as to make it a very uncertain model for the rest of America, and whose factory workers are not the typical workers of the farm-houses, villages, and other cities of this continent.

(b) These girls have passed the compulsory or Public School age, and entered the optional or High School age, where all youth longs to assume its burdens in the big world outside.

(c) At best the statistics tell us nothing about the schools. The answers to such questions are dictated by the question itself, by the suggestions of environment or by the action already taken by the girls.

CREATIVE ART.—"The pupil's own effort to produce aesthetic compositions must thus be supplemented by the study and enjoyment of masterpieces; but we must not forget that still another supplement is necessary. The task which the child was to fulfil demanded a certain amount of technical skill in the handling of pencil and brush and, still more, an eye trained in the discrimination of forms and colours and light values. Special instruction in careful drawing from copies and models with pencil, charcoal and brush must be thus an additional feature of the instruction, and especially the drawing of small details in the room or in the landscape."—Hugo Munsterberg, "Principles of Art Education".

"There were great battles won on both sides, and there were valiant men on both sides in the war one hundred years ago, which was a war of misunderstanding; but I want to tell you of a victory that was won—a victory higher than any of these,—and that is the victory of one hundred years of peace, won by both sides."—Premier Borden at the celebration on Chrysler's Farm in August, 1913.

The High School Art Course

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TO the High School curriculum of to-day Art holds a relationship similar to that held by her sister study, Science, thirty years ago.

To the teacher of the classics, English or mathematics, often in spite of his inadequate training to teach the subjects, was assigned the *task* of teaching physics and chemistry, generally with little or no laboratory or equipment. Little wonder it is that these were, as a rule, poorly taught. But despite opposition progress was made. The recognised value of the new department and the persistence of its advocates have changed the situation. Science has come into her own.

In the same way and with a similar handicap, Art is clamouring for greater recognition in the schools. The advances made in our national life demand the cultivation of taste and artistic skill among the people. Our national pride and necessities require that we no longer depend to so great an extent upon foreign countries or even upon Great Britain for either our pure or applied art. Because of its recreative, practical and cultural value art should be recognised in our schools as a subject of first importance.

To give it this status two things are needed, properly trained teachers and a more generous allotment of time. The Department of Education is doing all in its power to provide the former; the latter will come when more efficient teaching has proven to the public the educative merits of the subject.

How has the Education Department shown its interest in this subject?

(1) By giving it a place on the curriculum of every form of the Public Schools and by making it compulsory upon all in the Lower School of the High Schools, who seek admission to the training schools for teachers.

(2) By appointing to every staff engaged in training teachers competent instructors in art, and by requiring all candidates for admission to the teaching profession to pass a teacher's examination in art.

(3) By offering to teachers, gratis, special opportunities for art training at the spring and summer sessions of the Ontario College of Art, an offer enthusiastically accepted by 174 teachers of Ontario last year.

(4) By giving official recognition and financial assistance to the Ontario College of Art, which, under the able guidance of Principal Reid, is doing splendid work in the inspiration and training of artists and teachers of art.

In this connection reference should be made to the recently revised syllabus of art courses. It still covers much ground, but what advocate of the subject would desire it to cover less? It must be borne in mind that boys and girls who come to the High Schools have had already from eight to ten years in art in the Public Schools. As the teaching improves there with the expected increase in the number of trained teachers of art, entrance candidates will be better prepared and will appreciate a respectable course. The Education Department has shown good judgment in framing the art syllabus in the following particulars:

(1) It prescribes but three mediums, the pencil, crayons and water colours. The use of charcoal and coloured chalks is optional with the teacher.

(2) It leaves optional the somewhat difficult work of drawing from the cast.

(3) It entrusts entirely to the teacher's judgment the order in which the various parts of the prescribed courses are to be taken. Appendix C is *not prescribed* either in whole or in part. It is, as it claims, intended to be suggestive. Many overworked teachers in the Continuation and smaller High Schools have neither the time nor the requisite experience to plan a course from the syllabus. To such the suggestions of Appendix C will be welcome.

(4) It recognises the four great departments of representative, reproductive, interpretative and creative art.

It surely would have been unwise to omit the last with its two main divisions of original design and imaginative or illustrative drawing. The measure of our success must depend upon our skill in systematically encouraging the creative spirit. All are acquainted with the spontaneous drawings of children. They will undertake to illustrate anything that interests them. This natural artistic faculty should be as carefully nourished by a right course of drawing lessons as is the language faculty by the rules of grammar and rhetoric. The result in each case is the same, the power of original expression, the one in line and tone and colour, the other in words and sentences and paragraphs. However crude the illustration, however defective the composition, if each is the result of honest effort it means more to the child than the perfect productions of a Turner or Corot, of a Scott or a Dickens. The same subject which inspires the pupil to produce an imperfect though praiseworthy exercise may inspire a finished artist to paint a masterpiece. Millet, the boy, smudging the white walls of the home with charcoal

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sketches of Normandy shipwrecks and peasants at work, makes possible the maturer productions of Millet, the artist. The student through patience and under proper guidance

"Step by step, lifts bad to good,
Without halting, without rest,
Lifting Better up to Best."

The following are good rules to observe in setting and judging an exercise in illustration:

(1) Allow a wide range of subjects. Some pupils will excel in figure and animal drawing, some in landscape and others in marine views.

(2) Introduce the subject by an interpretative study of the passages or topics to be illustrated. Judicious questioning will accomplish this.



Figure 1.

(3) Insist upon a broad treatment of the subject with the omission of unnecessary details.

(4) Encourage the pupils to observe objects or scenes under conditions similar to those required by the passages to be illustrated. Does Holman Hunt wish to paint his great conception of the "Scapegoat", he leads an old grey goat to an environment in keeping with his thought and paints his masterpiece there. Mary Siddal floating in a bath-tub aided Millais in painting his conception of the drowned "Ophelia".

(5) Criticise approvingly where possible.

“And indeed the arm is wrong.
I hardly dare . . . yet, only you to see,
Give the chalk here—quick, thus the line should go!
Ay, but the soul! he’s Rafael! rub it out!”

The accompanying half-tones were photographed from two illustrations selected from many handed in by a class of first year boys. The first is a water-colour painted by Gordon E. Munnoch to illustrate Longfellow’s lines:

“The summer sun is sinking low;
Only the tree-tops redden and glow;
Only the weather-cock on the spire
Of the neighbouring church is a flame of fire!
All is in shadow below.”

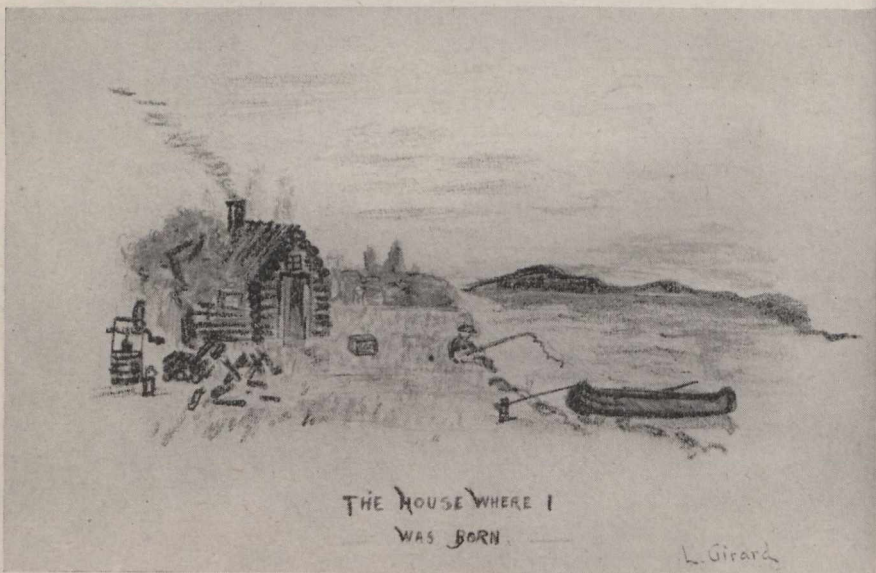


Figure 2.

The second is a coloured crayon sketch by Louis Girard to illustrate Hood’s lines:

“I remember, I remember
The house where I was born,
The little window where the sun
Came peeping in at morn.”

As a fitting conclusion the following may be quoted from the December number of the *School Arts Magazine*: “Illustrative Drawing is probably the most useful form of drawing in Public Schools, for it can be applied to so many of the school subjects. We have found this work well worth while.”

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The Education of the Foreigner

J. T. M. ANDERSON, B.A., LL.B.

Inspector of Schools, Yorkton, Sask.

THE steady influx of many thousands of immigrants from all parts of the civilised world has given rise to many serious and perplexing problems. Perhaps the gravest of these, all things considered, is the education of the rising generation among these various peoples so that they may have a knowledge of our language and a proper ideal of Canadian citizenship. The responsibility of solving this problem lies primarily with the Public School teacher. The difficulty of the undertaking and its importance to the future of the country demand of the teacher the utmost skill and sympathy. But the too general antipathy towards these foreign peoples has affected even the teaching body, and our provincial governments have been obliged to engage native teachers, even those without the regular qualifications. The natural result is the "bilingual method" of teaching the English language.

This article is intended as a protest against this "bilingual method". The writer has found from experience that more rapid progress is made when the teacher does not know a word of the child's language. In the case of some schools where the teacher's knowledge of English is slight the work of four or five terms may result in only a few disconnected English phrases, with no progress whatever in the direction of citizenship. In certain schools, moreover, half-a-dozen different languages are spoken by the pupils! Here is an example of what can be done in a school among foreigners by a patient and sympathetic English-speaking teacher. His experience is given in his own words:

"I am very firmly of the opinion", he begins, "that least progress is made where the teacher makes use of the language of the child even to the slightest degree. There is absolutely no need for it. For some years I taught among the Icelandic people in Manitoba, and thinking I could make more rapid progress if I knew something of the elementary principles of their language, I began to study it. Upon acquiring a knowledge of their everyday speech I made use of it with classes of beginners. Needless to say I quickly abandoned this method as I made much more rapid progress when I knew nothing of the language. I may add that I was the first English-speaking teacher they had ever had at this school, and when I left they at once began to look for an opponent of bi-lingualism, and the Icelandic people are our most enlightened class of incomers.

"After leaving Manitoba I took charge of a school in a large foreign settlement in Saskatchewan. I distinctly remember the long, dreary drive of twenty-five miles, through hail and slush, behind a patient



Fig. 1
Coming Canadians.



Fig. 2
Some more of them.

ox-team, as my secretary escorted me from the little railway siding. Long after the "midnight dreary" we pulled up before a low mud-covered hut which I supposed was his stable, but which I soon learned

was to be the joint abode of the man, his wife, four children and the new teacher. It was one small room, but it served as bed-room, dining-room and kitchen, besides having several other uses too numerous to mention. I shall pass over that first night. It is too painful to recall.

"Next morning I met my trustees, only one of whom, a Swede, was able to speak to me. Of the other two one was a Hungarian and the other a Pole. I ascertained that it had been proclaimed throughout the neighbourhood that I was to open school that morning, and I further learned that it was a new school and they had never had a teacher before. I was informed by the Swede, a very genial fellow, that most of the people had never seen a Canadian teacher, and he smiled as he added that there were seven nationalities represented in the district.

"I did not eat much breakfast, I couldn't. My environment forbade it. If I had had enough cash to accomplish the feat I would have taken the first train East or even farther. But I resolved to try and do my duty for a time at least. Upon my early arrival at the schoolhouse I found that several sleigh-loads of people had got there before me, and upon entering the room I found over fifty boys and girls standing around the box-stove. The parents stood around the door and all eyed me curiously. One or two of the more enlightened said 'Good-day, meester', which was practically their entire fund of English.

"After some little difficulty I persuaded the parents that they were to go home, and then I turned to my prospective pupils. After I had them all seated I took my place before them. I soon learned that over forty of them knew absolutely no English, not even 'Yes' or 'No'."

Space does not permit a detailed description of the excellent work of this teacher, but reference must be made to the general results of his efforts. The feeling of aversion soon wore off and he became intensely interested in teaching these children English. In a few days they were making use of English sentences, executing commands and playing games. At the same time filthy clothing was discarded and the little girls began to appear in cleaner dresses. The boys now made free use of towels, soap and combs, and instead of the huge "chunks" of bread in a filthy rag, there soon appeared neatly wrapped lunches, with the bread carefully sliced. Thus the work went merrily on! The enrolment reached over sixty in three months.

Then came a grand union picnic of the six or seven schools in the vicinity. A large parade was held and the pupils of the school mentioned won first prize for the best marching and general appearance! How proud those parents were! The accompanying cut shows the group of over two hundred children, representing over a dozen nationalities. The six English-speaking teachers are sitting in front, and each child proudly waves a Union Jack. A great many Canadians were made that day!

After summer vacation the teacher referred to returned to the now beloved work with renewed vigour, and the fall term culminated in a grand concert on Christmas Eve. Over forty items appeared on the programme, and over forty children read, recited, took part in dialogues or sang, and *every word used belonged to the English language*. It was quite interesting to listen to seven boys, each reciting a verse from "The Choice of Trades", and each boy belonging to a different nationality. At the conclusion of the programme a beautiful Christmas tree was robbed of its presents and many a little heart thereby made glad. Then came the national anthem by these little coming citizens, and as they lustily sang, their more or less ignorant parents looked on with smiling faces.

Thus in about nine months these children obtained a good working knowledge of our language, were given an insight into the social side of Canadian life, and were started on the march upward. All this happened about four years ago, but this good work is going on still, and one Polish boy from this original class obtained a third class teacher's diploma this year.



Fig. 3

"A great many Canadians were made that day."



Fig. 4

A typical-rural school in a foreign settlement in Saskatchewan.

This incident, not uncommon in the West, emphasises the contention that only the English-speaking teacher can inculcate the ideas so essential in laying the foundation of true citizenship in Canada. The foreign teacher in many cases cannot be expected to do this. Within a few miles on every side of the above district are foreign schools that have always been under foreign teachers, and except for a barely noticeable ability to speak a little English nothing has been accomplished. And after all, the ability to *spea*k our language is the least important part of the educational problem!

Railways of Canada

(Concluded)

W. J. THOMSON

Principal, Brown School, Toronto

The Canadian Northern.—The Canadian Northern began business in Manitoba about Christmas, 1896, with a hundred miles of line running between Gladstone and Dauphin. The equipment of this line consisted of three locomotives and 18 cars. Two trains a week each way formed the schedule. As Sir Donald Mann says, "There was no danger of a collision". The staff consisted of 13 men and a boy, and the monthly pay roll was \$500. The gross revenue was \$60,000, which was sufficient to provide a surplus over working expenses. When the twentieth century came in 307 miles were being operated. A few months later control was obtained of 350 miles of line in Southern Manitoba that had been built by the Northern Pacific Railway of the United States. In 1902 access to Lake Superior was obtained, and the road was fairly launched on its progress as the second railway in Western Canada with the certainty of becoming a transcontinental.

The main line from Winnipeg to Edmonton (*via* Portage la Prairie, Gladstone, Dauphin, Humboldt and Battleford) was completed in 1905.

In 1906 by the acquisition of the Qu'Appelle, Long Lake and Saskatchewan Railway entrance was gained to Saskatoon, Regina and Prince Albert. The method of securing control of this line illustrates the enterprise of the Mackenzie-Mann Company. For fifteen years the road had been leased to the Canadian Pacific and everybody thought that the lease would be renewed. One morning Sir Donald Mann got wind of the fact that possibly the lease might go elsewhere. In the afternoon of the same day he had closed the deal involving millions of dollars and had taken over two hundred and fifty miles of very remunerative railway.

In 1907 Regina was connected with Winnipeg and 1908 saw the line from Saskatoon to Calgary begun as well as the first hundred miles on the way to Hudson Bay. Each succeeding year has shown a marked increase in the mileage until to-day 4,552 miles are being operated by the Canadian Northern.

When completed the main line will provide a second transcontinental. Its eastern terminals will be Pugwash, N.S., and St. John, N.B. Proceeding westward from Pugwash the line crosses the southern end of

New Brunswick, passing through Moncton and Fredericton, from which point a branch runs southward to St. John. From Fredericton the line crosses northern Maine and reaches the St. Lawrence River at Levis opposite Quebec. The bridge now under construction near that city will afford access to the northern shore of the river along which the line continues to Montreal. Westward to North Bay it parallels the Canadian Pacific. At this point it swings to the north and runs through northern Ontario about 50 miles north of the Canadian Pacific (main line) until it reaches Nipigon. Thence to Fort William it runs close to the same line. Through Rainy River District the line is close to the international boundary, which is crossed south of Lake of the Woods, and for a short distance traverses Minnesota, entering Manitoba at the south-east corner and on to Winnipeg. From Winnipeg the main line runs *via* Portage la Prairie, Gladstone, Dauphin, Humboldt and Battleford to Edmonton. From this point it will run to Port Mann, B.C., *via* the North Thompson and Fraser Valleys.

With the completion of the line between Edmonton and Vancouver, and another stretch between North Bay and Ottawa, both of which are well under way, the Canadian Northern will be able to go under its own steam from tide water to tide water. Until the completion of the bridge across the St. Lawrence at Quebec that city will be the eastern terminal.

In Ontario the Mackenzie-Mann interests have been very active. One line runs northward from Toronto for more than three hundred miles to Moose Mountain iron mines by way of Key Harbor on Georgian Bay. Another line extends eastward to Ottawa and Montreal. In order to secure an entrance to Montreal a tunnel is being constructed through Mount Royal at an estimated cost of thirty million dollars. In addition to the line from Ottawa to Montreal and Quebec an important branch runs northward tapping the Lake St. John district.

In Nova Scotia the Halifax and South Western (now owned by Mackenzie-Mann) connects Halifax and Yarmouth. It also crosses the province to the Bay of Fundy and has a branch down the Annapolis Valley.

Like its rival the Canadian Pacific it has not stopped with the shores. In addition to boats on inland waters two fine ocean liners—the *Royal Edward* and the *Royal George*—plying between Bristol and Montreal, fly the Canadian Northern colours.

The story of the Canadian Northern is the story of two of the most picturesque and constructive figures in the Dominion—Mackenzie and Mann, both of whom are Ontario born. Single-handed they have built the Canadian Northern system, a performance without a precedent in the annals of railway construction. And what is equally remarkable they still own it. It is a rare thing to find the actual builder become the

owner. Generally the speculator outgenerals the man who drove the spike. So it was with the Union Pacific and other systems, but this extraordinary pair have developed a vast "made and operated in Canada" property. A comparison with the other two Canadian transcontinental lines will show this.

The Canadian Pacific, save for what was contributed by the daring Strathcona, was built and is operated by Yankee brains. Both Sir William Van Horne and Sir Thomas Shaughnessy, despite the handles to their names, are American born and bred, and graduates of the Chicago, Milwaukee and St. Paul. The Grand Trunk was brought to its present high standard of efficiency by the late Charles M. Hays, who was American also. It was in his fertile mind, we shall see, that the Grand Trunk Pacific originated.

Mackenzie and Mann afford a spectacle of splendid team work. They supplement each other much as the blades in a pair of shears. Yet they are exactly opposite in temperament. Sir William Mackenzie is the financial genius of the combination, while Sir Donald Mann's work has been that of the builder. His judgment is almost unerring. Before he built the road from Calgary to Edmonton, it is said he rode over the rough country once, and his estimate of the cost per mile was only \$23 less than the actual price of construction. He has had no technical training, yet he is said to be one of the best engineers in Canada.

Mackenzie is the in-door man of the combination. His place is at the leather-topped boards where millions talk. In Lombard Street and along the money lanes of the world they know him well. He always returns from England full-handed; and the reason is, once he starts out to get a thing he never lets up. He has led many a forlorn financial hope to triumphant conclusion. He does not know what the word surrender means.

The Grand Trunk Pacific.—As previously stated it is largely due to the efforts of the late Charles M. Hays, president of the Grand Trunk, that the third transcontinental was undertaken. The Grand Trunk approximated between 6,000 and 7,000 miles of railway and spread to every corner of Southern Ontario, but it was insulated. Rival lines had been permitted to spring into existence and to form a barrier on all sides, hemming in the pioneer line. A great proportion of the revenue accruing from through transportation of passengers and merchandise had to be paid out to competing lines for the conveyance to points beyond the zone in which the older lines operated. The effect of this disadvantage was very heavy, as the West with its enormous traffic was forging ahead rapidly and here the Grand Trunk had no lines. The encircling competitive and strangling barrier of lines must be broken

down, and the necessity for handing traffic over to rivals must be reduced to a minimum. They were in touch already with the Atlantic and why should they not have an arm resting on the Pacific?

Mr. Hays suggested the building of a new transcontinental railway, stretching from coast to coast, running through new territory entirely and capable of being linked up very easily with the network in Southern Ontario. At the same time he emphasised the necessity for establishing a new port on the Pacific which would offer unrestricted scope for future developments. The Canadian Government looked with favour upon the proposal, and in October, 1903, the Grand Trunk Pacific was incorporated and an agreement entered into between the Company and the Dominion Government to construct a line from Moncton, N.B., to Prince Rupert, B.C., wholly within Canadian territory.

The railway comprises two grand divisions, namely, the Eastern Division and the Western Division.

The Eastern Division embraces the 1,804 miles between Moncton and Winnipeg. After leaving Moncton the railway has to follow a somewhat circuitous route through New Brunswick in order to gain Quebec, owing to the State of Maine thrusting its boundary so far northward towards the St. Lawrence River. Had it been possible to cut across this intercepting territory the mileage between the Atlantic seaboard and the river ports would have been reduced very materially, but the line was advocated as an "All-Red Route", and consequently it was forced to make a huge bend to skirt the political obstruction. When it crosses the St. Lawrence, which it does a few miles above Quebec, it runs north-west, passing through an absolutely virgin country for about 1,300 miles, where lumber, minerals and land adapted admirably for diversified farming exist in abundance. Westward from Lake Nipigon for a distance of 200 miles to the prairie is an unproductive stretch. The main line of this Eastern Division will be constructed by and at the cost of the Canadian Government, under the supervision of the Commissioners of the Transcontinental Railway, and upon completion will be leased to the Grand Trunk Pacific for a period of 50 years on terms that have been clearly defined. A branch from the main line running in a southeasterly direction to Port Arthur, where connection is made with the boats for Georgian Bay and Lake Huron ports, is now completed and being operated.

The Western Division—Winnipeg to Prince Rupert, with branches,—will be built by the Company, the Canadian Government guaranteeing the principal and interest for 50 years of three-quarters of the cost of the main line from Winnipeg to the coast. The main line mileage is 1,755 miles. West of Winnipeg a vast treasure-house of grain is threaded for a thousand miles. It is estimated that there are between 200,000,000

and 300,000,000 acres of land suited to grain raising between Ontario's western boundary and the Rockies. Seeing that the Canadian Pacific draws a large proportion of its revenue from about 7,000,000 acres it will be recognized that there is room for the Grand Trunk Pacific, as well as the Mackenzie-Mann road. Upon leaving the Central Plain there intervenes about 170 miles lying among the mountains which are crossed at Yellowhead Pass, 50° north latitude. This pass has an elevation of 3,723 feet, being the lowest level at which this range is crossed by any railway. The Canadian Pacific has to climb to a height of 5,329 feet to get over the same wall in Kicking Horse Pass, and 4,427 in Crow's Nest, while the Union Pacific, the first transcontinental, toils to a height of 8,710 feet to overcome the selfsame barrier.

Beyond the Rockies is another excellent agricultural area for 450 miles, terminated by the Cascade Mountains. West of the Cascades the line for the last 100 miles follows the Skeena River to Prince Rupert. The territory, in addition to being rich in minerals, is said to be well adapted to fruit growing. For the sixty miles next the Pacific Coast the grade does not rise an inch, the line being as level as the proverbial billiard table. There is not a foot of what is known as surface line. The engineer has had to trim back the mountains where they kiss the river, hewing a narrow shelf twenty feet above high-water mark out of the solid rock.

In addition to Winnipeg, Portage la Prairie, Saskatoon and Edmonton (all on the main line), Brandon, Regina, Prince Albert, Battleford, Lethbridge, Calgary, Victoria and Vancouver will be reached by branch lines either under construction or proposed. A subsidiary company controls a fleet of modern steamships operating on the Pacific Coast between Prince Rupert, the western terminal of the railway, and Vancouver, Victoria, Seattle and other Pacific ports.

In addition to the five lines already described there are the Canada Southern crossing the Lake Erie counties, the Temiskaming and Northern Ontario, from North Bay to Cochrane, and others of more or less importance, making up about five per cent. of Canada's total mileage. Then, too, there are branches of the Great Northern and Northern Pacific crossing the forty-ninth parallel and tapping the southern portion of Western Canada.

There are, also, some fifty-four electric lines, varying in length from one and a quarter miles to two hundred and eighty-seven, with a total of 1,723 miles. Up to the present the application of electricity for traction power has been for local and suburban lines or for hauling trains through tunnels, to avoid the trouble and discomfort from the smoke and gases of the steam engine.

Then there is the Hudson Bay Railway now under construction. This is one of the most daring ventures in railway construction in the history of our country. No other such line has been built. Hudson Straits are said to be impassable for eight months in the year, but Liverpool is one thousand miles nearer the wheat fields of Saskatchewan and Alberta than by way of Montreal, and for the sake of what can be carried during the four open months the Canadian Government proposes to spend \$25,000,000 to provide a new outlet.

How have these 27,000 miles of railway been built? Who is behind the venture and where did the money come from? The railways of Canada are worth one and a half billion dollars. Out of the national treasury were given money and lands with which the lines might be started, and contributions have been from three sources. The Dominion has given 154 million dollars, the various provinces 36 millions and the municipalities 18 millions; a total of 208 millions in cash subsidies. In addition to this land grants to the extent of 56 million acres have been made. Some slight indication of the value of these lands may be obtained from the fact that during 1911 the Canadian Pacific sold 975,030 acres of land for \$14,469,445, or an average of nearly \$15 an acre.

In recent years the assistance has taken the form of guarantees as opposed to cash or land grants. It is estimated that through guarantees, cash subsidies and grants of land the Canadian people have fed their railways with over half a billion dollars and fifty-six million acres of land.

As a whole the service of the railways has been helpful and efficient, but occasionally there seems to be a tendency on the part of the railways to act arrogantly in their relations to private property and to exercise a monopolistic desire in the matter of freight rates. Fortunately for the people the appointment of a Board of Railway Commissioners—an independent and permanent tribunal—in 1904, to stand guard for the public rights in all matters of railroad development and regulation, has proven to be a most helpful piece of railroad legislation and much is expected from that body in maintaining the rights of the people.

LEND A HAND.—The men who are lifting the world upward and onward are those who encourage more than criticise.—*Elizabeth Harrison.*

The blessed work of helping the world forward happily does not wait to be done by perfect men.—*Eliot.*

Teacher—I am going to send this to your mother, Johnny, and show her what a shocking composition you brought in to-day.

Johnny—All right; send it to her; I don't care. Me mudder wrote it, anyway.

Methods of Teaching Primary Reading

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THE most difficult problem that arises in the teaching of reading is the problem which meets the primary teacher on the very threshold of her task. The difficulties of the reading hour in the other grades are in a very real sense hers and to these is added, as if for good measure, the even greater difficulty that the child has as yet not acquired that independent and automatic word-recognition power without which the reading process, as a process, cannot normally go on. How to develop such power and at the same time have a method that is inherently fitted to induce the thought process is a problem that has taxed the utmost ingenuity of primary teachers of all time.

To set down all the answers which have been given to the above problem would require volumes.* There have been as many answers as there have been teachers. And of no time can this statement be more truthfully made than of our own; for example, the most thoughtful exponents of the phonic method are not 'with one accord in one place' with respect to their method. Surely such a condition is rather an omen of good than of evil for it at least proves that such teachers are endeavouring to be the masters and not the servants of their method. In order to give, therefore, any brief résumé of these answers one must necessarily strip them of their individual characteristics and speak of general types. I am aware that the advocates of these different methods will very quickly and very strenuously disown allegiance to such lifeless forms. In these discussions, however, I shall endeavour to let the spirit of the method and the form under which it originally appeared be my guides.

On the following page may be found a tabulated list of these generalised types. My purpose in putting them in this rather rigid and stereotyped form is (1) that we may see the logical development and evolution of the different methods, (2) that we may make a comparative study of their efficiency in solving the problem for which they originated.

I. Alphabetic Method.

1. *History.* The alphabetic method was used almost universally in Greece and Rome and other European countries until well into the 19th century. Likewise it was practically universal in America until about 1870. The writer was initiated into the mysteries of reading in

* For example, one answer may be found in "The Problem of the Primer" by Miss McKay in this issue.

METHODS OF TEACHING PRIMARY READING

ALPHABETIC.	PHONIC.	PHONETIC.	WORD.	SENTENCE.	CONCENTRATION.	COMBINATION.
6.	6.	6.	6. Clear ideas of object, etc.	6. Clear ideas of object, etc.	6.	6. Clear ideas of object, etc.
5.	5.	5.	5.	5. Sentences.	5.	5. Sentences.
4.	4.	4.	4 } Words.	4 } These sentences analysed into words.	4.	4. These analysed into words.
3.	3.	3.	3 }	3 }	3.	3.
2.	2.	2.	2.	2.	2.	2. The words
1.	1.	1.	1.	1.	1.	1. analysed into sounds.
1. Names of the letters taught in consecutive order.	1. Sounds of letters taught.	1.	1.	1.	1.	1. Sounds synthesised to
2. Nonsense syllables, e.g., ab, eb, ib, ob, ub, spelled and pronounced.	2. As in alphabetic method except sounds instead of names used.	2.	2.	2.	2.	2. form new
3. Monosyllables, e.g., cat, rat, hat, spelled and pronounced.	3. As in alphabetic method, except, etc.	3.	3 } Words used in the reading of	3 } Words used in reading of	3.	3. words.
4. Dissyllables, etc.	4. " "	4.	4 } new	4 } new	4.	4. These words used in reading of new
5. Words arranged to form sentences.	5. " "	5.	5. sentences and	5. sentences and	5.	5. sentences and
6. Reading of stories.	6. " "	6.	6. stories.	6. stories.	6.	6. stories.
			N.B.—See sec. 12, 13, 14, 15 of Manual in primary reading.			

As in Phonic Method except that there are sufficient symbols to represent the sounds.

this way in the year 1888. And I am told that there are still a few remote nooks in the Province of Ontario where this is still the good old method. However, to the teaching profession of to-day it has little value except in an historical way.

2. *Steps.* See tabulated form.

3. *Merits.* It developed good spellers.

Defects. (1) It does not develop independent and automatic word-recognition power and hence fails to accomplish one of the real purposes for which it originated.

(2) A word is not the synthesis of letter names and hence spelling the word will give no clue to the sound of the word.

(3) The whole attention of the child is taken up with the *form* of the word rather than with the *thought* the words express. Therefore it is not reading.

(4) The use of unfamiliar and unmeaning syllables caused the pupil to treat the work in a mechanical and perfunctory manner. We see that the real purpose for which reading is primarily intended was not realised until about two years of this mechanical work had passed.

(5) It is a rigidly synthetic method. (In this connection see article by Dr. Slemon in the October number on "General Methods in Teaching".)

II. Phonic Method.

1. *History.* Ultimately protests must arise against such an illogical and unpedagogical method. But as is the case in any course of development first one defect and then another would be seized upon. One of the first protests came from the Jansenists (Jesuits) of the Port Royal School. The point they seized upon was the illogical connection between spelling (*i.e.*, naming the letters) and the sound of the word. So they advocated a *substitution* of the *sounds* of the letters for the *names* of the letters. As a result we have a method springing up which exactly parallels the alphabetic method except in that one very important respect.

2. *Steps.* See tabulated form. (In this connection see Miss Niven's lesson as a particular example of the procedure now used.)

3. *Merits.* (1) It develops independent and automatic word-recognition power. In so far as I can understand the different methods it is the only one which does develop such power. And hence I do not see how any final method of teaching primary reading can wholly disregard the phonic method.

(2) Secures clear enunciation and distinct articulation.

Defects. (1) The advocates of the word method claim that a word is neither the synthesis of letter names nor of letter sounds.

N.B.—We shall point this out more fully in dealing with that method.

(2) The English language not being a phonetic language, the method has a tendency to produce poor spellers.

(3) (4) (5) As in the alphabetic method.

(6) There is a great discrepancy between the number of sounds and the number of symbols to represent those sounds.

III. Phonetic Method.

A mere mention of this method will suffice. It originated in the attempt to cure the discrepancy which exists between the number of sounds in the English language and the number of characters to represent those sounds. That each sound might have its own distinct symbol a sufficient number of new symbols were invented. This was accomplished by altering the shape, size, etc., of the different characters and above all surrounding them with such a mass of diacritical marks that the phonetic script puts the Hebrew script to shame. In their endeavour to cure one defect a much more serious one has crept in. The attention of the pupil is so taken up with the translation of the characters, marks, etc., that no attention is given to the grasp of the thought content. The method never found favour in the class-room and is not used to any extent at the present time.

Suggestion for the Class-room

Control.—On Tuesday morning, maybe, you are demonstrating a new principle to your B class. In the midst of it you call to John to stop looking out of the window, a minute afterward to Fred to make less noise with his paper; to Fordyce to study his spelling. You are annoyed and they see it. You have interrupted your own teaching because you *allowed* those children to annoy you. You experienced the disorder on Tuesday and corrected the boys individually. You will have the same opportunity on Wednesday, on Thursday and on Friday.

More than that, the opportunities will increase because disorder and unrest spread. The inattention will become seated. Week after week will go by because *you didn't begin right*.

Let us eradicate these troubles at once and then proceed. First, be thankful that you *can* be annoyed or disturbed or rendered uneasy. If you cannot be made uncomfortable, your case is hopeless.

If teachers would *insist* on order and system, there would be no need of these continual interruptions—we might say irritations. Give those children to understand just once what they are expected to do, and then at the first sign of anything wrong, stop all lessons, and make them see it is a serious offence. Do not expect a repetition, but if one should come, then is the time to make an example of it. Act, and act firmly.—Sara Potter Paine, in *Normal Instructor*.

The Problem of the Primer

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THE subject of *Reading*, especially in the Primary Grade, has presented many difficulties to the inexperienced teacher, and these difficulties have apparently increased since the introduction of the Primer.

When it was first introduced, we all with one accord began to complain—chiefly because it was so completely different from the former books, and at first seemed to demand more time on the part of the teacher, and more development on the part of the pupil, than was forthcoming. But, like all things new, its first terrors were the worst; and after a time some of its good qualities began to manifest themselves. One of the most important of these is the quality of the reading matter, which is, undoubtedly, of much greater interest than that contained in the old books. This is a matter of importance for when a child is interested our teaching becomes comparatively easy.

The object of this article is to give an outline of a method whereby the Phonic System may be successfully used in connection with the Primer, and to make this outline as practical as possible by entering somewhat into detail.

The teacher's earliest task is to so win the affection and confidence of the child that he will talk freely to her on all his childish subjects, in which she must show the keenest interest.

We must make haste slowly at first, and have our lessons brief and very interesting. It is necessary to begin with objects with which the child has been associated in the freedom of his home life until he is thoroughly convinced that "the schoolroom world" is a pleasant one.



For this reason our reading lessons at first must be based on words which are the names of very familiar objects which may be seen and handled in the class, *e.g.*, *cap*, *top*, *bell*, etc. Have the object brought into the room; let the pupils examine it. Encourage them to tell anything they wish concerning it, until a lively interest has been kindled. Then carefully write the word on the blackboard, telling the children that the chalk is going to say the word. Write it in various places, sizes and colours, having the children name. Many devices may be used to aid in the recognition of words. One which gives much pleasure is to make lists of words with the new word mixed in with other words, allowing the pupils to *erase* any word which is *not* the word named. This teaches them to observe closely while they are conscious only of a very interesting game. They may then be allowed to write the word in the air, while the teacher writes it on the blackboard; also they may trace it in coloured chalk, and finally may try to copy it, while the teacher may help somewhat by giving such directions as *up*, *around*, *up*, *down*, etc. Though the first attempts are very crude, yet just a little kindness, sympathy and patience on the part of the teacher will aid in the accomplishment of wonders.

In a way similar to the preceding, several words should be taught. Small changes may be made to suit the individual word. At first only *one* new word a day should be attempted and each lesson should be made into a pleasant game, for the child can be taught a great deal if he thinks he is playing. These words, with many others, may be called key-words, and perhaps at this point we may form an outline of work which may be useful in teaching the first part of the Primer and in the teaching of reading itself.

I. Teach several words to be used as key-words. These need not be all chosen from the Primer though they may with advantage be taken from this source. These key-words may be divided into three classes: (a) Names of common objects, and one or two proper names. Examples: *cap*, *hat*, *top*, *hen*, *boy*, *fan*, *Sam*, *girl*, *Tom*, *sheep*. (b) A few action words, *e.g.*, *hop*, *run*, *jump*. (c) Words necessary in the building up of sentences. Examples: *I*, *see*, *it*, *is*, *is*, *it*, *and*, *do* (*Do*), *the*, *The*, *ox*, *at*, *you*, *You*, *my*, *My*, *has*. The foregoing words may be taught by means of objects, stories or any other method by which they can be made real to the child.

They should be kept on the blackboard in colours, and reviewed carefully from day to day, changing the places of the words and being very watchful, lest the children learn them in a particular order, without knowing them when placed in a sentence for future use.

This accomplished, we may proceed to the second step, namely—

II. *The Analysis* of these words: *cap* may be broken up into *c . . . ap*; *hat* into *h . . . at*; *top* into *t . . . op*. This process may go on until all the key-words which can be suitably broken up have been separated into two parts. There are, however, some of the words which are really not Phonic, as we think of Phonics in the earlier stages, at any rate, *e.g.*, do, the, you.

While these words have been in the process of teaching, we have been wise enough to present to the child very early in his school life, the *particular* words which are most useful in building up sentences, for he delights in being allowed to find out what the chalk has said, and whisper it to the teacher, after which, as a reward, he may be allowed to tell the story to the whole class.

Let us now summarise:

(a) The foregoing words have been taught by the "Look and Say" method, the Sentence method, or any other chosen by the teacher.

(b) The Phonic words have been broken up, not into all their parts at present, but into two parts, separating the first sound from the rest of the word. Later on, when the child begins to grasp the significance of the process, the second part may be again separated into its component parts, and the child shown clearly that the word which he thought to be all in one piece is, in reality, composed of two, three or more parts.

But this process may have presented difficulties which the following suggestions may help to clear away:

1. The teacher may pronounce the word slowly, and while doing so, write it on the blackboard, keeping the chalk working at the same pace as the voice—first separating the parts very little, then gradually more and more until the parts are very distinct, as: *top . . . t -- op . . . t --- op, . . . t ---- op, . . . t ----- op.*

2. Next have the children help to say it slowly, while they watch the blackboard and observe the parts as the teacher points.

3. Then have them point to the parts as the teacher names. Have several children do this. Have the word and sounds in various places, types and colours.

4. The pupils may now find the sounds in other words without the teacher's help.

5. Next these sounds may be mixed up and the children asked to point, as the teacher names quickly, or the opposite.

Keep these sounds in constant review, just as the key-words have been kept.

We have now reached the third important step, namely—

III. *Synthesis*, or building process:

We have a number of key-words for a foundation, and quite a supply of sounds (*c, h, t, m, b, s, f, g, r, sh*; also *ap, at, op, en, an, oy, am, ul, om, un, ee, as, up*).

(a) Take our first key-word *cap*: c - - - - ap. Begin at once to *substitute* for "c" any other sound which is familiar to the child, keeping the last sound "ap" in white chalk, while the changed sound is written in various colours. We get such a list as: cap, map, gap, lap, rap, sap, tap.

In a similar way we get from the second word: hat, mat, pat, rat, sat.

To continue this, we have: top, hop, mop, sop, pop; hen, ben (*Ben*), ten, men; man, fan (previously taught), pan, ran, tan, etc.

Soon a large number of words have become familiar, and as they are learned, they should be put into stories, and used for reading, making sure that the meanings are clearly understood.

(b) However, many teachers encounter serious difficulties, in trying to get the pupils to combine these sounds smoothly, and to form words which have not the "jumping and jerking" movement in the centre and which the child at first appears to consider as a necessary part.

Many contrivances may be used to overcome this, for example:

1. Separate the fingers, then have the child try to put the sounds together, as the teacher puts the fingers together.

2. In the same way bring the hands together.

3. Have an ordinary pencil-box which has a sliding cover, and encourage the little ones to *slide* the sounds, as you *slide* the cover on. This will be found to be an excellent plan. The children seem to grasp the idea eagerly.

IV. *Analysis of words into three sounds*: The stage has now been reached, where the pupils are familiar with oral phonics, and where the separation of words into more sounds may safely be undertaken. We feel that time has been saved by not undertaking this sooner.

Continue this work, and the constant drill on each sound, also the forming of new words from these sounds. This will furnish plenty of material for silent reading and oral expression. Many new combinations of sounds may be formed from the separate sounds which they have learned from key-words. Hence, some useful sounds such as—sp, cr, st, fr, fl, sl, tr, pr, sc, pl, br, also three letters may be combined as—str, spr, etc., but the child will need to be dealt with patiently, for this operation is somewhat complicated to the child-mind.

So far, we have chosen words to the bottom of page 8 in the Primer, but on this basis we have built up quite a large vocabulary, and consequently have really learned many words, which appear on the following pages, leaving a comparatively few *new* words, in each of the following lessons for some distance in the Reader.

The lesson on page 9 may be taught by the Combination Method, partly as suggested in the Manual, but also making use of all former

teaching to develop as many words as possible by phonics; for every effort on the part of the child makes him more independent and more able to learn to read for himself.

1. Have pupils repeat the rhyme orally until you are *sure* that they have the words exactly correct, so that in the work which follows you may be spared from hearing, "*Pussy's* in the well", "Who *pulled* her out", etc.

2. Write on the blackboard two or three lines at a time. While having the pupils repeat this, be sure to have them notice that the pointer is indicating the word as they name it.

Have the new words coloured. Let the children point to them individually, and in case of failure have them start back at the beginning of the rhyme, stopping where the pointer stops, namely at the word which was not recognised in the previous attempt. Keep testing until the pupils are familiar with such new words as: *Who, put, took, her, Long (Tom) Thin, out, Short John Stout, little, this.*

Also notice the words *ding* and *dong*, but use the bell to help in the teaching of these for the sake of variety, but more particularly to point out to the children that the final *sound* in each of these words is a very good imitation of the real sound of the bell, so that in their reading they may see the reason for prolonging this final syllable, or rather the last part of the syllable. The word "*bell*" is familiar. Have the pupils notice "*well*" and "*tell*"—also "*Nell*", and tell you how these words differ. Hence obtain the sounds "w", "t", and "N", for further use. Also make lists as complete as their knowledge of phonics will permit: bell, well, Nell, tell, sell, shell, spell, smell, etc.

Such words as *Nell's, Tom's, Sam's* may be drilled on.

We now have such new sounds as, "*th, ook, oo*", from which to build up, book, nook, cook, hook, look, shook, crook.

The lesson on page 10 contains the new words: have, feet, food, come, school, sees, seed.

Teach *have, come* and *school* by the Sentence method.

Develop sound "oo" from "food", and "school" from the old word *see*; we readily get *sees*, and *seed*. We may also get *seem* and *seen*.

In this connection the pupils may be taught to take such sounds as "eep" in "sheep", and change the last sound to get "eet", "eer", "eef", "eel", and then place sounds in front of these to form new words. This may be used for seatwork. A very interesting exercise may be formed, if the teacher weaves a story as she proceeds with her work, placing on the blackboard in colours the words which she wishes the pupils to find out, and pausing in her story for them to assist her. This keeps up a lively interest.

V. But we have now reached the point where the Primer introduces printed forms, and hence our next step is from the Script to Print.

This should present very little difficulty if the pupils are allowed to see the two forms side by side. Show the children that in many cases, if the printed letters were but joined together, they would form something very similar to the Script. The uses of the Script and Print should be explained, and the children assured that they *say* and *mean* exactly the same.

Take the words as a whole first, and give the children a great deal of practice in finding the corresponding form—that is, have each word written and printed in one or more places, then point to one form while the child goes on a hunting expedition for the other.

The children may be given slips of paper for seatwork. On these slips words may be written or printed. Have them arrange them in rows after the words have been matched.

After a short time the individual letters may be picked out, using the *name*, not the *sound* of each.

Use both Script and Printed form for a few lessons from the blackboard, also introduce the Primer which may not have been used up to this time. Teachers differ greatly as to the best time to introduce it.

Later on the child may be given very practical tests of his knowledge of Print by being asked to change the lessons in the Primer back to Script. By careful supervision the difficulties of the individual will soon be overcome.

By degrees they have learned the names of the letters which may now be given in order. Without any special effort, if the letters in their different forms are kept on the blackboard and the pupils allowed to copy, they will in a short time become proficient.

More of the teacher's time may be now devoted to expression after the child has been taught to read silently and to gather thoughts with the aid of the teacher's questions which have helped him to enter into the spirit of the selection. Each lesson should be made as real as possible by means of dramatisation, dialogue or pantomime.

Impress upon the child that reading is only *talking*.

If the Phonic lists have been built up daily, we shall find very few really new words on any one page of the lessons which follow.

We meet such words as "*How*" with the new sound "*ow*" from which to form our list, "*where*" introduces the sound "*wh*", "*dress*" makes it necessary to speak about the letters which are sometimes doubled at the end. In this case the sound is unchanged.

"*Farm*" contains the useful sound "*ar*", "*what*" must be dealt with carefully because of the sound of "*a*". It had better remain unanalysed.

"*Dish*" gives us the sound "*ish*" for building.

"Are" calls for a comment on the final "e", and a little later we must deal with the final "e" in the long list of such words as *cake, Dane, hole, rose, white, pure, brave*, etc.

It is wonderful how very easily the children grasp the significance, and how interested they are in telling you that it is a great *helper*, always assisting some other letter, thus enabling it to be more useful, while the little helper is so modest that it has never been known to say a word about it.

This outline of the first few pages of the Primer has been a suggestion of the plan which may be continued throughout the book. The farther we go the more interesting it becomes, for the children become intensely interested in finding out words for themselves. They are not content with the words in the Reader, but are delighted to have the privilege of reading fresh stories from the blackboard, and manifest great joy upon finding that they can actually read a new story from a new book.

Suggestions for the Class-room

Teacher and Parents.—The stronger the teacher's hold on the community the easier his school work. A father or a mother in five minutes' opposition to the plan of a teacher can tear down more than the teacher can build up in a week. If the teacher has the hearty support of the parents, it is an easy matter to secure the co-operation and approval of the children. Without the support of the parents he is almost powerless, so far as lasting good is concerned, with the children.—F. E. Sanders in *Arkansas School Journal*.

The Good Teacher.—I have noticed: That the good teacher is not given to "much speaking" in her class-room. That she does not detain the whole class because of her lack of ability in detecting evil-doers. That she dismisses *on time* those who have done their day's work. That she sees that they go out in an orderly way. That she marks or passes judgment upon all work that she requires her pupils to do. That she gives a pupil a fair chance to explain his side before she passes judgment, even when the case seems to have but one side. That her pupils have faith in her promises and believe that she is their friend. That she takes several educational journals and can discuss intelligently new methods of teaching and discipline. That she is loyal to her school and inculcates loyalty in her pupils. That because of the planks in her platform she sends from 90 to 100 per cent. of her pupils to the next higher grade.—*Selected*.



Primary Reading Lesson by the Phonic Method

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The Lesson to be Taught.

The combination "ay" and its complement "ai" are to be presented to the class, and the proper position of each in words clearly defined.

Aim of the Lesson.

1st. To fix in the child's memory, by many examples, the place that "ay" and "ai" hold in words so that the proper use of these combinations may become automatic.

2nd. To expand the child's vocabulary.

The class has reached the stage where the sounds of all the single consonants (except *x*, *y* and *z*), the long and short sounds of the vowels, and a few of the combinations, *ee*, *ar*, *sh*, *oo*, *ch*, *cr*, and *th*, have been mastered. Analysis and Synthesis have become well-known processes. Short sentences have been freely used when each new letter has been presented.

Bring before the blackboard the senior portion of the class provided with slates, or pads, and pencils.

I. Steps preparatory to Teaching of the Lesson.

(a) Review of known sounds may be taken after this form. Before the assembling of the class the teacher has placed near the top of the blackboard, in script or print, the list of known letters. These letter-children may be arranged on top of a long fence drawn in chalk. At a given signal the curtain, which has been covering them, is withdrawn by one of the children, then the teacher with pointer in hand says: "Now for our game. Lips closed. See who will be first to find the

word." This acts as magic on the class and every eye is fixed on the pointer as the teacher proceeds to spell a word with it, such as s-t-r-ee-t, b-u-m-p, c-a-r-p-e-t, s-p-l-a-s-h, etc. Or, certain little letters might be made to jump down from the fence, thus forming a word.

These eye-gymnastics are wonderfully stimulating to alertness which is sustained all through the game.

Self-restraint is also strengthened in not allowing the answer to pass the closed lips until it is asked for.

Again, the known letters might be printed on the steps of a long ladder, or as notes on the keyboard of a piano, or on birds in a tree. Variety gives an added zest to work. The *game* idea secures co-operation at once.

(b) Let the children in turn become partners in the work, and with pointer in hand spell out some word suggested by the teacher (ear-problem), or point to the letters of some word of their own choosing, after having first whispered it to the teacher, that she may see if all the letters involved in the word are present on the blackboard.

It is a delightful thing to a child to see that his schoolmates are able to find his word. It inspires confidence in his own powers.

If possible allow these letters to remain on the blackboard after the lesson is over, for they become valuable for seatwork in word-building or drawing.

(c) A variation on curtain work is secured by the teacher writing a word on the blackboard. After it is recognised by the class, the substitution of a different vowel or a change in the first or last consonant secures many new word-forms. Then the plan is reversed, and the children erase or substitute a letter as the teacher names the word, thus making them co-workers.

II. Preparatory to the presentation of new form, a short review on the long sound of the vowel "a" should be taken.

Give a short drill on words involving long "a". Pupils discover by means of teacher's questioning that there is always one consonant (or two) following the long sound of the vowel, and before final "e". (The terms vowel and consonant through frequent use by the teacher have become well-known words.)

III. Children discover the need of a new symbol to express a familiar sound.

Class is required to write a word such as "clay". Some in haste will write "clae". Others will recognise at once that there is no consonant sound after the long sound of the vowel, and will look appealingly at the teacher to know what to do. She will at once present the correct form "clay".

There is nothing new to be learned about the form of this combination "ay", as each of its letters has been studied in former lessons, nor about the sound, which is the same as long "a", so the class may proceed at once to write it on slates or pads.

IV. Practice in the use of the new form.

A column of words involving the new combination is soon formed on the blackboard, and the class see that where there is no consonant, or no consonants, following the long sound of the vowel "a", "y" is used to complete the form, and that the position of the new form "ay" is at the end of words: May, bay, say, pay, gay, stay, gray, clay, tray, away, dray, spray.

Give many ear-problems involving this new combination as that is the only way to make its use automatic.

V. Presentation of companion form "ai" (as "ay" and "ai" are always taught in the same lesson).

Pupils are required to write a word such as "stain". The little fingers will record at once "*stane*" for didn't they hear the long sound of "a" and a consonant sound after it? When slates are raised for the mark, the teacher must then explain to the class that there are certain words they will meet with, that are formed from this list (pointing to the list with "ay" in it) by changing the "ay" into another form "ai" before adding one or more consonants, as, for instance, the word "stain" which is formed from "stay" by changing the "ay" into "ai" before adding "n". The teacher places this word on the blackboard, then class make correct form on slates. She then proceeds to form a new list of words derived from the previous one as follows: stay, stain; may, maid; bay, bait; say, sail; pay, paid; gay, gain; gray, grain; clay, claim; tray, trail; away, await; dray, drain; spray, sprain.

By colouring "ay" and "ai" in each list the children see plainly that "ay" at the end of words becomes "ai" in the middle of words.

Ear-problems to emphasise this rule are now given to test whether the class has grasped well the principle involved.

VI. Sentences containing the new combinations follow.

Let these be short, and written or printed on the blackboard.

(a) I let them contain only the "ay" principle as:

1. May has the tray.
2. Ray went to the bay.
3. I may stay and play, etc.

(b) Those involving the "ai" principle.

1. The bait is in that pail.
2. Let us wait for the train.
3. That pail fell into the drain, etc.

(c) Sentences containing words from both lists.

1. This paint is gray.
2. He is afraid to stay away.
3. Ray will sail on the bay to-day, etc.

A good plan is to have the class turn backs to the blackboard as the teacher writes each sentence. At the word "Front!" class turn, and raise hands when the answer is ready.

The moral side of the child's character is also strengthened by this plan, as one who "peeps" is looked upon with contempt by his classmates.

These sentences may also be given as ear-problems.

VII. Attention to Expressive Reading.

No matter how short the lesson may be, let some attention be given to expressive reading. By questioning the right emphasis will always be secured. Have individuals, as well as class, give the response. The teacher also reads the sentence emphasising some word in it, and one member of the class is allowed the privilege of marking with coloured chalk the emphatic word, or erasing all but that word. As this is considered great fun, each will be anxious to have the honour of doing it.

VIII. Commands may be written on the blackboard, partly illustrated, as:

1. Put the clay on the (*drawing of chair*) Olive.
2. Stand the tray on the (*drawing of table*) Ray.

The child selected does the action by writing the word "clay" on the "chair", or "tray" on the "table". If the child does not recognise his or her name quickly, then substitute another name.

At the conclusion of the lesson the bright pupils may be sent to seats on "test" sentences. For this, use sentences already on the blackboard. With pointer, tap one and another word in these, thus forming a different sentence each time. Many sentences may be formed in this way, if sufficient material has been left on the blackboard. Vary this by the introduction of new sentences containing only known sounds. The backward pupils are left standing on the floor, and now receive more individual instruction, gaining their seats on the finding of separate words.

Note—The peculiar words "says" and "said" need not be taken up in this lesson, but may be placed on a chart in the list of peculiar words gathered from different lessons. These *peculiar* words are those in which the sounds of the vowel or combination is slightly different from that ordinarily given.



Little Journeys to Rural Schools

F. H. SPINNEY

Principal, Alexandra Public School, Montreal

V.

IT was Thursday afternoon, one hour before the time of dismissal, when I arrived at the Trenton school. The first feature that attracted my attention was the clean and attractive appearance of the spacious yard; and those qualities were even more apparent within the building. Many a teacher's failure in a rural school is due to the depressing influence of both interior and exterior surroundings, which surroundings would defy the power of the most skilful pen to properly portray. They represent barbarism rather than civilisation; and it is nothing short of a *crime* to ask a respectable lady and a group of innocent children to spend 5 hours of the day in some of the so-called "school-houses" that may still be found in various parts of this great country, whose wonderful progress and prosperity have been so frequently and so loudly acclaimed. The teacher should make every possible effort for improvement; and if such efforts are unavailing, she should seek the very first opportunity of changing her position for one where more

refined influences prevail. The government should issue a descriptive catalogue of all the schools in the province, and a copy of this catalogue should be in the hands of every teacher.

The teacher and pupils of the Trenton school reflected the cheerful spirit of their surroundings.

Miss Emerson explained that the youngest pupils had just been dismissed, and that "Memory Work" was the next lesson, carried on simultaneously in all the classes.

"Our object is to learn as many lines as possible in the 45 minutes assigned to that work."

"But is not 45 minutes a long period for one subject?" I asked.

"We do not find it so with Memory Work. In fact, at the children's request the time is sometimes extended to an hour."

The children were all studying quietly.

"And how do *you* occupy the time during their study period?"

"Well, you see I have a book of poems: I learn as many lines as I can during the period."

"Do you recite your lines aloud?"

"Yes, the children understand that I am a *student* with them; and that knowledge increases their interest."

For memory work, the school was divided into two classes. The senior class was learning "The Lady of the Lake"; the junior class made a choice from the selections in Stevenson's "Child's Garden of Verses". Each pupil was allowed to learn the selection preferred.

"There is no rivalry among the pupils in this lesson; but each pupil is trying to learn to-day more lines than he learned yesterday."

"Do you have the verses analysed and the words parsed?"

That question actually brought a look of pain to the teacher's face.

"No, indeed! That was done when I was a child; and every pupil in the school detested anything named *poetry!*"

"Then you explain nothing whatever?"

"Only when a pupil asks for the meaning of a word or a peculiar expression. Sometimes I ask them the meaning of certain lines; if they cannot give the explanation, I drop the matter. Some pupil will likely ask the same question before the lesson ends. I have found it far better to arouse curiosity than to take extra pains to satisfy a curiosity that is not yet ripe."

When the time arrived for recitation, each pupil, as called upon, told the number of lines learned; but that number was not always recited. It was quite evident that previous lessons had been accompanied by the most thorough drilling in the proper methods of reciting poetry; for the children recited as they would talk—there was no "sing-song". They listened eagerly to one another, and even more eagerly when the teacher

recited her selection, and made a hasty drawing on the board to illustrate its meaning.

I wonder if many teachers try the plan of making explanations with drawing rather than with words. Try it, and observe the increased interest on the part of the pupils.

"Now, we all learn one verse together in this way," said the teacher, as she drew the curtain aside and revealed one verse neatly written on the board.

The children studied the verse carefully, raising hands when they were ready to recite. When five hands were raised, the teacher arranged the curtain so that it covered all but the first two words of each line:

The curfew—
 The lowing—
 The plowman—
 And leaves—

After four children had recited the verse, aided by the words in sight, the entire verse was hidden, and it was then recited by a few others.

Many teachers make memory work a drudgery for themselves and the pupils. One reason is that they continue to drill on one selection until *all* the pupils have that selection prepared. Some pupils can commit very short selections; while others can learn a large number of lines in the same time. The teacher should plan the lesson in such a way that each pupil can advance as rapidly as possible. There is too much "average" progress made in educational work. In this subject, at least, let us break away from the average pace and give every pupil a free rein.

At the close of the memory lesson, ten pupils were sent to the board, and asked to write any four lines of any selection they chose. This work was not corrected; but the teacher wrote "CORRECT" under the verses that contained no mistake in spelling, capitals or punctuation.

Teachers, as a general rule, spend too much time in looking for *mistakes*. Let us make an occasional change, and for one entire day not mention mistakes at all; but advertise judiciously all the *correct* work that comes under our inspection. That will be more pleasant, and will not be such a serious tax on our patience and our time. That day will be such a delightful one, we shall wonder that we never thought of the plan before; and thereafter such days will be of frequent occurrence.

On leaving the Trenton school I commented to myself, "What fascinating work teaching may be when the proper mental attitude prevails among teachers and pupils!" To develop and maintain such an attitude is one of the teacher's most important functions.

The Use of Cylindrical Blocks to Illustrate the "Steps" of a Lesson on Number

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LESSON IN THE ADDITION FOR FACTS OF "SIX"

- I. Preparation**—(1) Count these—a group of 6 one-inch blocks.
 (2) Find the height of this block—a six-inch block.
 (3) Find another as high—selecting from the set.
 (4) Set down in figures the heights of these—blocks 2 in., 4 in., 3 in., 5 in., 6 in. shown in succession.
 (5) The teacher sets up the blocks in columns thus



calls them "towers" and asks the children each to count by the rings the height of one. A ruler might be put over the top to touch all the towers.

II. Aim—To find what two lengths we may use to build these towers.

III. Presentation—How high is each tower? "6 in." How do you know? "I counted the rings."

(Here the whole is seen, *definite* as a whole but *vague* as to its component parts.)

(1) One pupil breaks down a tower into 2 parts, a one-inch part of one colour and a five-inch part of another colour. Others in turn break down the towers into parts whose lengths are—2 in. and 4 in.; 3 in. and 3 in.; 4 in. and 2 in.; 5 in. and 1 in.

(This is *analysis*.)

(2) Each now builds a tower and says what makes the tower (a) in words, (b) in figures one above the other.

as (a) $\left\{ \begin{array}{l} \text{"One and five make six"} \\ \text{"Two and four make six"} \\ \text{etc., etc.} \end{array} \right\} (b) \begin{array}{l} \left(\begin{array}{ccc} 1 & 2 & 3 \\ 5 & 4 & 3 \\ - & - & - \\ 6, & 6, & 6 \end{array} \right) \text{ etc.} \end{array}$

(This is *synthesis*.)

(3) Look at one tower (this one "three and three"). Now face about, shut eyes and say what two numbers make 6.

Face front, look at two towers (these two, one and five and five and one). Face about, shut eyes, wait a moment and tell in two ways what numbers make 6, etc., etc.

(This aids in securing mental images.)

(4) Repeat this exercise but instead of receiving the answers in words let them be written on the blackboard in figures one above the other with the sum written below.

(This gives the abstract form in which the ideas are usually expressed.)

IV. Application.

(1) The set of blocks are placed on a table some distance away. Each pupil is timed as he runs and selects two lengths which make up a six-inch tower and builds his tower.

(2) Cards with numbers on them may be used instead of the blocks. The numbers on the cards must add to make six.

(3) Each is given so much time. In this time he is to build the towers in as many ways as possible and set down his findings in figures corresponding.

(4) Each tells while facing away from the board all the pairs of numbers which make "six".

(These exercises give children something to *do* and through *expression* and *use* of ideas *impress* them.)

In a similar way these blocks may be used in lessons on

- (1) Counting—(a very fundamental exercise).
- (2) The number facts (1-10).
- (3) Combinations in addition such as $8+7$; $18+7$; $28+7 \dots$; etc.
- (4) Notation.
- (5) Subtraction by either of the methods—(a) equal additions or (b) decomposition, etc., etc.

Teacher—What is a vacuum?

Boy—I know, teacher. I have it in my head, but I can't just think of it.—*Brooklyn Life*.

Teacher—Who'll tell me what is meant by the floating population?

Kid—People who live in houseboats.—*Kansas City Star*.

Teacher—What is the derivation of the word lunatic?

Pupil—Luna, the moon, and—er—er—attic, the upper story.—*Town Topics*.

Teacher—Can you tell me why the trees leave in spring?

Willie—Don't know, teacher, 'less it's because dey hears de birch bark.

Meaning of Experimental Education

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WITHIN the last four or five years the development of the Science of Education has undergone a remarkable change, which has not yet been sufficiently understood or appreciated by the teaching profession, as the results have not yet been incorporated in text-books used in Normal Schools and Training Colleges. This change has only recently been made in the educationist's attitude to educational problems and as the result, several chapters in well-known books have become hopelessly obsolete. There is no longer any need to apologise for the Science of Education or to argue its existence, for it is no longer a series of empty discussions, based on *a priori* assumptions, and coloured by class, religious, or political prejudices. By the application of scientific method to its problems, the Science of Education has become truly a science, and has been for several years a special section of the British Association, which indeed in 1910 published a list of suitable subjects for immediate pedagogical research.

Looking back on the history of Education, we get the impression that scientific pedagogy has had a miserable past. The great educational reformers, with the exception of Quintilian and Pestalozzi, were not really teachers in any true sense of the term. They were renowned philosophers, scientists, or pure *dilettanti* like Rousseau, and very often confined themselves either to a mere essay, as in the case of Milton, or to a theoretical denunciation of the conditions prevalent in their own times, as Spencer did. In no case did they deal with the actual conditions of teaching children of school age under school conditions.

To this day, however, the general public will eagerly listen to eminent men in other spheres of life, when they condescend to give their views on education. And if Lord Roberts delivered a speech or wrote an article on the subject, his remarks would be quoted everywhere and would form the basis of a wearisome controversy on both sides of the Atlantic. Education shares with Theology the unenviable distinction of being a subject wherein the amateur or layman considers himself more expert than the specialist.

Experimental Education is scientific research applied within the sphere of general pedagogical and didactic problems by means of experiment and exact investigation. The method has been but a short time in actual operation and the results so far have been too wide and too few to

make the systematic presentation of the whole field of Pedagogy immediately possible. Indeed an attempt to write a permanently exhaustive treatise is still premature, as there are great gaps to be filled up and these gaps must not be filled up by temporary borrowings from other allied spheres of knowledge, or by guesses and accepted beliefs. But the researches are already sufficiently advanced to make systematic Pedagogy a possibility in the near future.

Experimental Pedagogy is inductive first and deductive afterwards. It aims at exact quantitative determination of the various processes and methods of Education. This is in direct opposition to the systematic deductive methods of Herbart, who first decided that the aim of Education was summed up in the one concept—morality—and then proceeded to deduce from the rational Psychology and Ethics of his own day a complete system of teaching methods, culminating in the development of the famous five formal steps, whose worse fault was that they were too formal. But a deadly blow to any such *a priori* and deductive treatment must always be dealt by the progress of knowledge in both Psychology and Ethics; so that Herbart's work, delightfully Euclidean in its sequence, possessed an inherent weakness, which was bound to be fatal to it in the course of time. Had Herbart's principles prevailed, pedagogy would have been condemned to everlasting stagnation.

Rousseau and Herbart were swayed by the greatest illusions about the real conditions of the child's mental and bodily life. Rousseau had merely an imaginative insight, and when he reaches the truth it is more by luck than good guidance. Froebel undertook to base his kindergarten instruction on mathematical speculation and speculative views on the education of man in general. Pestalozzi advanced beyond the mere pedagogy of ideas, authoritative statements, and vague proposals, and tried to base his pedagogy on a home-made brand of the psychology of mental powers, while at the same time he recognised the need for a deeper scientific basis for his method. Indeed his whole life-work was a constant search for the best methods of instruction resting on the fact that our knowledge is derived from observation. The contributions of Pestalozzi and Froebel are, however, important and permanent steps in advance, precisely because they were drawn more from the actual life of the child and the practice of instruction.

In its relation to society, Education must rest on the social science of the age, for the aim of Education must always be ethical and social in the broad sense which includes the narrower political meaning. It is true, also, that many results in other subjects which relate to the subject of education can be utilised for our purposes, but it must be remembered that these results have to be re-interpreted and viewed from a new standpoint. However, Education is not a mere application of these sciences.

Physics is not applied Mathematics, neither is Biology applied Chemistry and Physics. Further the Psychology that we have been accustomed to is adult Psychology, whose selected tit-bits have been considered a sufficient meal for the teacher in training. The only Psychology that can be applicable to our purposes is the Psychology of the child of school age—not of the infant, and certainly not of the adult. But just as the science of Navigation uses as much of Astronomy and Mathematics as comes within its own scope, and just as Geography can draw on the results of many other sciences such as Geology for its material, so the Science of Education may likewise utilise material gathered elsewhere and yet remain an independent science. For the results are regarded from a new point of view—that of Education, and are altered thereby and interpreted differently.

For instance, the question of overpressure and brain fag has often been investigated by doctors and psychologists whose interest however was chiefly medical or psychological. The results of these researches are also of decided pedagogical interest and can be utilised, provided they are considered from an educational standpoint. Thus, for example, the increasing number of reports made by hundreds of school doctors all over the world are certain to add very considerably to our knowledge of the physical life and social conditions of school children.

The older Pedagogy has hitherto been partly an ideal and partly a normative science; it tried to develop ideals of Education and rules or precepts for the practice of instruction; it was always a guide and could be nothing more than a guide for the teacher. But while there is nothing to say against the assertion of rules in itself, yet in order to reach a scientific basis for our precepts, we must first of all conclude a fundamental investigation into real conditions, before we can make the precepts authoritative. Otherwise they are merely optional and have little or no content. At best they are the result of the more or less practical experience of individual teachers, without a guarantee that they are really warranted. For instance, in order to discover precepts for teaching a child to read, we must first *analyse* reading into its different parts, and investigate each of these separately. "We find that every act of reading is based on a purely optical process—the perception of the word picture; on a purely inner process of comprehension—the gaining of the word meaning; and on a speech process—the phonetic interpretation of the optical picture and the right phonetic expression of it." (Meumann, Vol. 1, p. 27.) This exhausts the work of analytic experiment. Synthetic experiment shows how these three processes work together in reading, and for Pedagogy this latter type of experiment is more important, e.g., for teaching how to read. Afterwards we can investigate purely in practice how the gain in ability to read progresses in the child, through

what stages it runs, what its natural conditions are, and how these are related to the stage of mental development of the child. Or after the separate parts have given a clue to a method or methods for teaching the whole process, we can try these out in actual practice with groups of equally graded children and test the results quantitatively. Thus Experimental Pedagogy has both analytical and synthetic aspects. In the former the various processes of the school room are analysed into their elements and each factor is investigated separately; the synthetic treatment then recombines the factors and gives conclusions as to the processes employed by the teacher in his daily work.

The advantages of this exact research over occasional and irregular observation are too evident to require great elaboration. The first is, of course, that the investigation of facts is systematic; secondly, the experiments can be repeated under similar conditions and checked; thirdly, one investigator can be controlled by others, and individual peculiarities and advantages can thus be eliminated; fourthly, combined work or collaboration is possible and investigators can build on each other's results; lastly, and this is most important, the matter of local conditions or national needs can be attended to. For if there is one objection that one can make to all foreign systems and ideas it is just precisely this—that they suit peculiar conditions and very probably could not be transplanted with the same results. An exceedingly good example of this is to be seen in the "Montessori" system. What has been accomplished in Italian slums with infants whose mother tongue is one of the most phonetic languages on earth, whose teaching has been based on the methods adopted for defectives, may be startling enough when considered beside the Italian school system. But to infer from this that identical methods can be used with equal success in Canada where the conditions are so different, is the height of absurdity.

The *method* of the new science has been borrowed from Experimental Psychology, and apart from the development of that subject the new Experimental Pedagogy would have been impossible. The *material* to which the method is applied is, however, pedagogical material and problems—the life and work of the child, individual children and children in groups, and, above all, children of school age, and not infants up to the age of 3 or 5 with whom Child Study has too often dealt.

Experimental Pedagogy, like Experimental Psychology, began in Germany and thence has spread to other European countries, to America, and to Asia. Even Argentina and Chili in South America, and Japan in Asia have their pedagogical laboratories. It is still in the pioneer stage and the great originator of the movement is Dr. E. Meumann whose two volumes of lectures appeared in 1907 and are now being enlarged and

issued in 3 volumes. His works will long remain a veritable mine in which future writers will dig for their materials.*

The chief value of the research method for the teacher lies in the fact that he will be able to satisfy himself every time about the basis of his pedagogical procedure. It will make him independent of mere general precepts and give him a sense of scientific craftsmanship and increased interest in his work. He will no longer be slavishly dependent on such general platitudes as "many-sided interest" and old-fashioned maxims of method, which crushed all the mental independence and gave no opportunity to real talent to unfold itself freely.

On the other hand, the teacher cannot be encouraged or expected to take part in these researches, as he is appointed to teach and not to experiment. It is not his duty to make contributions to this new science but merely to know its results and apply them. For it is one thing to utilise the results and quite another thing to add to them.

Book Reviews

Rural Arithmetic, by Professor J. E. Calfee, Berea Normal College, Berea, Kentucky. 119 pages. Price 30 cents. Ginn & Company, Boston. There is no doubt that much of the Applied Arithmetic which is taught in our public schools is not the kind which is interesting to pupils in rural schools. This little book is intended to fill this want. All the exercises are taken from everyday farm life and are real and practical. Outside of the arithmetic proper there is much information which can be put to practical use in increasing the profits on the farm. The book contains a minimum of theory and a maximum of practical work. A partial list of the subjects treated is Rapid Addition, Decimals, Interest, Lumber Measure, Land Measure, Milk Problems, Feed Problems, Dairy Problems, Cost of Growing Crops, Educated Labour, Health and Sanitation, Fertilisers, etc. Teachers in rural schools would find much in this book which would give life and reality to the subject of arithmetic.

J. T. C.

Carlyle's Heroes, Hero-Worship, and the Heroic in History, edited by Herbert S. Murch. Cloth, 358 pages. 75 cents. D. C. Heath & Co. Boston. The large, clear print of this edition commends it to the reader at once. Forty-five pages are used in giving an excellent biography of Carlyle with an appreciative discussion of his literary style. The plan and the teachings of the work are dealt with in a manner which helps to clear the approaches for the student. Very useful notes are appended.

*See also Rusk: *Introduction to Experimental Education*, 1912.

School Decoration

ADA WHITTON TILLINGHAST

IT has been beautifully ordained that the human race may express its thoughts and emotions in different ways. It would be a dull world if every one wrote books, or composed music, or talked with no one to listen. Diversity of gifts makes the palpitating interest in life.

The arts of painting, sculpture and architecture are an old language. Their beginnings lie deeply imbedded in the mysterious past when primitive man began to think in the tentative manner of the little child of to-day. One of the first efforts at expressing thought by these far-off ancestors of the great human family was the cutting of outlines of figures on the rock walls of their cave dwellings and colouring them. Many of these crude drawings have been found and they are akin to the well-known early attempts of the modern child.

Thousands of years have passed and to-day we are heirs of the accumulated beauty of the art of all nations.

Many Boards of Education still consider the desire for works of art in schools a fad which will shortly pass into the limbo of things forgotten because ineffective. For years schoolrooms have been made depressing by the presence of inferior half-tones, usually portraits. These portraits have been inadequate in size and without appeal to the children whom we wish to interest. We have been created to love beauty. Our environment is a world full of colour, and we were meant to love it. There is reason for fostering this racial, inborn feeling and using it in an all-round development. We find that artists have expressed themselves on an infinite variety of subjects which arouse thought and appreciation. Oftentimes a picture will express almost instantaneously that which a page of print would be needed to unfold.

There are many halting footsteps in the march of progress, yet all along the way are encouraging indications that schoolroom decoration is coming into its own. Like text-books and other educational material, the pictures are chosen according to the capacity of the child to understand. In the past we have often seen the ruins of the Parthenon on the wall of a primary schoolroom. We venture to say that no teacher could be found at the present time who would make such a selection. The present day teacher does not cater to himself, but asks himself, when selecting a picture, will the children understand this? Will they enjoy it? Will it be an added factor in their mental equipment? In the past it has been almost impossible to obtain desirable art for schools, how-

ever much a teacher might appreciate the need of it. To-day a great and beautiful field has been opened up by photographic reproductions and by good colour pictures in sizes commensurate with the spaces of schoolroom walls, pictures which may be seen distinctly by the pupils. Teachers find themselves able to choose subjects allied to their teaching or to choose them for their beauty as they hang above the working part of the schoolroom in spaces to which the eyes may be raised now and then for messages of pure delight.

How We Decorated Our School

CORA L. FISHER

Public School, Paisley

THIS subject appeals strongly to me, as I think a great deal of the influence of school-life depends upon the schoolroom decorations. And such a dingy, dirty—yes, positively dirty schoolroom as we had! The only redeeming feature it had was decent blinds, green in colour. We stood it for four months, had to, but made up our minds we would stand it no longer. How could we better the existing conditions? A concert seemed the natural solution. So, finally, we decided to give "Hiawatha" dramatised. It proved a success and we had \$35 to begin our work of making the room pleasant.

First and foremost the walls must be tinted. We decided on a soft shade of green with buff ceiling. Next came a moulding. What a difference that made! It spaced the walls to a size that could be decorated. Next for our pictures. We found we had \$6 left. So we decided on three pictures, two pieces of scenery, a marine and a landscape; and that world-renowned one of Shenck's "Lost". (By the way, these pictures have been utilised several times as composition lessons.) A couple of pupils donated a picture each, and I sent to the Perry Pictures Co. and got 25 of their one-cent size—15 poets and 10 musicians. These I had framed, in plain brown frames, in groups of 5, thus making five pictures. The three containing the poets I hung together—the two of musicians likewise.

The next year the whole school gave a concert and with our share (not as large this time) we invested in four busts. They were chosen by the children and were Beethoven (I had hung a picture of "Beethoven's Moonlight Sonata"), Columbus, Shakespeare (we had "The Merchant of Venice" for supplementary reading) and Longfellow—you see

"Hiawatha" had left its impression. We tried to get one of Egerton Ryerson, but couldn't at that time. The pupils contributed the brackets upon which to place them and the crepe tissue-paper with which to drape them.

Thus I have one corner reserved for the work of the pupils. (Oh horrors! do you call *that* decoration?) Well, *they* do; and I really believe in the majority of cases I do. I have a strip of dark green stiff material tacked on the wall to a height of 12 inches. On this I paste the paintings that I consider worthy. And when you get an array of Virginia creeper, bitter-sweet, rose lips, feathers, Jap lanterns, etc., it is a decoration. I also have a post card rack and in it I place the best of their Thanksgiving, Xmas, Easter and St. Patrick post cards. *That* is a source of great satisfaction to them. Then on the walls I hang any work that they do, not necessarily lessons, that I consider worthy of being hung.

And lastly come the efforts of the teacher. Any Public School grade enjoys a calendar; an Honour Roll is a source of enjoyment, even if their name *isn't* on it, and nine cases out of ten a border improves any board.

Suggestions for the Class-room

A "Wake-up" Drill.—When pupils come to me in the fall, I find them not only slow in mental processes, but equally slow in movements of the body, especially in standing promptly when called upon. I have overcome this habit to an extent that has given me great satisfaction, just by having a simple drill exercise preceding the recitation period several times a day. Taking my name cards, I read the names of the pupils, one by one, each child understanding that he must rise instantly when his name is called, and remain standing until he hears the next name. The names are never read twice in the same order. Sleepiness of mind and body is readily overcome by this lively drill, which is the best possible preparation for the other sort of drill where answers to questions are required.—*L. E., Normal Instructor.*

Needs of Childhood.—"The schools were made for the children, not the children for the schools." Hence it follows that no school system is so sacred, no method of teaching so venerable, no text-book so infallible, no machinery of administration so permanent that it must not give way before the educational needs of childhood.

"It is not work that kills men; it is worry. Work is healthful; you can hardly put more on a man than he can bear. It is not the revolution that destroys the machinery, but the friction."—*Beecher.*

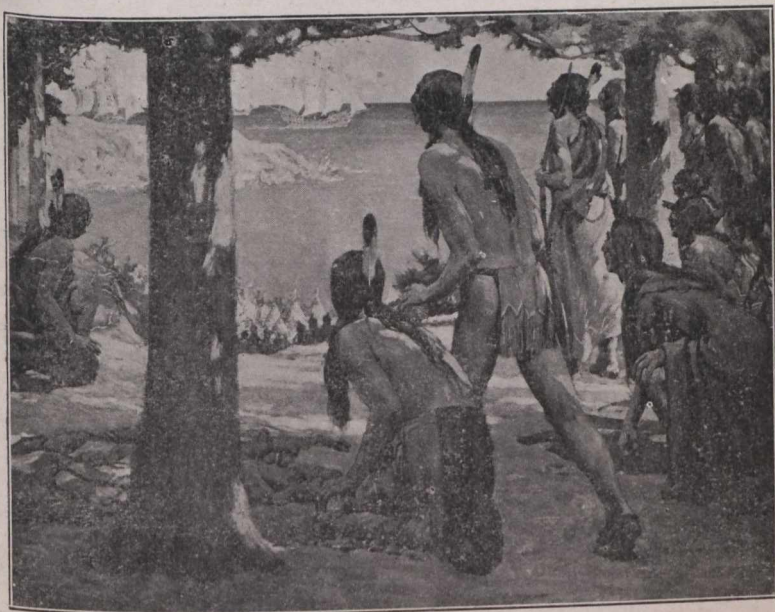
Canadian Artists Series

I.

"I love to depict the pageant of Canada."

—G. A. Reid.

GEORGE AGNEW REID, R.C.A., Principal of the Ontario College of Art, painter of Canadian life and character, was born at Wingham, Ontario, in 1860. Early in life he heard and obeyed the call of Art. As opportunity was afforded he studied at the Art Schools and Academies of Toronto, Philadelphia and Paris. As traveller-painter in France, Spain, Italy and Britain he widened his vision and perfected his skill.



"The Coming of the White Man"
By G. A. Reid, R.C.A.

Returning to his native land he set to work with characteristic energy to preserve with his brush the passing scenes of pioneer life. No one has done this with a more sympathetic appreciation. Born in a pioneer home he became acquainted with the struggles and triumphs of that sturdy race which has almost disappeared. His brush depicts the wholesome seriousness of their lives. What tense pathos appears in "Mort-

gaging the Homestead"! What grim tragedy in "Foreclosing the Mortgage"! These scenes, so common a generation ago, have happily almost disappeared from our national life. Now and then a ripple of humour spreads over his canvas. Through a mist of tears, one smiles at the talking kiddies kneeling at the window seat in "Family Prayer". Other idylls of home life are "The Lullaby" and "A Modern Madonna". The work and enjoyments of farm life receive recognition in such paintings as "The Last Load", "Logging", "The Call to Dinner", "The Berry Pickers". What farm boy does not study with smiling comprehension "Forbidden Fruit", and "The Story in a Hay-loft"?

Of late years the art of Mr. Reid has been changing. The realistic productions of his earlier years have given place to idealistic and decorative art. His "Evening Star" has been well described as "a nocturne that tells little but carries the impress of a mood". Mr. Reid's mural decorations and historical paintings are likely to bring him more lasting fame. Examples of his skill as a mural painter may be seen in the main corridor of the Toronto City Hall and in the Library of Queen's College, Kingston. In the former building his large panels, illustrative of pioneer life, rank him among the masters of pictorial decoration. His more recent historical paintings are "The Arrival of Champlain at Quebec, 1608", owned by the Dominion Government, and "The Coming of the White Man", a decorative composition which, by courtesy of the artist, we are allowed to reproduce as the frontispiece of this number.

The limits of our space forbid an enumeration of the honourable positions he has held in the many societies of art with which he has been connected. His fertile genius, untiring energy and kindly nature have ever won the esteem of his associates.

S. W. P.

A raconteur once told the story of how a certain noted lecturer was advertised to lecture on "Keats". Seeing the notice a man said to his companion, "I say, here's Mr. — going to lecture on Keats; what are Keats?" The audience to whom the story was told laughed uproariously. But there was an amusing sequel. One of the audience said to a companion in the privacy of his room, "Say, old chap, I laughed as heartily as anybody else over that 'Keats' story, but for the life of me can't see the joke; strictly *entre nous* now, what are Keats?"

Teacher—Do you know that the human body contains sulphur in varying quantities?

Johnny—Well that accounts for some girls making better matches than others.

The Woodpeckers

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EVERY schoolboy knows a woodpecker when he sees it, and some of them can be seen at all seasons of the year. When we add to this the fact that he is just as much at home pecking out his living on the trunk of the tree in the rural schoolyard as on the maples and birches of the town or city parks, the evidence accumulates that such a cosmopolitan Canadian as that is a fit subject to become the topic of a nature-study lesson by every enterprising teacher in the country. I am inclined to think that the present is a good season to begin. "The fall of the leaves" and "the preparation for winter" have spun out pretty well but they have become exhausted; months ago the cat and the dog have been the subjects of much counting, mauling and a good deal of inane and insipid talk, but by January they can hardly be made to do duty any longer. It's too early for germination; bird calendars can't be begun, because the call of the north has not yet begun to stir that mysterious, instinctive feeling in the blood that later will drive them up from their winter home in the tropics or beyond. No leaves intercept a clear view of the tree trunks, and the chickadees and the woodpeckers are plainly seen upon the bark and branches.

The first step toward becoming interested in a person or a bird is to know the name. Now we have four or five woodpeckers that are so common throughout Ontario that the mere tyro can distinguish them by a little study and observation. Only two species are not migrants and they are to be found in our woods and parks at all seasons. The winter is an excellent time for an introduction. Getting acquainted with the birds in spring is too much like a lady's reception where there is such a bewildering array of introductions that both names and faces leave no lasting impression. The birds of spring are so numerous and appear in such rapid succession that they leave the child bewildered and discouraged. If we begin, then, at the present season we are sure to see two of our plainest little woodpeckers in their daily search for food on the tree trunks. If they are a pretty good mixture of black and white with a dash of red on the nape you can decide they are the downey and hairy woodpeckers. These are so nearly identical in colour that only the discriminating eye can detect the outer tail-feathers of the downey as pure white, and those of the hairy as barred with black. However, there is not much difficulty in distinguishing them in size as the downey

is the dwarf amongst our woodpeckers, being only 6 inches long—about equal to a sparrow, while the hairy is as large as a robin. It is quite possible that one may also meet that dandy of the woodpeckers—the red-head. He selects his winter home chiefly by the size of the beech-nut crop. If the harvest has been bountiful he decides that a nut in the hand up north is worth two in the southern bush, and sets to work to collect a good supply in knot-holes and other convenient openings and settles down amongst us to spend the winter. This flashy gentleman cannot be confused with any other bird, let alone a woodpecker. The others—at least the males—all have a touch of red somewhere, but this fellow's whole head-dress right down over the neck to the shoulders is such a brilliant red that it flashes in the sunlight. Whilst amongst the other species only the males show the red tinge, the red-head's wife wears as brilliant a head-dress as her spouse.

Happy the observer so situated in the back, unsettled country who makes the acquaintance of that magnificent woodpecker, the pileated. His flashing colours of red and white, his giant size, make him an object of admiration to all who have had the good fortune to cross his lonely path.

In mentioning the species any account would be incomplete that neglected that most sociable of all his tribe, the flicker. He will not be back for several months, but then makes his presence known not merely by his large size and conspicuous colours but also by his incessant calls, for he is certainly the most noisy of all his noisy tribe. His true splendour appears only during flight. At rest his dull, mottled plumage does not compel attention, but when he flies, the bright white rump flashes forth like a signal and the gorgeous golden yellow of the underwing is unrivalled in its brilliancy by the plumage of any other bird. His Pacific representative has the true go-you-one-better character of the West. Not satisfied with the flashing yellow he has modified the underwing to a brilliant crimson.

The climbing of the woodpecker is a mystery. While other birds have three toes in front and one behind, he, in order the better to grapple the bark, has two in front and two behind, and with the sharp claws he seizes hold with a grip of steel; then with the stiff spines of his tail fitting into every sinuosity of the bark he props himself for action. We can understand with such arrangements how he can steady himself against the trunk while at rest. Newton says that for every action there is an equal and opposite reaction, and when he sits against the bark and drives home a series of rapid sledge-hammer blows of his powerful beak, an equal force tends to drive his body back from the bark; but he sits there composedly, a living contradiction of Newton and his laws of reaction. Just when the scientist has succeeded in elucidating the

magnificent perfection of his foot as an attachment organ with its two toes in front and two behind—a zygodactyl foot, if you please—nature brushes away all his conclusions by sending amongst us for a few weeks in January or February that picarian representative of the north—The Arctic Three-toed Woodpecker. While a scientist can demonstrate to a nicety that the zygodactyl foot is the proper foot for tree climbing, this yellow-crowned visitor from the north can perform all the gymnastic feats of woodpeckerdom on the side of a tree-trunk with a skill and



“ In the Winter Woods ”

precision equal to that of his southern relations, and yet as his name would indicate the inside toe turns neither forward nor backward but has disappeared altogether.

The nest of the woodpecker is a work of art and skill. He drills a hole in the side of a tree trunk and then turns down a distance of a foot or two. The vertical tube is made bottle-shaped. They tell us that Thales first introduced geometry into Greece, but long before this scholar described circles, the woodpeckers were drilling holes of such true circular form that even the wise Ionian could not surpass them. The smoothness and polish of the walls of their chamber would provoke the

admiration of the cabinet maker. All this art they perform with their wedge-like beak alone, but it must assuredly be directed by a steady eye and a clear brain.

The woodpeckers are largely insectivorous and occupy a field all to themselves. While others catch insects on the wing or pick them from the foliage, the woodpeckers dexterously dig the larvæ from their burrows in the bark and wood. Their tongue which they use for this purpose is truly a wonderful organ. It is a hard, pointed structure with lateral barbs and no arrow can shoot from its bow with greater quickness than this tongue. It pierces the burrows and impales the victims. This is the orthodox method of feeding amongst respectable conservative woodpeckers. Some will catch insects like flycatchers, all will eat fruit or nuts at times. The flicker loves the ants and drives his long slimy tongue down into their hills. The pugnacious insects attack this intruding organ and become entangled in the gluey mass when he pulls it forth covered with the entrapped victims. It is humiliating to have to admit that such a handsome friend as the red-head is guilty of the most degrading practices of all his tribe. This well-dressed aristocrat among the family is known to attack the helpless nestlings of flycatchers and other birds and devour the whole brood without a prick of conscience. The one that has departed farthest from the ordinary method of feeding is the sapsucker. Tapping the maple is an old industry in Canada, but long before Indian or White had ever extracted the sap from its wood this bird had learned the art. He will dig a series of pits into the sapwood, and as these fill will visit them regularly and lick up the watery food. He not merely extracts sap from the maple but also from many other trees. It is even stated that he has learned that most human of arts, the art of becoming intoxicated. He taps the mountain ash and the astringent juice makes him quite unsteady in the air, and he even becomes drowsy, clinging to the tree till he sleeps off his drunken spree. It is easy to see that the woodpeckers play their part in the economy of man. A single pair of the little downeys searching injurious insects from dawn till sunset during a year will go a long way to assist man in his fight against the pests. The sapsucker, while he destroys insects, injures and kills so many trees that he is a doubtful benefactor, and the cannibalistic habits of the red-head set the balance strongly against him. It is doubtful if the timber-trees could successfully withstand the ravages of the boring insects if it were not for the untiring assistance given them by our fascinating little feathered friends—the woodpeckers.

Inspector—Any abnormal children in your class, Miss Pedagog?
School Teacher—Yes; one of them has good manners.

Method of Dealing with a Play of Shakespeare

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THE important thing to be remembered in teaching a play of Shakespeare to a High School class, in the Lower School especially, is that it is to be taught and studied for its own sake. The pupil's attitude towards the play is that of the theatre-goer, who finds in it a picture of life. He is interested in the development of the plot, the appeal to the feelings, and the portrayal of character, rather than in the literary criticism of the play.

The teacher must, then, first of all, attempt to make the play real to the pupils, and in order to succeed in this he must make the play real to himself. Every teacher should, if possible, see a Shakespearean play acted by a good company. The words of the dramatist are only the framework, and the teacher must be able in imagination to take the place of each of the characters, to be carried away by his emotions, and to see how the actor must supplement the bare words of the play by actions, gestures and other expressions of feeling. Unless the teacher and the pupil alike are able to live over again the scenes of the story the play must lose much of its value for the class.

In teaching any play, from this point of view, there are a number of problems of method which present themselves, and we shall consider a few of these in turn.

I. How to Begin the Study of the Play.—Should the teacher talk to the class about Shakespeare, tell them about the history of the play, or about the town or city where the scene is placed? Emphatically, no! Boys and girls, as a rule, are not interested in critical, or historical, or biographical introductions of any kind. The important thing for them is the play itself, and the teacher will do well to begin the reading of it with as little preliminary discussion as possible.

Should the play be read through rapidly in class in whole or in part, for the sake of the story, before the actual study is begun? Such a reading does not usually bring sufficient returns for the time it takes. Besides, in the case of most plays there are difficulties at the very outset, which must be studied before the play can be properly understood. It is a question moreover, whether a preliminary reading does not to some extent take the "edge" off the pupils' interest.

Just how much of the play shall be read or how closely it shall be studied during the first reading must depend largely upon the mental attainments of the pupils and upon the difficulties which present them-

selves in the play. The following plan is suggested for a first lesson in the teaching of *Julius Caesar*:

(a) *Teacher's Preliminary Explanation*.—"To-day we begin the study of Shakespeare's *Julius Caesar*. Before beginning to read, let me write down the names of the three most important characters in the first half of the play—Caesar, Brutus, Cassius. You will also find that Casca appears frequently, but he is a minor character. The events of the first act in the play are supposed to have taken place 44 B.C. (write on black-board) shortly before the assassination of Caesar. Now let us read the first scene."

(b) *Reading Scene 1*.—Several methods may be followed in the reading, the teacher may assign to certain pupils the different parts and ask them to stand up and read, or the teacher may prefer to do the reading himself. This is generally preferable, because the teacher knows the passage and is best able to express its spirit. But what about the difficulties? Shall the teacher interrupt the reading and explain each difficulty as he comes to it? Or shall he wait until part of the scene is read and then go back to the difficulties? It is impossible to lay down any hard and fast rule, and the best teachers follow both methods according to the nature of the passage. Whatever method is followed it is best not to question on minute details, on this reading. In the Middle and Upper Schools the scene will be read a second time for the sake of the minor points of interpretation. In any case the important thing is that the teacher, either by his reading or by his questioning, or both, should make the scene vivid to the class. *The two first essentials to a successful teacher of literature are that he should use his imagination and see the scene for himself, and that he should be able to read with expression.*

II. What Kinds of Questions should be Asked?—It is important that the teacher's questions should be such as to stimulate the pupils' interest rather than deaden it. The teacher who spends the whole lesson period in questioning on meanings of words and phrases does not usually arouse much enthusiasm. On the other hand, the teacher whose questions relate entirely to the subject-matter often finds that the pupils' knowledge is very vague and inaccurate. It is impossible to give specific directions as to what form the questions should take; but at least two general principles may be laid down for the guidance of the teacher:

1. *The teacher's first aim should be to lead the pupils to understand the meaning of a passage as a whole, and to see the bearing of the thought upon the development of the play.*

2. *Questions as to meanings of words and phrases should grow out of the effort of the class to interpret the speaker's thought and feeling. If possible, the teacher should endeavour to bring out the meaning of various expressions by indirect questioning as to what the speaker wished to say,*

rather than by point-blank questions as to dictionary meanings. In following this method he will sometimes find it advisable to reverse the usual type of question, and after stating the thought, to ask the pupil to point out the phrase in which it is stated. In most cases also the teacher will find it of advantage to question on the important details first and to neglect the unimportant details. Sometimes it is advisable to ignore certain words and phrases altogether, or at least to leave them for a second reading of the passage. There are many difficulties which the teacher cannot hope to take up with Lower School classes, but in the Middle and Upper Schools the examination requirements unfortunately make it necessary to analyse difficult expressions wherever they occur.

III. What Method should be Followed in the Study of Character and Plot?—Since the chief interest of the class lies in the study of the human elements in the play, it follows that the development of character and plot should form the basis of the class-work from day to day. Some teachers leave the study of the play, as such, until they have dealt fully with the verbal difficulties; but, as we have seen, this method reduces the study of the play to a mere word-grind. When the reading of the play is finished, the only thing remaining to be done should be to gather up and group together the related details. After *Julius Caesar* is read the class should, for example, be ready, without further help, to go back and enumerate the mistakes of Brutus or trace the character of Antony throughout the play. In High School classes it is not usually necessary to examine the evidence as to the date of the play, the verse tests, the sources of the plot or the historical basis of the story. In Upper School classes after the study of the play has been completed the pupil may be directed to read what the great commentators have said regarding the characters and the plot; but in the Lower and the Middle School the study should be based entirely upon the text itself, and pupils should be led to form their own judgments.

IV. In what Way should the Play be Reviewed?—In most schools it is impossible to find time to read a play closely a second time. It is, however, worth while to have it re-read rapidly. The interest in the re-reading is generally greater if the pupils are assigned the various parts; and if it is possible for the pupils to present certain scenes in character it adds greatly both to the understanding and the interest of the play. In the Middle and Upper Schools where a detailed review must be made, the usual review methods must be employed. The teacher may give written tests, or may send pupils to the blackboard to explain the difficulties in certain passages, or he may conduct a rapid oral review. The best results are, however, obtained where the pupils themselves seriously undertake the review and present their difficulties to the teacher for explanation.

The -ing Forms in English

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IN the last number of THE SCHOOL, I notice an article on this subject. I think the use of the term "infinitive in -ing" is confusing to the student, and that the term "infinitive" ought to be reserved for those forms of the verb before which we may use "to"; such as, "to love", "to go", etc., since these forms perfectly conform to the uses of what is called "the infinitive" in other languages. It appears to me to be a mistake thus to apply a grammatical term that has for so many years been reserved for one particular use of the verb, especially as there is no need of the term, and the use of it leads to so much confusion in the mind of the student. I offer another way of treating these forms which I think meets every case which can arise.

A. Adjectival Relations.—As there are three relations in which adjectives may stand, Appositive, Predicative and Attributive; e.g., the man *good* at ball, the man is *good*, the *good* man; so there are three adjectival relations of -ing.

(1) The true present participle, which is always appositive. The man swiftly *crossing* the stream is drowned. Here the verb meaning is prominent. *Crossing* is modified by an adverb and (being transitive) governs *stream*. Its adjectival force, too, is plain, modifying *man*.

(2) *The Predicate Relation:* (a) Forming progressive tenses; the man is swiftly *crossing* the stream. There is little adjectival force. The verbal force predominates. Being transitive it governs *stream*. Its modifier is an adverb. (b) In a predicate adjectival relation; he came *running* swiftly, I saw the man *running*, he was caught *stealing*, he can shoot (things) *flying*. Here too the verb meaning is plain. Its modifier must be an adverb. If transitive it can govern. He was caught *stealing sheep*. The predicate adjectival relation too is plain. In Latin or Greek it would show by form its agreement with noun or pronoun in each case, which would make plain its adjectival force. German also uses a participle in such a position, Er kam *gelaufen*. Compare, he came exhausted, in English.

(3) *The Attributive Relation.*—The swiftly *crossing* team; the *running* stream; the *trotting* horse (i.e., the trotter) and the *running* horse (i.e., the runner) are both here. Here the verb meaning fades and the adjectival meaning predominates. The modifier must be an adverb.

B. Noun Relations.—The transition from adjective to noun is easy; hence we have noun forms from these.

(1) *The Gerund or Verbal Noun.*—The man, in swiftly *crossing* a stream, was drowned; *crossing* a stream is difficult; I fear *crossing* a stream. Compare Latin, in *petendo* pacem. Here in each case we have a full noun relation, but the verb meaning is plain, for *crossing*, if modified, must have an adverb, and if transitive may govern a case. There is too a trace of adjectival relation to *man*. We cannot say, In carelessly *crossing* the stream, the knife was lost. The mind demands some noun in the sentence for *crossing* to qualify. This to me is a proof that the original relation was adjectival, *i.e.*, the word came from a participle, not an infinitive.

(2) *Abstract Noun.*—In the swift *crossing* of the stream the man was drowned. This about equals, the man in the *passage* of the stream, etc. Farming (*i.e.*, cultivation) of land is laborious. Good farming pays, John's farming (cultivation) is good. Here in each case we have an abstract noun. The verb meaning has nearly faded out, the noun meaning is predominant. It can no longer govern. If modified it must be by an adjective or a possessive case. It may take *the* before it, and *of* after it. (Another expression is sometimes found to convey the same meaning. There is no use of *him coming*, we knew nothing of John *coming*. Compare, Latin, in *petenda* pace. These, if allowed as good English, are participles qualifying the noun or pronoun. In the early development of this construction (1) and (2) were often blended, In the *sending* reports, care should be taken. Here the abstract noun still retains its power of governing, but is qualified by an adjective, *the*.

(3) *The Common Noun.*—In some cases a further step is taken and the form in *-ing* becomes a pure common noun that can be pluralised, etc. The verb force has entirely faded out. The *crossings* are wet, these *holdings* are in the next county, we shall not take these *leavings*.

NOTE—Sometimes the expression will be ambiguous. Farming is laborious. If this means, "Cultivation is laborious", we have the abstract noun, but if it means "To farm is laborious", we have the gerund.

Teacher—If you had twenty-five children visiting you and only one apple for them, what would you do?

Little Boy—I'd wait till they went, an' then eat it myself.

"Please, teacher, ought I to be punished for something I have not done?"

"Certainly not."

"Well, then, I ought not to be punished if I have not done my sums."

Current Events

The Nobel Prize.—About fifteen years ago Alfred B. Nobel, the inventor of dynamite, left, by his will, a fortune of \$9,000,000.00 to found a series of five prizes awarded annually to those men who had achieved respectively the most important results in the fields of physics, chemistry, medicine, idealistic literature, and the promotion of international peace. Altogether some sixty-five of these prizes have been awarded, of which apparently eight have gone to English-speaking people. Some of the most familiar names recognised in the list of prize winners are Roentgen, Mme. Curie, Marconi and Professor Rutherford of McGill University. President Roosevelt was awarded the prize for his efforts in bringing to a conclusion the Russo-Japanese war.

Twice has the prize in idealistic literature been awarded to British subjects, first, some years ago, to Rudyard Kipling, and only a few days ago to Rabindranath Tagore, the beauty of whose lyric poems, which he has translated into rhythmic English with a simple and curious charm, has thus been made known for the first time to many English-speaking people. Curiously enough, both of the British poets thus recognised have drawn their inspiration from India.

The five prizes, which are awarded in December each year, consist of gifts of \$40,000.00 each and are awarded as follows: those in physics and chemistry by the Swedish Academy of Science, that in medicine by the Caroline Institute of Stockholm, that in literature by the Swedish Academy of Stockholm, and that for the promotion of peace by a committee of the Norwegian legislature.

The Making of a Republic.—The President of the Chinese Republic, like the Dictator of Mexico, has been having trouble with his parliament and has at length solved the problem after the manner of Huerta. Finding a large section of its more radical members bent on limiting his powers by law and determined to tie the hands of the executive until this was done, he forcibly expelled, a few weeks ago, some three hundred of them. Thus China, like Mexico, is practically governed, for the time being, by a dictator.

The position of Yuan Chi Kai reminds us, in some respects, of that of Oliver Cromwell. After the forced resignation of the Manchu dynasty in 1912, a step to which they were driven by the successful revolt of the republicans in Southern China, led by Sun Yat Sen, Yuan Chi Kai, who had been high in the councils of the Manchu dynasty, was recognised as leader of the constitutional party at Peking. Thus China was divided between the conservative constitutional forces of the north and the successful Republican party of the south.

There was no recognised authority anywhere. Armed risings occurred in different places, taxes were not paid and the outlook for a united China under any form of government was very dark. Foreign governments and money lenders stood aloof. In the hope of effecting a union of all China under a republican form of government Sun Yat Sen patriotically resigned his position and agreed to the election of Yuan Chi Kai as president. But the task of reconciling different ideals of government is not an easy one. It is impossible to measure accurately the merits or the unselfishness of the aims of the rival parties and their leaders. Yuan Chi Kai, having obtained generous loans from European capitalists, has been more than successful in maintaining his authority. Sun Yat Sen is in exile and his party expelled from parliament. As in Cromwell's case, there are many who suspect the new dictator of aiming at a crown for himself. At any rate he sees the present necessity of prompt and unfettered action in quelling disturbances and in satisfying foreign nations that some sort of firm and stable government has been re-established in China. The three hundred and twenty-five million inhabitants of China cannot be fitted for constitutional government in a day by any act of parliament. Those who followed with interest the progress of Christian Missions in China are much disappointed at the apparent intention of the present government to recognise once more Confucianism as the State religion of that country.

Responsible Government in Germany.—The events of the last three weeks in Southern Alsace have drawn the attention of the world to the strength to which national feeling still persists amongst the French inhabitants of Alsace-Lorraine. A very indiscreet young cavalry officer, in giving instructions to some recruits, seems to have encouraged them in very high-handed treatment of the French inhabitants. Feelings of resentment led to violence on the part of the militia which has been followed by serious rioting throughout the southern part of Alsace.

An interesting feature of the case is the manner in which the disturbances were dealt with in the German Reichstag. By a very large majority, made up largely of Socialists, the Reichstag expressed lack of confidence in the way in which the matter had been dealt with by the chancellor. Such action in our legislature would be followed by the resignation of the executive. But not so in Germany. The chancellor regards himself as responsible, not to the parliament, but to the Kaiser. He maintains that there is nothing in the constitution requiring him to resign, and that "no German statesman imbued with monarchical principle, could for a moment consider such a concession to the parliamentary idea". He would not substitute "the yoke of socialism for the harness of the Kaiser's authority".

W. E. M.

Hints for the Library

The Pitt Press Series of English Classics. Cambridge University Press, London. Three of this series have been sent us for review. Edmund Burke: *Thoughts on the Cause of the Present Discontents.* Cloth, 2s. 6d. Byron: *Childe Harold's Pilgrimage.* Cloth, 2s. 6d. Pope: *Essay on Man.* Cloth, 2s. These editions furnish readable and reliable texts of these masterpieces at a reasonable price. Each has an introduction, also excellent notes which explain involved passages and supply a commentary on the historical and literary allusions.

Cambridge Manuals. Cambridge University Press, London. Cloth, 1s., leather, 2s. 6d. There are eighty volumes in the series, covering the subjects of History and Archaeology, Economics, Literary History, Philosophy and Religion, Education, Law, Biology, Anthropology, Geology, Botany, Physics, Psychology and Industrial and Mechanical Science. One should ask for a list of titles. The two volumes we have received, *The Evolution of New Japan* and *The Fertility of the Soil* are well illustrated and exceedingly well written. These manuals constitute a good library in themselves, and should be considered when making additions to the School Library.

Bell's Sixpenny English Texts. G. Bell & Sons, London. Of this series we have received Plutarch's Lives of Caesar and Cicero, Selections from Chaucer, Macaulay's History of England (chapter 3), Poems by Lord Byron, English Elegiacs, and Poems by John Milton. The text of each is very clear and readable, and each volume contains an introduction dealing with the life and work of the author. At a very slight cost a School Library may be equipped with a large number of English Classics from this source.

Bell's Poetry Books, in seven parts. Each contains 48 pages. Price 3d. in paper covers, or in limp cloth, 4d. each. G. Bell & Sons, London. These little volumes contain a great number of standard poems carefully graded so as to be suitable for each of the classes in our schools. The range is from such poems as "Kitty and Mousie" in Part I to Gray's Elegy in Part VII. Besides being useful for class-work in each grade, they furnish varied selections for "sight" literature.

Exercises and Problems in English History, 1485-1820. W. J. R. Gibbs, Cambridge University Press. A series of extracts taken from the source books of Arber, Adams, Morse Stephens and others, each followed by pertinent questions well calculated to test the student's knowledge of these books. The aim of the scheme is to present a type of exercises which does not necessarily demand the essay form of answer and which

thereby reduces the amount of correction without sacrificing the worth of the problem. The book is one which will prove very useful to any teacher of upper school history who is making use of source books in his work.

H. G. M.

Practical Drawing, by R. M. Metcalfe, A.R.C.Sc. London, Edward Arnold. Price 2s. net. As the title implies this book is a very real and very successful attempt to present the subject of drawing in a practical way. Geometrical and technical drawing are correlated in such a manner as to give significance to both. Every problem has in view either directly or in anticipation some practical application in real affairs. It would be impossible in a brief review to give an adequate idea of the value of this work, with its chapters on instruments and their use, parallel lines, scales, circle, right angle, triangles, similar figures, tangents, simple oblique views, plans and elevations, sketching of objects, orthographic and isometric projections and simple surveying. The illustrations, of which there are very many, are excellent. The author must be both an artist and a practical engineer to produce a work of such worth.

A. N. S.

The Drafting Room Series, by Frederick H. Evans, M.E. Manual Arts Press. Price complete with cards, \$2.00. This is a work in three parts: Part I, Reading Machine Drawings, consists of twenty pages. This is a work for beginners designed to teach the reading of drawings. Part II, Machine Drafting, containing 48 pages, deals very fully with the following: "The Drafting Room", "Detailing", "The Instruments", "Rough Sketch", "Blocking Out", "Finished Drawing", "Tracing" and "Geometrical Construction". Part III, Interference of Moving Parts and Tooth Gears, contains 40 pages. The subjects treated are "Interference of Moving Parts", "Transmission of Motion by Moving Contact", "Tooth Gears" and the "General Principles of Conjugate Curves". It gives problems dealing with all the phases of tooth gears. Accompanying these three pamphlets are 54 cards, containing problems, with suggestions for the correct method of working out. All are contained in a neat filing box, the lid of which may be used as an easel to hold the card when in use by the student. The author is a practical draftsman, engineer and teacher and has produced a work worthy of the attention of every teacher of machine drafting.

A. N. S.

Salamis. An adaptation of part of Herodotus in easy Attic Greek, by G. M. Edwards, M.A., Fellow of Sidney-Sussex College, Cambridge. Cambridge University Press, 1913. Pp. 78. Price 1s. 6d. This little book presents some admirable material for sight reading in first or second year Greek classes. The re-written text is mainly Attic and the subject-matter is varied and interesting.

J. O. C.

Notes and News

Readers are requested to co-operate with the Editorial Staff by sending in news items suitable for this section.

Mr. J. M. Fleury has been appointed Provisional Inspector of Bilingual Schools in New Ontario, succeeding Mr. Henri St. Jacques, who has resigned to study law.

Mr. F. A. Stuart has resigned his position as science master in London Collegiate Institute.

Mr. C. C. Roe of Georgetown has been elected president of the Halton County Teachers' Association.

THE SCHOOL records with pleasure the gallant act of Principal Patterson of Delorimier School, Montreal, in saving one of his pupils from drowning at considerable personal risk.

The citizens of Niagara Falls have shown their appreciation of the work of Miss Margaret Henderson by presenting her with a purse of \$400 on the completion of fifty years' service as a school teacher.

Miss Eleanor Nugent, B.A., one of last year's graduates of the Faculty of Education, Toronto, has been appointed to the staff of Cornwall High School.

Miss Sidney W. Nichol, M.A., Toronto, has become an assistant in the Orillia Collegiate Institute.

Mr. R. A. Hutchison, B.A., Inspector of North Ontario, has been transferred to the Inspectorate of South Ontario, *vice* Mr. R. H. Walks, B.A., who has been appointed to the staff of the Toronto Normal School. The inspectorate of North Ontario has been filled by the appointment of T. R. Ferguson, M.A., the headmaster of Uxbridge High School.

It is interesting to note that London Public School principals favour the abolition of the High School Entrance Examination, while Principal Rogers and practically the entire staff of the Collegiate Institute take the opposite view.

The trustees of the Ayr Continuation School propose starting a course in agriculture under the supervision of a competent specialist. This is the initial step in this direction in the province.

At a recent meeting of the Advisory Industrial Committee of the Toronto Board of Education a motion was carried advocating an appeal to the Legislature for an eight-hour working day for children, it being stated that many children of fourteen worked more than ten hours a day and then attended night school.

One of the latest Oxford movements is an association to encourage the campaign for the speaking and writing of pure English, which has been started by Robert Bridges, the Poet Laureate.

Mr. W. J. Feasby, B.A., has been appointed Principal of Collingwood Collegiate Institute.

Mr. James R. Howie, formerly of Tavistock, has been appointed to the staff of the Ottawa Collegiate Institute. The increased attendance has made additions to this staff necessary.

Mr. Lorne J. Williams, B.A., formerly Principal of Oakville High School, has been appointed Principal of the High School in Medicine Hat, in succession to Mr. M. E. Lazerte, M.A., recently appointed Inspector of Schools of Bassano.

Miss E. M. Macdonald, B.A., formerly of Bothwell, is now Principal of Chesterville High School.

Mr. W. Bellamy, B.A., formerly Principal of Colborne High School, has been appointed to the same position in Oakville High School.

Mr. Alex. Pearson, B.A., Principal of Dundas High School, has accepted the Principalship of Weston High School.

Mr. Geo. E. Pentland, B.A., of Waterford will teach Mathematics in Weston High School this year.

Mr. F. W. Aylesworth, formerly of Chatham, has been appointed Principal of one of the Public Schools in Port Arthur.

Miss E. Josephine Redmond, B.A., of Queen's '12, is teaching History and French in Warkworth Continuation School.

Mr. A. R. Girdwood, B.A., of St. Catharines Collegiate Institute, has accepted the principalship of the High School in Camrose, Alta.

Miss Hilda Bruce, formerly of Aurora, a graduate of the Faculty of Education, Toronto, is teaching in the Central Public School, Ingersoll.

The Educational Banquet given by the Moose Jaw Schools on November 21st was a great success. Nearly 300 were present. Superintendent Sifton did the work of organisation. Among the speakers were Principals J. K. Colling, B.A., and W. T. Cunningham of the Collegiate and Public School respectively; Inspector Hawkings, B.A., Librarian A. H. Gibbard, B.A., Mayor Pascoe and several of the teachers and trustees. A function like this must do great service in bringing to the educational interests of a community the recognition which is their due.

The Berlin Board of Education has made an advance in salaries for 1914. Principal Carmichael will receive \$1,500, four principals of ward schools \$1,100 each, and the schedule for lady teachers will be \$550 to \$750. The Board has also secured two sites of three acres each for new schools.

In connection with the advertisement of the Berlin Photographic Company in our December issue, the word "copyright" under the illustration was inadvertently omitted. The illustration used was the "Vicar of Wakefield" by Dicksee, and the copyright is held by the firm mentioned.

The following works, published by Isaac Pitman & Sons, 2 West 45th Street, New York, have been officially adopted for use in the Day and Evening High Schools of New York City for 1914: Taquigrafia Espanola de Isaac Pitman (list No. 7618); Clave de la Taquigrafia Espanola de Isaac Pitman (No. 7619); Marsh's Elementary German Commercial Correspondence (No. 7574); and Pitman's German Commercial Reader (No. 7579).

Mr. T. C. Tice, formerly Principal of Napanee Model Schools, is now Supervising Principal of Oshawa Public Schools.

Among a large number of schools adopting the Isaac Pitman Shorthand may be mentioned the well-known McGill University of Montreal, Canada.

Miss Margaret E. McNab has been appointed to the staff of Blyth Continuation School.

It is the purpose of the editors of this journal to have as a frontispiece each month a masterpiece of a Canadian artist accompanied by a brief appreciative sketch. Teachers would do well to preserve these for picture study in their art classes. The first of the series is "The Coming of the White Man", by G. A. Reid, R.C.A., Principal of the Ontario College of Art.

Many of the principals of smaller high schools and collegiate institutes have recently taken positions as masters in the larger schools. The mathematical department of London Collegiate Institute is now in charge of two ex-presidents of the high school principals' section of the O.E.A., S. Martin, B.A., formerly Principal of St. Mary's C.I., and J. Elliott, B.A., formerly Principal of Bowmanville H.S.

County School Inspector Ballard, lecturing before the Child Study Society at London, expressed his belief that interference with natural left-handedness is likely to cause stammering.

The ever-increasing demand for technical education is shown by the fact that at Hull, England, a school for the purpose of training men for the fishing industry has been built. Instruction is given in navigation and seamanship as well as in the other branches of the work.

Graduates and undergraduates of the Faculty of Applied Science and Engineering, University of Toronto, held a dinner on December 5th, to celebrate the fiftieth anniversary of Dean Galbraith's entrance to the university and the thirty-fifth anniversary of his founding of the School of Practical Science.

That the O. C. A. is giving ample justification for its reorganisation and governmental assistance was quite manifest to the visitors at its first commencement on December the fifth. In fitting words Principal Reid referred to the aims of the College and the success already attendant upon its efforts. Dr. Loudon, chairman of the College Council,

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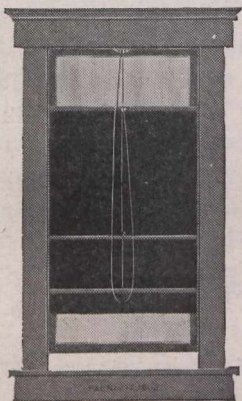
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spoke of the uncertain public support accorded to former institutions from 1876 to the incorporation of the present college in 1912 for "the training of students in the Fine Arts, and in all branches of the Applied Arts in the more artistic trades and manufactures", with substantial government support. Sir Edmund Walker, after citing the earlier efforts made in Toronto in 1834 and again in 1847 and 1848, compared the progress made in art by Canada with that made by the United States at a similar period of their history, much to the advantage of the former. The aims of the National Gallery at Ottawa were explained and future plans stated regarding the art collection at "The Grange" and the opening of the Bloor Street Museum in February. An interesting part of the afternoon's programme was the distribution of scholarships, prizes and certificates to successful students.

Nebraska is responsible for a new departure in prison reform. Convicts in the State penitentiary are to be permitted to enrol as students in a correspondence course given by the University of Nebraska. The course is calculated to make the men better satisfied while in prison and to assist them materially in securing positions when released.

Those interested in child-welfare work will be pleased to note that Dr. Struthers reports very satisfactory results from the past year's work at the Forest School at Victoria Park, Toronto.

Two strong present-day tendencies in education are emphasised by the fact that the use of public schools as social centres and the more efficient physical training of the pupils are two outstanding planks in the platform of a candidate for the Toronto Board of Education.

A resolution has been passed unanimously in the Saskatchewan Legislature, requesting the Dominion Government to transfer the control of the school lands of the Province to the Provincial Government.

At the meeting of the Protestant Committee of the Council of Public Instruction of Quebec, the Provincial Treasurer announced that the Government would make a grant of \$6,000 for the purpose of consolidating rural schools and the conveyance of children to the establishments.

Miss Violet E. Stevens, a recent graduate of the Faculty of Education, University of Toronto, is teaching science in Wheatley Continuation School.

Miss Lula M. Philp, B.A., of Alma Ladies' College, has been appointed to the staff of the Berlin Collegiate and Technical Institute.

Miss Blanche Hales of Hampton has been appointed to the staff of Millbrook Public School as teacher of primary work.

Miss Lottie E. Hainer of Aurora will teach Latin, French and English in Norwich Continuation School this year.

Miss Kathleen Cowan, B.A., of Napanee will teach Classics and Ancient History in Barrie Collegiate Institute this year.



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NOVA SCOTIA

The regular course of the Agricultural College at Truro opened November 4th. About 100 are in attendance.

L. A. DeWolfe, of the Provincial Normal College, has been appointed Director of Rural Science Schools for Nova Scotia. He still remains on the staff of the Normal College, but his Rural Science work is under the Department of Education. The expense of this work, however, is borne by the Department of Agriculture.

Inspector H. H. McIntosh of Lunenburg held a very successful Teachers' Institute at Caledonia, Queens County, November 6th and 7th. Those present had the opportunity of observing good lessons well taught, and of hearing intelligent discussion on methods adapted to rural schools.

Inspector E. Robinson of Canning and W. R. Campbell of Truro held a joint Institute at Stewiacke, November 27th and 28th. Here, too, teaching model lessons was the strong feature.

The Agricultural Societies of Halifax County have voted a good sum of money to offer as prizes at the County Fair next autumn. These prizes go to the school children or children's clubs for vegetables and flowers they may grow in their own gardens.

One kid story leads on to another. A Cleveland school teacher—one who has at several periods in the sweet-scented past favoured us with anecdotes about her pupils—sends us an account of a quiz conducted in her geography class only a day or two ago, says the Cleveland Plain Dealer.

"In what zone do we live?" asked this teacher.

"The temp'rut zone!" chanted the well-drilled class.

"Right. And what do we mean by 'temperate'? Willie, you may answer."

"Temp'rut is where it's freezin' cold half the time an' roastin' hot the other half the time."

If Willie wasn't sent to the head for that it wasn't because he didn't deserve the honour.

Willie—Say, pa, didn't you tell me the other day that it was wrong to strike any one smaller than yourself?

Pa—Yes, Willie, that's what I said.

Willie—Well, I wish you'd write my teacher a note to that effect. I don't think she knows about it.—*Philadelphia Ledger*.

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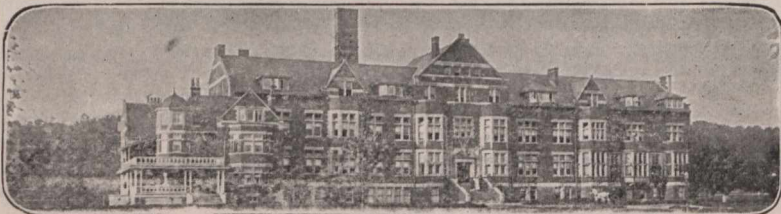
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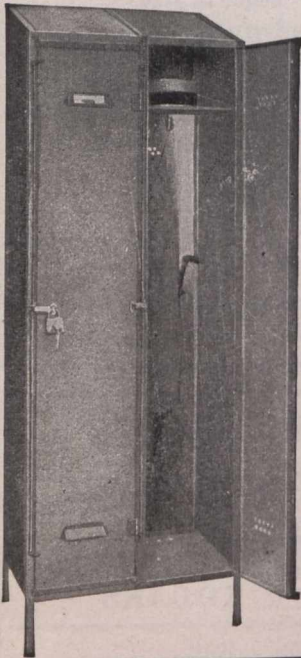
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A Manual of Suggestions for Teachers of Science, 50 cents
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A Manual of English Composition, 15 cents

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The manuals named in lists (1) have already been distributed amongst the schools.

The manuals named in lists (2) and (3) will be distributed as soon as they are published.

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The teacher himself may use any book, pamphlet, or magazine he wishes in preparing the lesson for his class; but he has no authority to use as text-books in his class-teaching any other publications than those whose use is authorized in the text-book circular, No. 14, or which are listed in the catalogue of the school library with the approval of the Inspector. Nor can Notes on History, Geography, etc., School Helps, School and Home, or similar publications be used by his pupils in their work at school; and neither the teacher nor the Board has any authority to require or induce pupils to buy any of such prohibited books, pamphlets, magazines, Notes, School Helps, School and Home, or other similar publications.

DEPARTMENT OF EDUCATION, July, 1913.

Ontario Department of Education

Teaching Days for 1914

High, Continuation, Public and Separate Schools have the following number of teaching days in 1914:

DATES OF OPENING AND CLOSING

Open.....5rd January Close..... 9th April
 Reopen.....20th April Close.....29th June
 Reopen.....1st September Close.....22nd December

January.....	20	July.....	
February.....	20	August.....	
March.....	22	September.....	21
April.....	16	October.....	22
May.....	20	November.....	21
June.....	20	December.....	16
	<hr/>		<hr/>
	118		80
		Total.....	198

NOTE—Christmas and New Year's holidays (23rd December, 1914, to 3rd January, 1915, inclusive), Easter holidays (10th April to 19th April, inclusive), Midsummer holidays (from 30th June to 31st August, inclusive); all Saturdays and Local Municipal Holidays, Dominion or Provincial Public Fast or Thanksgiving Days, Labour Day [1st Monday (7th) of Sept.], Victoria Day, the anniversary of Queen Victoria's Birthday (Monday, 25th May), and the King's Birthday (Wednesday, 3rd June), are holidays in the High, 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 1914, except any Public Fast or Thanksgiving Day, or Local Municipal holiday. Neither Arbor Day nor Empire Day is a holiday.



The Royal Military College of Canada.

THERE are few national institutions of more value and interest to the country than the Royal Military College of Canada. Notwithstanding this, its object and the work it is accomplishing are not sufficiently understood by the general public.

The College is a Government institution, designed primarily for the purpose of giving instruction in all branches of military science to cadets and officers of the Canadian Militia. In fact it corresponds to Woolwich and Sandhurst.

The Commandant and military instructors are all officers on the active list of the Imperial army, lent for the purpose, and there is in addition a complete staff of professors for the civil subjects which form such an important part of the College course. Medical attendance is also provided.

Whilst the College is organized on a strictly military basis the cadets receive a practical and scientific training in subjects essential to a sound modern education.

The course includes a thorough grounding in Mathematics, Civil Engineering, Surveying, Physics, Chemistry, French and English.

The strict discipline maintained at the College is one of the most valuable features of the course, and, in addition, the constant practice of gymnastics, drills and outdoor exercises of all kinds ensures health and excellent physical condition.

Commissions in all branches of the Imperial service and Canadian Permanent Force are offered annually.

The diploma of graduation is considered by the authorities conducting the examinations for Dominion Land Surveyor to be equivalent to a university degree, and by the Regulations of the Law Society of Ontario it obtains the same exemptions as a B.A. degree.

The length of the course is three years, in three terms of 9½ months each.

The total cost of the course, including board, uniform, instructional material, and all extras, is about \$800.

The annual competitive examination for admission to the College takes place in May of each year, at the headquarters of the several military districts.

For full particulars regarding this examination and for any other information, application should be made to the Secretary of the Militia Council, Ottawa, Ont.; or to the Commandant, Royal Military College, Kingston, Ont.

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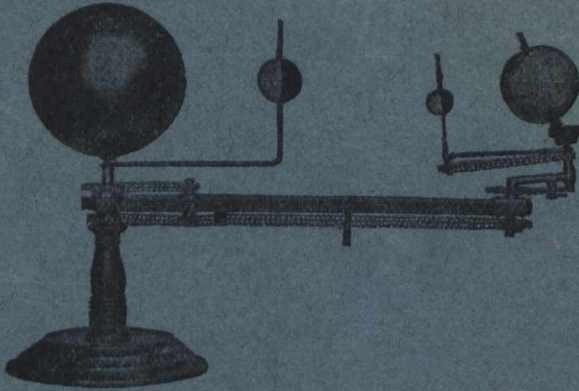
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