

CANADIAN RURAL EDUCATION: A SOCIAL STUDY

BY

J. C. SUTHERLAND

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Preface

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A FTER this pamphlet had been completed, the writer received the circulars and bulletins issued this year, and in 1912, by the Ontario Department of Education, showing the extensive work now begun in that Province in Agricultural Education. An account of that work might well serve to illustrate the principles which are here urged, but it is hoped that the pamphlet as it stands may be of use in drawing attention to this important subject from a social and historical point of view.

The Hon. Martin Burrell, in introducing the Agricultural Aid Bill to the House of Commons this year, stated that the purpose of the grants, among other things, would "embrace the increasing of the efficiency and equipment of our agricultural colleges; the establishment of agricultural schools, of dairy and horticultural schools, of short courses in agriculture; the initiation of agricultural teaching in the public schools and work by travelling or located qualified instructors."

The success of the movement must depend, therefore, largely upon co-operation between the agricultural and educational forces of the country. Most of all, however, is an interested public opinion necessary; and effective work in this direction is possible by such means as the educational campaigns inaugurated by Hon. Sydney Fisher in connection with the Protestant rural schools of Quebec.

Quebec, June, 1913.



Canadian Rural Education

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I.

TARLYLE was in the habit of calling political economy the "dismal science." he first used the epithet, the questions of political economy were dealt with in a rigid. exclusive way which seemed to regard man himself as of little account compared with the exacting economic laws which surround his existence. The humanitarian spirit which had been manifested in Adam Smith was the being replaced by the colder spirit of logical analysis. But the teachings of Carlyle and Ruskin resulted at last in the broadening once more of political economy. It ceased to be dismal: the cash basis became less and less regarded as the "sole nexus between man and man," and a distinct branch called social science has been developed, taking into account human well-being in every direction, and compelling the attention of modern and progressive governments to subjects which, a hundred years ago and less, were considered entirely out of their field of action.

The new view point which is influencing public action may be summed up in the statement that thinking men and women to-day, throughout the English speaking world, are acquiring larger and more ordered conceptions of social justice and social progress. The idea of social justice itself is not a new one in the world. It goes far back in history. It breaks forth, sometimes with passionate fervor, in the prophets and psalmists of Israel, as well as in the teachers and poets of other ancient races. The history of liberty, indeed, is largely the history of revolt against social injustice. But the phrase "social justice" has now a wider meaning than it ever possessed before. It implies something more than the correction of long-standing abuses, although it still includes it. It is now "forward-looking," and seeks to make the institutions of a country nicre and more calculated to serve the wellbeing of the whole community. Modern civilization is not only complex, but it is recognized to be complex, and social science is interested in life at all points, from the better housing of the poor to the development of highest art. It is concerned in the material, the physical, the moral, the intellectual, and the spiritual life of man; and is thus identified with social progress to the fullest degree.

In no institution has this widening of the view point been greater than in that of public education, as shown, for example, in the efforts expended upon "vocational" training and in the education of defective and backward children. So many tasks, indeed, have been laid upon the shoulders of public education during recent years, by social and educational reformers, that many are now crying out that the curricula of the schools and colleges are "overloaded." Not only business men, but

universities also, complain of the poor English and bad spelling of many of the high school pupils. The business men contend, too, that there was much more individual efficiency in these respects in the days when the course of instruction was more restricted. They would prefer, they say, more training in English grammar even if it meant less English literature, and more practical arithmetic with less "civics." Moreover, men point to the "old days" and claim that education was better when normal schools and colleges were unknown.

Such questionings constitute a fair challenge for investigation. If quality is being sacrifired to quantity we should know it, and if there are lessons to be drawn from the past we should learn them. But first of all we must note that, in our hurried modern life, criticism of institutions is often sweeping in its character, and that unfair generalizations are sometimes made from a narrow experience or a small number of facts. The schools certainly cannot be held justly responsible for every case of incomplete preparation for practical life. The natural capacity and the home training of the individual youth have also to be taken into account; and the rush to business life before the ordinary school course has been completed is frequently the true explanation of the lack of sound acquirements in knowledge and mental training. Nor can a serious person, after consideration, hold to the view that professional training for a teacher is not of use. In this age we demand practical and theoretical training for nearly every other profession, and as a matter of fact, no one appreciates more fully the value of technical training than does the "born teacher."

Nevertheless, the question of the relative progress of education is one of importance, nore especially as it has a direct bearing upon the question of the quality of rural education. It is well that there is a spirit of criticism as to existing conditions. If everybody were satisfied, progress would be impossible. It is well, also, that efficiency in the product is made the test of popular education. The general recognition of the principle that the schools should exist for the purpose of developing not only individual but national efficiency would give them at once a great impetus. We have recently urged this principle as the basis for a national educational policy.*

But the best estimate of the past and present efficiency of our schools, as well as the best basis for future re-organization, may be looked for in the history of the influences which gave birth to Canadian education. In that survey we may find much of interest and value, even when it is confined simply to those general and particular facts which have significance for our present question.

Here again, and particularly in a condensed survey, we must be on our guard against forming sweeping generalizations in the mind. In studying the intellectual progress of mankind, even in the modern period, nothing is more difficult than to form a just conception of the exact state of popular education at any given period. It is a safe principle, indeed, to regard every striking fact as only relatively true.

^{*&}quot;A National Purpose in Education."—Canadian Magazine, May, 1918.

The point may be illustrated by means of a fine passage in a recent historical work. Speaking of Englishmen and Scotchmen about the beginning of the third quarter of the eighteenth century, Sir George Otto Trevelyan says:—

"In every commercial town from Aberdeen to Falmouth, and on many a countryside, the day's work was being done by men of the right stamp, with something of old manners, but of sclid modern knowledge; close attendants at church, or, in more cases still, at chapel; writing without effort a singularly clear and vigorous English, and making the money which they spent, and a good deal more, by their own labour and their own enterprise. From them came Howard and Raikes, Arkwright, and Wedgwood, Watt and Brindley. For them Wesley and John Newton preached. and Adam Smith and Arthur Young wrote. Intent on their business, they yet had time to soure for schemes of benevolence and general ability; and they watched the conduct of state affairs with deep and growing intensity and with indignation which was mostly silent."*

This does not mean, however, that education, sound modern knowledge, and the ability to write singularly clear and vigorous English, were remarkably general in the latter part of the eighteenth century. We know, indeed, that as late as 1843 in England, over forty per cent of the men and women who were married in that year were obliged to mark their names by a cross in the parish registers. In 1907, after thirty-seven years of the Forster Act,

^{*&}quot;The American Revolution." Vol. I., p. 29.

and the Board Schools, less than two per cent of those who embarked upon the matrimonial sea were unable to sign their names. The proportion, however, who write clear and vigorous English, in these days of the typewriter and the telephone, is another question.



THE first rural schools of English-speaking Canada arose by the unaided and undirected efforts of the people. The pioneer work in this direction, both in Upper Canada at the close of the eighteenth century, and in the Eastern Townships of Lower Canada at the beginning of the nineteenth century, was remarkable in that it was undertaken without official initiative, recognition or support.

Simcoe, the first Governor of Upper Canada, had many good qualities, and his energetic patriotism accomplished much for the country at the critical period of its history. But he slared the ideas which prevailed at that time among the ruling classes in England, and had no interest in the question of providing educational facilities for the people in general. He will interested, it is true, in education, but his one idea was that it was necessary to provide a sufficient supply of clergymen and government officials for the province, who alone needed to be educated. Chancellor Burwash, in his Life of Ryerson (Makers of Canada), says:—

"To such an age a governing class of which the clergy of the established church were regarded as a part, seemed a prime necessity; and to create and educate such a class and provide for their maintenance seemed an imperative duty. The rest of the people were expected 'to labour truly to get their own living. and to do their duty in that state of life unto which it pleased God to call them."

Hence Simcoe's efforts were directed towards the foundation of a university and the establishment of a few grammar schools, based upon the model of those which existed in England for the sons of the gentry. He sent his plans to the Home Government, and asked for a grant of £1,000. Of this amount the sum of £100 was to be given to the grammar schools at Kingston and Niagara, and the rest to the proposed university. That he had no wish to anticipate the dawn of Science in modern education is shown by his stipulation that the professors of the university must all be clergymen, except the "professor of medicine," who might be a layman. But neither this representative of the science of the time. nor the clergymen, came over. The Home Government, through Dundas, replied that 'the schools would be sufficient for some time," and the evolution of the university system of Ontario began under later Gover nors, as well as the organization of the public schools.

Simcoe's indifference to the question of common schools for the people must be regarded as an essential feature of his policy, which was to avoid copying any institution from the neighboring republic. The common schools of Massachusetts doubtless appeared to him in the light of nurseries of sedition, and as one of the contributing causes of the Revolution. His personal contact with the Loyalist and other pioneers of Upper Canada, together with his knowledge of their character and intelligence, should have convinced him that this in-

stitution, at any rate, to which they had been accustomed, was inevitable. But he was, and remained, more of the soldier than the statesman, and persisted in cherishing the fixed idea that the mass of the people would be happier in relying upon the educated officials in all matters outside of those directly connected with manual labour. He was of the same mind as that early Governor of Virginia who thanked God that there were no free schools nor printing presses in the colony, nor likely to be any for some time to come.

There can be little doubt, however, that the principal force which impelled the early settlers, whether Loyalist or those who came from the United States merely to better their fortunes, to set up schools for themselves, was the remembrance of the common schools of New England, as they were before and after the Revolution. A reminder of this connection still exists in the Province of Quebec, where the high schools generally have the official name of "academy," borrowed from New England by the first settlers of the Eastern Townships in the early years of the nineteenth century. New England, however, had originally borrowed the name from Scotland.

Into the character of these pioneer, voluntary schools of Upper and Lower Canada, we shall enquire in another chapter, but in the meantime it is worth noting that this is, perhaps, the first large instance of that habit we have of imitating our neighbors—sometimes for our good and sometimes not for our good. As a feature of our social development—and it is from its social side that we are endeavoring to understand our educational history—

the subject of "Americanization" is one on which every intelligent Canadian should have sound and reasonable ideas. The influence that our neighbors have exercised upon us in matters of social custom, language, pronunciation, education, legislation, journalism, sport and so forth, is undeniable. It is not only undeniable, but it is also largely inevitable. The influence alone of United States journals and magazines upon Canadian thought is constant and formidable.

It is, however, by clearly realizing these facts that we may develop selective habits in our imitation of our neighbours. That we have something continually to learn from them, either in the way of acceptance or avoidance, is one of the largest of every day facts. Our national individuality, indeed, very largely depends upon the intelligence with which we exercise this discrimination. It is surely not difficult to distinguish between the intellectual debt we owe to Longfellow and Whittier in the interpretation of Nature ic our northern zone and the malignant influence exerted by the sensational 'yellow' journal.

But if we trace the genesis of our Canadian rural schools to Massachusetts, the moulding influences in the development of the existing systems have not been wholly American. Ryerson, the genius of the organization in Upper Canada, and as a consequence of the organization in the Western Provinces, where the general lines of Ontario's system have been followed, studied conditions in Prussia, Ireland and Massachusetts, learning something from each, but he applied the results of his

observations on independent lines. Independent, also, of our neighbors' example we have been in the adoption of the principle of separ ate schools, and it is significant of the force of the imitative habit that the most frequent argument against the principle is the fact that it does not exist in the United States. This, however, was clearly before the minds of the Fathers of Confederation in the long debate of 1865. They fully realized the similarity in many of the social conditions of the two countries as well as the advantage which the common school possesses in creating a common national sentiment. But in Quebec, at any rate, the existence of the two languages made the common school largely impossible, and it was this consideration undoubtedly which chiefly influenced the final decision. separate school, however, permits a larger measure of religious teaching than is possible ir the common school. In the eyes of some this is no advantage, but many of the ablest American educators are now recognizing the need, in the interest of the moral development of the people, of more religious instruction in the schools. As for the undoubted value of the common school in developing the sense of common citizenship, may we not hope that with the growth of intelligence and mutual understanding in our own country, some means may yet be found of obtaining this advantage through the principle of educational co-operation?* In the meantime, however,

^{*}This principle was successfully carried out for some years in the Academy at Knowlton, Que. The Catholic and Protestant pupils were in separate classes, but joined in the common playground, gaining among other things facility in both languages.

the more loyally and faithfully the provisions of the British North America Act are carried out everywhere, the sooner will common ideals in education, so far as national sentiment is concerned, be realized.



THE schools which were founded in Massa. chusetts in the seventeenth century had, primarily, like those of Scotland, a religious intention. Universal education was regarded by the fathers of the colony as a concomitant of Protestant enlightenment. Religion was the chief concern of the people, and an historian of American education (Boone) says that the school "claimed the public's second attention; and next to the pulpit, commanded the best talent in every settlement." The religious principle operated, by inheritance, in the establishment of the voluntary schools of Upper and Lower Canada. the schools of New England, as well as our own, had practical intentions also. colonists who were developing such a large measure of inventiveness and business capa city, realized early the practical aid which education affords in the struggle of life.

For a fair and unprejudiced judgment as to the quality of colonial education we may well turn to the English historian Lecky, whose eight volumes on "England in the Eighteenth Century" seem to sum up all that was significant during that period in the moral, social. political and intellectual development of the English race. Two of the volumes dealt with American affairs, and this in such a spirit of justice and accuracy that they served to

awaken a generous response and emulation on the part of those historians of the United States who have subsequently treated of the American Revolution. That that subject is no longer one of embittered controversy with responsible writers is to be largely attributed to the spirit in which it was approached by Lecky nearly half a century ago. His judgment as to the state of colonial education is brief, but based upon a large mass of facts. In Virginia, education was only considered necessary for the sons of gentlemen, who were usually sent to England to this end, but "in the northern colonies, on the contrary, education was both very widely diffused and was very equal. The average was exceedingly high, but there were no eminences."*

And again "a severe climate and long struggle with the French and the Indians had indurated their character, and the common schools which had been established in the middle of the seventeenth century in every village had made a certain level of education universal."**

What was this "certain level" and this average which was "exceedingly high," even if there were no "eminences?" A curious fact, noted for other purposes by all the historians of the revolution period, may serve to put us on the track to estimate the quality of the common schools, and the volume of instruction that they were expected to convey. This was the remarkable attention which was paid to the study of law, not merely by the

^{*}Vol. III., p. 816.

^{**}Ibid, p. 803.

lawyers but by the people generally. Sir George Trevelyan says:—

"Burke was informed by an eminent book-seller that in no branch of his business, after tracts of popular devotion, were so many volumes imported to the colonies as those which related to the law. Nearly as many copies of Blackstone's Commentaries had been sold in America as in England. So eager were the colonists to read our treatises on jurisprudence that they had fallen into the way of reprinting them across the Atlantic; a habit, it must be allowed, which they soon applied on a generous scale to more attractive classes of literature."*

The widespread character of this devotion to the study of law, considered together with the probable percentage of the professional classes, makes it unlikely to have been the pre-occupation solely of men who had been at Harvard or who had attended the grammar schools; a considerable proportion of these enquirers must have been men who had had no other advantages than those afforded by the common school. Confirmation of the fact that these schools were expected to give an education that would ensure the acquirement of some legal knowledge, at any rate, is to be found in the very first education laws. That of Massachusetts (1642) distinctly declares that the schools are to be opened in every township having fifty householders, in order that the people may be enabled to read and understand "the principles of religion and the capital laws of the country." The first

^{*&}quot;The American Revolution." Vol. I., p. 72.

school law of Connecticut (1650) was enacted for the purpose of giving the people "so much learning as may enable them perfectly to read the English tongue" and to give them a "knowledge of the capital laws."

The original intention may have been no more than to secure such a general knowledge of the laws as would guide the colonists in their lives, but the fact that in the course of a little more than a century it grew into a widespread interest in the larger principles of jurisprudence is a remarkable testimony to Lecky's conclusion that the average level of education was "exceedingly high."

With these facts, which might be support ed by many others, we now approach the explanation of those circumstances which lead many to believe that the primary schools of the "good old days" were better than the primary schools of to-day. Frequently they were undoubtedly much better; and as some of them retaining the early character, survived both in New England and Canada down to the middle of the nineteenth century, it is not surprising that comparisons between the old and the new should persist also. What the best of them were, is worth while to enquire, not merely for their historical interest, but for the suggestions that they may have to offer for the conditions of to-day. The present writer has not only endeavoured to study them in the usual historical sources, but also. during a number of years at Richmond in the Eastern Townships, sought to learn something of the character of the later ones from older men who had remembered them, either in the Townships or in New England. Two men (*) in particular, of exceptional ability and observation, were able to give clear and instructive information. Both were insistent upon the "thoroughness" which marked the early common schools, as compared with the best of our present day schools, primary or secondary. But it is just here that we have to make a clear distinction when comparing primary education of the early days with that of to-Although there were grammar schools and academies in the earliest times in New England, and later with us, the common school very frequently was called upon to do much more work than is now regarded as the proper limit for the public school of Ontario or the elementary school of Quebec. There were two main reasons why they could do this larger body of work, and in them we shall find the distinction between past and present conditions.

The first of these may be found in the fact that the earlier schools did not exist as they do to-day for the benefit of the infant classes. There is much complaint to-day of "home work," but the prevailing conception in the old days was that the children should be taught the elements of reading, writing and arithmetic at home. Sometimes also summer schools were maintained for their benefit. But in the winter months it was the older pupils alone, including bearded young men, who attended the common school. Many a man, as we know from history, worked himself up into the professions by hard work in the fields

^{*}The late B. N. Webber, M.D., and the late G. H. Pierce, C.E.

in the summer months, and hard study in the common school in the winter months. This they did because the schoolmaster was capable of giving them the necessary assistance.

It is in the schoolmaster that we find the other reason for the distinction between past and present conditions. Not that every schoolmaster was competent, for the facts to the contrary are many, but the evidence remains that a considerable number of very capable men were found in the work. have already quoted the statement of Boone, a high authority, that next to the pulpit, the schools of the seventeenth century "command ed the best talent in every settlement." fully appreciate this statement, we must remember the principle of intellectual selection that was then in force. The pulpit was the supreme attraction. Nowadays, a goodly proportion, at least, of the best talent in every community finds its way into law, medicine, engineering, finance and transpor-The men of ability and knowledge who taught some of our own early schools were of the stamp who would now aspire to and reach, the position of lumber king, if they did not enter a profession. They taught in the schools because it was then a position of consideration for men of ability. That such subjects as arithmetic, for instance-and it was always one of great practical importanceshould be taught with great thoroughness by such men is not surprising.* The men who taught it were natural arithmeticians.

^{*}The proportion of exceptionally able men engaged in teaching in New England diminished in the eighteenth century, and still more in the first half of the nineteenth.

They had a grasp of practical problems which it is unfair to look for in young women teachers. They had also a good command of the body of physical science which was summed up in the old-fashioned but very excellent "Natural Philosophy" text books. The amount of true intellectual culture which some of these old schoolmasters could derive and impart from a dictionary, an arithmetic, an algebra, an Euclid, and a Natural Philosophy was, indeed, considerable, and it accounts for the traditions which survive, here and there, as to the quality of the old schools.

But the conditions of life have vastly changed, and the restoration of the old schools is now impossible in their old form. The question of our intellectual development, however, remains with us. We have to seek the means of ensuring thoroughness and efficiency today for far more complex and exacting conditions, and the solution of the problem may yet be found in large adaptations of our existing systems rather than in radical changes.



THE organization of public education, along the general lines of the existing systems of Ontario and Quebec, dates practically from 1846. The change from the old to the new in the middle of the nineteenth century coincided with a period of great political and social changes in the country. Responsible government had just been launched; it was icllowed a few years later by Confederation. This mighty step in national consolidation seemed to most people at the time as no more than a possible way out of internal difficulties of the moment. The period from 1830 to 1870 was one of intense political energy as well as of social construction. The Canadian spirit of to-day, however, was not in general evidence. People were loval, intensely loval, but in those parts of the upper province, at any rate, which had been built up recently by immigration from the Mother Country, the loyalty was solely to the Mother Country. We who were of the younger generation at the close of the period could not help feeling that there was not much credit in having been born in Canada. We shared somewhat the feelings of the man without a country. Canada, as far as we knew, had no history worth speaking about. Our reading brought us in touch with the glories of the old land, but there was no glory, at least of the historical kind, in our own. It is not surprising, therefore, if some of us, at a tender age, believed

that, on the approach of half a dozen "regulars" with a sergeant at their head, the whole volunteer battalion of the county would make for the woods! The later generations who have been given better instruction in Canadian History and who sing "O Canada" and other patriotic songs, obtain the Canadian spirit earlier in life at any rate.

The main factors of social change in the country during the period were the streams of immigration from the Mother Country and the United States; the introduction of railroads; the organization of municipal government, and the advent of labour-saving machinery for the farms. The rapid rate of the development, and its solid qualities, may be in. dicated in the fact that by 1870 there were industrial and market towns in the western peninsula of Ontario which had so reproduced the essential features of similar towns in England and Scotland that no appearance of "newness" remained, although in 1830 their sites had been unbroken forests, or at most small clearings for a solitary mill. It was in that period, also, that the majority of the best farms of Ontario, and of the Eastern Townships of Quebec, were made.

To the historian, the pioneer period with its heroic struggles will always be attractive; but this second period of our rural development is one of deep social interest. The farms of older Canada were neither on virgin prairie nor "ready made." They were won from the forest, which was sometimes hewn down, or often burned wastefully away, to give place to pasture, orchard or wheatfield. The vigour of that struggle survives, unfortunately, too

often in the spirit which regards trees, which might well be preserved for adornment or shade, as enemies to be cut down. Land clearing involved also, in many places, the removal of those masses of boulders which the glaciers of far off times had dragged from the northern hills. If the privation was greater in the pioneer period, the severity of labour was probably greater in the second, until machinery came to the relief of the worker in the fields. The labour was greater because more tangible and ready rewards were now awaiting agricultural production. If some prices were low, there was on the other hand much economy, and a certain amount of profit was represented in the improved farm-houses and farm buildings which everywhere replaced the earlier ones of logs. Here and there, also. farmers were able to retire to the towns, and live upon the rentals of the houses they purchased or built for investment. But such instances were probably not numerous. To the greater majority, the farm produced a "living" and no more. But in Ontario, at any rate, it was a period of social construction as great as that which is now going on in the Northwest

In the midst of such material development it might be supposed that the organization of education on modern lines would have been welcomed by all, but it was not. The idea that everybody should be taxed for education, as a matter of public duty, was far from popular.

Organization meant inspection, the training of teachers, and better salaries for teachers. In short, it meant, greater expense.

Now if some of the good schools were still

existing, it is perfectly certain that there was a very large number of schools, also, which were inferior in quality, being served by teachers whose only recommendation was the cheap rate at which they were willing to undertake the work. The evidence on this point is abundant. Moreover, the dread of expense remains down to the present, particularly in rural education. Wherever backward conditions prevail, in Canada and the United States, the main cause is to be found in unwillingness to meet the expense necessary for the adoption of modern method and equipment. There was more excuse for this in the days when the modern systems were first proposed than there is now. The most moderate tax which the farmers could then impose upon themselves would seem "unjust" in the days when the returns from labour and economy were so moderate.

Money was not accumulated as readily in farming as it was in trade and industry, in the growing towns and cities. (*) The profits of farming are still often small, but from end to end of Canada there is far greater local ability to support education than there was forty, or thirty, or even twenty years ago. In many sections, of course, this ability is comparatively much less than that of the towns and cities; and this fact, indeed, is the clear justification for the proportionately larger aid that is afforded generally by governments to rural elementary education.

^{*}Still the records show that in the first half of the nineteenth century there were some remarkable cases of sacrifices for the cause of education in the Eastern Townships of Ouebeo.

There is, however, another difference between rural education and that of the towns and cities which has to be taken into account. Comparatively greater progress in the towns and cities does not mean that the mass of the people in them have more advanced ideas on education than the people of the country, but is due to the fact that on this question the majority are more ready to follow the lead of the progressive few who are supposed to interpret the educational needs of the town or city. The benefits, for instance, of technical education in a manufacturing centre may be readily grasped by most of the manufacturers and business men, and the rest of the rate payers are content to follow this leadership, in spite of the extra expenditure, although they may not have a very clear idea of the actual effect which the new departure may have upon the fortunes of the community. But in the country, on the other hand, progressive leadership is only possible when a clear majority of the ratepayers in the municipality is convinced that increased taxation is advisable and necessary. Both in education and in municipal affairs there is much more individualism in the country, and this was inherited partly from the pioneer period. Nevertheless, it is certain that when the farmer is convinced, and the community spirit awakened, he is as ready as any other class to be taxed.

It is to be noted also that with the change to organized school systems came the diminution in the number of men teachers. (*)

^{*&}quot;In 1900 the number of (United States) public school teachers reached the total of 423,062, with approximately 30 men in each hundred teachers. In 1909 there were 506,-

This was not the result of organization, but of the changed social conditions which were taking place. The railroads and organized industries of all kinds called for educated men in such numbers that the work of school teaching ceased to be either profitable or attractive. Moreover, with or without the aid of compulsorv acts, an earlier school age became general when schools were planted everywhere. fact, of course, made the employment of women teachers possible and they now form the great majority of the profession. The educational advantages which the trained women teachers possess in the education of the younger pupils are fully acknowledged and recognized to-day, but the fact remains that for the average boy of fourteen or over, the male teacher is needed, in the interest both of authority and of full mental development. He is needed, but he is not forthcoming; and a practical difficulty we have to face now is the fact that, under the rapidly changing conditions of the present day, many competent women teachers, or those who might be such, are being attracted to other occupations which are open to them. From the economic side of the question, also, it is to be borne in mind that the woman teacher frequently marries, and when she does so she gives up teaching. This makes it difficult to keep the ranks of the profession filled with teachers of experience

⁰⁴⁰ teachers in public school service, but the number of men had dropped to approximately 21 to the hundred." (United States Commission of Education Report, 1911, Vol. 1. p. 4.) The figures for rural schools only would show, of course, still smaller proportions.

FROM 1870 up to the present moment the influence which has most profoundly affected Canadian rural education has been the extensive movement of population from the older provinces to the western ones. The loss of the older provinces has been the gain of the newer in something more than numbers. In Manitoba, Saskatchewan, and Alberta, at any rate, there has been in the last few years an abounding energy manifested in the matter of the rural schools. In Saskatchewan and Alberta this has been shown in the endeavour to provide schools for the newcomers the moment they arrive, while in Manitoba an advanced movement is taking place in rural That so much of the school consolidation. nomenclature of the Ontario system has been carried to the west, we may regard as indicating that the western schools are a reproduction of the Ontario spirit. Transplanted, however, it has acquired a greater energy on the prairies. The west is perfectly certain that good rural schools are absolutely indispensable for its development; and in time, no doubt, the schools will help to spread the knowledge that, east and west, the fertility of the soil is rot inexhaustible, but must be conserved everywhere by the application of scientific principles.

That there is less energy, less ambition, less readiness to adopt progressive measures,

in the older provinces in the matter of rural education, is undoubtedly largely due to the movements of population, which, both before and after 1870, have been familiar to all Cana-The last census has disclosed the discouraging fact that whole counties, in which the population has been chiefly rural, have diminished in their number in the ten year period from 1900 to 1910. The bulk of the exodus was once to the United States; later to the Northwest, and of recent years apparently to the towns and cities. Into the underlying causes of this we do not need to enquire here. That is a subject for political economy; the facts themselves are significant for their bearing upon rural education. We have to face the condition that, owing to the attraction both of the virgin soil of the west, and the gradual industrial development of the towns and cities, there is a constant denudation of the most active and energetic elements of our rural population. It has long been at work, and undoubtedly the one thing which has saved us from that "rural decay" which is so well known in parts of New Englanda decay in moral and intellectual as well as material energy—was the recruitment we received from British immigration in the first half of the nineteenth century, and which modified to a large extent the baneful effects of the "skimming process." In many parts, indeed, of Ontario and Quebec there has been a steady progress in agricultural development. Certain sections of each province have advanced considerably in the last quarter of a century, earning justly a wide reputation for their special farm productions. In Ontario there has been a steadily growing apprecia-31 -

tion of the aid which science can render to agriculture, as those of us can testify who remember the general attitude towards the Guelph Agricultural College, and the Experimental Farm at Ottawa, at the outset of their history, and who can compare that attitude of doubt, and even ridicule, with the large demands which are made upon those institutions to-day. In Quebec, also, the appreciation of the value of Macdonald College at Ste. Anne de Bellevue is rapidly growing among the English-speaking farmers of the Province, and the similar institutions for the French-speaking farmers are acquiring an ever-widening popularity.

A lurid picture of "rural decay" in our country is not possible. Moreover it is not necessary for the purpose of proving that an immense development of our rural education is called for. We have no rural decay, in the technical sense of the words, but side by side with the progressive conditions noted above, every observer must admit that large sections of the eastern provinces are unprogressive, backward, and unawakened to those modern principles in farming which are making such general headway in some other countries. as the result chiefly of the high standard of their rural education. Nor is it necessary to maintain that our own rural education is generally bad. Exaggerations of the kind are often considered to be the best or only means of arousing public attention and interest in the accomplishment of needed reforms. We have many excellent rural schools in older Canada, doing effective work in the communities in the ordinary branches of instruction; and everywhere

the farmers of fair means, at least, may send their sons and daughters to good high schools and academies. These conditions are satisfac tory as far as they go, but they do not go far enough. There is still left a very large proportion of the farming population served by small and inefficient schools, and there are many thousands who are unable to send their sons and daughters to board in towns in order to attend the higher schools. With the exception, also, of the few recent cases where courses in agricultural instruction have been introduced into the higher schools, these institutions are sought chiefly by those sons of the farm who are heading for the professions. The proportion of those who go forward to the higher education—outside of the students of the agricultural colleges-for the direct purpose of acquiring more fitness for modern agriculture, must be small indeed.

And yet this, after all, is the central problem of Canadian rural education, namely, the provision of such schools everywhere as will ensure the knowledge, the mental training, and the general outlook needed for the transition into modern, scientific, organized agriculture. This next stage of our social development is already well understood by our most progressive farmers in every province. They know well, too, that the resistance to the adoption of modern methods of cultivation comes from lack of sufficient education, and that this lack stands in the way of a full and advanced application of the principle of cooperation, as in Denmark.

In its details, the question is one for the several provinces to solve, but as a social prob-

lem affecting Canadian agriculture as a whole, it is obviously an advantage to seek the wider principles of a national view point. It is as a whole people that for years our best energies have been devoted to the development of Canada as an industrial country. But the time has surely arrived for a greater emphasis of our agricultural development in the older provinces. This is demanded in many interests, of which not the least is that of the maintenance of our industrial development.



I F THE foregoing survey of some of the general features of our social development, and of their connection with rural education, has served its main purpose, it should be evident that there are reasons enough for believing that the rural school should now become more adapted to a definite aim, and that that aim is agricultural education. Here, again, we must insist that radical changes in the ordinary courses of study are not called for. If any emphasis is needed with regard to the fundamental subjects, it is that of demanding greater thoroughness. Rural education in many places may well become much more advanced in this sense than it is—and its progress in this direction will be more possible when it is linked with a great, definite aimbut the time has arrived to give it the distinct trend which is needed in the interest of modern agriculture and the scientific spirit.

What kind of education is thus implied? The answer may be found in part by noting the kind of education which has had influence upon Canadian industrial progress in recent years. We are still far from that general public appreciation of the value of technical education, which is manifested in Germany, for instance, and which has increased so greatly in Great Britain during the past ten years. But very substantial beginnings have been made, and no careful observer can fail to note

the effect and influence of the work done by the larger universities in the last thirty years and more, and by the technical schools in the more recent portion of that period. In almost every line of manufacturing industry there has been manifested a greatly increased appreciation of the value of the trained specialist, of the man of scientific knowledge. A signal proof of this has been the steady demand for the whole output of the universities in every branch of engineering, and the creation of new departments in the universities—such as those of forestry and railroading—to meet the requirements of industries in which the scientific spirit is being more and more recognized.

It is worth while, in connection with our subject, to point out the two principal ways in which Science has influence upon manufacturing industry. In the first place, there is the direct contribution of scientific know-The principles of chemistry, for instance, are being more and more applied in both iron and steel making. The qualities of iron for different purposes depend very greatly on the composition of the ores used, and the the constant analysis of the ores is known to be indispensable, if the best results are to be obtained. In most of the arts and industries, indeed, the facts and principles of chemistry are becoming of increased importance, as rule-of-thumb methods become more unmanageable and less profitable under the conditions of world competition. This illustrates the direct influence of Science upon industry. The indirect is that of scientific method. Huxley once defined Science as simply organized common sense. It is as such that it appears in those forms of business and industrial management which we regard as permeated by scientific method. A recent instance of this is the system of conservation and fire protection organized by the pulp and lumber companies controlling the extensive limits in the valley of the St. Maurice, in the Province of Quebec. It is a system of organized common sense simply, under scientific direction. Forest fires are largely preventable, and forest wealth may be conserved. That the interested companies are spending over twenty thousand dollars a year upon the work is a proof that the business men in charge of them have confidence in the principles of scientific method.

It is both directly and indirectly that Science has influence upon agriculture, and for the individual farmer a knowledge of the principles on which the best practice is based is important, as well as training in scientific Moreover, this knowledge training is needed for every farmer. In the great manufacturing enterprises, a few directing heads alone need to possess expert knowledge. Every farmer, on the other hand, is called upon to form and carry out, largely by his own labour, the annual policy of farm operations. He is the farm engineer, and must have something of the engineering mind. Whether on the market garden of a few acres or the farm of five hundred acres, there is scope for individual judgment, skill, method and modern knowledge. The judgment, the skill, and the method, depend partly upon natural ability, but very largely upon the available store of knowledge; and the more scientific this knowledge is, the more certain will be the application of the judgment, skill and method.

We have said that every farmer should know something of the principles on which the best practice is founded. It is surely want of knowledge of these principles which causes so many to neglect and ignore the practice of rotation of crops. The benefits of rotation were understood two thousand years ago by the Roman farmers, who had also discovered the value that a leguminous crop possesses in restoring the fertility of the soil. This knowledge they had gained by experience and observation. Modern science now gives the reasons why rotation and clover crops act as they do. It confirms the best practice, and condemns the bad. It is in physics and chemistry that these principles are explained, and it is upon chemistry and physics that the greater part of agricultural science is founded. In the matter of direct scientific knowledge, practical instruction in chemistry and physics is indispensable for a sound system of agricultural education.

As for the indirect benefits of science teaching—the inculcation of the spirit of scientific method—it is only necessary to consider the large amount of apathy which has been manifested towards the cow testing movement in many parts of the country—an apathy unquestionably due to lack of education. The writer has had the opportunity several times of observing the admirably clear manner in which the method and advantages of cow testing are presented by the officers of the Dominion Department of Agriculture. The underlying principle is a simple illustration of the truth

that science is measurement. The profitable. ness of an animal can be determined by periodic weighings of the milk, and by the tests for the percentage of butter fat which are made by Government officials. It has been completely demonstrated by the most effective of practical proofs that a dairy herd may be unprofitable on the whole simply because some of the animals are not "paying their board": that testing enables the farmer to eliminate the non-paying ones; that it instructs him to breed from those which have a "record," and that no guess work can replace the direct measurement. It is a simple application of scientific method. That it so frequently fails to convince those who should be the most interested, can be attributed only to lack of modern knowledge and mental training.

The remedy is the strengthening of rural education in the ordinary subjects of instruction, and its permeation with modern science -with the elementary principles, at least, of the sciences which are directly connected with agriculture. The value of this kind of rural education is not based on educational theory alone. It has been proved to the hilt, for instance, in Denmark. It is her rural education which has brought Denmark such a wonderful success in dairying in the last half century. In that period her exports of butter alone have grown from five million to over fifty million dollars worth a year. She captured the great market in England which might have been ours if Canadian rural education had kept equal pace with that of Denmark.

VII.

But the example of Denmark is difficult to follow in our great wide spaces with their uncondensed rural population. A higher kind of rural education than we now possess is hardly possible in the small, single-room school houses to which a century of custom has wedded us. The "little red school-house" served its day and generation, often with much credit, but social evolution now demands a larger institution. If modern knowledge is to really influence Canadian agriculture through the rural school, it must be by means of the principle of consolidation.

Here, once more, we have to follow in the footsteps of our neighbours. Consolidation began in Massachusetts nearly half a century ago. The Civil War had greatly depleted the rural population of that State. Many of the young men, also, had followed Horace Greeley''s advice, and had gone west. Schools which had had as many as sixty pupils before the war were reduced to ten or a dozen after its close. There was but one remedy, and the State Superintendent suggested it. Three or four schools at a time were closed, and the pupils were conveyed by team to and from a central one. All sorts of objections were raised by ratepayers and parents at the outset, but wherever the system was tried it was permanently adopted. It has now spread over thirtytwo States of the Union, and there is every indication that it is fast becoming the rural school policy of the whole country. over, wherever it has spread it has given new life and energy to the school and to the community. It is invariably found that the average attendance is largely increased, and this in spite of the fact that the majority of the pupils live twice or three times as far from the central school as from the small school of their own district. Proper grading is possible: a larger staff can be employed; suitable equipment can be maintained; the school library becomes a reality; the school garden is more certain of success, and there is a community centre for the people. It is in such schools only that science teaching of any real value can be conducted. This indeed, renders the consolidation plain indispensable on this continent in any scheme of effective agricultural education. We have already indicated the nature of the trained teacher problem. The truly qualified teacher can seldom be found for the small single-room school. More difficult still would it be to obtain for the small schools the needed supply of teachers qualified to give vital instruction in practical science.

We have had no great Civil War, but we have had the western movement. More disastrous still, however, is the small families raised by our English Canadians. Frequently there are school districts in English Quebec with a dozen or more farmers, and not half a dozen children of school age. In Ontario we have heard of a stretch of several miles of road, on both sides of which every farmer but one or two was a bachelor. The bringing of large families into the world may be an im-

provident act on the part of some dwellers in the cities, whose struggle for existence is severe, and whose outlook is poor, but the small family on the farm is the real improvidence in our social development. In this we have a great lesson to learn from our French-Canadian fellow-citizens.

Again, it is only in the consolidated schools, with their large classes, that any effective work can be done in the itinerant form of agricultural education which is followed so successfully in New Zealand. There the agricultural experts go from school to school to lecture upon such subjects as chiefly interest the particular community. An immense field will be opened up undoubtedly when the experts of our experimental farms and agricultural collegs are enabled to approach the pupils of rural schools who have already been given some training in the methods of science.

Into the details of rural school re-organization we have not entered. The nature and amount of adaptation required in the present systems is a question for the several provinces. The first point of all is the need of public conviction that a better kind of rural education is called for, that it is possible and that it should be essentially scientific in its character. We have endeavored to indicate that the existing quality of rural education in the older provinces of Canada has been developed by social circumstances. A minimum amount of instruction as a general rule, has been furnished at the lowest possible cost. We have never had a definite general policy of agricultural efficiency as the end of rural education. This has not been for the lack of recognition of its need on the part of responsible men. But the rural schools have not differed in their courses of study from the schools of the towns and cities, and they have been much less effective. The time has arrived for a sound policy of agricultural education in the rural schools. It is needed in the interest of Canadian agriculture; in the interest of the farm labour problem (*); in the interest of our industrial development, and in the interest of our country as a whole.

Such a forward step, undertaken with vigour and throughness, would be one of the greatest, if not the greatest, in the history of the intellectual development of Canada. From our farms have come many of the men who have held, and who hold now, leading positions in the political, the professional, and the business life of the country. The movement to the populous centres will continue more or less, no matter what kind of education is furnished in the rural schools, but the argument that better rural schools would merely help to educate the young men off the farms is not valid. Ambition everywhere and always "breaks the bars of circumstance." The youth whose temperament leads him in the direction of a profession will, if he has the needful staying powers, make his way in spite of the most meagre of early opportunities, Such instances of persistence and endeavour are world-wide, and they have been numerous in our own country. But an education that will emphasize the intellectual interest of

^{*}There is an admirable article on "The Farm Labour Problem" by Walter James Brown in the University Magazine, April, 1919.

scientific agriculture, that will help to show how farm life may be made as attractive in this respect as any other, and as profitable as most others when it is based upon business methods, can hardly fail to attract and hold a goodly percentage of those who might otherwise be disposed to seek a professional or business career, while at the same time it affords the right preparation for those whose first intention is to follow farm life.

The question is one of immense national importance, and that not merely from the fact that the schools are the great means of assimilating into our citizenship the many thousands who are coming to our shores from all over Europe. It is of national importance because education is the greatest factor in world-competition in the twentieth century. It is not weight of armament alone which will win out in that competition, but force of intellectual culture. It is the peoples with the highest average intelligence-among whom modern knowledge and the capacity to think accurately are most widely diffusedwho alone will be able to hold their own. This truth is one that is not yet fully grasped by us as a whole people, but it is one that concerns our immediate future enormously. The first and foremost means to encourage settlement from the Mother Country upon the farms of Eastern Canada is that of affording to incomers the prospect of good rural schools. The results of the last census show that such an immigration is needed. It is needed, and it is possible if we are only ready to take up the question of rural education in the manner and spirit in which it is pursued in Denmark and Ireland. But behind such a movement there must be an awakened public opinion, manifested in clear and intelligent ideas of the purpose and value of education, and in a larger generosity for its support.

To the development of this public opinion along definite lines, our several Church parliaments, whether of synod, assembly or conference, could contribute vastly. The difficulties of the rural church, in many parts of our country, arise from the same social causes which occasion the difficulties of the rural school: and church and school may well unite in the task of aiding towards the development of a fuller rural life. We have inherited a vast legacy of scientific discovery and invention from the nineteenth century, and the twentieth century will fail in its mission if it does not work out a comprehensive social development, spiritual and intellectual as well as material. This is the true message of the larger Conservation to Canada at any rate.

