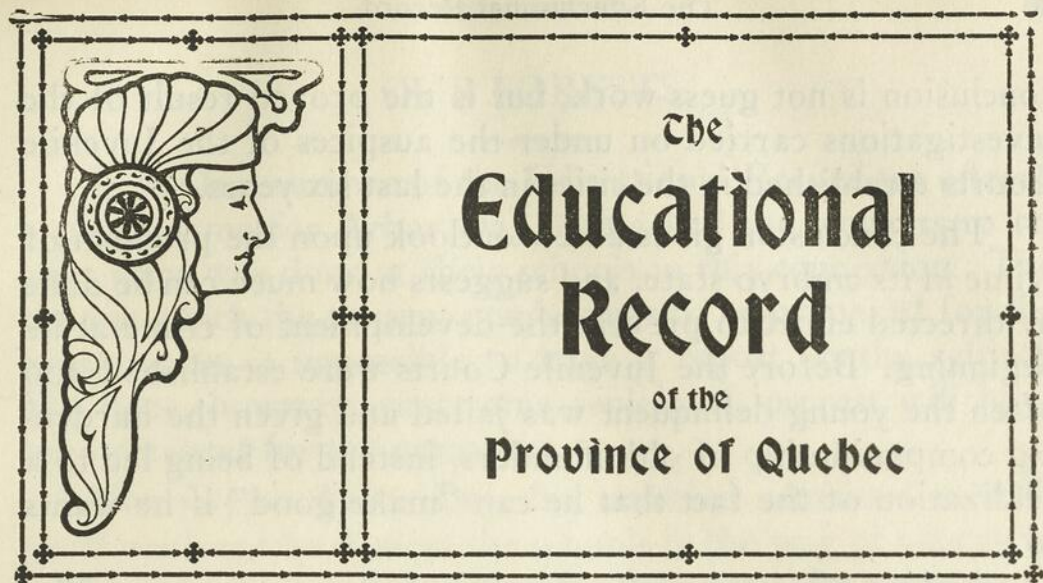




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EDITORIAL NOTES AND COMMENTS:

MEDICAL INSPECTION OF SCHOOLS.

Mr. John Bradford, the Community Secretary of the Montreal Y. M. C. A. gave a remarkable address at Quebec recently on the question of juvenile delinquency, and on the new methods of dealing with that question. Mr. Bradford is not only an indefatigable worker in this field, but a believer in scientific habits of thought, and his presentation of the subject was most interesting. He dealt with its various features very thoroughly and showed how the new social conditions in Canada, as compared with half a century ago and more, were throwing the boy of the towns particularly, more and more upon the street for his amusement, with the consequence of developing a tendency towards wrong amusement. The boy often becomes a thief, simply because, for lack of playgrounds or other interests, he has to find some outlet for his superfluous energy and boyish ingenuity. This

NOTE TO TEACHERS — To interest the senior pupils and provide them with profitable reading a few pages of interesting selections and original items will appear in each issue of the RECORD. Please call the pupils' attention to these pages and ask them to read such parts as they prefer.—EDITORS.

conclusion is not guess-work, but is the proved result of the investigations carried on under the auspices of the Juvenile Courts established in the cities in the last six years.

The conclusion gives a new outlook upon the problem of crime in its embryo state, and suggests how much can be done by directed effort to prevent the development of crime at its beginning. Before the Juvenile Courts were established, too often the young delinquent was jailed and given the hardening companionship of old offenders, instead of being led to a realization of the fact that he can "make good" if he wants to.

And we were especially struck with the statement of Mr. Bradford that in nearly all cases where boys go wrong at school and afterwards, the statistics show that some physical defect, unsuspected by the parents, is at the bottom of it. Defective eyesight, adenoids, or enlarged tonsils were responsible for a "stupidity" or for a "stubbornness" that worried the teacher and tried her patience. Mr. Bradford gave a striking instance of this. A boy who proved incorrigible at school was at last sent to a House of Industry for stealing. Here, too, he proved incorrigible at his lessons. The director investigated, and found that the lad could not see a large picture on the wall, or rather could not tell what it was. He took him to an oculist for examination. The oculist declared that in another month the boy would have become totally blind. Yet the fact had never been suspected by his parents or teacher.

The need of medical inspection for the schools, indeed, can hardly be doubted. It is needed in many ways, not only for the health of the pupils, who have special troubles, but for the prevention of epidemics and for the instruction in hygienic principles which it inculcates. In many communities the question has only to be mooted to secure the friendly co-operation of the members of the medical profession, who frequently give their services without remuneration.

OUR FORESTS.

In the last number of the Educational Record we offered a programme for Arbor Day, and asked the teachers to report what was done at their schools in this connection. The time at which the present number has to be prepared for the press makes it impossible to have a report on the subject. We hope, however, that some replies of interest will have been received for the next issue.

Not only on Arbor Day, but on other occasions as well, good work can be done in the schools in the way of educating public opinion as to the value of our forests. As a matter of fact, in this province of Quebec the forests are our greatest asset, not only in themselves as a source of general wealth, but as the means of preserving other sources of wealth. Our mines are growing in importance. Only a few years ago we produced about \$3,000,000 worth of minerals annually, and now we are producing over \$12,000,000. This production is undoubtedly going to increase, but it is a small matter compared with the value of the forests. The minerals taken out of the earth, too, are taken out for good. They are not reproduced. They are used up. The original capital is steadily diminished. In the case of the forests, however, the wealth is continually reproducing itself, provided that it is properly used and not abused. That is to say, we can preserve this wealth indefinitely provided that we take steps everywhere to prevent the ravages of fire, and to prevent that other serious ravage—the greed which slashes the forest down for present profit, regardless of the scientific principles which make for continual reproduction.

Then the preservation of as much forest as possible in our agricultural districts means a great deal to the farmer and to the manufacturer of the towns in the agricultural districts. The forests serve to hold back the reserves of water in the spring. These reserves help to keep the pastures moist in the summer months; they serve to make the flow of the rivers more even throughout the year and thus afford a steady water power for the manufacturer.

On such rivers as the St. Francis in the Eastern Townships, the spring floods have been much more violent in the last forty years than they were sixty and seventy years ago. That is because the country was so much cleared up in the meantime. As a consequence, also, the volume of water in the summer months is much less than it used to be. It is carried off with a rush in the spring, instead of being held back by the thick forests of the early days, when it was fed gradually to the brooks which empty into the river. Many of these brooks, indeed, now become dry or almost dry in the summer.

Facts of this character can always interest the pupils, and they are of distinct value for their future grasp of an important problem.

THE SCHOOL BOARD SECTION.

At the meeting of the Provincial Teachers' Association at Sherbrooke last Autumn there was formed a special section, representing the Protestant School Boards of the Province. Quite a number of Commissioners, Trustees and Secretary-Treasurers were present, and it is hoped that a still larger number will meet this year at Quebec.

The movement is an important one. It is well for the school boards to get the teachers' point of view, and it is well also for the teachers to get the school boards' point of view on many subjects. It is well, too, that the school boards should meet one another from time to time to discuss questions of mutual interest. The matter of consolidation, for instance, is one upon which an exchange of views would be beneficial, even although the conditions differ so much between one municipality and another. It is always a local problem in this sense that the arrangements for consolidation should always be made after a careful consideration of the proper site. But it is a problem which is general in the sense that every large municipality has a certain number of small schools which should be closed and united with others. Discussion could hardly fail to bring out some helpful points.

This Article is by Miss Mabel L. Keech, of Philadelphia, who has had nine years' experience in teaching child house-keeping, or Kitchengarden, as it is being more commonly called. She is the author of a text book, "Training the Little Homemaker by Kitchengarden Methods" (published by Lippincott Co.)—*Editor Educational Record*.

WHY NEGLECT THIS IMPORTANT PHASE OF SCHOOL TRAINING?

The teaching of house-keeping in public schools is a much discussed subject in our country, and its importance is being more and more realized, with the prospect that it will soon become a part of the school-girl's program. Domestic Science includes very little outside of cooking, and the necessity of a preparatory course is being keenly felt.

An argument to discourage this forward step is occasionally given to this effect, that the home itself should be sufficient for such teaching, and that to introduce it into the school would cause indifference to parental duty. It is true that mothers should work with their little daughters in the home and encourage them to do the pleasant, small tasks while they are young, thus creating a homelike atmosphere, but many mothers cannot, others will not, and still others are not capable. Among the first class are those whose other home ties, such as caring for aged parents, or earning the living for the family, prevent proper overseeing of the child's work. In the second, are those who have not a large portion of patience, and who would rather do the work themselves than be hindered by a child; also those who leave all their work to servants, thinking themselves and their children above such menial service, or preferring to indulge in a constant whirl of social life. Scarcely less to be pitied are those who have been robbed of comforts because of poverty, and who are ignorant and careless because they have never had a home to care for except a furnished attic or basement room in a tenement house.

It stands to reason that girls who are handicapped by such conditions in the home, should have the instruction in school. Instead of parents feeling relieved of the responsibility and becoming more careless, their interest will be awakened by the enthusiasm of the girl over her school training, and they themselves will be incited to be more painstaking. Those mothers who are ideal in their home life surely will not object to their girls having an extra hour a week of house-keeping in school. Imagine the influence in the home when an eleven-year-old girl arrives, anxious to perform some duty which before has been disagreeable to her, but now has its charms because it has been presented to her in a delightful manner at school; the mother is amazed, and relieved that she can trust her daughter with these particular duties, the older brothers and sisters are proud and pleased, and the father is ready with his words of encouragement.

Did you ever see a girl clap her hands in glee because she is to be allowed to scrub the floor? She will do this in a classroom, and if the teacher grasps her opportunity by expressing her pleasure at the pupil's diligence, and at the results obtained, also by persuading her that the work at home can be as full of joy if done in the right way, the girl will go to her home with the desire to please, and with the spirit of helpfulness.

In the grammar grades a class begins its course in Domestic Science, which is one of the most important studies in the industrial line, because of this direct bearing upon the health of the community. The instructor is constantly hindered because many of the girls have not had their ideas of neatness, system, and care, sufficiently developed. If this class could have at least one year of house-keeping aside from cooking, before entering upon this special course, a better grade of work would be done and more general satisfaction experienced. The care of the kitchen, including neat dishwashing, cleaning cupboards and keeping them orderly, scrubbing tables, keeping floor swept and stove clean, these lessons carefully learned before those in cooking begun, would be invaluable in the Domestic Science class-room.

Table-setting and serving are no less important, as every complete Domestic Science course does not neglect this part. Even washing, ironing, and bed-making are closely related, as they cultivate a desire for all-around tidiness.

Would not a class in the branches mentioned, conducted in a manner attractive to younger girls, by using toys of a large size for equipment, and songs to intersperse the lessons, be valuable as a course preparatory to the cook-school? The fact must also be taken into consideration that some pupils leave school before reaching the grade for Domestic Science, and thus are entirely deprived of this line of training. A class in general house-work can be introduced into intermediate grades, in order that they may learn the fundamental rules of housekeeping.

The economic and health values of such a course must not be overlooked. No way of teaching a child respect for the furnishings of a home, that she may not mar nor waste them, is more impressive than that of having a share in the care of them. And any girl of eight or ten can be made to understand that dirt and filth around the house are not companions of good health. The coming generations of mothers, of the poor, rich, and middle classes, will be more efficient housewives, more cheerful home-makers; yes, even the divorce problem will in a measure be settled, when more principles of housekeeping are instilled in the hearts and minds of all our young girls of today.

MABEL L. KEECH,

Author of "Training the Little Home Maker."

THE SCHOOL GARDEN.

The chief purpose of the school garden is educational. It is not intended to develop technical skill, or to make gardeners. This latter result can easily follow, when the work is well done, and when the pupil has special aptitude. But the main purpose is to give a taste for rural life and rural occupations, and to stimulate habits of observation. A writer

has recently said, with some exaggeration perhaps but with a certain degree of truth, that there is no use trying to prevent the country boy from going to the city; the effort should be expended in getting the city boy on to the farm. There is this much of truth in the statement, at any rate, that the city boy can be aroused to an interest in country life more readily than the country boy. The green fields appeal to him as poetry, while the country boy too often is tired of them.

The trouble lies in the fact that farm life is too often a drudgery, unrelieved by intelligent interests. And it is just here that the Country School, if it is properly organized, can step in and do great work. If its work is rightly directed, it can make rural life and rural work far more interesting, and therefore more attractive to the country boy and the country girl.

Here in the province of Quebec we are hoping and struggling to do something effective in this direction. We want to have our larger elementary schools, our model schools, our consolidated schools, and our country academies to become more and more true centres of sound agricultural instruction, and the means of creating and developing a genuine love for the work of the farm.

Such schools exist all over little Denmark, and have done wonders for that country. Fifty years ago it was the poorest country in Europe, and to-day it is the second richest. Its exports of butter have grown from almost nothing to over \$55,000,000.00 a year. In less than twenty years it has developed an export bacon trade of over thirty-five million dollars a year. These and other achievements are due wholly to the splendid rural schools of Denmark. The soil of that country is no better in general than that of our Eastern Townships. Ireland in the last twenty years has the same story to tell as the result of agricultural instruction. New Zealand is progressing in the same way, and for the same reason, and New Zealand is shipping butter to Canada. In several of the Western States, such as Wisconsin, there is also great progress in rural education.

But here in the older provinces of Canada, at any rate, we are not making the progress we should in this direction.

Even in Ontario it is found up-hill work to interest the people generally in rural schools fully adapted to rural needs.

This it is which makes the School Garden important. By means of it something can be done to show the practical importance of modern science in farming. If it is successfully conducted it is the object lesson for the whole community, as well as a direct benefit to the pupils.

The teacher who has been trained at Macdonald College, therefore, in this work has the opportunity of doing missionary work of a high order, by making a success of the school garden. It is worth the trouble, and the discouragements which will be met with for some time. Wherever, then, there is suitable ground for the plots, let something be done, if it is only of a pioneer character. If the teacher has thought out a definite plan, there is generally some one member of the school board who will support the undertaking. As a matter of fact there is far more readiness now than there was even a very few years ago to give some consideration both to the question of school gardens and to that of agricultural instruction, and the competent teacher can lead the way. Take the school garden question up with courage and energy!

Even the teacher who has not had the advantage of special training, but who has love and aptitude for the work, may accomplish much. To such we would commend the following simple principles by way of guidance.

Assuming that there is any choice in the matter, select the best part of the school ground for the purpose, facing south of possible.

Have some kind of protection around the garden, to indicate that it is for a purpose.

Have the whole garden properly dug and prepared in the spring. Then divide it into plots of suitable size—one for each pupil. For young children a small plot—say 6 feet by 3 feet—is ample. The older pupils might have them considerably larger.

Allow considerable freedom to the pupils in the choice of flowers and vegetables, but in most cases they will desire the direction of the teacher in this matter.

Inculcate the principles of neatness, cleanliness, order and method, in the operations of the garden.

The lessons in gardening should be taken as the last lesson on one or two afternoons each week.

Procure a good manual on agriculture and nature study, in order that interesting lessons may be drawn from the progress of the garden work.

When in doubt on any practical matter, write to the Experimental Farm, Ottawa, or to Macdonald College. Indeed, one of the elementary but important things to be learned in connection with such work is the fact that expert advice can be obtained at all times, free of charge, from such institutions.

PHYSICAL GEOGRAPHY OF THE PROVINCE OF QUEBEC.

The first paper appeared in the issue for January, February and March, 1914. Teachers are advised to preserve the numbers for future reference.

(SECOND PAPER)

To properly grasp the physical features of the Province, and to classify them, it is necessary to have a clear idea of the facts of its general geography. In 1912, our province was greatly enlarged by the addition of the territory long known by the Indian name of Ungava, and which is now officially termed New Quebec.

In the lower right hand corner of the maps of the province now supplied to the schools, there is a smaller map showing the complete boundaries. This should be carefully studied by every teacher. The deep shading along the Labrador Coast has a special significance. It means that that long narrow strip of land is claimed by Newfoundland. But our province extends on the north and west to the shores of Ungava Bay, Hudson's Straits, Hudson's Bay and James' Bay. It is between latitude 45° to $62^{\circ} 40'$ (approx.) north, and longitude $57^{\circ} 7'$ to $79^{\circ} 33' 20''$ west. Previously to 1912 the area of the province was 351,873 square miles; it

is now the largest province in the Dominion of Canada; and double as large as France and the British Isles together. It is now the largest province in the Dominion of Canada; and as the area of the whole Dominion is given in the Census tables of 1911 as 3,729,665 square miles of land and water, that of the province of Quebec is nearly one-fifth of the total.

Next to a careful study of the map, a grasp of the main periods of geological history is important. These periods are sometimes classified with more detail, showing the different formations of which the periods are composed, but the chief principle to be borne in mind is that every table shows the order of succession in which the several periods occurred. The oldest rocks are at the bottom of the table, and the newest at the top, and the relative positions, in time, of the others are defined by their positions in the list.

The following table will be sufficient for our purposes at present.

Quaternary or Anthropozoic	{	Modern and Prehistoric Pleistocene—Ice Age.
Tertiary or Cainozoic	{	Pliocene Miocene Eocene
Secondary or Mesozoic	{	Cretaceous Jurassic Triassic
Primary or Palaeozoic	{	Permian Carboniferous Erian or Devonian Silurian Ordovician (Siluro-Cambrian) Cambrian
Archaean or Eozoic	{	Pre-Cambrian

Some of these terms look formidable to the beginner, but they convey clear meanings. Cainozoic, for instance, is made up of two Greek words which compounded together mean 'recent forms of animal life.' Palaeozoic means ancient forms of animal life, and Mesozoic conveys the fact that the rocks of that era contain the fossils of animals intermediate between the more ancient and the more recent. So, also, Eocene means the dawn of the recent. Carboniferous is the coal-bearing period; the Cretaceous is the chalk period, and such names as Silurian and Cambrian are purely local in origin, serving, in these two cases, to commemorate the fact that the rocks of those periods were first studied in Wales.

One of the first puzzles in this science is the fact that the geologist does and does not measure geological time in millions of years. To the beginner he seems so provokingly indefinite and inconsistent on that point. He wants you to think in millions of years, so to speak, but at the same time not to suppose that specified millions can be relied upon with any certainty. To convey a perfectly true impression he says sometimes that such and such a series of rocks, several hundreds of feet in thickness, must have required at least fifteen millions of years for their deposition on the bed of the ocean, but when you wish to nail him down to those figures as exact, he refuses to be so bound, and that is because he is perfectly honest. He is justified in making large drafts upon Father Time in these estimates, as he has several clear measures of time to guide him, but the conclusions are never absolute. One of these is the rate at which similar deposits are being formed to-day, and another is the vast lapse of time required for the changes in animal, and sometimes vegetable, life which are recorded by the fossils from the bottom to the top of the series. Then, too, he knows that in any given area there are great gaps in the geological record, due principally to the elevation of the sea floor into dry land.

"Where now the long street roars hath been
The stillness of the central sea."

—*In Memoriam.*

One of the grand truths of geology, indeed, when it is properly understood, is the principle of the imperfection of the geological record. In no part of the world is the geological record found complete in the sense that every age is represented in perfect succession in one place. Here in the province of Quebec, the great gap—of millions of years—extends from Palaeozoic times down to Pleistocene times. As we shall see later in these papers, a great part of the record in the lowland areas was swept away by denuding processes long ages ago, and also much of the highland area was probably long above the sea, and so did not receive the later deposits. Our geology is concerned chiefly with the very old and the very oldest rocks, and then with one of the very latest periods of geological time—the Ice Age. A careful study of these periods will help to a grasp of the larger features, and the minor but still important and interesting details, of the physical geography of the province.

But first of all, referring again to the small map of the large school map, let us observe that the province is doubly peninsular—the larger peninsula which takes in the area north of the St. Lawrence, and the small peninsula composed of the counties of Gaspé and Bonaventure. The latter is called the Gaspé Peninsula, and the former, in its eastern portion at least, is generally called the Labrador Peninsula. These definitions will be convenient for future reference, but there is another classification of the area of the province, used by the officers of the Dominion Geological Survey, which is more important still as it denotes distinct differences of geological structure and geological history. There is geological variety, of course, within each of these regions, but their main physiographical and geological characters make the classification a natural as opposed to an artificial one. The whole province, then, can be divided into three distinct parts, whose limits should be very carefully traced on the map. These are:

- I. The Laurentian Highlands.
- II. The Appalachian Highlands.
- III. Lawrencian Lowlands.

Note the difference in spelling between Laurentian in the first group, and Lawrencian in the third. This difference denotes plainly that the first comprises the area to the north connected with the Laurentian mountains, and that the third is the large lowland area on both sides of the St. Lawrence river which begins to widen out from the city of Quebec and becomes a very considerable plain as it approaches Montreal. The Appalachian highlands begin with the hills and mountains of the Eastern Townships and extend down the south side of the St. Lawrence to Gaspé. These three divisions of the area of the province are not, we repeat, artificial or arbitrary, but based upon distinct differences of geological structure and geological history. Their general limits will be recognized at once by anyone who has travelled in the province, but their more exact limits will be given in the special descriptions. Two of the areas are essentially hilly or mountainous; the third is a plain, but it, too, is broken by a series of eight isolated hills or mountains known as the Monteregian Hills, the study of which will prove interesting and instructive. The writer here wishes to acknowledge his indebtedness to the many reports of the Geological Survey, which deal with Quebec geology, and also to special papers by Dr. F. D. Adams, Logan Professor of Geology at McGill University, Professor Bancroft, J. A. Dresser and others. He also thanks Mr. Theo. Denis, Superintendent of Mines, Quebec, for special assistance. We shall now proceed to outline in more detail, again emphasizing the importance of following the descriptions upon the map.

The Laurentian Highlands. These cover, approximately, fourteen-fifteenths of the present area of the province. The front margin, or southern boundary, of the area begins at the Atlantic, and follows the north coast of the Gulf of St. Lawrence, and the River St. Lawrence, nearly to the City of Quebec. Here it begins to recede from the river and passes inland and up the Ottawa river to beyond the City of Ottawa. Its further extension, westward, and to the Arctic does not need to be traced here. In the Province of Quebec it extends to our most northerly boundaries on Hudson Bay

and Hudson Strait. Although mountainous on the southern margin, the area as a whole is described as a plateau, and in some large districts is a peneplain. On the north-east Labrador Coast is the most elevated portion. Here and towards the eastern entrance of Hudson Strait, the mountain peaks attain a height of 6,000 feet. "Southward along the Coast, the general elevation decreases, but everywhere the shores are high and penetrated by deep inlets, with precipitous sides rising five hundred to several thousand feet above the sea. Along the Gulf of St. Lawrence shore the land is generally bold, rising inland rapidly to heights of 1,000 feet or more, though penetrated by long, narrow valleys occupied by the main waterways. The abrupt rise of the southern boundary is also a notable feature along its course inland up the Ottawa valley." (Young and Brock, *Geology and Economic Minerals of Canada*).

The greater part of the rocks in this vast area is described under the general term Pre-Cambrian, which merely denotes that they were formed before Cambrian times. They belong to the oldest rocks in world history, and are exceedingly complex in their character. They were first studied by Sir William Logan, the founder of the Geological Survey of Canada, whose pioneer work will ever be remembered; but while the names Laurentian and Huronian which he applied to their older and later portions, as these relations were then understood, have been retained, the investigations of recent years have given a somewhat different meaning to the terms. What was then described as Upper Laurentian, for instance, has been found to consist in part at least of intrusive rock, that is, a rock which welled up from below as a soft magma and subsequently crystalized. The rocks of this great area are mostly hard in their character, such as the gneisses, and hence have resisted denudation more than the softer rocks of the Lawrencian Lowlands. Here and there areas of Palaeozoic rocks rest upon the Pre-Cambrian.

The Appalachian Highlands. If a line is drawn from Lake Champlain northwesterly to the City of Quebec, practically all that is east of this line, and south of the St. Law-

rence river, is embraced in the Appalachian region. It includes most of the counties of the Eastern Townships, together with Beauce, Dorchester, Levis, Bellechasse, Montmagny, L'Islet, Kamouraska, Temiscouata, Rimouski, Matane, Gaspé and Bonaventure. The Appalachians arise near the Gulf of Mexico and extend to Newfoundland. The Appalachian uplift is one of the important features of North American geology. Towards the close of the Siluro-Cambrian period the thick and then soft deposits of the Atlantic border were crushed against the edge of the inland Laurentian area. The Laurentians are not only hard rocks, but they are of great depth. It is estimated that they are at least 50,000 feet thick. The pressure against this heavy mass accounts for the fact that in the Province of Quebec the Appalachians are parallel to the Laurentians. The Appalachians themselves are in three roughly parallel ridges, extending in the Eastern Townships from the edge of the St. Lawrence plain to the United States border. They are also the continuation of the Green Mountains of Vermont. They have the general name of the Notre Dame Mountains, and in Gaspé are called the Shickshocks. Local names are also applied, as the Ham, Stoke and Megantic mountains.

In addition to the parallelism with the Laurentians already mentioned, there are two other salient features regarding the Appalachians which should be grasped at the outset. The first is that this great uplift was accomplished very slowly. It was a gradual elevation of the soft rock masses. One of the proofs of this is that old rivers like the St. Francis and the Chaudière preserved their course from the interior of the Appalachian districts to the St. Lawrence. They could only have done so by wearing away the barrier of rock as fast as it was raised against them. If the uplift had been violent or rapid, the rivers would have been diverted to new channels parallel with the ridges. A striking illustration of the gradual wearing of the river bed against the uplift is afforded at Richmond, where the St. Francis (about a mile north of the town) has worn its way through the high east-and-west ridge which rises four hundred feet above the

valley. The other salient feature is that the Appalachians had undergone much denudation in the vast interval of time between their elevation and the beginning of the Glacial Period. They are essentially worn-down mountains. It is chiefly their harder cores—the crystalline rocks of their Pre-Cambrian base—which remain as peaks or ridges. The softer sedimentary rocks of Cambrian and later age have undergone the most denudation. The region has also been the scene of volcanic activity. The granites of the Eastern Townships are of this origin, and the great serpentine band, containing the mineral asbestos, was originally a soft magma which invaded the sedimentary rocks. Such invasions as that of the serpentines are called *Intrusives*. The youngest sedimentary rocks in the Province are in the Appalachian region, namely, in Gaspé. They form a heavy mantle, in that district, of red sandstone, and are of Devonian-Carboniferous age, that is to say, they are intermediate between Devonian and Carboniferous. By reference to the geological table it will be seen that they are still of Palaeozoic times.

The St. Lawrence Lowlands. The plain, on both sides of the St. Lawrence river, which begins to widen from the City of Quebec westward, is one of the unmistakable physical features of the Province. It is bounded by the Laurentians on the north, and by the Appalachians on the east and south. It is a plain because the underlying rocks are horizontal, and not folded and disturbed as those of the Appalachian region. The rocks of the plain are chiefly of Siluro-Cambrian age, some Silurian proper, as the Helderberg limestone of St. Helen's Island, opposite Montreal, and the Cambrian is represented by the Potsdam sandstone at Montreal, Beauharnois and Soulanges. The Black River and Trenton limestones of Siluro-Cambrian age are important. The Trenton especially, rich in fossils, is found from Quebec to Montreal. At Montmorency Falls it rests against the Laurentian, the contact being observable on the east side of the falls. The Utica shale overlying the Trenton represents an influx of cold and muddy waters into the great inland sea of the Trenton.

The plain of the St. Lawrence Lowlands is broken by a number of isolated hills. These are known as *The Monteregians*. They receive their name from the best known of them, namely, Mount Royal at Montreal. From the top of this one the others can be seen. There are eight in all, and their names and heights above sea level are as follows:

Mount Royal	769.6 feet
Montarville or St. Bruno.....	715. "
Beloreil	1,437. "
Rougemont	1,250. "
Yamaska	1,470. "
Shefford	1,725. "
Brome	1,755. "
Mount Johnson or Monnoir.....	875. "

What force placed these great hills in that wide plain? Our Canadian Geologists have answered the question very thoroughly, but in this general sketch we shall only deal with the salient points, reserving the details for a later paper. The first thing to be noted is that in each case the rocks of which the hills are composed are entirely different from those which underlie the surrounding plain. They are igneous or volcanic rocks, while those of the plain are sedimentary, that is, laid down in water. The name volcanics at once suggests to the mind the idea of active volcanoes, and on this point Professor Adams says:—

"The Monteregian Hills are a series of ancient plutonic intrusions. Some of them (e. g. Brome mountain) are apparently denuded laccoliths, one of them (Mount Johnson) is a typical neck or pipe, and it is probable that some, if not all, of them represent the substructures of volcanoes which at one time were in active eruption in this region. It is impossible to determine accurately the date of these intrusions. In the case of Mount Royal, however, inclusions of Lower Devonian limestone are found in the intruded rock, so that the intrusions forming the mountain are later than Lower Devonian time. Since Dresser by another line of evidence

has shown that the intrusion of Mount Shefford probably took place before late Carboniferous time, the Monteregian intrusions probably date back to the late Devonian or early Carboniferous period."

From the point of view of physical geography the main facts to be noted here are that these hills of hard igneous rock arise from a plain which is underlain by soft sedimentary rock, that vast erosion of the softer rock has taken place in the long ages since the hills arose up to, or above, the then surface, and that they have been left standing on account of their greater hardness.

In this paper, then, we have obtained a general view of the more dominant land features of the Province, and the outline of their geological history, which can be reduced to the following:

SUMMARY.

1. The province is doubly peninsular.
2. It can be grouped, naturally, into three distinct regions.
 - a. The Laurentians. The largest and oldest geologically.
 - b. The Appalachians, which although they are on the south side of the St. Lawrence and are often quite distant from the Laurentians to the north, yet were ridged up by pressure against the deep base of the Laurentians.
 - c. The St. Lawrence Plain, occupying the valley between these ranges, and which is itself marked by the intrusion of eight hills or mountains.
3. The rocks of the province are chiefly of Eozoic and earlier Palaeozoic age. In Gaspé, there are rocks of later Palaeozoic, but nowhere in the province are there any of Mesozoic or of Cainozoic age.

But the latest, the Pleistocene or Ice Age was an important one in the history of the province, deeply affecting its physical geography, and with that we shall deal in the next paper.

J. C. S.

OUR AGRICULTURAL JOURNALS.

We have in the Province of Quebec our ably edited *Journal of Agriculture* issued by the Provincial Government and supplied at very moderate rates to members of the Agricultural Societies of the Province. It is published in English and French and contains much valuable information for those engaged in any branch of agriculture. It is up-to-date, on time and always reliable. What a pity it does not enter every farmer's home, and what a pity that more of those who receive it, do not make more use of its wise suggestions. No doubt in time it will enjoy increased influence and sooner or later mould the public opinion in the modern way.

There is also one other publication of increasing influence in our province, namely, the *Macdonald College Magazine*. This paper, which is issued quarterly by the students of Macdonald College and Normal School, contains many useful articles, written from the standpoint of the young people. These articles are fresh and new and appeal to other young people, as articles written by older people do not. For this reason the *Magazine* would be a very acceptable volume to place in the hands of our young people and no better way could be devised than to place it in the library of every rural school. To do this would only cost a few cents each copy and would bring the Macdonald College and the Normal School intimately before the pupils of the rural schools. Indeed the magazine is well worthy of a place among the papers of our best farmers, for its contents are fresh from the pen of able contributors and are specially written for the pages of the magazine.

As a means to bring the school of agriculture prominently before the country population no better way could be devised than giving the magazine to the children. They would enjoy its life, receive its inspiration and long to share in the happy conditions behind the *clover leaf*.

A SPRINGTIME SUGGESTION.

It would be of great assistance to those pupils, who have studied agriculture and nature study during the past year, if they would make a collection in the summer months either of *insects*, *plants*, *minerals* or *soils* and bring the collection to the teacher for her approval, when the school opens next fall. Such practice would be valuable as showing to the pupil his defects as well as his knowledge and would amount to a review of his studies. Moreover his collection would be a possession of value to him as a student and would constitute for all who beheld his specimens a certificate of proficiency in his work.

To secure the best results, however, it will be necessary for the teacher to give her pupils a talk on the subject and show them how to mount and classify the specimens. It will be enough to have the pupils find out the ordinary names of their specimens and state a few facts concerning the *habits* of each insect, the *values* of plants, the *uses* of minerals and the *qualities* of soils. If a prize or certificate even could be given for the best collection it would lend considerable interest to the contest. Besides, the best collection could be further honoured by the request, that it become the property of the school and have a place in the school library for reference in future study.

In order to make the most of the opportunity it is necessary to begin at once to interest the pupils by giving and receiving suggestions. This is the more easily done at present because the subject of agriculture and nature study are once more a part of the course in the spring and summer. Any attempt to interest the pupils will well repay the teacher for her trouble by the increased results and the pleasure she will enjoy through the hearty co-operation of her pupils. In addition to this she will receive the public commendation as an up-to-date and competent teacher, whose heart is in her work.

"FIRST 30 MINUTES."

There seems to be much difficulty to get teachers to understand how to enact that part of the course of study known as the "*First Half Hour*." All sorts of extremes are indulged in from those, who sing for twenty minutes to those who read for half an hour, and those who read wherever they please with no reference to the course of Scripture prescribed to be studied.

In the "Manual for Teachers" the subject is specifically dealt with and the suggestions need not be repeated here. The inference would seem to be, that such teachers do not regard the directions of their Manual as more than optional suggestions. It is little wonder, that disappointment follows a year of such teaching, and grief is the teacher's reward. Some such teachers even go so far as to reprimand the inspector for not accepting their prescriptions in school work in preference to the course of study.

It would be well for each teacher to adhere to the directions of the "Manual" and the outlines of the course for each of her grades.

The best reading for the training exercises are the Gospel selections chosen for the fourth grade. These may be read twice over in a school of eight months term and thus teach the fourth grade its Scripture incidentally and open the school besides. Moreover the Gospels are better suited to open schools with than the selections from the Old Testament chosen for the junior grades as they appeal more tenderly to the minds of children and evoke more readily the devotional spirit.

It must be remembered, however, that there are many other matters prescribed for the first half hour of the school day, but these may come up incidentally in other lessons at any time, when an opportunity arises from the nature of the lesson. The whole subject of lesson plan is so complicated, that no justice can be done to it in a brief article of a few lines. The "Manual," plus the teacher's own sense and experience, must count for much, else very ordinary results must ensue.

FOR THE PUPILS.

A BOY THAT SUCCEEDED.

"A new boy came into our office to-day," said a wholesale grocery merchant to his wife at the supper table. "He was hired by the firm at the request of the senior member, who thought the boy gave promise of good things. But I feel sure that the boy will be out of the office in less than a week."

"What makes you think so?" inquired his wife.

"Because the very first thing that he wanted to know was just exactly how much he was expected to do."

"Perhaps you will yet change your mind about him."

"Perhaps I shall," replied the merchant, "but I do not think so."

Three days later the business man said to his wife; "About that boy you remember I mentioned two or three days ago. Well he is the best boy who ever entered the store."

"How did you find that out?"

"In the easiest way in the world. The first morning after the boy began to work he performed very faithfully and systematically the exact duties assigned him, which he had been so careful to have explained to him. When he had finished he came to me and said: 'Mr. —, I have finished all the work. Now, what can I do?'

"I was a little surprised but I gave him a little job of work and forgot all about him until he came into my room with the question, 'What next?' That settled it for me. He was the first boy that ever entered our office who was willing and volunteered to do more than was assigned him. I predict a successful career for that boy as a business man."—
The Sunday School Herald.

CHARACTER.

The construction of character is the work of a lifetime. It is a daily privilege and task to add material to character. We can hardly make a forward move in that which is right but will add something to one's character structure.

Every good thought cherished is putting a stone into the building. Every good impulse, every laudable ambition, every noble deed, aids in the rearing of character. The most commonplace duty faithfully performed, and every opportunity carefully and conscientiously improved, will add to its symmetrical development.

Nothing should be allowed to go into the structure that could in any way mar its beauty and symmetry. Character is really man's best and only asset, it is his best investment.

Moreover, it must not be forgotten that one's character is strengthened or weakened by association and co-operation with people, with books and ideas, thought and ideals of good men. One's association should be choice in the sense of being good and pure. "Evil communications corrupt good manners," yea, good characters. When character is lost, everything is lost.—*Ex.*

FORGIVENESS.

Nothing is harder than to forgive a malicious wrong, a harm done us, in a matter where we know we were right.

Sir Eardley Wilmot was an English baronet, widely known as a leader in social life, and a man of great personal dignity and force of character. Having been a distinguished Chief Justice of the Court of Common Pleas he was often consulted by friends as to perplexing social questions.

On one occasion, a statesman came to him in great excitement over an injury just inflicted on him. He told the story with warmth, and used strong epithets in describing the malice which had inflicted the wrong.

"Is not my indignation righteous?" he asked impetuously. "Will it not be manly to resent such an injury?"

"Yes," was the calm reply. "It will be manly to resent it, but it will be good-like to forgive it."

The answer was so unexpected and so convincing that the statesman had not another word to say. He afterward confessed to a friend that these words caused his anger to suddenly depart, leaving him a different and a better man.—*Selected.*

BETTER WHISTLE THAN WHINE.

As I was taking a walk early in September I noticed two little boys on their way to school. The smaller one tumbled and fell, and though he was not very much hurt he began to whine in a babyish way—not a regular roaring boy cry, as though he were half killed, but a little cross whine.

The older boy took his hand in a kind and fatherly way and said, "Oh, never mind, Jimmy, don't whine; it is a great deal better to whistle." And he began in the merriest way a cheerful boy whistle.

"I can't whistle as nice as you, Charlie," said he; "my lips won't pucker up good."

"Oh, that is because you have not all the whine out," said Charlie. "You try a minute and the whistle will drive the whine away."

So he did. And the last I saw or heard of the little fellows they were whistling away as earnestly as though that was the chief end of life.

Try it, boys, not only when you are hurt, but whenever you feel a little blue. A whistle will scatter the clouds.—*Northwestern.*

A SOCIABLE FIRE.

A fire went out one winter's day—
A sociable fire was he,
Who didn't like being indoors alone
Without any company,

But all who met him frowned at him,
And they shivered in their shoes.
A fire that's out is not the sort
Of company people choose.

"I'd better get back again," said he.
"There isn't the slightest doubt
I'm very good company when I'm in,
No good at all when I'm out."

—*The B.C. School Magazine.*

OUR OPINION OF OURSELVES.

If you teach a man to keep his eyes upon what others think of him, unthinkingly to lead the life and hold the principles of the majority of his contemporaries, you must discredit in his eyes the authoritative voice of his own soul. He may be a docile citizen; he will never be a man.

It is ours, on the other hand, to disregard this babble and chattering of other men better and worse than we are, and to walk straight before us by what light we have. They may be right; but so, before heaven, are we. They may know; but we know also, and by that knowledge we must stand or fall.

There is such a thing as loyalty to a man's own better self; and from those who have not that, God help me, how am I to look for loyalty to others?—*Robert Louis Stevenson*

HOW THE CIGARETTE DOES ITS WORK.

First—It irritates the delicate lining of the mouth, throat, and lungs, makes them sore, and less inclined to do their work; at the same time it partially paralyzes the nerves that control the breathing, and the boy suffers from lack of air.

Second—The cigarette weakens the nerve that controls the heart, and makes it beat badly, too fast, too slow, stop, etc.; and while working much harder than before it really accomplishes less, and the boy's blood begins to be purple instead of cherry red. This means that he is getting too little oxygen, and he feels nervous and blue.

Third—The tobacco makes the stomach more active in preparing juices to digest food. As the boy smokes 'as tinkers take ale,' all the time if he can, the stomach being over-stimulated and over-worked, and secreting digestive juices when they are not needed and cannot be used, soon grows weak, and fails to produce enough for use when really needed, and the boy, digesting badly, begins to be half starved, pale and weak.

Fourth—The cigarette boy soon finds it hard to concentrate his mind upon his work.

Finally—The physical result is an emaciated condition.

The bright, manly boy becomes a miserable, nervous, dissipated wreck. His future prospects are blighted. No one will trust him and his friends are filled with shame and disappointment.—"*Temperance Quarterly.*"

YOUR OWN GARDEN.

Darwin took a cupful of mud from the bottom of a pond, and on examining it found that it contained no fewer than five hundred seeds in that small amount of soil. So the human heart is full of seeds of every kind, and what a boy or girl shall be depends on what he or she permits to grow. Make your heart a garden. Pull up the weeds of evil thoughts as they appear. Do not become a piece of waste land on which only thorns and thistles grow.—*Sel.*

SOAPROOT.

An odd and useful plant of our Pacific Coast is the soap-root. The grass-like, crinkled leaves appear close to the ground in the spring, and are known to every California country-dweller. They grow from a deeprooted bulb encased in coarse fibre. If the fibre is striped off and the onion-like bulb, crushed between the hands, is rubbed in water as one uses a cake of soap, a splendid lather results, as cleansing as any soap bought in a store.

THINK THIS OVER.

"Go break to the needy sweet charity's bread,
For giving is living," the angel said.
"And must I be giving again and again?"
My peevish and pitiless answer ran.
"Oh, no!" said the angel, piercing me through.
"Just give till the Master stops giving to you."

SHE WORKED THE PROBLEM.

"Suppose," said the teacher to Tim, "your mother sent you to the store to buy three pounds of lamb, two pounds of potatoes, half a pound each of carrots and turnips and one pound of tomatoes—what would you have then?"

Tim shook his head, but Marybell, only a year older, raised her eager hand.

"Well, Marybell," said the teacher, with a sorrowful glance at little Tim.

"Stew!" said Marybell, sweetly.—*The Continent.*

MAIL BY SKYROCKETS.

The steamers passing the islands of the Tonga group, in the Pacific, employ a remarkable method for delivering letters. On account of the treacherous reefs the landing is extremely dangerous, and it is said that the few letters to be delivered are attached to large skyrockets, which are fired and reach the shore without mishap.

CIGARETTES "GOT" THEM.

"I told you cigarettes would get you," was the twitting remark that the boys called back to the fellows who could not stand the pace and were dropping back as they climbed the hill on a recent hike in Shenandoah county, Virginia.

The group had started on a hike and to learn their habits the leader had given them free rein. Several of the boys brought out cigarettes and showed they were forming a habit, unknown to the most of their parents, which would surely mar their manhood. The leader let them smoke, only reminding them that they must have forgotten the talk the doctor had given them on "The Effects of Alcohol and Tobacco on the Body." Finally the group arrived at the hill where their wind and endurance would be tested. When about half way up some of the boys began to complain about the pace and drop back. It was noticed and remarked that the boys who had been smoking were playing out. But few words from the leader were necessary to drive home the object lesson which seemed to have more effect than the doctor's lecture.—"*Virginia Men and Boys.*"

FOR THE TEACHER.

Intended to be helpful in the school work of the Senior Grades in history, geography, and general information.

TREES AND LIFE.

A bulletin of the Tree Planting Association brings out strikingly the way in which tree life benefits human life. That trees eat up the poisonous carbondioxide which men breathe forth we all know, but to many this bulletin's facts about the influence of trees on temperature (the tree has a fixed temperature of 54° F.) and their functions of absorption and transpiration will be new. We quote parts of this:

The tree has the power of absorbing and thus removing from the air the malarial emanations from the street, and

from putrefying waste matter, so abundant in cities. In this respect they are the scavengers of the air, and protect people from a large number of what are known by sanitarians as "filth diseases." The older physicians of this city record the fact that as the forests were removed new and fatal fevers, hitherto unknown, appeared.

Transpiration is another function of a tree which contributes greatly to man's comfort and health. This act consists in absorbing large quantities of water from the earth and emitting it as by spraying into the surrounding air by its leaves. This is a very cooling process and tends powerfully to reduce excessive temperature in the vicinity of the tree. The amount of water thus thrown into the air by a single tree varies with the weather, increasing as the temperature rises and diminishing as it falls.

The value of a single tree in thus modifying temperature was strikingly shown by the late Professor Pierce, of Harvard College, who made a mathematical study of the foliage of the famous "Washington Elm." The tree was then very old and decayed, but he found that it bore a crop of 7,000,000 leaves, exposing a surface of 200,000 square feet, or about five acres of foliage. Now, as one acre of grass emits into the air 6,400 quarts of water in twenty-four hours, it follows that this old tree sprayed into the surrounding air 32,000 quarts, 8,000 gallons, or upward of 260 barrels of water every day.—*The Outlook*.

UNCLE SAM'S PROPOSED ALASKAN RAILWAY.

Uncle Sam has just finished his Panama Canal. Now he is entering the field of Railway Construction. A bill setting aside \$40,000,000 has passed both the Senate and the House of Representatives, to be spent by the administration in constructing 1,000 miles of railroad in Alaska, with the idea of developing the coal and oil fields of that hitherto neglected territory, and opening up a market for the products of the

various mines which are known to exist there, and which are rich in mineral and other deposits. Some see in the movement an entering wedge for Government control in the States, while others look upon it as a wise step to circumvent the monopoly of such a rich country by capitalists. Probably the best feature about the bill is the requirement that the road must be built by Government engineers.

THE WIRELESS.

Within three years, nineteen wireless stations (some of high power) have been established by the Commonwealth government to link the whole of the inhabited coast line of Australia. During recent months, the postal department has been working out a scheme for operating inland stations which, if successful, may revolutionize the present Australian system of overland communication. Instead of going to the heavy expense of erecting telegraph poles and lines, the Department proposes to instal a line of simply equipped inexpensive wireless stations, which will carry 50 to 100 miles. Twelve wireless stations will be immediately placed in effective working in the country districts of New South Wales and Queensland. The low cost at which inland wireless stations can be established is due to the fact that for sending or receiving messages up to a distance of 120 miles no high power engines are necessary, an ordinary battery being sufficient for the purpose. Nor is it necessary to erect high masts, as frequently the aerial could be fastened to a tree, a chimney or the roof of a building. If the experiments prove successful a net work of wireless stations will be spread all over the Commonwealth.

GARDEN OF EDEN.

It has long been a favorite contention of some people that the Garden of Eden once flourished in the district be-

tween Babylon and Bagdad. In modern times, however, this region has been handicapped by an excess of soil and a lack of water. When the young Turks seized the government they in February, 1911, the work was entrusted to Sir John Jackson. The first portion of this irrigation work, the Euphrates Barrage, has just been completed. This will provide for the irrigation of a wide area, and when the entire project is finished it is expected that Mesopotamia will become once more, as in days of old, the world's greatest granary.

JEWISH IMMIGRATION.

A Jewish alderman in Montreal estimates that there are sixty thousand Jews in the city. Twelve or fifteen years ago, when there were but six or seven thousand, the Protestant School Board agreed to take and educate the Jewish children, provided no change be made in the regulations of the Protestant schools. For the past few years about forty per cent. of the children attending the Protestant schools are Jews, and they have cost the Protestants one hundred thousand dollars a year over and above the taxes received from the Jewish rate payers.—*Presby. Record*.

WAR TAXES IN EUROPE.

War taxes make Europe poor. Sir Max Leonard Waechter is a German who has been naturalized in England and knighted there. He has formed the European Unity league to oppose the war burden. He says Europe spends \$2,500,000,000 a year for arms and other war expenses 5,000,000 men in the armies and navies are kept out of useful work which would be worth as much as the money paid out. So Europe loses because of the war habit \$5,000,000,000 every year.

TRAGEDIES.

Someone thus summarizes "The World's Tragedies":

207,000,000 bound by caste—from Hinduism.

147,000,000 permeated with atheism—from Buddhism.

256,000,000 chained to a dead past—from Confucianism.

175,000,000 under the spell of Fatalism—from Mohammedanism.

200,000,000 more sitting in darkness—from Paganism.

It is not our duty to fly to the rescue of some of these millions?—*The Messenger*.

THE CIGARETTE.

A cure for the cigarette habit is claimed by Dr. D. H. Kress, of Chicago. He paints the smoker's throat with silver nitrate and the desire for cigarettes is lost at once. Judge J. J. McGovern, of Hoboken, N.J., is a member of the Board of Education, and has noted the damage of school work done by this habit. It runs from five to twelve per cent. The judge examines the fingers of all boys brought into his court and sends those who need it to two doctors who give the treatment.

VALUES.

In all school work those values are chiefest that affect the welfare of the pupils. There are values that affect the teacher, the parent and the community, but these are ultimate values and arise out of the primary values received by the pupils from their work at school.

One of the very best values a teacher can bring to her pupils is the value of a *gentle voice*. Under its peaceful influence order and application to study are assured and the pupils unwittingly obey the teacher's will. They even rejoice in their own submission and render hearty co-operation under the influence of the gentle voice.

Another essential value is to be found in the *morning greeting*, which sets the pace for the day and removes all traces of yesterday, giving assurance of new chances and fresh opportunities. All pupils should be greeted, so that the assurance will be general, but not uniform and so that the most diffident may share in its benefits. In many cases it is well for the teacher to exchange a few words in addition to the usual formality of "Good Morning." A word in season may bring eternal results, then be not sparing of your cheer.

Prim premises constitute another value, that cannot be over estimated in their influence on the minds of the pupils. Even kittens purr, when the kitchen is clean and bright and the same happy condition is induced by the positive good influence of clean and well-ordered premises, both inside and outside of the school.

But all these are of no avail unless the teacher comes to school prepared to bestow the *value of a message* on her pupils. This last value can only come through study and preparation of the lessons to be taught. The message may be old to the world at large, but, if it be new to the teacher and her pupils, the value will be enjoyed just the same. It is this "having a message," that distinguishes one preacher from another and enables a few men to sway thousands of their fellows. The teacher must not only know her textbook, but she must know the subject also and be able to add some additional information to the statements contained in the lesson. When the teacher has a message she will enjoy her work and her pupils will delight in study.

OTHER CONDITIONS.

We publish, herewith, from one of our daily papers a brief synopsis of the report of a special commission appointed by the State of Ohio to inquire into matters of education in that State.

"The deplorable conditions revealed all over Ohio as regards sanitation in the schools, and everything that relates to the education of body, character, and mind, are

"only the counterpart of what prevails in many parts of the Union and in some parts of Canada.

"This is not saying that the picture lacks its brighter side. But facts picked up on every page—that 80 per cent. of the townships schools provide no supplementary readers, with "resulting aridity in the teaching of geography and history;" that 25 *per cent.* had no dictionaries; that 72 *per cent.* were never scrubbed, or not more than once a year; that 98 *per cent.* never tested their water; that 34.2 *per cent.* were so ill-ventilated in October that the air was offensive to the nose; that in 17 *per cent.* the English of the teachers was not merely poor, but flagrantly bad—ought to awaken a public sense of duty.

"To this sense the Commission appeals in 50 pages devoted to "outside co-operation." To the impoverished rural schools women's clubs have already contributed pictures, books, and music; 90 granges have undertaken to secure township, high, or centralized schools, and 14 have school visiting committees; business organizations have begun to work; the efforts of public librarians in widely scattered localities have been valuable; and medical and dental organizations have given talks, promoted athletics and secured medical examination.

"The new Ohio law, based upon the investigation, is described as a model by the U. S. Bureau of Education. It prescribes *a minimum monthly salary of \$40* to teachers, and denies State aid to districts which pay less than \$45 *to teachers with six weeks professional training*, \$55 to "those with two years", or \$70 to high-school instructors."

"(The italics are ours.)"

In some respects our conditions resemble those of Ohio. We lack the supplementary readers though these are being supplied in several places and the department is helping on the good work by procuring supplementary readers with the Protestant share of the *prize book funds*. All our Protestant schools possess a good dictionary also, sent to them by the department. None of our schools are so neglected as to be "*never scrubbed*," but many fail to obey the law and clean

the floors each two months. With our school boards the chief difficulty is to find some person, who will undertake the work of scrubbing. In regard to our drinking water we may safely say, that 100 per cent. never test their supply of water. Such a practice is beyond the attainments of our rural population, who generally depend on brooks, springs or wells and fare very well in the enjoyment of wholesome water.

In the third paragraph of the synopsis there are many suggestions as to ways of improvement, all of which are new to our province. A better way, it would seem to us, would be for us to elect each year a *wide awake school board*, who would procure all needed reforms by means of taxation. Any spasmodic effort, dependent on the voluntary aid of a few enthusiastic ratepayers, will soon pass away.

The recommendations regarding minimum salary are reasonable and could be fulfilled in many rural districts of Quebec today, if we could offer qualified teachers to our school boards. It will be observed, that one class of teachers in Ohio have *only had six weeks professional training*. Is there not a suggestion herein for us in our circumstances? Could not our Normal School provide a couple of short courses each year and prepare a number of teachers with minimum qualifications to occupy the positions now held by persons without any certificate of fitness?

In all such questions of reform the real solution rests in an awakened public interest, which it is the duty of every patriot to arouse by constant appeals in behalf of the public need.

ITEMS FOR THE TEACHER.

ATLANTIC WAVES.

"A MARCH gale—a "whole gale" it must have been—carried away the wings of the big bronze eagle that does duty as a figurehead on the great ship *Imperator*, of the Hamburg-American Line. As this eagle is seventy-five feet

above the water, the damage to it gives one a new idea of the height and force of the Atlantic's waves when backed by a fierce storm."

Those teachers, who have to teach the lesson entitled the "Storm Song," will find an item of interest in the foregoing extract. As the poet makes the sailors say among other resolute things, "we'll drive our ship in the teeth of the whelming spray" it will interest the pupils to have some measurement of the waves, whose spray the sailors defy.

A DISCOVERY.

The discovery was made by the head of the family. He says:

The cost of living is frightful, but I have discovered a leak and will stop it. I find that the money paid for my three Beers a day will in one year buy for my family—

200 lbs. Flour,
200 lbs. Potatoes,
50 lbs. Cane Sugar,
10 lbs. Fresh Butter,
10 dozen Fresh Eggs,
40 qts. Milk,
10 lbs. Bacon,
19 Pot Roasts,
6 lbs. Pure Lard,
20 lbs. Corn Meal,
12 lbs. Oat Meal,
10 lbs. Salt,
5 lbs. Dried Fruit,
 $\frac{1}{4}$ doz. Cans Fruit,
 $\frac{1}{2}$ doz. Ground Spices,
 $\frac{1}{2}$ doz. Flavoring Extracts,
3 lbs. Baking Powder,
10 glasses Jelly,
10 lbs. Prunes,
28 bars Water White Soap,
10 lbs. Good Coffee,
4 lbs. Good Tea,
1 ton Coal,

and then I will have money enough left to buy my boy a new \$5 school suit, a \$5 dress for my wife, and still have \$3 with which to start a Savings Bank Account.

Hurrah forthediscovery! A dry town will improve business in my home! How about yours?

— *The Amethyst.*

THE RURAL PROBLEM.

Without doubt the rural problem has come to remain and has taken up lodgings in the minds of many foremost men. From reports of progress in all countries, we find that the interests of agriculture are being cared for by every wide-awake educational system the whole world over. As one of our leading newspapers has stated, "If *only two* blades could be made to grow, where one grew before, we could afford to build the Georgian Bay Canal twice in one year with the increased wealth from our fields."

There is only one way of reaching the population who operate the farms. That way is through the schools by introducing the subject in a competent manner by competent teachers and so making the subject both practical and popular with the farmers' sons and daughters. One thing is essential with young people, who are about to choose a calling; the public must not despise it. Yet for years untold, the farmer has been the butt of creation, a by-word in the mouths of his inferiors. This must not continue, for the whole national welfare depends upon the success of our agricultural effort. In speaking thus we have reference only to things material. As well might we try to manufacture goods without raw material as to become a wealthy nation without crops to handle. Besides being the bottom layer in the nation's wealth, the rural population provides many of the leaders in the nation's affairs. Why must all our young people, who seek to lead in intellectual callings, find it necessary to enter one of the *learned professions*, so called, and forsake his country life and home. There should be no necessity any longer, for there

is abundance of scope for the exercise of the best intelligence in the mastery of the science of agriculture and it only remains for the public to appreciate the success of those engaged in the rural uplift to induce many of our young people to enter the profession.

Professor McCready, of Guelph speaking at the Dominion Seed Growers' Association in Ottawa set forth the problem as follows: "To have and to hold male teachers, well paid, contented, progressive, rural minded, teaching in terms of country life, with consolidation of schools wherever possible and the organization of country people's high schools."

We cannot close this article more encouragingly than by the statement, that there were no less than *twenty-six* young men in Macdonald College during the past year, who desire to qualify as model school teachers. These all possess university entrance certificates and are thus the complete product of our academy course before entering upon the study of agriculture. Let us hope to secure their assistance in the work of education where helpers are so few and the requirements are so great.

REGISTRATION AT TEACHERS' CONVENTION.

While the convention of the Provincial Association of Protestant Teachers, held in Sherbrooke last October, was in point of attendance a marked success, there was, nevertheless, a serious falling off in the number who registered as members of the Association. This feature of the Convention is much to be regretted, for the Association depends largely on the registration fees as a means of securing the money necessary to carry on its work. When conventions were held in Montreal there was always a large number who registered, but failed to attend the sessions of convention. In Sherbrooke, however, the reverse was the case; large numbers attended the sessions, but few registered. For many years previous to 1913 the registration has been, with two exceptions, over 400—never below 364—and once as high as 651; while at the last convention in Sherbrooke the registration was only 234.

The complexion of the convention in Sherbrooke was quite different from that of the Montreal conventions. In Sherbrooke the great majority were teachers from rural schools, while in Montreal the overwhelming majority were city teachers. Why do the rural teachers not join the Association? Is it because they cannot afford, or because they begrudge, the 50cts. registration fee? We think not. Questions asked the registration officer at Sherbrooke by many of the rural teachers suggests another reason, viz. ignorance regarding the nature and aim of the Association itself, and of the obligation to support it, which rests upon the teachers of the Province.

Naturally the Department of Public Instruction looks to the teachers for suggestions on many matters pertaining of the welfare of the schools, such as the selection of textbooks, arrangements of the Course of Study, maintenance of school libraries, and other matters with which teachers are most closely connected; and suggestions from the teachers for the betterment of, either themselves, or their schools have always been most cordially received by the Department. Such an association as that of the Provincial Association of Protestant Teachers, with its annual convention, is absolutely necessary in order to enable the teachers of the Province to determine changes and improvements that should be made, and make representations to the Department of Public Instruction. The Association also provides valuable opportunities for teachers to improve their methods of teaching and increase their efficiency in general. But such an organization cannot be maintained, nor its work promoted, without funds to defray the necessary expenses connected therewith; and as all teachers benefit by the work of the Association, it is surely the duty of every teacher, not only to contribute the registration fee for its support, but also to take an active part in the election of its officers and the fulfilment of other duties which as a member may devolve upon them.

Next year the Association holds its Fiftieth Annual Convention—its Jubilee—in the historic City of Quebec. Is it too much to expect that it will be the largest convention

in the history of the Association, and that every Protestant teacher in the Province, whether she attends convention or not, will register as a member of the Provincial Association of Protestant Teachers, and share in the efforts to advance the interests of Protestant Education in the Province of Quebec?

MENTAL BREAKDOWN.

Brain exertion, or rather undue mental effort induces fatigue, possibly to a greater extent than does excess of physical exertion. Every few days some man distinguished in letters, science or the professions is reported to have broken down from excessive brain work. Like the muscles the brain is liable to fatigue, and mental strain will affect injuriously the digestion and inevitably bring about changes in the blood, consequently injuring the circulatory system. A man engaged in mental work at high pressure draws upon his vitality, and in most cases will suffer for his recklessness. Brain work carried to the point of fatigue, for a continued period will, in most instances, cause actual waste of tissue, and will produce various phases of dyspepsia.

One of the main causes of mental breakdown is night work with lack of sleep.

It is a platitude that health is the most valuable asset that man can possess yet the number who take care of their health is comparatively trifling. How few pause to consider whether the food they are about to eat is digestible or nutritious. Most people wear out their digestive organs without nourishing body or brain. Few take enough exercise:

The brain is one of the most patient and industrious organs of the body. It can be induced by good treatment to perform prodigies of labor. It is sensitive. It will not long brook abuse. It insists upon having plenty of good, red blood when it works hard, and good red blood is made from wheat and roast beef, not from pie, salad, cocaine and whiskey.

The most essential thing for a man who works with his brain is plenty of sleep. Only in sleep does the brain find the rest and refreshment that are necessary to maintain its vigor and integrity.

BOOK REVIEWS.

- Selection from Macaulay's History of England.
Selections from Thackeray.
King of the Golden River, by Ruskin.
The Refugees, Conan Doyle.
Lysbeth (Abridged), by Rider Haggard.
Tom Brown's Schooldays (Abridged).
Hereward the Wake (Abridged) Kingsley.
The Coral Island (Abridged) Ballantyne.
The Heroes, Kingsley.
Settlers In Canada (Abridged) Marryat.
Eric Brighteyes (Abridged) Rider Haggard.
Selections from Dickens.
A Selection of Poetry for Schools, Thornton.
Alices Adventures in Wonderland.
- The foregoing is a list of very excellent class books of English Literature published by Longmans, Green & Co., of London, England. They are well printed on good paper, and are bound in brown boards. Brief introductions are given, and when necessary instructive notes are given at the end. The volumes sell at one shilling each in England.
- French Composition, by Margaret Kennedy.
L'Avare, by Moliere.
Les Plaideurs, by Racine.
Sentence Expansion leading to Free Composition in French.
- The above is the list of some attractive text-books just received from G. Bell and Sons, of London.
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CONSOLIDATION OF SCHOOL.

In spite of all the efforts put forth for a number of years, consolidation has made but slow progress in the Province of Quebec. It is true that in recent years quite a number of small schools have been closed, and the school boards have either made arrangements for the conveyance of the pupils to other schools, or they have made allowances to the parents—usually ten cents a day per pupil—for the carriage of the pupils. This, however, is a half hearted arrangement, and is not true consolidation. At Kingsey, when the three elementary schools were closed, a model school was erected, and for several years the pupils at a distance were conveyed. But this has been dropped, and apparently conveyance has ceased also at Ulverton, where the principle of consolidation was put into operation with the existing model school as the center. As a matter of fact, it would seem that the only case of complete consolidation in the Province at the present time is that at Bulwer in the township of Eaton. Here, as at Kingsey, a model school was erected, and conveyance is in full operation.

Now that the Government is providing special grants towards conveyance it is to be hoped that the principle will be more widely adopted. With our scattered English population in the rural districts, there is probably no part of the continent more in need of school consolidation.

It is the one means of giving the country boys and girls a broad education.

It is the one means for the adoption of a sound system of agricultural instruction.

It is the one means of securing competent teachers for all of the country pupils.

GENERAL REPORT OF THE INSPECTOR J. W. McOUAT FOR THE SCHOOL YEAR, 1912-1913.

Lachute, Quebec, 31st July, 1913.

Sir,

I have the honour to send to you herein my annual report for the year 1912-13.

The past year has been one of faithful work and good progress on the part of the teaching staff. While it is true that many of the teachers hold no diplomas, they possess, nevertheless, a deep sense of responsibility which enables them to do good work up to the limit of their qualifications.

The staff this year may be classified as follows:

Teachers holding model diplomas.....	14
“ “ elementary diplomas	45
“ “ A. A. certificates.....	5
“ “ Ac. II. certificates.....	2
“ “ Ac. I. certificates.....	13
“ “ Mod. III. certificates.....	11
“ “ Mod. II. certificates.....	5
“ “ Elem. IV. of public school..	1

Total rural and suburban staff..... 96

The city staff

Montreal	449
Westmount	40
St. Henry	11

Total staff of the inspectorate..... 596

The regular annual conferences were held in the autumn and were well attended by the teachers. I find it difficult to

provide a programme so varied as to suit both the teacher of considerable experience and the teacher of no experience at all. My practice is to hold the conferences in connection with the first visit of inspection and to make use of the various defects, which I find in the school work from place to place. Concrete examples of errors in method are sure to interest the whole staff, especially if some of the more experienced teachers are requested to suggest a better plan of instruction. It has always seemed to me, that the more informal and practical our conferences are the greater value they will be to our staff in the actual school work of the year. Taken in addition with the first visit of inspection the conferences are a great help in securing better results.

During the present month there has been held in our midst, under the direction of the Protestant Committee, an institute for the preparation of teachers for the rural schools. There has been considerable difference of opinion on the wisdom of such institute work for the preparation of teachers, and the Committee provided for one to be held in Lachute in order that fuller information might be had on the subject. The execution of the work was entrusted to Principal Chas. McBurney, B.A., of Lachute Academy, who is a member of the Protestant Committee and to whom the Committee will look for a carefully prepared report of the institute work. In the meantime we must await the conclusions of the Committee in the hope, that in one form or another some means may be devised to provide an additional supply of teachers for the province. Some idea of the conditions may be had from the fact, that no less than 321 persons made application for admission to the institute of whom only 80 could be chosen as fit to enter. The 69 who received diplomas will constitute a welcome discount on the vast number of uncertified persons in the teachers' place throughout the rural schools of the province.

I have pleasure in submitting the following list of eminently successful teachers for your consideration:

Names of Teachers	Municipalities	Districts
Agnes McGrandel	Arundel	No. 3
Ida Morrison	Arundel	No. 1
Mildred Morrison	Weir, Montcalm	No. 1
Julia E. Rodgers.....	Sault-au-Recollet	No. 1
Elisabeth Mathieu	Shawbridge	No. 1
Hazel Dawson	Saint-Andrew-East	No. 3
Mary S. Bourke.....	Grenville No. 2.....	No. 2
Lovell Banford	Saint-Jerusalem	No. 4
M. Grace Barclay.....	Saint-Jerusalem	No. 5
Catherine Moore	Chatham, No. 1.....	No. 3

The following teachers deserve honourable mention for successful work:

M. F. C. Pollock.....	Saint-Jerusalem	No. 2
Myrtle Graham	Saint-Therese	No. 1

Several teachers have been careless in regard to the observation of the regulation requiring them to prepare specimens of school work and have forfeited their bonus as a consequence. Some others are negligent regarding the preparation of specimens in such years as they are ineligible for a bonus, while they prepare them in the years in which they may compete. It is my intention to equalize such neglect by averaging the marks for both years, when making up my bonus returns for another year. In making up this list of bonus teachers I have confined my recommendations to the strictly rural schools and have excluded semi-rural schools under the control of town school boards.

The subjoined list contains the municipalities, which I have recommended for progressive bonus:—

Wentworth	\$60.00
New Glasgow (Ste. Sophie)	50.00
Mille Isles No. 3	40.00
Cote St. Gabriel	35.00
Mascouche	30.00

In respect to the foregoing list, I desire to again express the opinion, that the money would be spent to better advantage, if the Department were to direct the expenditure and not leave the line of expenditure to the school boards. I am unable to see the value of any remonstrance, as to the line of expenditure after the money has been spent. Moreover, there is hardly a school board on the list, that is fit to judge of the most essential needs of the schools under its jurisdiction. To my view of the matter it is a golden opportunity to provide the schools with reading libraries for the pupils and reference libraries for the teachers, school flags, pictures and other school room decorations, which are regarded by the school boards as unnecessary and which they are very slow to provide. If the Department were to procure such supplies wholesale, and distribute them through the offices of the inspectors, soon every school in the land would have a photograph of the King and the Queen, a flag of uniform size and design, a fair supply of the most essential reference books for the teacher and a few dozen wholesome readers for the hungry souls of the isolated pupils. Under the present plan, I am discouraged with the results and I beg you to consider the wisdom of issuing from the Department each year the supplies themselves instead of the cheques as heretofore. To do this it would be necessary to require from each inspector a statement of the supplies now possessed by each of his schools. From such a list it would be easy to compile a list of articles most needed in the schools and to procure them at wholesale prices, thus securing uniformity in price as well as in the articles provided to the schools.

The classification of the municipalities remains practically the same as before, inasmuch as the general tendency has been to improve, all are better than they were, yet none are past improvement. The rate of taxation has varied very

little in most of the poorer municipalities and the increases in salary are mainly due to increased government support. Such poor municipalities are among the mountains and own very little to pay taxes on or make a living from. In the abler municipalities the salaries have been increased from higher rates of taxation. One new school has been erected in Wentworth municipality and several others are being absorbed into the city of Montreal and new provision is being made for their accommodation.

From the rural schools of the county of Argenteuil were sent up, last June, the best class of entrance pupils, that the academy has ever received. The excellence of these pupils reflects great credit on the teachers, who prepared them and bespeaks a hopeful outlook for the future of our academy. Lachute academy, which was abandoned by two of its former principals, as a school without any prospects, never had any brighter future than it has today. These prospects are due to the general interest of the public in higher education, to the hearty co-operation of the public schools with the academy and to the undoubted ability of the academy staff.

The subject of physiology and hygiene has been taught as usual from such texts as the teacher may have studied from, or from such text-books as she may find in the school desk. I shall be glad, when there shall be a book prescribed in the subject, so that I shall be able to know what to expect and shall be able to tell the teacher exactly what to teach. The present plan is by no means satisfactory, although the teachers generally take the subject up to some extent. Regarding the subject of agriculture I have no schools that teach it in any other form than from the text-book. Indeed, how can they, when most of them have had no instruction in the practical study of the subject? Nor is there in view any prospect of there being any improvement in this respect. The only teachers, who could be expected to teach this subject properly, are the graduates of the Macdonald Training School, yet these are annually engaged by the wealthier school boards in the larger centres, where no agriculture is required and the mass of the rural schools

are left to secure the services of such persons as have not had any instruction in the subject. The preparation of teachers in such institutes, as I have mentioned in a former paragraph of this report, will not improve the situation in regard to the subject of agriculture, nor can any relief be looked for, until the whole output of the present normal school is secured to the public schools situated in the agricultural districts of our province. The need of agricultural instruction in the public schools is acknowledged the world over to be essential to rural prosperity and to procure such instruction our present normal school was equipped by its founder, on the assumption, that the normal school teachers taught in the country schools, whereas the great majority of the country schools have always been taught by teachers with central board diplomas.

In the city of Montreal immense work is being done in behalf of education, both in the erection of new schools and in the number of pupils being taught. Some idea of the vastness of the work may be had from the fact that no less than 18,539 pupils are reported in the 21 schools of the city board, while the last report for the province gives the total for all the schools of the province as 35,967. It will thus be seen, there are in Montreal city more than one half of the Protestant pupils of the province of Quebec. This is the part of the province in which the chief increase has taken place and consists chiefly of the children of the foreign population. No one, aware of the vital necessity of assimilating the immigrant with our home-born population, can pass through the classes of the city schools without reflecting upon the national value of the work they are doing. After a few months in the classes a little foreigner is able to understand his teacher and after a few years he knows the English language well and can do good work in all the subjects of the course. Such results are only possible, because of the patience and ability of the city's large and faithful staff of teachers. There are in our province two recognized languages at present and it is not well to increase the number by the addition of others. One of the best plans, therefore to

retain the statusquo, is to enable the foreigner to use either the French or the English language in order that he may be able to read our literature and enter into our social and political life. The course of study has been enacted in these schools by dividing it into seven forms or years and making half yearly promotions in order to allow of more rapid advancement in case of failure for any cause, i. e. the pupil has only six to review instead of a year. I found the work well done and the premises in good repair and well supplied.

In the city of Westmount, the conditions are quite different from those of Montreal. There is no foreign element to contend with and the work goes on more evenly, every pupil being able to understand his teacher from the beginning of his course. The course in these schools is enacted in seven forms or classes, and the promotions are from year to year with few repetitions. The staff is not only experienced, but, having been for some years in the same service, it knows well the system under which it works and is able to accomplish good results. The buildings are kept in the best of repair and are fully supplied with every essential for the best of work. Owing to increasing population the board has to provide another elementary school, and to do so they are building a new academy, intending to use the present academy building as an elementary school. There are 1147 pupils in the three elementary schools of this city, whom I found quite proficient in their work, happy and contented with their surroundings and receiving wholesome impressions of life.

The interests of the cities of St. Henry and Ste Cunegonde in matters of education are cared for by a board of trustees, who operate a union school near the common line of the two cities. This school does the courses of study in seven years along the lines followed in the city of Montreal and has yearly promotions. The roll contains 709 pupils and the staff has eleven teachers of experience. The work has been well done and the standard of former years has been fully maintained.

Last August there was held in Lachute an educational

conference for the purpose of arousing an interest in behalf of education in general and to induce the board to pay better salaries to teachers. There was a good attendance and considerable interest was evinced by those present, who represented many of the school boards of the surrounding district. As an evidence of their sincerity they passed a resolution to the effect, that each school board be asked to pay a minimum salary to elementary teachers of \$30.00 per month. Several boards have complied with this resolution and have since put their salaries up.

In conclusion, I feel confident in saying, that the past year has been one of progress and improvement, though not as marked as some other years in which more buildings were erected, or much apparatus was bought. These things having been secured, we have now to strive for the true aim of our system, namely, the intellectual development of our pupils by the pursuit of an efficient course of study.

I desire to thank in closing all those with whom I have had to do for their kindness during the past year and your Department for the courtesy and consideration, which it has always extended to those in its service.

I have the honour to be, etc.,

J. W. McOUAT,

Inspector.

EXPRESSION IN READING.

The voice should receive attention from the first, and all proper effort to help the child to control and improve it for expressing thought in his own or the author's thought. Drills for enunciation and articulation will be needed in every grade.

Poor expression is the result of imperfect comprehension of the thought. There must be preparation on the thought before trying to read. The children must be taught to look ahead and catch the thought of the whole combination of words. Until this is possible, the exercise is only one in word calling—not reading.

The pupils must not read orally until they have the thought. They should be trained to read the sentence through "with the eyes," each child letting the teacher know at once the words that trouble him. The pupil having the thought in his mind should now look at the teacher and give it. This training should be extended later so that pupils will take in groups of related sentences before attempting to read, and then speak them from their minds.

Do not tolerate an unnatural tone or an affected manner. Insist on the children's "talking" their stories, not to the blackboard, nor to the books, but to the teacher, some particular pupil, or the entire group.

It is a mistake to keep a class too long on one lesson. It is better to review it after a time than to read that in which the pupil has lost interest.

Do not permit sing-song reading, drawling, shouting, or mumbling. Tone down high pitched, shrill voices to a natural tone.

To secure better expression observe the following points:

1. *Breathing*—Teach the pupils to breathe rightly. Drills in correct breathing; watching of children's positions, sitting or standing.

2. *Correct Articulation*—Drill upon phonics until every element is distinctly and easily uttered.

3. *Clear Enunciation*—(a) Insist upon clear speaking at all times. (b) Good position. Bent head and lowered chest is a common cause of indistinctness. (c) Create a motive for clear utterance. Require the pupils to stand in front of the class and to read so that pupils will understand.

4. Analyze sentences for their proper emphasis.

—*Idaho Course of Study.*

PLANNING THE WORK.

There are three classes of teachers; viz., those who plan in detail, those who plan hapazard and those who do not plan at all. The second and third really belong in one group. I believe planning is the panacea for almost all ills to which a teacher is heir, because it makes for definiteness of efforts and result and crystalizes hazy ideas into forceful purposes. A teacher who sits down and plans her outlines once a month in detail, and then carries them out, is pretty apt to do some serious thinking and get at definite results.

Again, planning makes work easier. If teachers who come out of the schoolroom tired realize wherein this weariness comes it might spur them on to finding a way to do their work easier. Planning makes effort productive in quantity as well as quality. Planning makes one stroke do the work of two and saves wear of the body. Planning makes the head save the heels and saves the daily harass of the soul. It doubles the value of time and divides the efforts of discipline in two, since it foresees conditions and creates for emergencies. It provides work for the hour, and work is the key to discipline. A teacher who plans her work will have more available strength and time than the teacher who does not. There is much hit-or-miss work in the teacher's life which might be obliterated. Teachers ought to plan their work monthly and daily, both in the essential and non-essential, in morning talks as well as in arithmetic. As the month is the usual unit for grade meetings, it should form the unit of plan.

ORAL LANGUAGE AND COMPOSITION.

In the fourth, fifth and sixth grades the emphasis should be placed on oral exercises in the language and composition work. Written work should be done under the watchful and helpful care of the teacher in order to save pupils from careless and slovenly work.

MATERIAL.

The sources of material for the language exercises are:

The experiences and observations of the pupils.

Short stories for reproduction.

Descriptions of pictures.

Telling and writing stories suggested by pictures.

Simple descriptions of objects, places and scenes.

Writing letters and business forms.

Memorizing and repeating short literary selections.

PLANS.

If pupils are to express themselves in oral or written language they must have ideas to express. Every pupil has a good fund of ideas born of his experiences and observations. In this work the teacher must let the life of the child express itself.. Help the content of the child's mind to take suitable form in oral speech first, then written language.

That plan is a failure which tries to pour into the mind of an intermediate or grammar grade pupil ideas and facts which are not within or closely related to his observations and experiences, for the purpose of having him in turn pour them forth in the form of easy, natural expression. This plan of work is the cause of so much stupid and valueless efforts in language study.

Lead the pupils into conversation about what they see in a picture. For such work let the picture be chosen for its suggestions. Set the imagination to play in weaving a story out of the suggestions furnished by the picture. The lower grade reading books will supply many pictures well adapted for these exercises. Some language books furnish a limited number of illustrations for such work. Pupils will be able to supply pictures from juvenile and other periodicals for this work. The best pictures may be mounted on cardboard for convenience in handling. Many of the Perry Pictures, small size, at one cent each, are excellent for this picture-story work. These have the advantage of being reproductions of works of art.

Reproduction of stories is a form of language work most easily conducted and for that reason greatly overdone. There is no plan of work so good that it can not be abused by too frequent use. Dropping into one plan of work and following it continuously is ruinous to interest and to educational growth. For reproduction work the stories should be chosen with care. Stories of experience should be clearly within the comprehension of the pupils. In matters of imagination the pupils will be able to ascend to almost any height.

In telling or reading stories to the pupils for reproduction it should be remembered that it requires a degree of attention and memory rarely possessed by young pupils to reproduce a story on hearing it only once. Reviewing the story in conversation, asking questions that will require answers calling forth various points in the story, will prepare the pupils for telling the story as a whole.

WHAT SHALL CHILDREN STUDY IN NATURE STUDY WORK?

C. B. Scott's Nature Study.

What shall the children study? Nature is so vast! The world is so great! What shall we select from it all?

Shall the teacher take anything that happens to be convenient—today a butterfly, tomorrow the clouds, the next day the daisy or the rain or a seed? Some teachers seem to assume that this is the way to study nature. But they discover that the children gain but little from work without definite aim, plan or sequence. Such work may interest the children, but leaves in their minds little but a jumble of ideas without order or coherence.

But what shall we select for study? By what principles shall we be guided in the selection of material? This must be determined:

1. By the aim of the work.
2. By the nature and development of the children.
3. By the prevailing conditions, such as season, prepara-

tion of teacher, character and amount of similar work previously done by the children, and location and environment of school.

As has already been said, the general aim of all the work, and the special aim of each lesson, will largely determine the character of the work done. It will also greatly influence the selection of material. Assuming that the teacher is striving to develop the higher nature of the children and to bring them into the best relations with their surroundings, what should she study with them in beginning the work in nature study?

We have agreed that the first aim, the first essential in nature study or any other work, is interest. We can find no safer guide than to study the interest of teacher, of child, of parent.

In beginning work in nature study it will be found best for teachers to select some line of work in which they themselves are most interested and with which they are most familiar. If any teacher is particularly interested in birds she will be most successful in bird study with her pupils. If teachers are fond of flowers they will be more apt to awaken in the minds of their pupils a similar fondness. If they have a pet cat or squirrel or rabbit that will make an excellent beginning for their work in nature study. They will arouse in their pupils an interest in that in which they are interested. This interest, once awakened, will broaden until it includes other parts or phases of nature, and the interest and enthusiasm of the children will react on the teacher and broaden her interest.

On the other hand, if teachers are compelled to take up, in the earlier work in nature study, material toward which they may have a decided aversion or antipathy, such as earthworms and spiders, this feeling is likely to be shared by the children and will tend to make all the work in nature study distasteful.

Teachers who are beginning this work will find it wise to study and be largely guided by the interest of the children. If some child has a pet squirrel in which he and his playmates

are interested have him bring it to school and let the children watch it for a few days, studying its habits, the use of its different parts and the way in which they are fitted for the work they have to do. Their interest in the squirrel thus aroused, the teacher and children can read about its home in the woods and study some of its relatives—the other gnawing animals. Thus the squirrel may be the starting point for a series of lessons on animals. Do the children come with a story of the robin's nest with its little blue eggs which they have discovered? That may be a good starting point for the spring bird study. The wise, tactful teacher can, of course, stimulate and guide this interest by apparently following the children when she is really leading them.

In the earlier work in nature study the writer has always found the interest of the children to be the best guide in the selection of material. If it was found unusually difficult to interest the pupils in the material selected, then in general that was not the best material for those pupils. If they were unusually alert and enthusiastic, then it was well to take advantage of their interest and study thoroughly. As the children studied nature more their interest broadened, until they could be interested in almost anything.

It is wise to consider in the selection of material, particularly in beginning work in nature study, the interests and ideas of the parents. Nature study is, unfortunately, new in most schools, and, like all new things, will meet with much opposition and criticism. A wise teacher can very often disarm the critics by a proper selection of material for study. In the manufacturing town comparatively few parents will object to having their children study about machinery or iron, or about the cotton from which they make their cloth. In a coal-mining region the study in the school of coal and its formation and mining and transportation may be welcomed by the stanchest believer in the three R's. In the country the study of corn or wheat or oats, of fruit trees, or of plant food and soil or of insects, may not be regarded as a very dangerous innovation. The machinist would be much more apt to object to having his children "waste their time" on

flowers and bugs and stones. The farmer could not see the sense in spending time in school on electricity and machinery, the value of which he could not see.

Later, when the children and parents have been interested and the parents have learned that nature study helps in other work of the school and develops and awakens their children, the teacher can select her material and plan her work with less reference to local conditions and less allowance for parental criticisms.

SUGGESTIONS TO TEACHERS.

Teach the children how to write letters. Comparatively few children know how to write letters properly. Get a box (a large paper box will do) with a slit in the top of it, and let it be the postoffice, yourself or some pupil be the postmaster. Have the pupils write each other. The best way is to pair them and write each other. The children will delight in the work, and there is no other way they can learn so quickly—they learn by doing.

Every teacher should go about her work with the understanding, the feeling that there is a vast difference between making a life and making a living. If your purpose in teaching is only to make a living, your pupils are unfortunate in the School Board's choice of a teacher.

Start what will be as much of a museum as your own efforts and those of your friends and pupils can make it. Gather pictures, large and small, fossils, minerals and specimens of various kinds. Gather together a lot of railroad advertising matter, which in these days of progress in printing, lithographing, etc., is full of good maps and fine pictures. There is nothing better for teaching the geography of Canada.

Some teachers act before they think, but there are teachers who do not act even after thinking.

Many teachers talk a great deal, but seldom do the things they talk about.

In your dealings with patrons be kind and considerate, but at the same time give them to understand fully that you are running your school. Keep yourself out of all differences not relating to the school.

Attend strictly to your own business, do not frolic. Study and read. If you are out for a good time quit the school-room; only men and women that mean business are needed there.

Make out an outline of study and follow it. Have but few rules and see that they are obeyed. Keep a close watch on your room.

If there is no library in your school purchase a few classics for each grade and lend them to your pupils. Live such a life that the children who imitate will make honorable citizens.

There is no question, that, as a body, teachers talk too much. Don't, however, err on the other side and talk too little, for telling is talking, and telling is at times absolutely necessary.

The teacher who knows what ought to be done is just the one to do it. The pupils told to do things may do them for the telling; they'll be sure to do them if the teacher leads the way in doing them.

Cultivate punctuality in everything. Begin and *close* school promptly. Call your classes on time and dismiss them promptly. Plan so as to accomplish all you can in the short time you have for each class. When you think of how little you have accomplished in the short recitation time, remember that the lesson of punctuality is worth more than book knowledge.

Punctuality keeps the circulation of the school in a brisk,

healthy condition. It is the best of tonics. Without it the school work becomes clogged and the work drags. You mark your pupils tardy when they enter school after it has begun. How about closing school recess, noon or night, five or ten minutes late?

Does your watch keep good time? It should be *absolutely accurate*. Your pupils should come to trust "teacher's watch" and to know that "teacher" knows the right time and runs all the school trains on schedule time.

Don't get flurried or worried when a school superintendent or other officer from another school in your own or some other town visits your school. It's an embarrassing position, of course, to be giving and hearing lessons when one knows every action is being watched; but you must be perfectly natural, and to do things exactly as you do when visitors are not present.

There is nothing we need more than higher qualifications for teachers, and there is an increasing demand for such yearly. We'll never get it, and won't deserve it, until we become fair and just, and pay salaries in keeping with the work of teaching, thus enabling those in the work to qualify for better work and induce those qualified to enter the work. Even with higher qualifications, and higher salaries, the schools will not be what they should be until the number of pupils to a teacher is materially decreased.

"Slow and sure" has had its day. "Sure and fast" has taken its place. Accuracy and rapidity must go hand in hand. Especially does this apply to writing. Children must learn to write well and rapidly at the same time. This can only be accomplished by proper position of the hand and arm. You cannot teach your pupils to hold their pens properly if you do not hold your own pen correctly, and you can only acquire this habit by constant and patient practice. You will feel paid for the trouble when you think that you

are helping boys and girls to acquire a habit which some day may enable them to earn an honest living. Business houses require plain rapid writing. Give your pupils a copy and keep a record of the time it takes to write it. Let them practice it until they can write it well and rapidly.

The teacher who creates an atmosphere of happiness and helpfulness is a Godsend in these days of rote teaching and "lump it" way of going through the day's work.

Very often laggards can be made leaders by words of suggestion. A word of suggestion has in thousands of cases made stepping-tones out of stumbling-blocks.

The best teachers are not specialists, but good, all-round teachers. What would the great majority of the public schools be if they depended on specialists? There are things you have a natural bent for, succeed best at, and would rather teach, but the other things must be mastered so you will be a specialist in each department. Compel yourself to qualify in the things at which you are weakest.

Our grand business is, not to see what lies dimly at a distance but to do what lies clearly at hand. —Carlyle.

They are never alone that are accomplished with noble thoughts. —Sir Philip Sidney.

Words are things; and a small drop of ink,

Falling like dew upon thought, produces

That which makes thousands, perhaps millions, think.

—Byron.

ACCURATE SPELLING.

The habit of accurate spelling may be acquired without swallowing the whole dictionary. It has been found that if a pupil knows a certain number of words perfectly he is better able to determine what other words he doesn't know ac-

curately. He then knows when to use the dictionary. Let him be sure of five hundred words of common usage and you have him put on the road to success in spelling. But he ought to be absolutely sure as to the words he assumes to know.—Minnesota School Journal.

PRODUCT CARDS.

Our classes made product cards last year. The pupils made a systematic study of some product, as coal, iron, cotton, silk, wheat. Specimens were collected from near and far mounted upon a large oblong cardboard. An essay was written and fastened in the middle of the card. Some of the cards were really works of art. Where a specimen could not be found drawings were made on the cardboard. Pupils wrote to silk mills, mines and cotton plantations for their collection. Cotton and tobacco seeds were planted in boxes at home, and when the warm weather came were brought to school, where we watch their growth with much interest.—Alberta E. VanCamp.

PICTURE STUDY.

In picture study have a definite number of good pictures to be studied during the year, and see that every child is provided with one. Help them to see wherein its beauty lies. Let them write about the picture and mount it. Give a little study to the artist, his biography, history of his time, conditions which led him to the painting of certain pictures, to distinguish certain artists' pictures by their style. Tell them where the original pictures are to be found in the great galleries—in fact, study pictures just as we do literature, getting all the fine thought possible out of them.

—Fitchburg (Mass.) School Report.

A REST EXERCISE.

As a "Rest Exercise" when boys and girls are inclined to be restless, I have used the following:

We call it, "Do As I Do."

1. Hold book with both hands above head.
 2. Wave book with right hand above head.
 3. Wave book with left hand above head.
 4. Rest head back on book.
 5. Book held in right hand extended.
 6. Book held in left hand extended.
 7. Book held to forehead, looking to right.
 8. Book to forehead, looking to left.
 9. Place book on floor, keeping stooping position until fourth count.
 10. Book to top of head and moved up and down to counts.
 11. Book to chest and moved in and out with both hands.
 12. Book held over left shoulder by right hand.
 13. Book held over right shoulder by left hand.
 14. Pat back of pupil in front four times.
 15. Book open in left hand as for reading. At fourth count all sit down.
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DEALING WITH THE INDIVIDUAL PUPIL.

It is not the province of the teacher to transform the pupil into anything unnatural, but his duty to make the character under his control self-reliant and strong in its own powers. Many a child who is celebrated for dangerous fits of temper at home becomes entirely transformed under the influence of a kindly teacher who knows something of human nature. It is well, when the pupil disobeys, for the teacher not to be troubled or to show to be disconcerted in the least. A teacher had a boy who was rude and troublesome; she called him to her desk; he came, and while standing about a yard away she looked him steadily in the eye, then she said,

coolly and slowly, "You may take your seat." That boy felt his teacher's mental force; it troubled him. After school he came up and said: "I don't see what you called me up for; I haven't done anything." Now for the tact. She looked him coolly in the eye again and said: "Come here again tomorrow; I have nothing further to say at present." At that time she had him in a state of mind where good judgment made him a helpful friend, and when he appeared the next day he came trembling before that teacher. He felt her power. This and the teacher's influence must be supreme. A mother who met the children's teacher said: "How do you get along so well with Jennie in school? She has never minded me well, and I have so much trouble with her, but I never hear of any trouble with her at school. I wish you would tell me how you manage her." Hear an ideal teacher's answer: "I always expect Jennie to obey me, and she does." "But," said her mother, "don't she refuse to do her work when you give it to her?" "I take for granted," said the teacher, "that my children are going to do what I ask them. Time enough to watch them when they fail to do the work. But they do not fail. I should not want to be watched and suspected if I were in their place, and so I let them see that I believe in them." The mother went away puzzled but feeling certain that if this teacher should ask her to do anything with that bright, confident way of hers she should certainly do it.

A FEW DONT'S FOR PARENTS OF SCHOOL CHILDREN.

Do not tell the teacher that Willie will not lie. She probably knows better.

Do not plead lack of time to visit the school. There is no excuse for shirking a duty.

Do not forget that the parent owes a duty to the teacher as surely as the teacher does the child.

Do not expect the teacher to manage without friction a child whom you have never been able to control.

Do not believe all your children tell you about school. There was only one George Washington and he is dead.

Do not forget that the teacher's interest in your children is personal. She will do more for them than anyone else except yourself.

Do not condemn the teacher without a fair hearing. That is accorded to even the worst criminal. There are usually two sides to a story.

Do not reproach the teacher with the fact that "Tommy has not learned a single thing the entire year." She is not to blame for his lack of brains.

Do not send a verbal request to have Jennie's seat changed. There is often no vacant seat and one change often means a half dozen.

Do not send a scathing note to the teacher by Nellie, the contents of which she knows. Her aggressive look of triumph is not soothing and the teacher is only human.

Do not make unfavorable comments upon the methods of the teacher in the presence of your child. Send him to carry in the wood while you are doing so, if it must be done.

Do not expect the teacher to understand Jimmie's disposition the first day. You have studied it for six years and there are still kinks in it which you have failed to straighten out.

Do not fail to make allowances for slight exaggeration when hearing of pranks at school. They strive to stimulate the imagination at school nowadays, but hardly in that direction.

Do not accuse the teacher of undue favoritism. If she is kinder to one child than to another it is because that one does not take advantage of the liberty allowed him. This is simple justice.

Do not insist that the teacher is keeping your child back through spite. She will not risk her reputation as an instructor to gratify a personal grudge, however disagreeable the child may be.—Ex.

DEVELOP A DOMINATING IDEA.

From an Address by President Charles W. Eliot, of Harvard

Education for efficiency should supply every pupil with the motive power of some enthusiasm or devotion. The real motive power, in every human life, and in all national life, is sentiment; and the highest efficiency cannot be produced in any human being unless his whole character and his whole activity be dominated by some sentiment or passion. An evil passion may give great physical and intellectual powers a terrible efficiency. A good passion can make ordinary talents extraordinarily effective. A life without a prevailing enthusiasm is sure not to rise to its highest level. These private enthusiasms or devotions are fortunately almost as various as are the characters of men. There are also beneficent enthusiasms which pervade simultaneously multitudes of human beings, and give them a common effectiveness. At this moment a gregarious enthusiasm for social service inspires a considerable proportion of educated American youth. Any one who has read many biographies will have perceived that the guiding enthusiasm of a life often springs early into view, and that this is almost always the case in the most effective human beings. The youth has a vision of the life he would like to live, of the service he would choose to render, of the power he would prefer to exercise; and for fifty years he pursues this vision. In almost all great men the leading idea of the life is caught early, or a principle or thesis comes to mind during youth which the entire adult life is too short to develop thoroughly. Most great teachers have started with a theory, or a single idea or group of ideas, to the working out of which in practice they have given their lives. Many great preachers have really had but one theme. Many architects have devoted themselves, with inexhaustible enthusiasm, to a single style in architecture. Some of the greatest soldiers have fought all their battles by one sort of strategy adopted in their youth. Many great rulers have harped all their lives on only one string of national or racial senti-

ment. Among men of science the instances are innumerable in which a whole life has been devoted to the patient pursuit of a single vision seen in youth. For common men and women two or three of the common loves will suffice—the love of family and home, of school and church, of mountain and sea, of nature and books, of private and public liberty, of truth and justice. For us teachers it is indeed an inspiring fact that effective and enduring enthusiasms spring up spontaneously, or may be implanted, in early life; for without them education cannot procure the highest efficiency either during youth or for the after life. Education for efficiency must not be materialistic, prosaic, or utilitarian; it must be idealistic, humane, and passionate, or it will not win its goal.

WHY EDUCATE?

By Prof. Frederick Treudley, Ohio University.

The Individual.—The end of all real education is to build up strong, vigorous, consistent and beneficent personalities. A person is one who thinks and feels and wills—the degree of whose power, coupled with the proper exercise of that power, constitutes the wealth of personal life. All vital progress begins and ends with persons. Below the range of personality lies the unconscious world. Blind instinct rules here, shaping its forms in accordance with laws inherent in nature laid down by One whose personality embraces the identity of thought and will. No schools are erected for these forms of life. No destiny awaits them. Life offers no cup of sorrow or of joy. They live and die conscious of no reward, of no loss, of no defeat. They respond to environment with the precision of machines. Death comes without regret, for life has yielded no experience. Their lives are more like the fairies referred to by Macaulay, who are born every morning, whose mission is to play upon the fields of Paradise and to give pleasure and, at night, to die and be forgotten.

Above the line separating this lower life from the life of human beings all is different. With self-conscious, self-active, self-determining life is associated responsibility. With responsibility is associated freedom of choice. With freedom, good and evil, and in the possibilities of success or failure involved in these, lies, at least in great part, the source of those energies engaged in working out the solution of the problems of life.

Education, in its general meaning, implies the drawing out of latent power. Broadly speaking, all conditions of life educate. Life, we say, is a great school whose processes and requirements end only with the grave. The narrower sense in which the term is used, and the most current, refers to the conscious efforts by individuals or peoples to fashion the character of youth in accordance with accepted ideals. How great the boon conferred by a sound and generous education can be appreciated in full only by its recipients. Outward successes are pleasant. Ability to achieve results gratifies the self; but what constitutes the choicest portion of life is the possession of the consciousness of personal worth whether expressed in terms of intelligence, feeling or service. Because youth is unconscious of its high estate there is owed to it, by its superiors, the care and culture demanded by its natural powers.

Why send to college? Because, as has been well said, no other place offers such an assembly of advantages. Here are gathered out of many communities and homes the most ambitious youth. Here are found men and women fitted by study, contemplation and experience, to minister to the wants of youth. Here are found in laboratories, museums and libraries, the results of the world's best thought. Wisdom and cheer and hope meet the young man upon the very threshold of his career and unfold the future before his wondering gaze. And the results are not doubtful. All experience confirms by unmistakable and overwhelming evidence the value of an education to him who properly appreciates it. Take the evidence supplied by an analysis of the factors found in the publication, entitled "Who's Who in America."

Out of ten thousand seven hundred and four names of persons over thirty years of age, whose general merit and position seemed to entitle them to mention in this publication, and taken from fifteen millions of such persons in the United States, not one representative is found of the class of uneducated numbering one million seven hundred and fifty thousand. Thirteen hundred and sixty-eight names represent the great class, numbering twelve million, which had received a common school education only, or one to nine thousand. Those who had received a high-school education and who number six hundred and twenty-seven names or one to four hundred. The college people, numbering three hundred and twenty-six thousand, are represented by seven thousand seven hundred and nine persons or one in forty-two. These deductions, vouched for by competent authority, are eloquent with unmistakable meaning. If to this be added the facts that 64 per cent. of the present United States Senate, 56 per cent. of the National House of Representatives, 65 to 75 per cent. of our presidents, cabinet officers, judges of national and state courts, and state executive, 90 per cent. of our professional teachers, 60 per cent. to 70 per cent. of our lawyers physicians, dentists and pharmacists, 40 per cent. of our bankers, 30 per cent. of our editors, and at least 25 per cent. of those directing the working and business energies of the country, are college-trained men, no further comment needs to be made as to the practical availability of education with regard to what the world calls success.

The reason of this is not far to seek. The power which controls life is personality, and personality is constituted out of spiritual gifts. In college the youth is brought into direct contact with the vast wealth of experience gained by humanity in its progress through the centuries, and under conditions most favorable for its assimilation. He comes into vital touch with her great men and women, her poets, prophets, kings, statesmen, philosophers and scientists. He ascends to their point of view and against their perspective. It is all a species of vicarious atonement. The world works, experiments, succeeds or fails, and offers it all to the youth. He

learns to know what to avoid, what to accept, and, above all, learns to realize the absolute certainty of the moral law.

"My will fulfilled shall be,
In daylight or in dark;
My thunderbolt has eyes to see
Its way home to the mark."

With lessons so profoundly significant he creates for himself a world as rich and varied as he is able to make it.

In the midst of such surroundings his formative years are spent. He learns the value of ideals and feels their influences. He comes to see that life is, or ought to be, consecrated to service and that suitable reward under some form will inevitably follow. He learns, or may learn if he will, to distinguish between rewards and rightly to apportion their value. Thus fortified he is qualified in measure to go forth into the world not only equipped with powers rendered keen by exercise upon difficult problems, but filled with hope and capable of anticipating fortune and finding her upon her own ground.

The Family.—A second profound reason for the full and adequate education of youth is to be found in its direct and indirect influence upon the home. The home is the very bulwark of all life whether social, political or religious. No gift can be rendered by the individual to society, the state, or the church, comparable to a home which embodies within it a high sense of intellectual as well as moral values. Its influence is, or ought to be, paramount in determining the aspirations of youth. If it be asserted that many of our most distinguished personages have come from homes without much formal education, it may be replied with profound truth that the spirit which animated those homes, where extreme self-denial was practiced, often made possible aspirations and desires, which were breathed into the soul of the children for which the opportunity of satisfaction was denied by conditions beyond control.

The most implacable foe to the home is not poverty, but

sordid greed. Greed finds a firm ally in ignorance. Education multiplies wants, but at the same time exalts their character. It increases the tension of the struggle to gratify them but at the same time it lends dignity and worth to the conflict. It lifts it above low ends. It consecrates endeavor. It hallows the combatant. It creates honor. It assigns ends of permanent worth. It would be very hard to say which were the greater character, Daniel Webster or the father who in humble life toiled that his son might realize his inherent greatness; Garfield or the little woman whose sacred dust, consecrates with his, the noble tomb erected to his memory.

Adequate cause must be assigned in accounting for effects. Something can not come from nothing. Emerson and Lowell and Longfellow and Holmes and Bryant sprang from what has been felicitously styled the Brahman class of New England. By what conditions was that class created? By law—by favoritism—by chance? No. By the same conditions which, under free and impartial government, make possible all other forms of worth—noble homes amidst communities of educated citizens who realize the worth of education and make provision for it.

He who will investigate the history of Massachusetts and will compare the number of her distinguished sons and daughters with the wealth of educational opportunity offered by that glorious old commonwealth will have occasion both to wonder at and esteem the precision with which renown follows upon the exercise of fidelity to high ideals; and if he will, with Galton, trace the operations of the same forces in England he will witness to the same truth realized on a yet broader scale. A home presided over by an educated parentage is a better home every way, other things being equal, than one not so endowed. If the eternal qualities of manhood and womanhood can not be trusted to receive and assimilate true education without impairment of capacity to found and maintain worthy homes, what hope remains for the future of the race? It is a reflection both upon intelligence and birth-right to affirm the impossibility of devising and applying systems of education of such a character as to

exalt personal worth and efficiency and thereby to confer a boon of inestimable value upon the humblest. Education begins in the home and returns blessing and honor upon the home. Unless it proceeds from there it will not return.

Society.—When one considers the innumerable opportunities that offer for influencing life through personal conversation, that here alone are settled the really great issues of the world, that while one's words should be, "Yea, yea; Nay, nay," in the sense of simple and absolute truthfulness, yet ignorance and inability to comprehend greatly tend to obscure vital questions, that the pernicious fads and "isms" with which the world has always been so sorely troubled, and by which its progress has been hindered, find their roots and sources of vitality largely in the dangerous power of half-truths, made dangerous by the existence of so many poorly educated persons, that conversation and its opportunities extend to every rank and condition of life, that it is the only avenue whereby a man is able to influence the character of the children of his heartstone, his neighbor, friend, associate in every line, and when, above all, it is considered how words constitute the very essence of life and reveal as nothing else can the fundamental worth of the individual, and if to this be added the thought that the utterance of speech tends to confirm opinion and solidify character along the lines of expressed conviction, it can not fail to become apparent how vital is that training which qualifies youth for service through language with which we bless or with which we curse. Well did Cardinal Newman write—

"Prune thou thy words, the thoughts control
That o'er thee swell and throng;
They will condense within thy soul,
And change to purpose strong."

The Church and the State.—The problems which, perhaps, most thoroughly test the intelligence of the people and whose solution determines the public welfare, are those connected with and springing from the administration of gov-

ernment and religion. The profoundest aspirations of the soul are at root religious. Whether men will or not they can not ignore these questions.

Nor can political questions be disregarded except at the peril of the individual. Aristotle observed that man is a political creature. It is the same as to say that nature has willed him to manifest himself in this way. The state becomes his protector, his inspiration, his hope, his glory. By means of the state he realizes his personality. It is indeed his larger self. Thus it becomes true that patriotism is one of man's noblest traits although, as Dr. Johnson cynically observed, it may become the last refuge of the scoundrel. But powerful and beneficent states can not be erected upon ignorant or unsound foundations; and while intelligence is no necessary ground of virtue, yet it may be affirmed that the temptations of ignorance are infinitely greater and more numerous than those which assail intelligence.

While it is true, in a measure and possibly entirely, that all great and vital questions are at bottom moral questions, their tendencies are not easily discerned. The simple questions of right and wrong as between man and man are more easily apprehended. But problems involving intricate processes of reasoning economic questions, those embracing many interests, whose just solution allays the sense of injury while the reverse fans the flames of discontent, the working of the vast and intricate machinery of government of a great people—all require intelligence on the part of the people and this the more in lands where the people rule.

It is this feeling that lies at the bottom of the wonderful energy and interest expended upon our system of public education. But while education is a public question it can only become so because it is a private and an individual one. Each person must educate himself and those for whom he is responsible. The admission and acceptance of responsibility by the individual, is what makes possible collective growth and power. More than that, there is no natural limit to that responsibility. The obligations which compel the parent to send his child to the public compel him to send him to college

if ability, on the part of the parent to perform the service, is clearly met by capacity on the part of the child for a correspondingly larger work, both public and private. The problem of problems is how and by what avenues the child may be led so that he may become the most effective instrument in behalf of the public welfare.

Moreover, with changing standards, with larger opportunities for service, with greater demands for moral and intellectual power, with which to carry on a government dealing with questions of growing complexity through world-wide connections, the obligation to seek an adequate education presses more closely home. That which was adequate a few short years ago is no longer so. The possibilities of success are shifting to higher planes of thought and feeling. College-trained men must meet college-trained men or else fail under the competition. But, above all, it ought to be the one exceeding joy and comfort of parentage to make this provision for childhood. It is its crowning grace to realize that life and energy and wisdom have been given for the express purpose of transmuting the baser into the higher metals. Education founded upon Christian morals has become in this country and in England, at least, the philosopher's stone. The extraordinary growth of the Anglo-Saxon peoples and, with this growth, the immense increase in the common comforts of life through mastery over nature find in Christian education their true explanation. It is for this we should educate, that the individual may be quickened in mind and heart and body in order that he may serve the great institutions of life—"the powers that be which are ordained of God," the family, society, the state, the church, in order that through their strength founded in justice, wisdom and love, they may in turn encompass the individual, however lowly, endow him with their power, confer upon him his birthright, and redeem him to a life of worth and happiness.—Public School Journal.

PRACTICAL QUESTIONS IN THE PROBLEM OF SUPERVISION*

Franklin B. Dyer, Ph. D., Superintendent of Schools of Boston.

Truth is many-sided. We think of truth as being eternal, but truth is short-lived. I have lived to see the truth come and go some four or five times in the department of education. The truth as I saw it twenty-five years ago is a vastly different thing from the truth as I see it today. Now, it is possible that the view of truth as I had it twenty years ago had certain elements that are permanent, but the truth as I see it today may be very different and I may neglect all the essentials of the old. I believe in certain things that we have inherited, and I do not think it is necessary to reject them. I do not want to give up anything of the old that is good, but that does not mean we ought to blind our eyes to the new. It does mean, however, that if truth is many-sided, we may get a side of the new which need not exclude the old. That is what I have always worked for in education: to be openminded. That does not mean the rejection and disposal of the old. The education in the little red school house was of immense value, and yet the new education in the little red school house is quite different. If we are open-minded and growing people, we are going to be something else to-morrow; we are going to have a larger vision which may not exclude the old. The difficulty we have in our modern system of schools is, that the reformer comes along and rejects everything old and puts in everything new. It is the business of the wise person to reconcile the old with the new, to bring them into harmony.

*Abstract of Dr. Dyer's address at a meeting of Superintendents and Principals of Philadelphia, held under the auspices of the Professional Committee of the Teachers' Association, Margaret T. Maguire, Chairman. Stenographic notes taken by Anna Broomall.

At the present time there is a tremendous amount of discussion about standards and measurements. "Survey" is the catch-word of the day. I said at Richmond I was ready to go into the business with all my heart, but I want to do it myself. It is a problem to be worked out from within and not thrust on us from without. I believe it is a good thing to be concerned with our results, and I hope the time will come when we supervisors may be able to convince our teachers that the scientific attitude of mind is a very good thing for a teacher.

Things are not all right with the school room. If we could only get the scientific attitude and study our own results; not attempt to prove we are right, but attempt to see if we are right; and then if we are not, and these results are not what they should be, if we could only look into the causes dispassionately and study our results. But we want to see if these results are in accordance with our theory. The scientific attitude that deliberately tests its own theory in an impersonal and dispassionate way is what we want our teachers to have. That new attitude on the part of teachers will come with the development of standards and measurements, if it comes from within; but teachers must not be forced.

THE CURTISS TESTS IN BOSTON.

Last winter in Boston we tried the Curtiss tests in arithmetic, giving them to twenty thousand children, and I feel that that was an eye-opener to us. This year we are applying that test to thirty thousand children. That is a start in the right direction. I would like to have you see in brief what that would mean. Each of these thirty thousand children is charted. The diagram is made by the child himself, with the help of the teacher, if his individual deficiencies and abilities in the various processes in arithmetic, such as subtraction, addition, copying of figures, reasoning, etc. If he is short in addition, we go to work to discover wherein he is short, and often find there is a habitual error which he makes. In addition we often find the individual has certain

idiosyncrasies and certain peculiarities. Whenever these come up in a problem, he has it wrong. Many children say 7×7 is 7, habitually. Each child has something to work out. We attempt to set a standard for the children in the fourth or fifth grade. They should be able to add a certain number of figures in a certain time correctly, or with a certain percentage of error; and when they have attained that standard, a child should not receive any more drill. Beyond that point is over-drill, and there is just as much danger from over-drill as there is from under-drill. Overdrill is a stupefying process and a waste of time.

So you can see how the school within itself can study itself and get something concrete before the children and teachers to work for. I believe there is something in certain measurements, and I believe they will be a great aid to the teacher if she will go into the question scientifically; not attempt to make a good showing, but try to diagnose the cause of failure and improve by applying the needed remedy.

We have been attempting to get a group of words in spelling that should be mastered. There is a great distance between beautiful spelling and actual, practical spelling. There should be an irreducible minimum that the children should be able to spell in each grade. We secured this irreducible minimum by the process of elimination. In schools today we are spelling thousands and thousands of words and yet overlooking the little words that bring the condemnation of the business man.

TEACHERS' MARKS DIFFER.

We are also endeavoring to measure composition. In the eighth grade we had fifty teachers at work on this. Twenty compositions were selected from a good, strong eighth grade; twenty different pupils' work, varying from good to bad. Then these fifty teachers marked these compositions. The children were given a choice of things upon which to write. The teachers were told to mark the highest 90 and range them in order, and not mark any two the same, making a minimum of 20 or more. Now, we found a very astounding thing. The composition which was best in the

minds of some was marked as low as 40, 50 or 60 by others. Other compositions which were marked medium varied all the way from 80 up, according to the marking of different teachers. I think I am very mild in my differences. We found that the variation of that group of teachers was 50 or 60 per cent. This means that teachers have not distinct ideals of what children should do in the eighth grade, and likewise in the other grades. The teachers finally standardized their marks. By the law of averages, if you take fifty opinions and average them, you will get pretty close to facts. We gave these compositions to another group of teachers, and after striking a final average, we took that set of compositions as standard. Here is a composition worth 90, 80, 70, 60, etc., for eighth grade children. When they took compositions and hit upon one as a standard in description, they then took one for narration, and so on. They attempted to make a set of compositions—five worth 90, five worth 80, etc., so teachers could get a clear idea of what a composition was worth. Teachers must get standards in their own minds before they can attempt to bring children up to those standards. Just at this time the teachers have been given another group of compositions to mark, so that we may see how, with these standards before their minds, they will mark these others.

At a recent meeting in Boston, this question was discussed: "What should children be able to do when they go to the high school?" I will tell you what a high school teacher of English said, to show how meek a high school English teacher becomes when brought face to face with conditions. He said he would be satisfied if the children sent to him used the period and began each sentence with a capital letter. Now, that is pretty modest, isn't it?

HOW MUCH GRAMMAR?

I want to say to you that it is absurd for us to stuff children with numberless minute differences in grammar. Nobody uses them except the pedagogue in plying his trade. I went into a school where grammar was begun in the fourth grade and continued up into the eighth. I went into class-

rooms in the spring to give the pupils their tests, and said: "Tell me what part of speech that is,"—alluding to the desk. Everybody said it was a "noun." I struck the desk and asked what part of speech that was, and everybody said it was a verb. I then said, "What part of speech am I?" Everyone said, "You are a pronoun." I went into the fifth grade and got the same answer. This was repeated in the sixth and seventh grade. I said, "I do not consider myself a pronoun." One or two of the girls began to see the point. In the eighth grade, half the girls and a few of the boys saw what I was after. Now, what should be known about grammar when the child goes on to the high school? What should be the irreducible minimum of grammar that each child should know when he goes on? I am not going to make you think I am a radical, but I will say that if he knows as many things about grammar as there are fingers on my hands—actually knows them as part of his experience—I should feel happy and be very well satisfied.

DEVELOP THE HIGHER POWERS.

As I said before, I believe in standards and measurements when they are utilized by the teachers themselves in investigating the problems of their own school-room and diagnosing the individual children under their own care. But that does not mean that everything worth while in education can be measured. It means that those little things which we call the "Three R's" can be reduced to a minimum and mastered, leaving the strength and time of the teacher very largely to do those higher or spiritual things in education which are of most worth. Teachers confuse those facts which are to be fastened in the memory with that other use of facts which is for the development of the higher powers. The brain is on two levels; or, we have two brains, the upper brain and the lower brain. The lower brain is the seat of voluntary action, reflex action, etc.; and the higher brain is the seat of the God-given powers, such as reason, aspiration, religion, emotion, and all the higher faculties and spiritual powers. Now, the great business of education is no doubt the development of those higher powers. There is

a vast difference between the use of facts for the development of the higher powers, and the mechanical, memoriter drill, the routine possession of facts. I think that supervisors do not recognize that enough. You go through your schools and admire the teacher who gets the children to recite well. The teacher says, "Now think, Johnny; think well." What does that teacher mean? She does not mean "think" at all. She means "Recall what you read about that." That is not thinking. If the teacher would only get Johnny to think, she would be doing a great thing for Johnny. We confuse educational processes there when we say "think."

"GRADGRINDIAN" FACTS.

I will illustrate another side of facts. Suppose we take the life of Lincoln. What do we want to endeavor to do for the child? We want him to get a vision of that character. We want him to consider the kindly consideration of Lincoln for his fellow-beings, his great heart, and his great mind. We want these great qualities of Lincoln to have a local habitation. The children read and talk the details of his life, and get a real vision of that great man. That vision is imperishable. It is an abiding possession of theirs. They may not in later years be able to tell you when he was born, or when he died, or know an actual event in the life of Lincoln, but they are none the worse for having forgotten, for the forgotten still counts. It counts forever in that it built up in their minds a vision of his character. As that vision imbeds these worthy characteristics and worthy ideals in us, we forget the facts. The facts were a scaffolding on which the structure was raised, but when the structure was up the scaffolding had served its purpose.

But there is another use of facts. Take geography. There is a great misuse of facts in geography teaching. Teachers pound with equal fervor upon each fact in the book. Training of the mind is best done by the measuring of facts, the connecting of ideas and discovering their relationship, instead of merely recalling.

I have seen Holland taught in three ways. One way was to take the facts of the book, read them,—all about the

windmills, storks, canals, wooden shoes, etc., fact after fact. I have seen other teachers who used another way. They had the children see the facts. They brought pictures of the country, and had the wooden shoes in the school-room. They had a picture of the stork on the pinnacle. They introduced supplementary reading and attempted to make Holland real to the children. This is better than the first way, which was mere fact study.

The third type of lesson is the one where the facts are used for their real value. There is an attempt to get the children to see the relation of the dike to the canal. The dike dams the water up, but it slowly seeps through, so that it is necessary to have this enormous drainage system which we find in Holland. Even then the water would rise as high as the canals if it were not pumped out by windmills. The stork is the "holy" bird, because it catches the crawfish that would eat their way through these dikes. The wooden shoe is necessary because everything is damp and mould would fasten upon leather and rot it. So the child builds up in his mind the relationship and sees the harmony of all these conditions in Holland. He organizes these facts, and Holland really means something to him. Agassiz says, "the stupidest thing in the world is a fact—but the most interesting thing in the world is facts brought into relation," The mind hungers for that, but not for one fact after another.

I can see that while we are developing the higher powers of the mind, there is an occasional fact that will stick. Facts, to my mind, however, are simply hooks upon which we may hang a great amount of real matter. Children should have certain number facts. I tell you if they can add without making mistakes, and multiply without making mistakes, and do long division without making mistakes, I should be pretty well satisfied. There are a few little things I should like them to be able to do in spelling and arithmetic, etc. From the training of the spiritual powers or the higher faculties, or the higher brain, there should filter down an occasional fact to the lower keyboard that should be made automatic. That automatic part may be measured for results. In our course of study and in our work as supervisors, we are not

getting our teachers to discern between that which is mechanical and that which is spiritual. I recognize that the public clamor for the "Three R's" is justified and can be met, and yet leave threefourths of the time of school life for that which is essential. The tendency of the school is toward memorizing and applying little rules. We should separate that all out and measure it, but have the teacher feel we are doing that bit of drudgery to free our spirits for the great vitalizing process of education where "art kindleth the heart," where the sympathy and the joy of the teacher meet in the response of the child with equal sympathy and joy.

KINDS OF TEACHERS.

Teachers are of three classes. First are the misfits, who are absolutely unfit for teaching, temperamentally and in every way.

We must carefully distinguish between the second and third classes. They do not differ so much in ability or in appearance, but they differ vastly if you have followed my discussion. The second group is made up of the stationary teachers. Our teachers come from the normal school and find out how to do things; all the nice little ways of teaching spelling, arithmetic, etc. They are well meaning people, with the ambition to become skilled teachers. They want to learn to do that thing well, and work like fury for a few years to gain skill. The skillful way of doing things is the easy way, and when they become skillful they do their work easily. They become mechanical teachers. They discover the best way to do things. Woe to the teacher who has discovered the best way of doing things! The best has been found, and that teacher should now be translated to another sphere. In our cities we develop, after teachers are five years of age as teachers, a great mass of stationary teachers who have become skilled.

There is that saving group of teachers, more than we sometimes think, in every city school, who are the progressive teachers, who are developing new interests in teaching, new discoveries, possibilities in their course; new and interesting things about their children; who bring to their teaching that joyousness of spirit which we call enthusiasm. The

finest thing a teacher gives herself. We may reduce much of our teaching to routine with great advantage, but the human touch and the sympathy—that must be vital, fresh and new.

Anybody can tell in five minutes if the condition of the school-room is normal when he visits it, whether he is in the presence of a teacher or of just a stationary engineer. What is the test? Just look at the children. See how they do their work.

A little while ago, President Eliot stated the most important quality of a teacher in these words: "The finest thing that a teacher can have is the joy-giving power; the power of begetting joy on the part of children as they do their work." You can't have that spirit of joy manifest all the time in the school-room, but if that is the prevailing note of the teacher, the burning and ardent desire of the teacher—to get the spirit of joyousness in work—that is the teacher for me! I will take her failures, if she has any, in preference to the most skillful and dead teacher in your city. For life begets life. The spirit of joy and enthusiasm begets the spirit of work. The vitalizing touch of the progressive teacher is what is necessary for these higher powers of the brain, necessary to awaken the child's emotion and aspiration.

All the little details of supervision fade into insignificance compared with the great spiritual things of supervision. Let us go from place to place, giving a helping hand, placing a benediction upon everything that is good, without the spirit of censoriousness or sarcasm for the worst we find, putting the accent upon the spiritual side of education, in all our departments, in whatever we are doing. The development of the higher powers of the child! We can have that in mind, and see that the routine work is reduced to routine; measured and made good and thorough, so that the people may be satisfied with their "Three R's." There is plenty of room for criticism. We can teach by means of the facts in our courses of study, but we must get the teachers to see that they are only the means for supplying true freedom. Introduced into your school the spirit of life. Get the teachers to work with the spirit of joy in what they do, and you will be good supervisors.

DEPARTMENT OF PUBLIC INSTRUCTION,

Quebec, Que., February 27th, 1914.

On which day the regular quarterly meeting of the Protestant Committee of the Council of Public Instruction was held.

PRESENT:—Principal Wm. Peterson, LL.D., C.M.G., in the Chair; Prof. A. W. Kneeland, M.A., B.C.L.; The Rev. A. T. Love, B.A., D.D.; The Rt. Rev. A. H. Dunn, D.D., Lord Bishop of Quebec; Gavin J. Walker, Esq.; The Hon. P. S. G. MacKenzie, K.C., D.C.L., M.L.A.; W. M. Rowat, Esq., M.D.; The Hon. Justice J. C. McCorkill, D.C.L.; Prof. J. A. Dale, M.A.; The Rev. Principal R. A. Parrock, M.A., D.C.L.; Howard Murray, Esq.; The Rev. E. I. Rexford, D.C.L., LL.D.; John Whyte, Esq.; W. L. Shurtleff, Esq., LL.D.; Chas. McBurney, Esq., B.A.; W. S. Bullock, Esq., M.L.A.; and E. M. Campbell, Esq., B.A.

The appointment of W. S. Bullock, Esq., M.L.A., as member of the Council of Public Instruction to succeed the late W. H. Walker, Esq., was announced and Mr. Bullock was welcomed to the meeting.

Apologies for absence were submitted for The Hon. S. A. Fisher, Mr. H. B. Ames, and the Hon. Geo. Bryson.

Communications from the Protestant Board of School Commissioners of the city of Quebec asking for a complete ranking of Victoria School in the returns of the Inspector of Superior School, and for a special grant in aid of the Girl's High School were read by the Secretary and supported by a delegation from the Board. Both questions were remitted to the Sub-committee on the Distribution of Superior Education Grants for report at the September meeting.

The same course was pursued in relation to applications from Three Rivers and East Angus for the raising of their schools to the academy rank, and from St. Johns for an increased grant.

On the recommendation of the Teachers' Training Committee it was resolved:—

(1). That regulation 26 (b) be amended by replacing the words "the A.A. certificate (third grade academy)" in the first and second lines by the words "the University School Leaving Certificate"; and by replacing the words "The A.A. Certificate" in the third line by the words "The University School Leaving Certificate" and by replacing all the words after "Language or Literature" by the following words:—

"The holder of an elementary diploma must have
"taught at least three years after receiving such diploma,
"and must take an examination in any such subject or sub-
"jects as may be required by the Central Board before
"entering the Model School class."

(2). That regulation 31 be amended by adding the words "Provided that a University course in Education, practice teaching excepted, has been successfully followed."

Dr. Harrison, Principal of the Macdonald College, appeared before the Committee and read an extensive memorandum dealing with the work of that institution and its claims to financial aid for the School for Teachers and the practice school.

The thanks of the Committee were given to Dr. Harrison for his information, and the memorandum was laid on the table.

A letter was read from the Matriculation Board of McGill University recommending that application be made to the Government, through the Committee, for special financial aid to encourage the teaching of physics, and to procure the necessary laboratory equipment in academies and high schools.

After discussion it was resolved to leave the question in abeyance until the completion of the work of the Sub-committee on Text-books and Course of Study which was asked to report on this matter at the proper time.

A letter was read from the Teachers' Training Committee explaining that the proposed special course for rural school diplomas for Agricultural and Household Science students had not been provided this year because there were only two applications, and they were not made until the month of October last when it was too late to deal with them.

It was then moved by Mr. McBurney seconded by Prof. Dale and resolved that it be a recommendation to the Central Board to grant the model school diploma to the two students who applied for this course, on their fulfilling the statutory period of practice work to the satisfaction of the Central Board.

Prof. Kneeland gave notice that he will move at the next meeting that the regulations regarding rural diplomas for certain students of Agriculture and Household Science be rescinded.

Mr. Whyte reported for the Sub-committee on Poor Municipality Grants, and submitted a proposed list of grants which was adopted.

Reports of progress were made for the other Sub-committees.

The Secretary recommended the appointment of an additional instructor for the Lachute Summer School, and authorization was given for this appointment subject to the condition that the expenditure should not be increased by more than \$200 thereby.

The assistant examiners employed last year for the June examinations were re-appointed, the Secretary being authorized to fill vacancies, should any occur, in consultation with the Inspector of Superior Schools.

The Rev. Dr. Love and Dr. Shurtleff were then unanimously re-elected as members of the Teachers' Training Committee for the term ending in February, 1916.

Mr. Sinclair Laird, M.A., Head of the School for Teachers, was elected as associate member of the Committee in succession to Dr. S. P. Robins, resigned, Mr. Laird to remain an associate member during his incumbency of the office of Head of the School for Teachers.

Mr. Murray proposed that consideration be given at a future meeting to the question of limiting the term of office of all associate members. This proposal was agreed to.

The Secretary submitted the Act passed at the current session of the Legislature to authorize the affiliation of the School for Higher Commercial Studies with Laval University upon terms to be approved of by the two Committees of the Council of Public Instruction.

Mr. Justice McCorkill, Mr. Murray and Mr. Bullock were appointed as a sub-committee to get fuller information before next meeting in regard to this matter.

On motion of Dr. Parrock the Sub-committee on Text-books and Course of Study was requested to give special consideration to the question of Nature Study and Hygiene before making its final report.

It was moved by Prof. Kneeland seconded by Prof. Dale and resolved that the Committee on Supply of Teachers be requested to report upon the whole question of trained teachers for rural schools at the next meeting of the Protestant Committee.

The meeting then adjourned to meet on Friday, the 22nd day of May, unless called earlier by order of the Chairman.

G. W. PARMELEE,

Secretary.

NOTICES FROM THE QUEBEC OFFICIAL GAZETTE.

His Honor the *Lieutenant-Governor* has been pleased, by order in council, bearing date the 16th April, 1914, to detach from the municipality of the village of Saint Jerome, county of Lake Saint John, the lots Nos. 80b, 81a, 81b, 82a, 82b, 83, 84, 85 and 86 of range north Caron, and the lots Nos. 100, 101 and 102 of range south Caron, all of the official cadastre of the parish of Saint Jerome, and to annex the same to the school municipality of Saint Jerome, parish.

16th April, 1914. To detach from the school municipality of Bois de l'Ail, county of Portneuf, the lot No. 13, of the official cadastre of the parish of Saint-Basile, and to annex the same to the school municipality of Saint Basile, the said county.

16th April, 1914. To appoint Mr. Jos. Gagnon, school commissioner for the municipality of Ferland (township), in the county of Chicoutimi.

His Honor the *Lieutenant-Governor* has been pleased, by an order in council, bearing date the 18th April, 1914, to appoint Mr. Joseph Hebert, school commissioner for the municipality of Saint Samuel de Horton, in the county of Nicolet.

His Honor the *Lieutenant-Governor* has been pleased, by order in council, bearing date the 29th April, to appoint Messrs. Arthur A. Drouin, Philippe Massicotte, Charles Edouard Marchand, Raymond Grenon and Telesphore Fraser, school commissioners for the municipality of Amos, in the county of Temiscamingue.

29th April, 1914. To appoint Mr. Narcisse Boyer, school commissioner for the municipality of the town of Saint Paul, in the county of Jacques-Cartier.

His Honor the *Lieutenant-Governor* has been pleased, by order in council, dated the eleventh day of June, 1913, to erect into a separate school municipality for Roman Catholics only, all the territory of the present school municipality of the village of Knowlton, county of Brome, (Offi. Gaz. 7 July, 1888), and also the following lots of the official cadastre of the township of Brome:

Nos. 920 to 985 of range 8; 1022 to 1101 of range 9; 1133 to 1305 of range 10; 1342 to 1401 of range III, and also the following lots of the official cadastre of the township of Bolton;

Nos. 56 to 135 of range 1; 178 to 263 of range 2; 319 to 353 of range 3; 402 to 434 of range 4; 507 to 542 of range 5.



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