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THE CANADA  
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OUR RURAL SCHOOLS.

Robert McQueen, Kirkwell, Ont.

Our rural schools are really the schools of the country. The great majority of the youth of this province receives all the education they ever obtain in these schools. And a large number of these, again, never complete the curriculum of studies prescribed by the Department of Education, many of them leaving school before reaching twelve years of age, and these facts combined with irregularity of attendance, have shown our school system of the highest results, it is, in theory fitted to achieve.

The fugitive nature of the profession of teaching has, in the past, been another element of failure in the working-out of the system. This, again, has been largely due to the temporary nature of the certificates held by many on their entering on the duties of the profession. As a matter of fact, by far the greater percentage of the teaching in the past has been done by those holding only temporary certificates of qualification, admittedly not fully equipped, and being under the necessity of resigning their situations in order to more fully qualify themselves or leave the profession altogether—as many of them have done—leaving the duties of the profession to be taken up by oth-

ers like themselves, only partially qualified. Recent changes will, to a considerable extent, lessen this evil. The answer to the question: How may these schools be improved? will lie along these two lines: 1st. A less irregular and a more extended term of attendance at these schools. 2nd. (a) A life term of certification of teachers before allowing them to teach. (b) A largely-increased remuneration for their work. (c) A greater security in the tenure of office. (d) A more thorough identification with the every day life of the community in the midst of which they labor.

I will not now discuss the provisions of the school law with regard to continuation classes in individual schools, the grouping of sections for carrying on that work, the powers of Township Councils with regard to teaching agriculture in the schools of their township, or the consolidation of the rural schools on the method adopted by some of the States of the American Union.

The law is permissive in the first three of these points noted, and with the exception of the first I am not aware that in many or in any case, these provisions of the law have been utilized. The last, though highly eulogised by many

of those on the other side of the line, who have adopted it, is not in any sense a live question among the ratepayers of this province.

But, as an alternative to these provisions and propositions I would suggest:

That the present entrance work be lightened of the subjects of hygiene and temperance, and that a post entrance course of two years' duration be prescribed by the Department, having a fixed curriculum for each of these years, embracing the subjects omitted from the entrance work, together with the Public School leaving work, and if not at once, yet looking forward to making agriculture one of the subjects of the closing year of that course, agriculture in the meantime being made one of the subjects of the curriculum for rural school teachers. These regulations to apply to all rural schools. The thing above all to be desired is to secure if possible a more extended attendance of our youth at our rural schools. We believe that by lessening the entrance work and a judicious arrangement of the subjects for these two years, that ample time would be secured to teach all those subjects without the constant pressure and cram that so far too great an extent obtain at present.

And at the same time to do away with the far too prevalent notion that once the entrance has been passed, that Public School education is finished and complete. And the boy or girl who has passed the entrance under the existent state of matters and modes of study in the course of a year or two forgets nearly one-half of what they were supposed to have acquired.

(a) That all certificates to teach should be for life to those who have completed their studies and training for the duties of the profession. So that no one entering the profession shall be under the necessity of having to retire for a time in order to qualify himself for further continuance in the profession. It would always be optional with any teacher to retire and take an additional course of study whenever he might see fit.

No teacher can do his best work in one, two, three or even five years. If, as we believe, it is, the most important element in teaching is the formation and moulding of character, then that cannot be done in a day. Impressions deep and enduring may be made in a short time, but character is of slower growth, and before much progress can be made the teacher has to manifest that he has a character of his or her own, and it is only when the teacher has attained to a recognized standing on the ground, not only of efficiency in school work, but of revealed moral worth, that he or she is fitted to do the best work to the highest advantage of all concerned. The thorough identification of the teacher with the every day life of the community and as a co-worker with the parent, places the teacher in his proper position and relations for fulfilling all the functions of the teacher's office.

(b) That every legally qualified and certificated teacher shall be entitled, under authority of Government, to a minimum salary of not less than three hundred and fifty dollars per annum. Thus placing all on an equality on entering the profession and do-

ing away with that underbidding to obtain a situation that is degrading to the profession and destructive of self-respect, both in the employers and employed. Any increase of salary in any case would be a matter of mutual agreement between the teacher and the board employing him, and based on his efficiency and success in the practical work of the profession.

(c) A limiting or restriction of the absolute powers of dismissal at present vested in school boards on any other grounds except those of incompetency or inefficiency. In many cases teachers who are doing good work, and who are both competent and efficient, and who possess the confidence of the great majority of the ratepayers, are dismissed on the ground of personal feeling existing between the teacher and some member of his Board of Trustees, or of some one who has influence with the board, thus inflicting a deep injury on the school, and very often arousing ill feeling in the section, detrimental to the best interests of all concerned. In such cases the teacher should have the right of appeal to the Minister of Education, through his inspector, before dismissal can take place. The very existence of this right of appeal would tend to lessen the possibility of its exercise. No trustee who had no better ground for his action than that of "personal feeling" would risk appearing before the Minister on such grounds or in such circumstances.

(d) The providing for a teachers' residence and an acre of land attached, in each rural school section; the higher remuneration, the greater security of tenure of

office together with a suitable residence would tend to draw into the ranks of the profession those who intend to make it a life work and who more naturally would bend their energies to make their work a success.

(e) Along with the foregoing the existence of a good library in each rural section, containing all books useful for reference in the work of the school as well as general information on all matters of special interest up-to-date, including the past history and the constitutional development of the form of government under which we live.

In closing this paper let me refer again to the things mainly to be sought after in the improvement of our rural schools, viz., less pressure and a more extended period of attendance by the youth of each section, and the better remuneration and greater fixity of tenure of office in the profession. In this way seeking to draw into the ranks of the profession the best available men and women, and then keep them there as long as possible, for after all, the real success of the profession and the highest results of the teacher's efforts are not to be attained, as we have said before, in one, two or three years, but are the growth of a lifetime. No factor, outside the home, in the daily life of any community is more important and more influential for good or evil than the daily and hourly influence conscious or unconscious of the teacher in the Public School. And no sphere of labor or life work furnishes so wide, deep, and ever expanding field of effort for an enthusiastic, whole-hearted, conse-

crated man or woman, as the rural school. We have very many such men and women in the ranks of the teaching profession now. What

we aim at is to draw a still larger number into the ranks, pay them better, and keep them there for life.

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## STUDIES IN ENGLISH GRAMMAR.

By H. Bonis, B.A., High School, Leamington.

### II. *Dialect, English : Its Claims upon the Teacher.*

Although the "King's English" is no doubt what all loyal subjects of His Majesty who use the language at all should aim at speaking, yet it is a fact which is painfully evident to British schoolmasters, Canadian included, as well as to many other persons, that the average young Britisher exhibits a steady and sturdy opposition to law and authority in this respect, however loyal he may be in other ways. Nor is this rebelliousness a development of recent times. We know that the generations which preceded ours exhibited the same aversion to this form of speech, and the probabilities seem to be that those which shall come after us will also require considerable urging to induce them to render true and loyal homage in this respect. The causes of this state of chronic rebellion would consequently seem worthy of inquiry.

To begin with, let me postulate—what most teachers of experience have observed—that the youthful mind usually thinks clearly and correctly, by a series of simple inductions, on things in which it is interested, so far as its knowledge goes. The art of expression is a thing in which young people are intensely interested, and who that has witnessed the development of this

faculty in young children has not been often struck with the thought, that their attempts at expression generally show a logical consistency, even where they fail to come up to the requirements of that highly conventionalized mode of expression known as "good English." It is sometimes said that a good or a bad use of the language is the result altogether of environment, particularly the home influences. While this is doubtless in large measure true, yet experience with pupils from homes, where a high degree of purity in the use of the language by the elder members prevails, often shows that there are even in these pupils certain innate tendencies, as it were, to violate the laws of grammar in particular cases. This tendency is, of course, more marked, and leads to more glaring errors, in the speech of those pupils whose home surroundings have been less favorable in this respect. Such errors are usually most persistent, and it will often be found on investigation that they owe their persistent nature to the fact that they have usually more or less logical foundation, in the laws of the language, and in the laws of thought. The first step toward the eradication of the evil in these cases, should often be, the recognition by the teacher of the element of truth which the "dialect" form of expression contains.

One of the first impressions, we may well believe, which a pupil in English grammar generally receives from his teacher is, that the rules of grammar are founded on a rational, as opposed to a conventional, use of the language. Hence he expects to find good and satisfactory reasons for what is called "good usage" in speaking, and, conversely, to be shown that what are called "errors" are totally indefensible from this point of view. And he will soon find much in the study of the subject to support this view, and will, as a rule, profit accordingly in his use of the language in respect to these points. The jarring note in his conception of grammar as a subject exhibiting harmony and logical consistency comes, however, when he finds classed together as errors, either in his textbook or by his teacher, those forms of speech which are even to him palpably inconsistent with the spirit and genius of the language, and those against which no such charge can, as far as he can see, fairly be made. Both are wrong, and to be condemned, doubtless, but it would appear to be the height of bad judgment on the part of the teacher to put them in the same category. Let the pupil at this point clearly understand that there are at least these two classes of errors: viz., those which violate well recognized tendencies, easily shown by examples, of the language; and secondly, those against which nothing more can be charged than that they are "out of fashion," or "not customary," in the speech of good writers or speakers.

For example. The average boy shows a predilection for "you was" instead of "you were." He is unconventional enough to say just

what he means (he would say "thou wast" if he had heard this form at all commonly used), and why should he be so severely dealt with for this? Why should it be called "bad grammar"? Rather admit that he is right, but gently hint that he is not "in the fashion." The latter way will cure him quite as quickly, if he be curable at all, as the former, and has the further advantage of not confusing his notions of the principles of grammatical correctness.

Again, the pupil who says, "I have wrote it," and "He has gave it to Jack," may even be credited with some logical reasoning while being condemned for using ungrammatical expressions. In the first place, many such errors doubtless arise from the tendency to follow the most general mode of expression, which is to use the same form for the past participle that is used for the past tense of the indicative; in other words, to make all verbs conform to the method of the new conjugation in this respect. The vast majority of English verbs, of course, follow this method of forming their past tense and past participle. Secondly, the forms, "I have written," and "He has given," which should have been used in the sentences just mentioned, are not as they stand, logically correct, in view of the fact that the participles "written" and "given" are properly passive in meaning, and are commonly so used even by a pupil who would make the blunders just mentioned in using "wrote" and "gave" in the perfect indicative active. Thus, such a pupil would probably say, "A written account," "A typewritten copy," "A given road," recognizing in his own way the passive force of these words.

The teacher who classes "I have wrote" and "He has gave" with such errors as "They was," and "It was him," without other comment than that they are alike wrong, can hardly be said to be teaching his pupils at all. The former expressions, while logically more correct than the approved forms, "I have written," and "He has given," are conventionally wrong; while "They was," and "It was him," are logically wrong, being alien to the spirit of the language, which requires, wherever possible, harmony between the verb and the subject in regard to number forms, and between the complement and the subject of the verb "to be" in the matter of case.

The true explanation of the use of the passive participle in the perfect tenses of active transitive verbs, i.e., that the expression is a transposed form, for example, "I have written it," being originally "I have it written" (written being here passive and in agreement with "it"), may in some case serve to give a logical, as well as a conventional, reason for preferring the approved form.

Consider, again, the two expressions, "Such as heard of the danger in time easily escaped," and the dialect form, "Tell them as don't know." Is not the use of "as" as a relative pronoun in the latter logically as grammatical as its use in the first of these expressions? Custom has, however, decided that the latter expression is incorrect, while the former is approved by the same authority. Such dialect forms being usually well understood, may do good service, however, in the class-room, by way of illustrating the meaning of the literary forms; in this case, the

peculiar use of the word "as" as a relative pronoun. Why, too, should "It tastes good" be regarded as grammatically wrong, while "It tastes sweet, sour," etc., are allowable? The word "good" seems in this case to be the one exception to the rule that the verbs of incomplete predication of this class, i.e., those relating to the senses (smell, taste, look, feel, sound), take after them an adjective, not an adverb. What vagary of English modes of thought will account for this solitary case of rejection?

Such forms as her'n, your'n, be (for am, are, etc.), are common in some sections of the country, especially among the children of Cornish and Devonshire parentage, and are types of grammatical forms once prevalent in the language, which have now gone out of fashion, except among the illiterate. One may even hear among agricultural laborers recently arrived from England the old English suffix of the infinitive "en." Thus, "Let us housen the cattle," etc. A reference to these old forms by the teacher in the class-room may often serve two purposes. First, if the pupil has been accustomed to hear his elders use these forms at home, it is better that they should be condemned on the score of being old-fashioned than as being blunders, since it must always be desirable that the teacher should avoid, as far as possible, anything that may tend to weaken the respect which his pupils owe to their elders at home. And secondly, in the higher forms such examples may sometimes serve to create a living interest in the otherwise dead forms given as examples of the inflectional character of the language in the Old English period.

THE IMPORTANCE OF GEOGRAPHY IN  
COMMERCE.

James Keillor, B.A., Coll. Inst., Ridgetown.

At the present day, when we hear so much about commercial education in our schools and universities, it seems strange that so little attention should be paid to a subject of prime importance in commercial life—I mean the subject of Geography. While constant improvements are being made in the methods of teaching and in the text-books dealing with other subjects, this one has suffered gross neglect.

Geography has been well described by Mr. H. J. Mackinder as “the physical basis of history.” We may go even farther, and say that it is the physical basis of all human activity. For is it not a description of the earth, with all its varied features of mountain and table-land, plain and desert, ocean, lake and river, forest and prairie, continent and island, air and ice, rain and sun-hine, in all their complex combinations, which, since they form man’s immediate environment, must largely influence his activities in all directions.

In Germany, for many years past, able men have devoted themselves to the special study of geography. Ever since Ritter’s time a specially human turn has been given to the subject by his countrymen; it has been recognized that the ultimate aim of geography is to study the earth as a dwelling-place for mankind. As a result of this careful cultivation of the geographical field, a voluminous literature is growing up, and many valuable results have been attained. These results are likely to prove valuable, not only in the study of history, but also in

their bearings on industry, on commerce, and on colonization. For example, in Germany commercial geography is something practical, something that the merchant and the merchant’s clerk can take with him into his office and apply to his every-day transactions—not the somewhat barren thing that is called by that name in many of our Canadian schools. It embraces a field that touches the practical business of commerce at every point.

Modern commerce is no longer the monopoly of any one nation; it has become cosmopolitan, and carries its operations into every quarter of the globe. The intensity of the competition is felt by every nation and every merchant; and we are convinced that while speed and strength are important, they are of little avail without knowledge—superior knowledge must in the end win the race. Hence we believe that modern commerce has become an object which ought to receive full recognition in our schools and colleges. It is a subject worthy of being treated in a scientific and philosophical way, and of being placed in the curricula of all our universities.

The growth of commerce in the past has been intimately associated with the progress of geographical discovery. Without the explorer as a pioneer there would be but little advancement in trade. And as in the past so it is at the present day, commerce is inseparably associated with the progress of geographical enterprise.

It must necessarily be so if we



only consider what is meant by commerce, and what by geography. Commerce, in its broadest sense, is essentially the transfer or conveyance of commodities from one part of the world to another: from the place where they are found or manufactured, i.e., the place of supply, to the place where they are wanted, i.e., their market. The merchant, therefore, must know where he may procure his commodities in large and regular supply at reasonable prices and at low cost of transportation. He should know the conditions in which they are found, the circumstances under which they are to be obtained, the facilities for and hindrances to taking them from where they are produced to where they are wanted, the character of that market, and the conditions under which the commodities are to be disposed of there. If the merchant is to be progressive, he must be constantly on the outlook for new sources of supply, and for new fields in which to dispose of his goods.

Now, much of this is plainly associated with the kind of knowledge which geography ought to be able to furnish, and also with the kind of enterprise which we call 'exploration. Commercial geography is a description of the world in its relations to man as a producer and as a trader. It tells of the geographic and other conditions that assist or hinder man in his efforts to produce commodities, or to buy and sell them. Thus, the slope of the land determines the direction of the rivers, and whether they may be utilized to carry commodities to market. Mountain ranges hinder commerce so far as they tend to keep peoples apart, and increase the cost of transportation. Valleys and

plains are the great sources of food for man and his domestic animals. Mountain regions are the chief sources of the metals and minerals he uses. The luxuriance and variety of vegetation decrease from the equator toward the poles, and from sea level toward high altitudes. The ocean supplies fish and salt, and is the cheapest highway of commerce. All these natural conditions, surely, have a direct bearing upon the needs of the merchant. Commercial geography, therefore, treats of the many influences operating all over the world, which promote or retard the production, transportation or exchange of the commodities, natural or manufactured, which man consumes or utilizes.

It may be thought that geography cannot be of much assistance to the merchant who trades with highly civilized and well-known countries, such as Germany, France, or Holland. But geographers hold that the political, social, and economic conditions that prevail in such countries, the manners and habits of the people, the conditions under which commerce must be carried on, are largely the outcome of the influence of geographical conditions on man, and of man's action in modifying them. What are railways, canals, and telegraphs but successful attempts to overcome topographical disadvantages, and to lessen distance?—and these, surely, are geographical factors? But whether we call it geography or not, we are being continually told by those who have for a time resided abroad, that ignorance of a country, ignorance of its people and their peculiar ways, ignorance of their language, ignorance of the wants special to the country, is con-

stantly placing British and Canadian traders at a disadvantage, compared with the well-informed traders of an enterprising country like Germany, in the commercial schools of which geography holds so important a place. Under whatever heading it may come, then it is surely not in the interests of British or Canadian trade that such ignorance on the part of our mercantile men should exist.

But probably it is in new or not well-known countries that geography can be of the greatest service to the merchant. And this suggests another important application of geography, namely, to colonial enterprise. A little more knowledge of geography on the part of statesmen, of colonization agents, and of the public generally, would have averted many mistakes which have been made in carrying on the work of colonization. Some of the European nations have been of late years grabbing blindly at any unannexed lands within their reach, regardless, apparently, of their suitability, and anxious only to add as many square miles as possible to their foreign possessions. Germany, for example, possesses about a million square miles in Africa, but half of it is a hopeless desert.

Now, what are some of the problems connected with colonization that may be solved by geography? Colonies may be divided into two classes. There are, first, what are called by the French, Colonies of Exploitation—or Plantations; and, secondly, Colonies of Settlement, those suited to receive a new population from the mother country, or elsewhere. The former are best suited for a wealthy country that has no surplus population; the latter for one that has a constant ex-

cess of population, and also a certain amount of capital. The colonies of France and Germany are nearly all of the first type, while those of England are of both types.

As a rule, tropical countries can only be Colonies of Exploitation; and the problem which geography may help to solve, is how they can best be turned to account, or exploited, by the country to which they belong. The geographer will have to tell us what are the great physical features of the country and their distribution, and how they help or hinder commerce; what is the character of the climate; whether it is within a region of abundant or scanty rainfall, whether there are any native products that will be required by other countries; and if so, whether there are suitable means of transportation so that they can be placed in favorable competition with similar products from other parts of the world; what is the character of the soil, and for what exotic products it is suited. This last is a most important matter, for the mere collection of the natural products of a tropical region can develop a colony only within very narrow limits. Then there is the question of population, which for a colony of the plantation class is very important, as it involves the question of labor, without which, in abundance, the colony is a barren possession.

Such are some of the lines along which geography may be made to yield valuable assistance when applied to colonies of the plantation class. And no less valuable is the help that may be derived from its application to colonies of settlement. Here there is a much greater problem to solve. It is not a question of the temporary residence of a few

persons from the mother country, but the transfer of a large mass of people from one set of geographical conditions to another. The first thing necessary, then, is to discover as minutely as possible what these geographical conditions are, how far they can be turned to account by a new population, and how far they must be modified in order that the colony may be carried to its highest development.

Before inducing farmers to migrate to any particular region, it would be only proper to let them know to what extent that region is suited to their requirements. Is the soil adapted to agricultural operations? Is there a sufficient rain-fall to make such operations successful? If not, is irrigation possible? What about sanitary conditions? If all these conditions are favorable, what about means of communication and transportation? All this necessitates a very thorough, detailed, and long-continued geographical study of a colony, and much more minute and ample information than is usually supplied by emigration agents.

It is a most short-sighted policy in a young colony to neglect the survey of its territories. There is no better way to spend public money than in maintaining an efficient survey service and a carefully-selected chain of meteorological stations. For evidently the first thing necessary to the development of any country is a complete knowledge of its resources, and the basis of such knowledge is mainly geographical in its character. A thorough and precise knowledge of the geographical conditions, in their widest sense, of all the colonies, would have averted many serious

errors—errors as to the class of people for whom they are adapted, the products for which they are suited, the imposition of tariffs, the fostering of particular industries, and the limits within which commercial enterprises is possible.

At the present time, when so much attention is being devoted to the settlement of the newer parts of our country, and to the development of its vast resources, a thorough knowledge of the geographical conditions of the various localities, would be of inestimable value to intending settlers, business men, or manufacturers. Much is being done both by our Dominion and Provincial Governments by way of exploring the country and investigating its resources; and the results of these investigations are embodied in numerous reports published by the various departments. But the knowledge thus acquired is of little value if it is not turned to some practical account. And I think I am safe in saying that the ideas possessed by the average individual regarding the character and extent of our resources are very vague indeed. Our boys and girls are burdened with lists of names of rivers, lakes, islands, cities, and such like, and with columns of statistics; but of true geography they know little. If we are to take our position as one of the leading commercial nations of the globe, our schools and colleges must assign a more important place than they do at present to the study of geography—a subject which, as we have seen, is of the deepest interest and of the utmost importance to the whole human race.

## DIET II.

Edith M. M. Bendeley, Montreal and London, England.

In the last paper we discussed the food question in a general way; in the present one I hope to indicate a few ways and means of using our food so that it may prove the blessing it was meant to be, instead of the curse it not seldom is to us. All foods come under one of two heads: They are either tissue or force producers. They may be both, and very often are so. The former class of foods renew the substance of the body, and are commonly called proteids or albuminoids. They contain carbon, hydrogen, nitrogen, and oxygen, with a small amount of sulphur, and generally phosphorus.

The latter class supply the combustible material, the oxidation of which generates heat and energy in the body. They contain carbon, hydrogen, and oxygen in varying proportions.

Water forms an important article of diet, though not coming under the above headings; it aids largely in the process of digestion, and in the formation of the digestive juices. Common salt is essential to the formation of gastric juice and bile, and the salts obtained from milk, muscle, vegetables and fruits are also needful for the growth of bone, and for the maintenance of health. The oxygen of the air, in a broad sense, forms one of the foods of the system; and it is essential to good digestion; hence eating out of doors is, where possible, a most desirable habit, and one conducive to the enjoyment, as well as to the full assimilation of food.

The flesh of various animals is one of the main sources of our nitrogenous or proteid food. Of the two kinds of meat, red and white, the latter are more digestible (with the exception of pork). The flesh of young animals is inferior to that of older ones, hence veal and lamb are unsatisfactory articles of diet. The flesh of birds is good food, being easily digested, and containing phosphates. Fish, a too often neglected food, is most valuable for the phosphates it contains, and for the ease with which it can be digested.

In this connection, it is necessary to mention the subject of vegetarianism, a cult professed by many on the grounds either of humanity or of health, or both. It is true that all the elements required for the building up and maintenance of the human frame can be obtained from the vegetable world, but at the same time the undigested refuse is greater than with an equal quantity of animal food. A longer time, more exertion of the digestive organs, and a greater bulk of food is required in the case of a purely vegetable diet. Animal food is more convenient. Man not being an eating machine, he requires food that can easily and quickly be converted into body substance, and that is supplied by a flesh diet in moderation. At the same time, there is a great tendency to over-indulgence in a meat diet, and the effects of this error are to increase oxidation and waste, and to hasten the wearing out of the body substance. Meat should not be eaten

more than once a day, and if fish, eggs, cheese, and milk form a good part of the diet, the above objection to vegetarianism almost disappears.

On the ground of humanity there is everything to be conceded to vegetarianism. It is quite possible, and in the case of the butchers who cater for the Jewish communities it is made evident, that animals can be killed mercifully, and in such a way that their flesh is wholesome. But it is not greatly to the credit of our civilization that our markets too often contain large quantities of diseased meat, due to over-driving, exhaustion of the animals before killing, bad feeding, and hurried and often cruel methods of slaughter. Meat is often unwholesome from the presence of parasites, and especially is this true of pork. The pig is the most delicate of the animals whose flesh we eat, and the most subject to parasitic diseases. As a nation the Jews, who are forbidden to eat pork, are freer from cancer than any other. Without pressing this point beyond the actual statement, may it not be conceded that the command of that first and greatest of sanitary reformers, Moses, was a wise and scientific one, apart from its religious aspect.

Eggs contain much nutritious material; the albumen (white) is nitrogenous, and the yoke contains oil and phosphoric acid. Eaten raw, or lightly boiled or poached eggs are a safe and nourishing food, and very easy of digestion. Milk is a perfect food, containing casein or proteid, fat, sugar, salts, and water. Half a pint of good milk equals two good-sized eggs, or three and a half ounces of beef in nutritious properties. The great danger with milk is the facility it has for

becoming contaminated. Milk takes infectious germs quicker than water, or any other liquid. It is wise, therefore, to scald it, and in any case it should always be kept covered, and in a cool place. Buttermilk, which has been deprived of its fat in the shape of cream, is an excellent drink for delicate people. It has the proteid principle minus the fat, which is sometimes found indigestible. People who find milk "heavy," or liable to produce irritation of the skin through overheating of the blood, should drink buttermilk. Cream is the fat of milk, and cheese is a highly concentrated food, containing proteids, fats, and salts. It cannot be eaten in large quantities, and cooked is very indigestible, but taken according to the ability of the individual to digest it, proves a nourishing and staying food, and probably helps the digestion of other foods. In the cereals and legumens we have again the essential proteids. The most common and useful cereal, of course, is wheat. Bread made from good seconds flour is as nutritious as white, and brown bread possesses this advantage over white, that the bran is rich in fat and phosphates, and that owing to the slight mechanical irritation caused by its passage through the alimentary canal, it is more easily digested. Oatmeal is deservedly popular, being highly nutritious, and containing sufficient fat to make it a force as well as a tissue producer. Rice is the least nourishing of the cereals, its chief food value being in the starch it contains. The legumens contain more nitrogen and less starch than the cereals. They are, however, less easy of digestion. They should be well cooked, and eaten with rice and oily substances.

The laborer's dish of broad beans and bacon is strictly correct from the physiological standpoint. Beans with butter; lentils stewed with butter, and served with rice; peas eaten with duck or roast meats, are all in right order.

Of the fats, butter is the best and most easily digested, with the exception of cod-liver oil, which stands first in that respect, but which it is hardly possible to contemplate as an ordinary article of diet.

The starchy foods act as a reserve in the system, being stored up in the form of grape-sugar. Sugar and starch are about equal in nutritive value. Neither they nor the fats excite the same changes in the system that are brought about by the oxidation of the proteids. If eaten in excess of the needs of the body, they are stored up, and lead eventually to corpulence. The deprivation of starchy foods is better borne than that of fats, because these aid in the digestion of other foods. From the above facts it may be seen how desirable is a mixed diet. An excess of proteids, especially if taken in the form of meat, leads to excessive oxidation and consequent tissue waste, while on the other hand an excess of fats and starches (the latter always being taken as equal to sugar, since all starch is converted into sugar by the saliva and pancreatic juices), leads to undue fattening of the liver and tissues. The green vegetables are useful for the salts they contain, and for the cellulose which acts as a stimulant to the alimentary canal. Potatoes are nearly all starch and water (26 per cent. solid, of which 20 are starch). They are useful as grape purifiers, and to their common use is due probably the present

immunity from scurvy. Eaten with butter and milk, they are far more useful than fried or baked.

Fruits are valuable for the same reasons as vegetables—for their cellulose, sugar, and vegetable salts. No diet is complete without a good measure of seasonable fruits and vegetables.

We come now to the question of the preparation of food, and it is to the culinary art that we owe much of the unhappiness caused by bad digestion. The aims of cooking are fourfold:

1. To soften and disintegrate food.
2. To produce certain chemical changes, as the formation of gelatine from tendons, etc.
3. To destroy any parasites present in the food.
4. To make pleasant to the eye and palate.

It cannot be too strongly impressed upon all who cater for others that the simpler the food and its preparation, the better in every way it is for the constitution. Much time is wasted, and many lives made unlovely and sordid by the too common practice of making good foodstuffs into indigestible preparations. Rich, tasty dishes often involve much wearing labor on the part, both of the cook who makes them, and the unhappy stomach that has to deal with them afterwards. Among the foods which come under this category first and foremost is pastry. The manufacture of this indigestible article might well be stopped altogether, for it is material and labor lost. Meat is better eaten in any other form than the pie or pasty, often compounded of dubious morsels; and fruit may be prepared and eaten in many ways more diges-

tible and equally palatable with the fruit pie or jam tart. Fruit salads are delicate and easily prepared and varied, while whipped cream, custard, and milk pudding or rice are in every way a better combination with stewed fruit than even the lightest puff paste.

Roasting and boiling are the two best methods of preparing meat, and when baked they should be covered with some non-conducting material in the oven to prevent the formation of certain oils produced in the process of roasting, and which escape when cooked in the open. Stewing is a good way of preparing meat, the only objection being that the meat becomes almost too richly saturated with fat and gravy.

Frying is an undesirable way of cooking. The coating with fat renders the meat indigestible, and fried eggs are albumen made almost impervious to the digestive juices.

Eggs are an often much abused article of diet. Fried, they are nearly useless. Hard-boiled, they are hard to digest, and put into boiling water and allowed to gallop, they are partially spoilt. They should be poached, or placed in boiling water, and allowed to simmer for four or five minutes, in which time the albumen will coagulate without becoming hard. An egg and milk beaten up is an excellent drink, easy of digestion, and highly nutritious. Many a hard-working business man or woman would find it greatly to their comfort, if, instead of trying to eat a meal in their short mid-day recess, which their afternoon work renders it impossible for them to digest, they satisfied their hunger with this drink and a few dry biscuits. There are not a few who find it possible

and desirable to eat only two meals a day, avoiding any food in the heat and stress of mid-day. This is a far better plan than trying to crowd in a meat, vegetable, and pudding dinner at the very time when the resources of nature are busy elsewhere, but it is liable to create extreme hunger and consequent over-eating at meals. Those who find it so should take some such light refreshment, and many will find a glass of hot water and milk with biscuits and fruit sufficient. Midday dinners might well be abolished, and the practice of taking a light lunch substituted.

Condiments, such as spices and flavoring agents, peppers, etc., should be used in strict moderation. Taken in small quantities, they aid digestion; in larger ones they over-excite the nerves of taste, and lead to over-secretion of the digestive juices. The best condiment is lemon juice; vinegar is useful in moderation, and cayenne is a spice which can only be taken in very small quantities, as it is very irritating to the mucous membrane of the stomach.

The very common indulgence in candies is an injurious practice, partly because it always involves eating between meals, which is an outrage on the digestive organs, and partly because sweets always contain an excess of sugar and spices, and not infrequently coloring substances which are directly harmful. The habit, too, is a bad one, especially in childhood, as it tends to develop an abnormal appetite and craving for continual satisfaction of the palate, which leads to gluttony, or, at any rate, to undue indulgence of the appetite in after years.

In conclusion, I must mention

the absolute need of a good (but not a heavy) breakfast, especially for growing children. Not long ago the principal of one of the largest High Schools in this country stated that it was quite common for boys and girls to come breakfastless to school, even in winter, and he deprecated with marked pathos and earnestness such a cruel neglect of the needs of child-nature. It is bad to go out in cold weather with an empty stomach; it is monstrous to expect growing children to do four or five hours' study without a good breakfast to start with. The best beginning to the day would be a meal of fruit, porridge, or eggs, good tea or milk, bread and butter and marmalade. Eggs are better for the first meal of the day than meat, because coffee and tea, the

usual breakfast beverages, should never be taken with meat; and if eggs are impossible, porridge is always a good substitute.

It is not possible to deal with the question of beverages in this paper, but it may be mentioned that it is not good to drink with food. The drink should be taken after, and not gulped down between the mouthfuls. If regular meals, simplicity of preparation, and due time for rest of the digestive organs were the order of our lives, I feel sure we should far more often have cause to re-echo the Psalmist's beautiful words of thanksgiving: "Praise the Lord, O my soul: and forget not all his benefits; who satisfieth thy mouth with good things: making thee young and lusty as an eagle."

## THE ART OF TEACHING.

S. L. Miller, B.A., Trinity College School, Port Hope.

A great deal of literature has been, and is still being, produced on the theory and practice of education, but much of it is so deep and complex in nature that it finds but few readers who can appreciate the principles expounded. The majority of those engaged in teaching find their labors of the day sufficient strain without reading heavy work at the close of the day's exercises. The result is, that few teachers do much reading along their own professional line after they have left their training school, and as a natural consequence, they become more or less set in certain rigid lines of action, which, in most cases, tends to narrow them in character, as well as in their professional

methods. It is with no small degree of satisfaction, then, that we receive Dr. White's work on the "Art of Teaching" in the field of pedagogical literature.

It is of extreme value, in the first place, because it comes from an eminent teacher, and trainer of teachers, of long and successful experience; and, in the second place, because the matter is so clearly stated, and so attractively written, that the work is readable and practically interesting to anyone who has any interest in his profession. The style is anything but dogmatic, and owing to the writer's ready grasp of the matter in hand, the reader will find not only excellent ideas to assimilate, but will also find a strong



stimulus to thought along these lines, which teachers claim to be far more important.

The work opens with an explanation of what is meant by education. After touching on the definitions of such men as Mill, Fitch, Harris, and Hinsdale, and showing its widest meaning, the narrower definition is given, which states what is meant by education as carried on in our schools. It is stated as the "occasioning those activities . . . the learner that result in knowledge, power, and skill." It is on this basis, then, that he works out the principles so far as they apply to elementary education. It is not in the knowledge of philosophy, psychology, ethics, and logic that success is to crown the teacher's efforts, but in having a thorough grasp of the matter to be taught, and in finding the most suitable method of working this into the lives of the pupils.

The axiom from which to start is, that the teaching must be adapted to the capability of the learner. It seems simple and self-evident, but many who know it fail to act on it. Successful public speakers use it from their own instinct, and in the same way do successful teachers act. It is an innate conception of your environment, and a power of adjustment to it. Hence, as teachers, we must have a very clear conception of the immediate mental condition of every member in a class, and an equally clear grasp of the matter on which we expect those minds to operate. And here we must bear in mind that the knowledge, power, and skill must come wholly from the pupil's own self-activity. Knowledge cannot be transferred, and still less can power

and skill come from any source outside of the learner himself.

Teaching is divided into three processes: Instruction, Drilling, and Testing. The first part is generally well done, but mistakes are frequently made with the latter two processes. They are, in fact, three parts or phases of one process, for one is not complete without the others. Instruction is not complete without the drill, and a drill that does not call for a repetition of the act of learning is mere parrot repetition; and a test which does not call for reconstruction, or more properly, construction, is equally parrot-like.

Elementary school work is divided into oral work and book study. In the earliest stages the work is all oral, but book work is soon introduced, and the oral work constantly grows less. But it should be used much less than it is. Many of our best schools have such excellent oral instruction carried on that the pupils never learn the art of getting any knowledge from books. Hence, one of the most important parts of a school education is neglected. Pupils are trained under the best modern scientific methods, but their love of books and power to gain knowledge from them seems to be wanting. Oral instruction, then, should be merely a preparation for the study of the text-book, and as the pupils gain their own knowledge worked out in their own way, class work shows the various parts that are emphasized by the different students of the same topics. In this way class work becomes a fitting together, a harmonizing of various types of personality, as developed along their own lines of least resistance, rather than crushing all into one unyielding mould. Education,

then, becomes a growth of nature and not a heartless manufacture.

The examination question is handled in the same simple and judicious manner. Examinations are of value to the teacher in his class, in that they show him defects that he would wish to remedy, but for promotion they are no real honest guide. The surest basis of promotion is the teacher's conception of the capacity of the pupil. The teacher may form his estimate from a series of written tests during the term, or he may get it from the oral and written class work in general, but he is the one who knows when a pupil is ready for promotion, and any other promotion is not made on a true educational basis.

Language, number, geography, and probably some history, are taken as the essential elements for an elementary school education. Language is the first to be considered, and reading is the first thing in every school. But our schools used to stop with reading instead of at once turning to language production. This is still a drawback in many of our Canadian and American schools, in spite of the fact that it is felt even up to the universities. This language production, then, should go on from the most elementary classes. It is by this production, rather than from any study of rules and principles that facility must come in the use of our language. By practice alone can composition be learned. Grammar, as a part of language training, comes in at the higher stages. It has no practical value in the earlier stages. Its study is scientific and technical, and hence, is of value for mental training in more advanced work, but it can never take the place of

pure language study in elementary school education.

In the treatment of number, we find the same broad grasp of the educational value of various methods adopted. We are to keep the end in view always first, and adapt our method to this. In this way slavery, under method, is abolished. In first presenting the ideas of number, objects are to be used, but we must guard against their excessive use. The use of objects is cumbersome and inconvenient, and in the same way are our calculations slow and awkward when too much time is spent drilling number by means of objects. The number conceptions are abstract, and the sooner we drill this conception into our classes, and have them acquire skill and facility in the use of figures and quantities, the sooner and better do we attain the end sought in our study of arithmetic. For this same reason we should have more mental or oral work in arithmetic. Most of our calculations in every-day life are done mentally, and much more might be so done if we gave proper training in it in our elementary and secondary schools.

Geography should stand next to language and number in our elementary schools. It has great commercial and industrial value, and is good to train the imagination, but Dr. White attributes its chief value to its being the basis of current world events. This is of greater importance now in the United States, since they have reached out beyond their own borders and begun to recognize their social, political, and commercial relations to the other nations of the world. As a part of an empire that reaches around the world and touches every

known race upon the earth, surely we Canadians also must recognize the value of a knowledge of geography for the intelligent exercise of our rights as citizens in such a democratic country.

A course in geography, then, should include a period of oral work in home geography, to prepare the conceptions to be used in the more advanced study; then a text-book course, with plenty of maps and charts, and a suitable text, giving the social and industrial conditions of the various nations. For higher work a scientific study of physical geography would complete the course. History is dealt with as a possible adjunct to some of the higher forms, but as such it should be limited. It should begin with biography, and pass on into civics and economics. But in general the study of history, as carried on in our Public Schools, becomes a source of many foolish and mistaken ideas which develop into foolish

prejudice and un-Christian hatred against every country but our own. Such feelings are thought to be patriotic, but no true patriotism is bred in such blind ignorance. The only value of history worthy of our consideration is its value as a training in book study. In the same way physiology is still more useless on elementary school curriculums, except for what book training may be got from the study.

The chief value of such a work as Dr. White has given to us is that it sets us free from cramped ideas of rigid theoretic method, and puts in a rational light the true place of methods in teaching. A natural freedom is allowed to the teacher, so long as he keeps proper ends in view, and sees the sound general principles on which these ends can best be attained, so that such a work must have an enlightening and elevating influence upon the teaching profession.

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### WHAT OF THAT?

Tired! Well, what of that?  
 Didst fancy life was spent on beds of ease,  
 Fluttering the rose—leaves scattered by the  
 breeze?  
 Come, rouse thee! Work while it is called  
 to-day,  
 Coward, arise, go forth thy way!

Lonely! And what of that?  
 Some must be lonely; 'tis not given to all  
 To feel a heart responsive rise and fall  
 To blend another life into its own.  
 Work may be done in loneliness! Work on!

Dark! Well, what of that?  
 Didst fancy life one summer holiday,  
 With lessons none to learn, and rough but  
 play?  
 Go, thee to thy task, conquer or die!  
 It must be learned. Learn it then patiently.

No help! Nay, 'tis not so,  
 Though human help be far, thy God is nigh:  
 Who feeds the ravens, hears His children  
 cry:  
 He's near thee wheresoe'er thy footsteps  
 roam,  
 And He will guide, light thee, help thee  
 home.

EDITORIAL NOTES.

Deliver not the tasks of might  
 To weakness, neither hide the ray  
 From those, not blind, who wait  
 for day.  
 Though sitting girt with doubtful  
 light.

That from Discussion's lips may fall  
 With Life, that working strongly  
 binds—  
 Set in all lights by many minds,  
 So close the interests of all.

The beautifying of the school grounds by tree-planting, etc., etc., and the decorating of the school-rooms by various simple devices, will be helpful in producing love of neatness and beauty in the school children. This is the season in which many teachers are directing the attention of their scholars to this plan of making provision for the future of their school-grounds, and it can be done the more easily, because so many are engaged in it. Let the teachers be sure to get the active aid of the pupils, as far as possible, and at every step lead them to feel that it is their work. In this way you will strengthen their attachment to the school and their pride in it. You will be able to increase materially their knowledge of plants and of plant life. You will direct energies into useful channels that might otherwise take a course that would harm the pupils and give you trouble; the forces of youth are irrepressible, and must have some outlet. Of course, all lovers of beauty, pupils and others, will be gratified; and the aesthetic nature of the children, so much overlooked, will be cultivated.

What can be done, and what most ought to be done, will depend on circumstances. In many of our country districts, the first thing should be to plant trees in the bare and desolate school yards. Ornamental plants and flowers should also receive much attention.

The booklets prepared by E. J. George Hodgins, a few years ago, will be found very useful by the teachers and others, on the question of school-room decorations.

An earnest attempt has been made, and is continued, to supply our fellow-countrymen with books to read during the long winter nights, while they, the hardy, active and strong young men of Canada are busy cutting the timber in our grand forests. The men have bodies, but are spirits. They need help to enable them to read; they need books to read. The efforts to supply teachers, books, and buildings is a noble undertaking. Ontario should not keep a "close fist" towards the needs of these, her hardy workers in the thick, dark forests in her northern land. The Canada Educational Monthly wishes every success to the Canadian Reading Camp.

By the Guelph newspaper we notice that a difficulty has arisen, caused by a reference made (from the pulpit) to the discipline in the Collegiate Institute of that city, as being too severe and unsuitable to the class of pupils attending the school, by the Rev. W. J. Hindley. The matter was referred to at the first meeting thereafter of the Trustee Board. A motion was made to appoint a committee to make inquiry and report. The Principal

was heard in explanation, and thereupon an amendment was moved and carried, to the effect that the Board had the fullest confidence in the Principal, and were entirely satisfied with his management of the school.

The reverend gentleman now claims that the Board did not give him British fair play in condemning him unheard.

It seems to us that Mr. W. J. Hindley was the transgressor of British fair play in the first instance in condemning the Principal of the school unheard. The reverend gentleman must know the "royal way" of dealing with brethren in such cases as the one under consideration.

The mortal remains of Cecil Rhodes have been laid to rest in his chosen spot, amid the hills of South Africa. Now the question is, tell us something of Jno. Cecil. We select a word or two contributed by his father's family. A pot of jam is missing. The housekeeper is concerned about it. She tells his mother, who questions the young boy if he knew anything about it. "Yes," says Cecil, "I have eaten it; it was good; make some more." The years pass. Cecil goes to Oxford, Oriel College. On account of ill-health he is advised to go to his brother in South Africa. He takes the advice, and returns more than once to his college in Oxford. During the time of his college attendance, he and another gentleman are sole occupants of an ordinary stage on the road leading north from Cape Town. Mr. Rhodes was totally absorbed in studying the English prayer-book. For four days these solitary companions do not say a word to each other. "For

God's sake," says his companion, "tell me who you are, or I'll go mad. Are you a clergyman? I see you are reading the prayer-book constantly." Thereupon, Mr. Rhodes told him who he was, that he was preparing for an examination at Oxford, and that the prayer-book was one of the books to be examined upon. His fellow-traveller was Sir Charles Warren, who is now very well known in connection with South Africa. Another glint of light from the home. "The Jameson Raid" is all the rage in the English-speaking world. Who were the promoters? Who furnished the funds? Could it be justified? etc., etc. To find out the facts of the case an inquiry was ordered. It is reported to his mother that Mr. Cecil was to be examined. "Send for him," she says, "send for him; he will tell the truth." We have no doubt she remembered the incident of the pot of jam.

By various plans, co-operation, and companies Mr. Rhodes accumulates a large amount of property, a marvellous sum when we recollect the smallness of his capital. But the man Cecil Rhodes was in all the plans and companies, and such a man is much more than capital. For years he was the virtual ruler of South Africa. The union of the various and different parts of the British Empire into one living, free unity, was Mr. Rhodes' dream. For this, what would he not have dared to attempt and do? The realization of his dream, he based upon the union of the Teutonic race, represented by Germany on the Continent of Europe, the United States on this Western Continent, and, as centre, the Empire of Great Britain in all the continents.

The spiritual bond is the co-edu-

cation of the best born, the best bred, and the most capable and ambitious of the young men in these empires. For this purpose scholarships are established in Oxford to support these young men for three years. May the results for the well-being of the peoples of the world be commensurate with the spacious gifts and with the high ideal of the imperial donor.

To support these chosen young men for three years, a series of scholarships is founded in the University of Oxford.

A contemporary gives in brief the provisions, which we subjoin:

The will disposes of £6,000,000.

Nearly £2,000,000 of this sum is bequeathed for education.

There are 179 scholarships to be founded in the Colleges of Oxford University, absorbing annually £51,750.

The allotment gives sixty scholarships to the colonies, one hundred and four to the United States (being two for each state or territory), and fifteen to Germany (nomination to be by the Kaiser).

To improve his own College of Oriel, at Oxford, he gives £100,000.

Grote Schuur, his beautiful home near Cape Town, is left as a residence for future Prime Ministers of the Federal States of South Africa, and endowed with £1,000 a year.

The gardens are to be a public park until the formation of such a Federal Government.

All his landed property in Rhodesia is left for the instruction of the people of Rhodesia.

The Matoppoos are to be a public park for the people of Buluwayo, with £4,000 a year as maintenance.

On the hill known as "The View of the World," where his own grave lies, is to be the burial place of all

who "deserve well of their country" in Federated South Africa.

A perpetual model farm is provided in Rhodesia, near Salisbury, and endowed with £2,000 a year.

Dalham Hall estate, Newmarket, goes to Colonel Frank Rhodes, with remainder to his youngest brother.

"A power is passing from the earth  
To breathless nature's dark abyss,  
But when the great and good depart,  
What is it more than this—  
That man who is from God sent  
forth,

Doth yet again to God return?—  
Such ebb and flow must ever be,  
Then wherefore should we mourn?"

—Wordsworth.

One of the ablest of the contributors to The Canada Educational Monthly has passed away from us by the departure of the late Rev. Principal Geo. M. Grant. British Canadians rejoiced in his patriotism; also men of worth admired his alertness and fearlessness in expressing his attachment to the "flag"—the symbol of justice and freedom.

Our friend did noble work as a minister of the Gospel of the Blessed God our Saviour; his qualities as a statesman appeared in what he did in arranging for the union of the separate sections of Presbyterianism—the same healing energy was working for the union of all believers in the ultimate oneness of the human race. But all the power of his various and rich endowments were yoked together for the life and enrichment of Queen's University. The expansion of Queen's since he became its Principal in 1877; its buoyancy, its spirit of comradeship, its spirit of daring and sacrifice:

in all these priceless qualities Queen's is Principal Grant's monument, and it is much more enduring than brass. Canada can very ill afford to lose such a son as George Munro Grant.

### COMMENTS.

Inspector G. D. Platt, Prince Edward County, in his annual report to the County Council deals with several matters of general interest. Many of our readers will be gratified to see how he presents them to the members of the council, and to the general public. The *Canada Educational Monthly* is obliged to the inspectors who favored it with copies of their annual reports. The contents of these reports we will endeavor to note to the extent our space will allow. The report follows:

Mr. Warden and Gentlemen,— In presenting my report of the school statistics for the year 1901 you will notice very few changes from the figures of the previous year. The ratepayers in the sections of the county always appear desirous of having a good, efficient school and of maintaining it on the most economical principles. In some instances the economy seemed rather too pronounced.

The change in the item of municipal grants during the past few years, by which every school of one teacher receives \$150 a year from a fund raised by the whole township, affords a good measure of relief to the weaker sections and is duly appreciated. The amount varies greatly in the different sections of the county. Some carry over a sufficient amount to pay the salaries of their teachers quarterly as the law pro-

vides, but in very many sections the stingy method prevails of paying over the one or two grants and compelling the teacher to wait for the balance until the close of the year. This practice should be changed. It will cost the section no more to pay teachers quarterly than yearly. In Picton the teachers are paid monthly.

The number of teachers employed last year was 82, of whom 30 were males and 52 females. The average salaries were \$352.85 and \$263.70, respectively. The certificates were 4 first-class, 24 second-class and 54 third-class.

The crop of entrance candidates was again large and rather more than the usual percentage was successful. This examination affords one of the best tests of the character of the teaching done in our schools, though it is often allowed to exercise too great an influence in forming an estimate of a teacher's ability. Indeed, it is very evident that frequently both teachers and pupils are injuriously affected by the anxiety of parents and trustees for success at this examination. The pressure directly and indirectly exerted upon them leads to improper methods in preparation and the deep, broad culture that should be aimed at is narrowed by leaving off almost everything that will not count at the examination. The result of such training, or rather want of children to and from it, has only

it is a plant of forced growth that contrasts very sharply with the one more carefully and naturally developed. In this way the conscientious, painstaking teacher is often sacrificed to over-anxiety on the part of those who grow impatient for results. A suggestion imported from the United States towards the consolidation of a part of all sections in a township and the formation of a central school under several teachers and the necessary conveyance of the lately been broached in this province. While there are some probable advantages to be urged in favor of the scheme, there are some serious objections to counterbalance them. The primary object of the change is supposed to be that of lessening the school expenses to the people, and it is also claimed that a graded school would be more thorough and efficient than an ungraded one.

Now the initial expense of erecting and furnishing a suitable building for a central school would certainly be considerable, and as the scheme is experimental in character it would not be wise to sell the discarded houses lest they be again required. But even more formidable than this would be cost of transportation of the children to and from the school at all seasons of the year.

As to the advantages of a graded school over an ungraded one, there is room for a difference of opinion in the matter. It is contended by educationists that the more individual teaching children can receive, up to a certain limit, the better, for simultaneous teaching too often degenerates into

machine work and cram. This sort may store the memory but does not develop the mental power—to do that, pupils require time to think, for which an ungraded school is best adapted.

But a strong objection to the proposed scheme is that it emphasizes unduly the commercial idea in education. One would expect such a scheme to originate in the United States. In this country the saving of money is not the paramount object of life and our people do not worship the almighty dollar to the same extent that our neighbors do. In fact the dollar is not almighty in Canada. We do not hear complaints on the score of burdensome taxation and yet most of our experienced teachers receive fair salaries. Our rate-payers in general never grudge a liberal expenditure for a good school.

The proposed scheme is expected to provide better salaries for fewer teachers, and to that extent it will not be a saving in expenditure over the present system, and on the other hand, limiting the demand for teachers, will greatly increase the over-supply of which great complaint is made in some parts of the province.

It appears to me that there will probably be little use made of the permissive legislation on the question lately passed in Toronto.

—Picton Gazette.

It may be said that while in one sense the year 1901 has been in some respects the most unfavorable the mining industry of British Columbia has ever experienced, it has also been the best. Progress of a very substantial character has been made. The test has been a hard



one, but it has been courageously met, and the industry is to-day upon a healthier and more established footing than at any period in its history. If there has been a falling off in silver, lead and placer gold output, this is more than offset by the great increase in copper and lode-gold production, and the value of the mineral yield in 1901 should certainly not fall below twelve million dollars. Larger sums were distributed as dividends during the past year than in any previous corresponding period, while there were fewer mining fiascos and an almost entire disappearance of "wild-catting" methods. The prospect is eminently cheering, for as the year closes labor differences have been settled, conditions as affecting the silver-lead mining districts have been improved, new discoveries at Horsefly and elsewhere promise well, and activity prevails in nearly every section of the country. This new year will also see, doubtless, the opening up of new and promising districts by railways, while the productive area will also be extended by the addition of territory wherein heretofore development operations have alone been in progress.—Bureau of Provincial Information, B.C.

A great many owls are reported in Manitoulin Island this year, and people are shooting them by wholesale to be stuffed, whereupon a contemporary remarks that the best interests of Manitoulin Island would be served if the owls were alive in the woods instead of being used as ornaments in spare rooms or front parlors. If there is an unusual number of owls up there it simply means that there is an unusual

amount of work for them to do, and if they are shot and not allowed to do their work the farmers will probably have reason to regret it. The owls are there because rats and mice abound. Instead of killing them, the people of the locality should regard their coming as a protection against pests. Charles W. Nash, of Toronto, has written a pamphlet about the birds of Ontario, which the Department of Agriculture has published, and in it he shows that the killing of owls and hawks on sight is extremely foolish. The great horned or cat owl occasionally kills poultry and partridges, but it chiefly lives on rats, mice, squirrels, skunks, rabbits, and muskrats. Mr. Nash's own investigations, and those conducted by Dr. Fisher for the Washington Government, show that the cat owl is the only member of the family that ever kills poultry, while all the others—the long-eared, the short-eared, the barred and the screech owls—subsist almost exclusively on rats, mice, and insects. Mr. Nash says of them that in following out the natural law which governs their lives they greatly help to keep in check that vast army of little animals which, if allowed to increase unrestrained by their natural enemies, would in a few seasons destroy all vegetation on the face of the earth.

Hawks meet with the same unreasoning enmity. There are eleven species common in Ontario, and of these only five are ever known to touch poultry, and two of the eleven are the chief offenders. The goshawk kills poultry, but he is seen in Ontario in winter only. He is a large bird, while the hawks that prey on chickens in summer are small ones. "Hen hawks" never touch poultry, and seldom or never

kill birds of any kind. These big, heavy-winged birds are killed at every opportunity, and yet they are among the best friends the farmer has. They live on mice, toads, frogs, squirrels, and snakes, and the rough-legged variety is particularly spoken of by Mr. Nash as a blessing to the country. He estimates that each marsh hawk eats six field mice every day he is in the Province.—Free Press, London, Ont.

Undoubtedly the two animals showing the closest approach to human intelligence, so far as social organization and harmonious co-operation for the common welfare are concerned, are the ant and the beaver, according to a Rochester writer. Many wonderful stories of the brain-work displayed by ants have been told, and here is one about a colony of beavers on the Aroostook River, in Maine, near the village of Caribou. They have built a dam of logs and mud 250 feet long, turning the river back upon the lowlands for a distance of three miles, and thus creating a great lake. The account of their operation says: "Trees a foot in diameter have been cut down by the beavers, the branches trimmed off, and the trunks in some mysterious manner brought to the dam and submerged. The dam is better than many on the river that have been built by men, and the Caribou people are rather proud of it. Over 1,000 beavers have worked hard on this job for several months, and they will be allowed to remain in possession all winter." This, we are told, is "instinct."

Those beavers are certainly practical engineers and mechanics, as well as marvels of intelligent in-

dustry. How did they learn their trade?—Educational Gazette.

The New York Tribune has some good and truthful words for Canada. It is not often that we have the pleasure of printing such kind words from our cousins south of the line. The Tribune says:

The popular idea that the climate of Western Canada is severe has been a serious obstacle to its development. It is true the winters are cold, but not much more so than in Minnesota and the Dakotas. On the other hand, the warm chinook winds from the west make Canada, especially Alberta, distinctly more temperate than some of the north-western states. The equable climate of Alberta is highly praised by all Americans who have settled in it, and its Rocky Mountain resorts, such as Banff, Glacier, and Field, are patronized largely by Americans, especially by sufferers from hay fever. Even where the winters are found to be severe there is an offset in the fact that the days in summer are long, and vegetation thus gets a great deal of sunlight. As to the general conditions of the country—climatic, social, and political—the Journal prints signed letters from former citizens of the northwestern States, who declare that they are entirely satisfied. The laws are just, the taxation is light, and churches and schools are being rapidly built. Many Americans, indeed, who have taken farms are growing rich, and even farm laborers find steady employment at good wages. Moreover, in Western Canada there is hardly a trace of that narrow provincialism even yet to be found occasionally in Eastern Canada, which fondly cherishes the old

hatreds engendered by the war of the revolution. The people feel little interest in old political Shibboleths, and there is absolutely no prejudice against Americans or American ideas. On the contrary, all, of whatever nationality, are welcomed on condition that they will take a hand in the industrial development of the country. Apparently "the sleeping empire beyond" is awaking to a realization of its great possibilities.

The following interesting figures and deductions therefrom have been prepared from the recent report of the Superintendent of Public Instruction:

1901.	R.C.	Pro- testant.	Total.
Schools under Boards and "Independent" .....	5,019	951	5,970
Scholars .....	279,474	35,407	314,881
Attending schools of different faith .....	2,606	1,422	—
Teachers, total .....	3,761	1,423	10,189
Teachers, "Religious" .....	3,545	1	—
Teachers, lay, male .....	275	101	375
Teachers, lay, female .....	4,941	1,526	6,267
With Diplomas .....	4,828	1,290	5,772
Without Diplomas, Lay Teachers .....	734	137	671
Without Diplomas, "Religious" .....	3,545	1	—
Average salaries, Male Teachers with Diplomas—			
Elementary .....	\$251	\$1,149	—
Model and Academy .....	510	802	—
Average salaries, Female Teachers, with Diplomas—			
Elementary .....	113	201	—
Model and Academy .....	125	269	—

Besides the above, there are 45 other institutions, universities, colleges, normal schools, etc., attended by 11,626 students. The report shows increase of Roman Catholic schools, 66; scholars, 4,795; and teachers, 390; and a Protestant decrease of eight schools and 1,167 scholars, and an increase of 30 teachers.

Out of 6,658 lay teachers, there are only 391 men, a decrease of 15; and 6,267 women, an increase of

149; showing the rapid transfer to women of Public School education. Of the 391 men, 307 are engaged in superior schools. The increase in the number of "religieux" is 286, showing a reversion to the high figures in this class six or seven years ago. The number of teachers without diplomas shows: Roman Catholic, an increase of 119, and Protestant of 51. This is a startling increase of Protestants, from 83 to 137, arising probably from the recently introduced policy of compulsory attendance at the Normal School. Graduates often decline the small salaries offered, and School Boards illegally appoint teachers without diplomas, and do not care if they thereby forfeit the Government grant, as it is so small. As to average salaries, there is a general increase. It is most noticeable with Protestant female teachers with diplomas in superior schools, raised from \$152 to \$201. It looks as if there must be some mistake in average salary of Protestant elementary male teachers with diplomas, \$1,149. Last year it was \$663, and the year before \$345.—Montreal Witness.

The following description of an English Rural School, taken from the Yorkshire Post, will be read with interest by all our teachers and others interested in education:

"When the Education Department made up its mind that country children should have special teaching, and got the current Code out, there was in the Bronte territory a village school to which it owed some ideas. It is at Stanbury—the cluster of grey houses passed in going up to Charlotte's waterfall. Wild moors environ it. Haworth has changed, but Stanbury

is almost as it was in Charlotte Brontë's time.

"The master of this school was asked by the Inspectorate to furnish them with a scheme of nature study such as he had been developing in practice for six years. The Department's new circular to country teachers contains few features that his work has not anticipated, and the school in its present state is one of the most interesting in England. Window sills and the master's desk and certain cupboards are a museum of the plant and insect life of the country side; it is extant on a small scale of cultivation in sundry bell jars, pots, and dishes; and the children, from the eldest down to the youngest, can tell you something about the life history of what is under their eyes daily growing and changing. Catch them in play-time, and you find a great many of them flocking round the specimens, crying out as they discover changes that have happened overnight, spying wonders through pocket lenses, telling each other what comes next, and giving every growth and phase its name as naturally as they would speak of a kitten's tail. They are free to run out, but this keeps them in—it is a sufficient break with the windows open. They brought all these 'little wick things' to the school themselves, knowing where to find them in tiny egg and larva just as well as any field naturalist; the marvel of unfolding life is not tedious; and yet you would think the merry din outside as interesting.

"In the Code all this is represented by the dry word 'Science.' When it was begun in 1896, the Code requirements under the head of Science was that children should be taught some simple facts and

principles of heat and chemistry. Very well and necessary this, but for country children not the best possible means of either training them to use their eyes, or making life seem fuller than it had done to their fathers and mothers, or teaching reverence, urbanity, and human sentiments in out-of-the-way places.

"Mr. Bradley is a naturalist. In some sort all country teachers who are not naturalists already must become such. He drafted a scheme of nature study based on the commonest types of life about him, and we have in the district a body of alert school inspectors who were only too glad to find a master able to humanize the science course in such a way. They let him go to work, and the scheme grew year by year.

"What may seem surprising is that children absorb such teaching very young. The life history of the frog, verified with their own eyes, is assimilable by the youngest, and in the opinion of Canon Lyttelton, whose book on 'Training of the Young in the Laws of Sex' is likely to do much for civilization, children cannot be accustomed too early to think of the principle of quality in nature as a simple though forever a wonderful law. Most will think it best to begin with plant life, and Mr. Bradley's first essay was to show the broad difference between such a flowering plant as the primrose and non-flowering types like the club mosses and ferns. His elder children have each a pair of needles stuck into wooden handles, home-made, for the purpose of dissecting flower and bud and seed, so that the simpler classification of botany may be learned by observation. When a typical dissection has been done, they write

down the results, and, as in the elementary schools of the United States, a diagram is always drawn, however crudely. For insects, it is convenient to begin with such as the bee, the blue-bottle fly, and the butterfly. There was an immense sensation when, after tending them from the egg through the caterpillar stage to the chrysalis the children first saw butterflies creep out and spread their wings; another at the sight of their instant fluttering eagerness when a bunch of Virginia stock was introduced into the big bell jar, and on the deft proboscis darted into deep honey-cups. Lesson on fertilization, of course, with some reference to crossing."

Like a gardener, the teacher providently caters for all seasons. A glance at the Stanbury scheme for the coming year will prove this, i.e., the syllabus for Standards V., VI., and VII.:

"They have learnt already all about the snowdrop, gathered the usual catkins of willow, birch, and hazel that serve for a text of tree-lore, found the winged seeds of sycamore and silver birch beginning to sprout, brought in the spawn of frog and newt and pond snail. In botany, as the year goes on, they will learn the bluebell, the marsh marigold, the dandelion, and the butterfly orchis for flowering plants; a sundew of moorland nooks and the butterwort for insect eaters; ferns, mat moss, and mushrooms for plants that do not flower. Insect life and its reproduction is made perfectly fascinating with such aquatic subjects as the gnat and the bloodworm. The children actually find the little saucer-like rafts of eggs, objects for the microscope, examine the floating larva

with its breathing tube on the surface film, and its mouth below, head down, and see the perfect blood-sucker take flight for the edification of patient anglers. With the frog and pond snail goes the earthworm, and everyone knows what a story Darwin made of that. Four hours a week being given to nature study, there is time in the winter months for lessons in heat and in the chemistry of air and water.

"On fine Friday afternoons one may see a village school ideally taught in the open air. Broken weather confines it to the playground; but, not being laid with concrete or blighted with much smoke, the playground grows things.

"Do you imagine there is the least question of vagabondage and truancy when the school goes out a-botanizing? Anything so overdone were from the purpose of truancy, whose end, both at the first and now, was and is to make as 'twere the best of Nature. The master's care is not that. It is to see that every small naturalist who finds a treasure, however inconsiderable, gets the right word of help about it; for they come continually running. How far it all is from idling naturalists will know when I say that boys and girls of twelve know how to seek and recognize the prothallium of ferns.

"In other ways the school is taught for country needs and interests. Geography begins with the visible hills and streams, drawn from local maps and shaped in clay; and there is a collection of local fossils. In one year a rain-gauge was kept, its record compared with others of the district, and the reasons of their difference explained. Something is taught about soils, mud, clay, sand, and gravel, useful as a

foundation for any agricultural instruction proper that may follow. In arithmetic special attention is paid to measuring problems. Boys learn how to take the cubical contents of a haystack and a quarry block, or to find the area of a meadow; for any children who may go to the towns, there are, however, object lessons on cotton, wool, silk, and their manufacture. Many other country schools, no doubt, have similar adaptations to their own needs, but the Department expects that almost all should get into closer touch with life.

"There is a lamentable want of suitable text-books for Nature study. For forest trees Mr. Bradley has found nothing more compendious than books on single British timber-growths. For aquatic insects Miall's book is invaluable, and so are his 'Object Lessons from Nature' and 'Round the Year.' The West Riding County Council have done great things for rural teachers in providing lecture course, by Prof. Miall and others, and paying the railway fares of those who came into Leeds and Bradford to hear them. Such lectures will now be still more largely attended, and text-books will doubtless come in time.

"Meantime in Stanbury one sees burst frogs no longer in the roads. It is better fun to watch a frog catch flies than it was to blow one up. Between them, the schools at Stanbury and Oldfield, a strong outpost on the other side of the dale, have put an end to bird-nesting. There has probably in those parts never been such a hatching out of broods as this year since the Ice Age."

The courses are adapted to the needs of teachers now in service and of those who intend to be teachers. Several of the more elementary, however, are intended also to meet the needs of beginners. Some may be taken in lieu of the corresponding courses in Harvard College or the Lawrence Scientific School, and may be counted towards the degree of A.B. or S.B.

Board and lodging may be obtained in Cambridge during the summer vacation at a cost of from \$4 to \$10 per week. Students may live most economically by hiring rooms in private houses and taking their meals at the restaurant provided by the Committee in Randall Hall, where food will be furnished at cost.

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### CURRENT EVENTS.

Dr. M. J. Kelly, LL.B., President of the Brant County Alumni Association, has resigned the position of Inspector of Schools in Brant County, after thirty years of service.

E. B. Hutcherson, B.A., has recently been appointed headmaster of the High School at Regina, Assa.

D. Whyte, B.A., who has been on the staff of the High School at Niagara Falls, Ont., is now science master in the Collegiate Institute at Owen Sound.

D. P. McColl, B.A., who was formerly superintendent of the city schools of Calgary, is now inspec-

tor of schools in the district of Calgary, Alta.

With a view to giving teachers some elementary instruction in certain departments of technical education, a summer school, under the direction of the Minister of Education, will be held at the Normal School, Toronto, beginning Wednesday, July 3rd. The courses of study, which will be free, will embrace manual training, domestic science, nature study, drawing, and music. Lectures will be given by specialists in the different subjects.

The estimated expenditure for the next fiscal year, Dominion of Canada, is \$59,100,939.

Prof. Stockley, of the University of New Brunswick, has resigned to

accept a chair at the Ottawa University.

The corn duties resolution was adopted by the British House of Commons by 283 to 197.

The Canadian Pacific announces reductions in freight rates between Lake Superior and Manitoba points, ranging from 40 to 44 cents per 100 pounds.

A course of military instruction for school teachers of High Schools or Collegiate Institutes in Ontario will be held at Stanley Barracks, Toronto, commencing on the 7th of July.

Eric Sharp, the fifteen-year-old son of a Kingston grocer, deliberately shot and killed Beatrice Holland, fourteen years of age, because she snatched his hat off at school.

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## SCIENCE.

By J. B. Turner, B.A.

### NATURE STUDY.

This subject is rapidly making a place for itself in the work of the schools of our Province. Its value as mental discipline with even the youngest of our school-children should appeal to every teacher to fairly consider its merits. The abundance of material on every hand for the successful prosecution of Nature study brings the subject within the reach of those who are desirous of taking advantage of whatever will contribute to the success of the school work. The work in this delightful subject has suffered in the past from imperfect or incorrect ideas as to what Nature study really is and what it implies. Too often it has been to a large extent talks by the teacher about natural objects, or the read-

ing from recognized authors on some subject connected with natural history. Both of these are very good in their way, but they are not Nature study.

Nature study, if it is ever to accomplish anything, must make demands on the activities of the child, must make him the active participant in the work, not the passive recipient of a mass of information which may or may not have any value or meaning for him. In connection with Nature study there has recently been published by Copp, Clark & Co. a text-book, or rather a guide-book, on the subject, by Mrs. Crawford. This work is the result of several years' experience in teaching in the Toronto Normal School and the product of several years of thought and work

on the part of the author. The introductory chapters contain a statement of the principles underlying the work in Nature study, and they also point out the mistakes of the past, so that these may be avoided for the future. The remainder of the book is made up of type lessons from every department of Nature. These, however, are not intended as anything more than types. If the materials employed in these lessons are not available, then other material that are at hand may be substituted, and the principles of these lessons applied in the study of it.

This work is the first of the kind, as far as the writer knows, by a Canadian author, and is of very high merit. It avoids the superficiality too often found in works pretending to deal with this subject, while it gives an excellent statement of the principles applicable in Nature study, and outlines a course that is comprehensive enough to meet the requirements of our schools. Whatever excuse there may have been in the past for the employment of imperfect methods in Nature study is, to a large extent, removed by this book, and it is to be hoped that it will meet with the appreciation its merits demand.

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A School Chemistry. By Dr. John Waddell, Queen's University. The MacMillan Co., London and New York; George N. Morang, Toronto.

The aim of this text-book is

stated by the author in his preface to be "to help the pupil in the discovery of new facts, to enable him to see their connections, and to show how facts lead to theory, and theory aids in investigation and in the discovery of further facts. The subject is presented in what seems to me the correct prospective, theory being subordinated to fact. The author has, throughout the book, closely adhered to the task he has set himself, and if the experiments described are carefully performed and the questions in connection with each conscientiously answered from the results of the experiments, the student will have obtained a good grasp of the elementary principles of chemistry. The object of a course in elementary chemistry should be rather to acquaint the student with the processes of the subject, and thus give him the ability to go on with the work he has undertaken than to load his mind with a mass of facts with regard to the substances treated. This the author seems to have had constantly before him in preparing the text. It is just possible too much is suggested to the student by the questions that are asked in connection with each experiment.

The latest ideas on this difficult subject suitable to an elementary course are embodied in this work. The preface is especially valuable on account of the statement of pedagogic principles contained in it



## SCHOOL HYGIENE.

Helen MacMurphy, M.D.

**A Refuge for Dependents.**

There are too many people in the almshouse. The energy of the State has been exerted to take care of the unfortunates, rather than to prevent men and women from becoming unfortunate. Out of a total of 2,936 inmates of the almshouse on Blackwell's Island, only 56 were born in the United States; 2,382 were foreign born, and of this number 1,617 were born in Ireland alone. There is a law forbidding the immigration of paupers, but from this it would appear that the law is being evaded. Of these, 2,729 were admitted for destitution, helpless, in the main, because they had yielded to the desire for drink until long-suffering friends could no longer bear the burden of their existence and had to turn them over to the State. It is not within the province of my paper to say how many of these persons could have been made self-respecting and self-supporting if the environment that first led them in the downward path had been minimized or swept away altogether.—John W. Keller, Commissioner of Public Charities, New York City.

**The Death Rate of Great Cities.**

The death-rate for great capitals of Europe for the last five years of the nineteenth century was as follows:

London, 1896, 18.6 per 1,000; 1897, 18.2; 1898, 18.7; 1899, 19.8; 1900, 18.8.

Berlin, 1896, 19.0; 1897, 18.6;

1898, 17.7; 1899, 19.7; 1900, 18.7.

Paris, 1896, 19.1; 1897, 18.4; 1898, 19.1; 1899, 19.2; 1900, 19.4.

Vienna, 1896, 22.36; 1897, 21.30; 1898, 20.35; 1899, 20.63; 1900, 20.42.

Moscow (approximately) 1896, 29.22; 1897, 28.37; 1898, 29.62; 1899, 28.02; 1900, 30.94.

Our large American cities compare favorably with these figures. In New York the death-rate is 19.95; in Philadelphia, 18.26; in Boston, 19.06; in Chicago, 14.68. As we pointed out last week, Montreal, although not in the same class with these very large cities, has almost the highest civic death-rate in America, it being 25.46 per 1,000. It is somewhat remarkable how nearly alike many of the large cities are in this respect.

The Philadelphia Medical Journal

**Health of Chicago.**

The report of the Health Department of Chicago shows that from Jan. 1 to March 29, 1902, there were 6,638 deaths from all causes, an excess of 608, or 10 per cent. more in the actual number and 61-2 per cent. more in proportion to population than for the corresponding period of 1901. The almost epidemic prevalence of the communicable diseases of childhood has caused the Commissioner to renew his efforts to secure the co-operation of the Public School teachers in preventing their spread. Through the assistance of School Superintendent E. G. Cooley, a

copy of the circular, "Suggestions for the Teaching of Cleanliness Among School Children," is being put in the hands of every teacher, with the request from the superin-

tendent that they be continuously enforced. The gist of these suggestions is that much may be done to restrict the spread of contagion by teaching habits of cleanliness.

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## CORRESPONDENCE.

COUNTY MODEL SCHOOLS.—Dr. J. George J. Hodgins.

On behalf of the correspondent who had called your attention to one or two points in the editorial in the Educational Monthly of last April on "County Model Schools" I desire to make the following remarks:—

The necessity of these schools was felt more than forty years ago, and provision was then made for their establishment. Thus, in the first School Act passed in 1843 to regulate Common Schools in this province, section 57 of that Act declares:—

"That it shall and may be lawful for the court of wardens of any county in Upper Canada. . . . to raise and levy by county rate a sum not exceeding £200 (\$800), and to appropriate and expend the same for the maintenance of one or more County Model Schools, within such county, and to constitute, by by-law, or by-laws, to that effect any Township, Town or City School, or Schools within the county, to be, for any term not less than one year, such county Model School or Schools," etc.

"A sum not less than £40" was appropriated to each such school towards "the payment of the teachers and the purchase of books and apparatus." The 66th

section of the same Act also declared:—

"That in every such Township, Town, or City Model School gratuitous instruction shall be given teachers of Common Schools within the Township, Town, or City, wherein such model school may be established during such periods and under such regulations of the Township, Town, or City Superintendent may from time to time direct."

Again, in the first Common School Act prepared by Dr. Ryerson, and passed in 1846, after providing for the establishment of District Model Schools—it was declared (sec. 40):—

"That at every such District Model School gratuitous instruction shall be afforded to all teachers of Common Schools within the district in which such Model School may be established during such period and under such regulations as the District Superintendent may from time to time direct."

These county model schools (as it will be seen) had higher functions than have the county model schools of the present day. They were designed to afford instruction to persons who were already

teachers, and were thus in Dr. Ryerson's views constituted local Normal Schools for that purpose. So much importance did Dr. Ryerson attach to the value of training institutions for teaching, and so much did he anticipate a demand for them that on page 162 of his Report on a System of Public Elementary Instruction, published in 1845, he said:—

"As soon as examples of the advantages of trained teachers can be given, I believe the ratio of demand will increase faster than that of supply, and but an additional Normal School will soon be required in each of the most populous districts."

Then again so jealously was the efficiency of these district or County Model Schools guarded that in the same Act, 9 Vic., chap. 20, it was provided that no teacher could be appointed to such labor, without the approval in writing of the District Superintendent, and unless he held a certificate from the Normal School (which was established in 1847). In addition to these requirements power was given to the District Superintendent to suspend or dismiss Model School teachers and to appoint others in their places, in case the local trustees neglected or refused to do so. This District Superintendent was also authorized to examine (as they often did at the Model School) all "candidates for teaching in Common Schools" and to give them certificates of qualification, special or general, at his discretion.

The question may here be asked, "Of what practical value were

these County Model Schools in the work of training school teachers?"

It was clear that these schools were regarded in those early days as a necessary adjunct to our system of education, for the very purpose of aiding teachers in their professional work. Thus, Hamilton Hunter, Esq., now of London, Ontario, and a veteran in the work—in his report as School Superintendent of the Home District for the year 1844 says:—

"The deficiency in the qualification of teachers could be remedied by establishing in each district a Model School upon a good scale, and having it under the management of a superior teacher or teachers. . . The School Bill makes provision for this, etc."

In his report for 1847 Dr. Ryerson thus speaks of the operation and success of these schools wherever they had been established.

"The School Superintendent of Dalhousie District says:—'In this (County Model School) I have there held public examinations of Common School teachers; and on some occasions, when reluctant to give them certificates, I have sent them to the Model School master for information and examination.

. . . (These teachers) did not make any permanent stay except one, merely learning the mode of instruction, the value of the studies and discipline of the school' . . . The Superintendent of the Johnstone District says:—'. . . 'Much good has been done by the establishment of the Model School of this District. Several teachers whose education was by no means good, have acquired a sound

knowledge of the subjects which are required to be taught in the Common Schools.' The Superintendent of Schools in the Midland District says:—'Almost every teacher who has attended the Model School for any length of time is now teaching with good success.'

In the Act (hostile to Dr. Ryerson) which was hurriedly passed in 1849, but which, by Order-in-Council, never went into operation, provision was made to establish, or continue the County Model Schools "in any township, town, or city," and granting to each of them "£25 over and above the sum to which such schools would be entitled as a Common School. . . which sum shall be expended in the payment of a teacher or teachers, and for no other purpose."

In 1850 the whole machinery of our school system was thoroughly revised, and the system itself re-organized. A comprehensive School Act prepared by Dr. Ryerson was then passed, which is yet the foundation of our Public School system. In that Act provision for the establishment and maintenance of township Model Schools was made. Township Councils were authorized to raise a special tax for the support and efficiency of these schools; and it was "provided likewise, that tuition to student teachers in such Model Schools should be free."

The reason why township Model Schools were substituted for counties, is given by Dr. Ryerson in his circular to town reeves, dated 12th August, 1850. Other reasons contributed to this change, but the

circular gives the chief reason. It says:—

"The attempts of District Councils to establish Model Schools have thus far proved entire failures . . . The late District Councils have in every instance, except one, abandoned the attempt. . . To the success and usefulness of a Model School, a model teacher, at any expense, is indispensable, and then a Model School-house, properly furnished, and their judicious and energetic management."

In addition, I may say that the causes of failure of these valuable training institutions in 1850, may be incidentally learned from the very words here used by Dr. Ryerson by way of suggestions to town Reeves. These schools had neither model teachers, nor were the buildings "model school-houses." Besides, the District Superintendents of that day, and after them, the inferior township superintendents, had no experience as trained teachers themselves. The man who would do the work of superintendence at the cheapest rate, and as a supplement to his ordinary income, was usually the man chosen as Superintendent.

For twenty years this unfortunate state of things existed, and until, by the Act of 1871, the status and qualifications of these most important officers were raised to their present high standard. The very name was changed, and that of Inspector substituted for one which had become synonymous with that of inefficiency—chiefly for want of experience in the duties of the office.

It was felt by Dr. Ryerson that until these new officers had secur-

ed some degree of popular favor, and had proved their efficiency as organizers of schools, and as practical judges, it would be useless for him to attempt the re-establishment of the county Model Schools.

Before that time had fully arrived he retired from office—leaving this important and necessary duty to be undertaken (as it was efficiently) by his successor, Hon. Adam Crooks, as Minister of Education.

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## BOOKS AND MAGAZINES.

To accommodate readers who may wish it, the publishers of THE CANADA EDUCATIONAL MONTHLY will send, postpaid, on receipt of the price, any Book reviewed in these columns.

The long story, complete in one number, in the June "St. Nicholas," is called "Another Chance," and is a story for girls, written by Julia Truitt Bishop. Jack London contributes a story entitled, "To Repel Boarders"; and there is an interesting article on "The Castle Garden Aquarium," by Charles L. Bristol.

The first article in the June "Atlantic" is one on Golf, by William Garrott Brown, in which he discusses the game from various points of view, and in passing pays an enthusiastic compliment to Mr. Arnold Haultain's disquisition of the same subject. Miss Jean M. McIlwraith, of Hamilton, whose historical romance, "The Curious Career of Roderick Campbell," was published by Houghton, Mifflin & Co., about a year ago, contributes to this number "A Dialogue in Hades," which proves to be a thorough and conscientious survey of the work of Walt Whitman.

The contents of the June "Cosmopolitan" include "The Coronation of Edward Seventh;" "Cecil Rhodes," by John Brisbane Walker; a story by F. Hopkinson Smith, and the beginning of a serial by Francis Willing Wharton.

There are two articles on College

Life in the June "Cosmopolitan": "Oxford University and the American Students," and "Bowdoin College," by W. I. Cole.

Among the more interesting contributions in the June "Century" are: "The Humor of the Elder Sothorn," by Lucy Derby Fuller; "The Adventures of a Parrot," by H. S. Edwards; "The Royal Family of England," by Oscar Browning; and "The Recollections of a Player," by J. H. Stoddart.

The contents for the June "Scribner's" include: "The New Agriculture," by W. S. Harwood; "Artemis to Actæon," by Edith Wharton; "On a Baltic Sea Sloop," by James B. Connolly; "A Window Drama," by Juliet Wilbor Thompkins; "The Day Shall Declare It," by Jennette Lee; instalments of the two serials, and other contributions.

"The Living Age" for May 31 contains an important review of Mr. Kidd's *Western Civilization*, taken from "The Quarterly Review."

Articles on the work of Frank R. Stockton and Bret Harte occupy the most prominent positions in the June "Book Buyer." The various departments are as interesting as usual.

The complete novel in the June "Lippincott" is by Caroline Gebhardt, and is called "A Real Daughter of the Revolution." Naturally it is an historical romance.

The leading article in the "Sunday School Times" for May 24 is on "The Surest Road to Church Prosperity." The answer supplied is to win children above all others for the Church.

Besides a number of good short stories and articles on various subjects in "The Youth's Companion" for June 5th there is a short but enthusiastic statement on the subject of women and cats, which, in effect, remarks that considering the indomitable nature of the cat, women deserve much credit for having all by themselves persistently cared for it.

The May number of the "Studio" is, as usual, of remarkable beauty and great interest. The leading articles are on: "A German Painter: Robert Sterl"; "Illustration of the Daily Press in America"; "The Art of Van Hore"; and "The Cult of the Statuette." But to the general reader the article of greatest interest will be that on "A Birmingham Architect: W. H. Bidlake," fully illustrated by photographs in detail of the houses he has designed.

The April number of The Studio opens with a most interesting article on "The Art of Lucien Guion," by Gabriel Mourey, with thirteen illustrations of the artist's remarkable work, including some fine portraits of old people, and Breton types. The second article is devoted to the work of the students of the Liverpool School of Art, and contains examples of very fine decorative work. A third most at-

tractive contribution deals with Italy's Private Gardens. Altogether the April number is worthy of the first art magazine.

The April Cosmopolitan contains amongst other articles of interest a contribution, "Vesuvius, Destroyer of Cities," by B. F. Fisher, Kenyon Cox, Bret Harte. Hopkinson Smith and Edmund Gosse are among the contributors.

"The Youth's Companion" for April 10th contains an article by Lady Jeune, on "Some Relics of the Past."

"Confessions of a Wife" is the most prominently placed contribution in the April Century. After reading it one cannot help feeling that public confessions are generally a mistake. But the same number contains a number of the most refreshing short stories that have appeared together for a long time. "My Golf," by Charles Battell Loomis; "Disciplining the R. and O.," by Willis Gibson; "A Hard Road to Andy Coggins," by Chester Bailey Fernald; and Chimnie Fadden's "Discussion on L'Aiglon and Women," by E. W. Townsend, make a record in magazine humor that it would be difficult to surpass.

"The Methods of Lady Walderhurst" is a continuation of the most charming story Mrs. Burnett has yet written, "The Making of a Marchioness." The continuation is admirably conceived and worked out, and while there is a little more of the wickedness of the world in the second part than there was in the first, that serves to increase the dramatic interest. William Briggs is the Toronto publisher of a book which is certain to have a large

sale, and which will not disappoint anyone who enjoys a well-written, charming story. Lady Walderhurst is a most lovable woman.

"The Lady Paramount" is the first book Mr. Harland has had published since his great success, "The Cardinal's Snuff-Box." It is characterized by the same lightness and gaiety that made the charm of the former book. There is not a hint of sadness or trouble from cover to cover, nothing but love and fair weather, and all the good things day-dreams are made of. If one wants to be convinced of the blueness of the sky, the sweetness of living, and the perpetuity of true love, this is the book to buy for the purpose. William Briggs is the Toronto publisher.

William Briggs is also the Canadian publisher for Miss A. P. Laut's second historical romance, "Heralds of Empire." Miss Laut is able easily to maintain her position as a successful writer of the daring, exciting, high-pitched story of adventure. A great wonder is made by book-reviewers over the fact that a woman could write such a slashing, reckless account of much killing and loud talking. But that may be recognized as the legitimate outcome of the preference for boys' books so strongly established in the bosom of the average girl. "Heralds of Empire" is a successful book in the sense that it achieves everything for which it seems to have been written. It is sure to have a large sale and to give much enjoyment. Miss Laut, however, has rather fallen behind in the better qualities of her art since writing "Lords of the North."

W. H. D. Micr's "Herbarium and Plant Description" gives 25 sheets for pressing plants, with

convenient blanks for information to be filled out. Ginn and Co., Boston, 70c.

Mr. McLaughlin, Director of Music in Boston and an editor of the well-known Educational Music Course, has prepared another valuable musical publication, which is just issued by the Athenaeum Press of Ginn and Company (Boston). It is a manual of elementary theory for teachers and students of vocal music reading. 55c.

Stephen A. Douglas. By William Garrett Brown. Cloth, pp. 141, 65 cents. Boston: Houghton, Mifflin and Co. This is a new volume in the Riverside Biographical series. Most of the authors of these biographies have freely confessed that their work was little more than the recasting in condensed form of more extended biographies. Mr. Brown, however, has done a certain amount of original work, and his presentment of Douglas' life and character reflects the swiftness and concentration that characterized the career of this brilliant figure of the abolition struggle.

The period of exploration and colonization in America is represented in the Riverside Biographical Series by an account of the career of Samuel de Champlain. Henry D. Sedgwick, jr., whose essays in the Atlantic Monthly have deservedly attracted favorable attention, has, in this little volume, vividly described the great French explorer. Champlain's statesmanship, daring, and prudence made his career a remarkable one, and his adventures as the founder and governor of New France, or Can-

Carpenter's Geographical Reader. By Frank G. Carpenter. Cloth, 12mo, 456 pages. With maps and illustrations. Price, 70 cents. American Book Company, New York and Chicago.

The most recent issue of this series is Europe, a really attractive, almost fascinating book, which is practically a personally-conducted tour of Europe, based upon recent personal observations of the author. The book is profusely illustrated with half-tones, from photographs, selected to give an idea of the customs, costumes and industries of the people, as well as of the places in which they live. It makes an attempt to make the study of geography interesting and practical, and will be eagerly read through by even very young pupils. Its twelve maps are small, but very clear, and not overcrowded.

History of Scotland. By P. Hume Brown, M.A., LL.D., Fraser Professor of Ancient (Scottish) History and Palæography in the University of Edinburgh. Vol. I. To the Accession of Mary Stuart. Crown 8vo, with 7 Maps, 6s. Vol. II.—From the Accession of Mary Stuart to the Revolution of 1689. Crown 8vo, with 4 Maps and Plan, 6s. Vol. III. (Completing the Work.)

There is not in existence a compendious history of Scotland which at once supplies a consecutive narrative of events and seeks to trace the gradual consolidation of the various elements that have gone to the making of the Scottish people. It is an attempt to meet this want that this book was conceived and written." (Taken from the preface to the first volume.) The writing

of history is not one of the exact sciences; therefore, writers have room for differences among themselves and so have the readers. This history of Scotland is a good one, but not faultless. We commend it to our readers.

The Mind of a Child. By Ennis Richmond. Longmans, Green & Co., London, England.

Mr. Richmond calls attention to the fact that almost all those who write about child-study and on child-study, do so chiefly for the writer's personal advantage, not for the advantage of the child or the community; and he endeavors to present the child from the standpoint of the child's good and the good of society. In the performance of this effort he gives many useful hints for the upbringing of the young, both to parents and teachers.

Training in good habits from infancy requires the very best educators. Mr. Richmond takes self-assertiveness for the common word egotism, and advises to avoid evil by inculcating the opposite; the symbol for which he takes to be reverence. Emphasis is laid on the importance of training children to express gratitude, even if the instructor is satisfied that the feeling is there. Persons whose duty and privilege it is to train children will be assisted by reading this timely book.

Pitt Press Series. Prince Eugene. Introduction, Notes and Index, by E. C. Quiggin, M.A., Ph.D. At the University Press, 2s. 6d. C. J. Clay & Sons, London, Eng. An interesting and useful book. The introduction gives a brief sketch of the chief events in the prince-companion of the indomitable and



handsome Englishman, the Duke of Marlborough.

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 Mr. Murray's Text-Books of Secondary Education, edited by Mr. Laurie, M.A. Commercial Knowledge by Algernon Warren. A Manual of Business Methods and Transactions. 2s. 6d. London, England.

The author has been able to draw on his own experience of business, extending over more than twenty-five years, and he has been fortunate in the assistance of business friends and acquaintances, as well as in the courteous information put at his disposal by public officials. The volume includes chapters on Supply and Demand; Free Trade and Protection; Partnership; Companies, Syndicates and Trusts; Principal and Agent; Contracts; Banking; Transit; Insurance; Tariffs; Employers' Liability; Commercial Travellers; Consuls, etc.

The University of Chicago announces the appearance of six small paper-covered pamphlets under this head. The following numbers of the series have thus far appeared:

Number 1.—Isolation in the School, by Ella Flagg Young. Paper covers. Postpaid, 55 cents.

Number 2.—Psychology and Social Practice, by John Dewey. Postpaid, 28 cents.

Number 3.—The Educational Situation, by John Dewey. Postpaid, 55 cents. Published by The University of Chicago Press, 1902.

Teachers who like to have the latest judgment on their calling expressed by competent authority will do well to send for these little books. Mrs. Young and Professor Dewey both emphasize some important truths which teachers and educational authorities should take to heart. The most important of these is the independence of the teacher. The whole trend of organization and management in city schools is to encroach more and more upon the discretionary powers of teachers and principals. Superintendent Maxwell said, in a recent lecture, "If there is one thing worse than a martinet superintendent it is a martinet principal." The constant temptation of both is to violate the rights of teachers in the exercise of legitimate freedom in teaching.

The Canadian Almanac for 1902 is fully up to the standard of excellence seen by the volumes of former years. Its 400 pages are filled with useful matter for business and professional men. The commercial, statistical, astronomical, ecclesiastical, educational, and financial departments are full, reliable, and complete. It is a very valuable publication.

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