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THE SCHOOL SYSTEM OF ONTARIO

WITH SPECIAL REFERENCE TO THE RURAL SCHOOLS

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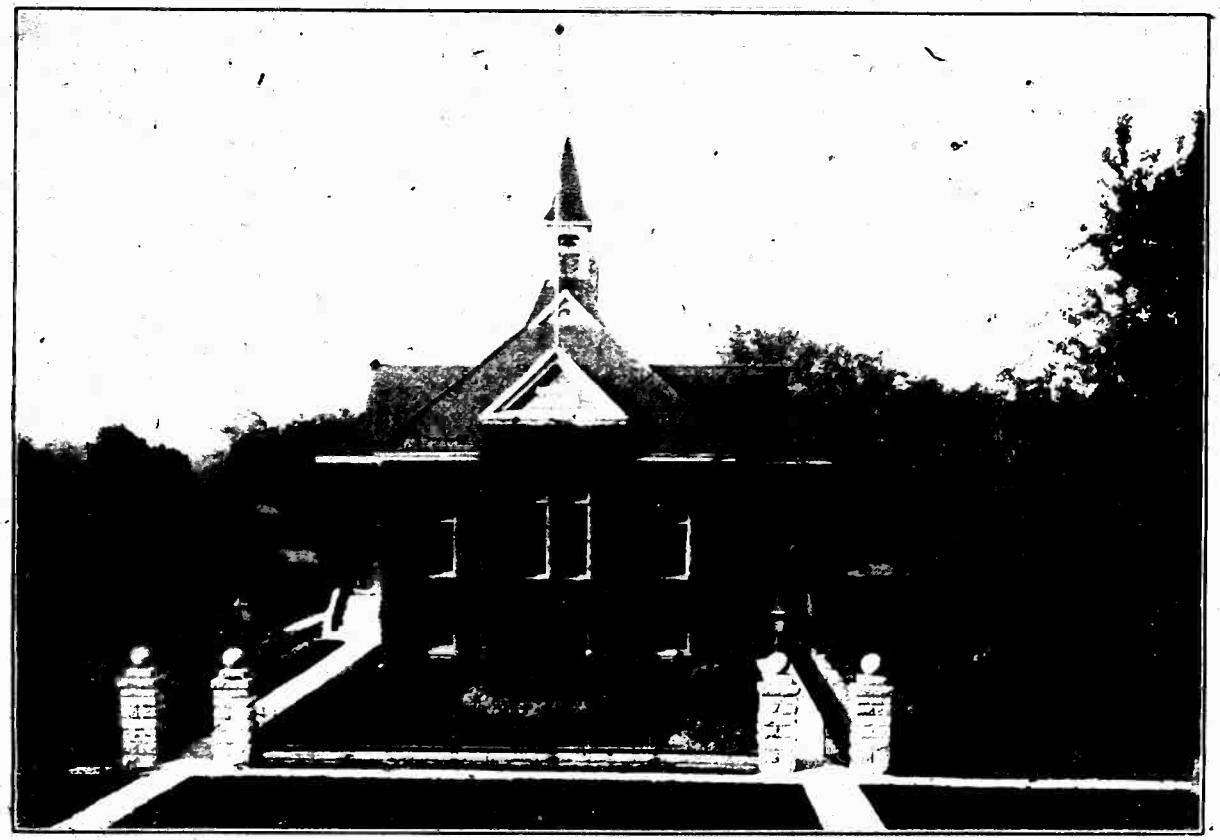

THE RITTENHOUSE RURAL SCHOOL.

This school, with its ample gardens and grounds, plays a vital part in the community activities of Lincoln County.

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PREFACE.

This bulletin is the result of a study made in the Province of Ontario during the fall of 1914. The purpose of the investigation was, more than anything else, to seek some fair basis for comparison of the schools of Old Ontario—wedged in as it is between New York and Michigan—and the States across the border.

No effort has been made to present a detailed account of the general school system; merely enough has been included to make the general context intelligible. Chief attention is to rural life and rural school conditions. Such phases of the Ontario rural schools as have seemed of greatest interest in view of certain prevailing American conditions have been emphasized. Of special mention are: (1) the successful efforts of the provincial department of education to make the most of its small one-teacher schools by introducing into them agriculture in the form of school gardening and home projects; (2) the practical system for school maintenance and school inspection; and (3) the preparation of rural teachers in model schools, normal schools, and at the provincial agricultural college.

Ontario has not solved the problem of rural life through its one-teacher schools; but it has made a marked advance in the direction of projecting the rural schools into its farm homes. The next step for the near future probably will be to reorganize all of these schools as genuine community schools through some form of consolidation.

The investigator is indebted to the provincial department of education at Toronto for valuable assistance and for data dealing with the general and special school conditions, and to many of the school inspectors and other educators for courtesies extended. Special acknowledgment is due Prof. S. B. McCready, director of elementary agricultural education in the Province, for much personal assistance and, finally, for reading the entire manuscript and offering valuable suggestions; and to Public School Inspectors J. H. Smith, of Kent County; P. J. Thompson, of Middlesex County; Isaac Day, of Simcoe County; and W. W. Ireland, of Lincoln County, for help while visiting the schools and for the use of photographs and other material.

H. W. F.

THE SCHOOL SYSTEM OF ONTARIO, WITH SPECIAL REFERENCE TO THE RURAL SCHOOLS.

I. GENERAL STATEMENT OF RURAL LIFE CONDITIONS IN ONTARIO.

BRIEF HISTORIC SKETCH.

The Province of Ontario is the most important in the entire Dominion of Canada, considered in relation to population, wealth, and general agricultural and other industrial development. It is a large domain, extending 1,000 miles from east to west and 700 miles from north to south. The total area is 260,862 square miles, being nearly four and one-half times as large as the State of Michigan and almost five and one-half times as large as the State of New York.

It has a population of 2,523,274 (1911). Nine-tenths of the people, however, live in one-tenth of the area—the region between the Great Lakes on the one hand and the Ottawa and the St. Lawrence Rivers on the other. Of the total population 1,194,785, or considerably less than one-half, is classed as rural and the remaining 1,328,489 as urban. In the census classification in Canada, all persons living in incorporated villages are included in the returns as urban. Some of these villages contain fewer than 800 people. In the United States the census classification counts as rural the population of all towns under 2,500.

That part of the Province between the Ottawa and St. Lawrence Rivers in the east and Lakes Ontario, Erie, and Huron in the west is usually known as "Old Ontario." The frontiers of this region along these waterways have been settled for about 100 years and inland for 60 years or more. To the vast tract north and west of Old Ontario the names of "New Ontario" or "Northern Ontario" are commonly applied. In this region pioneer settlement is now proceeding.

The wedge-shaped peninsula lying between the lower Great Lakes, usually known as the "Western Peninsula," forms a particularly admirable agricultural region. It is generally conceded to be the best part of the Province. The soil is, generally speaking, good. Near the lakes it comprises silt deposits from ancient lake beds, while in other places it is somewhat rolling, the body of the soil being bowlder clay interspersed with stony moraines. The climate in this

section is greatly tempered by the Great Lakes, which prevent extremes of heat and cold experienced elsewhere. Owing to the mildness of the winters, the peninsula has become famous for its orchards of apples, plums, and peaches. Large quantities of grapes and tomatoes are also produced. The small grains and the forage plants usually found in similar latitudes do remarkably well. In Essex County, tobacco is an important crop. Truck farming is carried on extensively as a source of supply for the growing industrial centers.

"New Ontario" or "Northern Ontario," stretching away for many hundreds of miles to the north and west, and touching as it does both James Bay and Manitoba, is far larger than the region just described. Until recently it was little known, the rocky hills beyond the Ottawa being long the accepted barrier to settlement. Gradually, however, this new domain is being opened up. It has proved rich in soil and minerals and lumber, but as yet it plays only a minor part in the life of the Province, and may for all practical purposes be left out of consideration in the present study.

PROBLEMS OF RURAL LIFE.

Old Ontario has developed rapidly in recent years. In 1791 it had a population not exceeding 20,000. At this time it has, as stated above, more than 2,500,000 people. The land is well developed, being divided into many large and small farms. Prosperous rural villages and growing cities have sprung up at the natural economic centers throughout the peninsula. The average rural community is prosperous; the standards of intelligence are high. Land values, however, appear to be somewhat less than for similar lands across the border. The standards of living are just as good as in the United States, and—as one would expect—an unrest prevails in rural life there as well as on the American side.

DECREASING RURAL POPULATION.

Rural sociologists in the United States have been much concerned in recent years over the disproportionate growth of urban and rural communities. In 1790 only 3.4 per cent of the American people lived in incorporated places, while by 1914 the nation has become half urban and half rural. Similar tendencies have prevailed in the Province of Ontario.

In 1891 rural Ontario had a population numbering 1,295,323. But by 1901 this number had dropped to 1,246,969, and by 1911 still lower to 1,194,785—a decrease in the period of 100,358, or 7.7 per cent. A few counties showed an increase during the period, but these were chiefly the newer counties toward the north. Practically all the older counties showed a marked decrease.

One sees here the story of rural United States repeated over again. Many people have sold their farms and moved west, attracted by the cheap lands of Manitoba and Saskatchewan; others have come face to face with diminishing returns from the land because of indifferent farming and a naturally light soil, and on that account have sought homes elsewhere. Finally, many people have been drawn away from the soil by the seemingly greater opportunities for economic and social advancement in the busy cities of the Province.

A further evidence of this can be seen in the marked growth of the cities. In 1901 Ontario had an urban population of only 935,978. In 1911 it had reached 1,328,489, which means an increase of 392,511, or 41.9 per cent.

NO LOSS IN TILLERS OF THE LAND.

It is an interesting fact that while Ontario's rural population shows a decided decrease in recent years, this does not mean that there are fewer actual farmers on the land or that the number of farms is decreasing much.

The following table gives the size of farms and the number of occupants for each kind in 1901 and again in 1911:

TABLE 1.—*Size of Ontario farms.*[1]

Size of farms.	Number of occupants.	
	1901	1911
Less than 1 acre	20,073	14,570
1 to 5 acres	18,639	18,414
5 to 10 acres	7,474	8,614
11 to 50 acres	34,912	35,383
51 to 100 acres	76,164	77,171
101 to 200 acres	52,534	54,344
201 acres and up	14,331	14,765
Total occupants	224,127	223,260

[1] See O. A. C. Review, vol. 26, July, 1914. Ontario Agricultural College Publishing Association, Guelph, Canada.

The loss in actual occupants of the land is less than 1,000, and this is chiefly in the small areas of 5 acres or less. Since in Ontario such tracts of land are too small to afford the average family a living without other means of support, there has been in reality no loss in bona fide agriculturists.

The seeming paradox of great loss in rural population with practically no loss in tillers of the land can be explained by the loss of rural craftsmen, of hired helpers on the farms, and the gradual decrease in the size of rural families.

Rural craftsmen used to live at every crossroad, pursuing their trades as wheelwrights, blacksmiths, cobblers, weavers, and what not, and tilling, on the side, the small plots of land spoken of above. As

the pressure of the cities, with their labor-saving machinery, began to be felt in rural communities the craftsman-half of rural life gradually died, destroying at the same time much of the old social life of the open country.

The last census gives the average family in Ontario at 4.6 persons, while the average for the Dominion is 4.8 persons, as against 5 persons in 1901. How this decrease has affected the average rural family can be seen from the decrease in school population. The report issued by the department of education gave a rural school population in 1903 of 260,617, or 57.8 per cent of the total school population; in 1911 it had decreased to 228,617, or 49.7 per cent of the total; and in 1912 it was only 227,263, or 48.7 per cent. Of course, this decrease is not explainable entirely in decreasing families; the loss of the artisan families accounts for much of it.

THE PROBLEM OF TENANT FARMING.

The most serious problem in American agriculture to-day is unquestionably that of tenant farming and the land exhaustion that goes hand in hand with it. While in the United States tenancy appears to be gaining ground rapidly, in Ontario the contrary is true. Thus in 1901 there were 32,360 renters on the land; these had decreased to 30,634 in 1911. Meanwhile, the number of landowners had increased from 179,791 in 1901 to 183,843 in 1911.

So long as any appreciable portion of the land is held by short-period renters we can hope for little or no increase in land fertility. The American farmer has never learned the full significance of the statement, "The land is holy and must not be desecrated." He needs considerably more land to raise a bushel of wheat or barley than the agriculturists in Europe do, and in these matters Ontario farmers are just as lacking. But with its large number of owners on the land, Ontario has an advantage over the American States and, with the help of the schools, may soon be expected to learn the lesson of scientific agriculture.

RURAL ECONOMIC AND SOCIAL LIFE.

Generally speaking, agriculture in Ontario is prosperous. Better methods of farming are beginning to supplant the inefficient system long used, in which crop rotation, seed selection, etc., had little place. The provincial department of agriculture, working in cooperation with the Ontario Agricultural College at Guelph, is organizing the agriculture on a scientific footing, and agricultural experts have begun to direct the local work by districts and counties.

Meanwhile, the educators of the Province are striving to give the rural districts the necessary leadership and correct outlook on life

without which the rural question can not be satisfactorily solved. For, when all is said, Ontario has not yet solved its great problem. It has, indeed, only recently become aware that it has such a problem. Only a small part of the land is farmed in a really scientific way, bringing returns commensurate with the capital and labor invested; the farmers are largely incapable of working together cooperatively; and rural social life is not so attractive and wholesome as it must become before people will be satisfied to live in the country in preference to town. At the same time, the two great intellectual and spiritual institutions essential to the final solution—the school and the church—are getting awake to their responsibilities and opportunities, and are already doing much to improve existing conditions.

The rural church of Ontario does not seem to have suffered from the transition in rural life to the degree that it has in many sections of the United States. The investigator found substantially constructed churches in the open country, side by side with well-kept manses, where pastors live, devoting their full time to the spiritualization of the community. While such conditions are not universally true, they are, at any rate, common. As a striking illustration of church progress, three leading denominations in the Province have recently taken steps toward church union, which is sure to mean much for the future of the rural church.

EDUCATION FOR RURAL LIFE.

Ontario school men are pretty much of a mind that before rural life can become more remunerative and more satisfactory in a social way, men and women with the right outlook on life must first take their place as leaders in the open country. They feel also that school education—of the right kind—alone can bring this to pass.

The provincial department of education, cooperating with the department of agriculture, is doing all in its power to root the rural and village schools of Ontario to the soil by making provision for the teaching of the agricultural subjects in these schools; and by this is meant much more than the addition of a classroom subject. According to the department of education, "It means a new method! It means a new purpose! It means a new school! It means Education For Country Life!" [1]

The practical work takes form in school gardening and all that goes with it, and in home gardening and certain other home projects. To what degree this new school work has been able to remake the small one-teacher schools of Ontario will be told in a later section.

It may as well be stated here that rural school reorganization through consolidation as yet has made practically no progress in the

[1] Ontario Department of Education. Circular 13, 1913, p. 3.

Province. In this respect other Provinces, notably Manitoba and New Brunswick, are far ahead of Ontario.

EFFECTIVENESS OF THE SMALL RURAL SCHOOLS.

The average one-teacher school in Old Ontario is unquestionably fully as effective in its work as the average school of the same kind in the United States. In what respects this is true will be set forth later. At this point it is sufficient to state that certain vital factors enter into the case. The most important are:

1. A system of rural schools supervised by professional inspectors who are under the direct control and direction of the department of education, well paid, and of permanent tenure.
2. A satisfactory unit for school taxation, and a system of Government grants proportioned on the measure of local school enterprise.
3. A diligent care in preparing rural teachers through model schools, normal schools, and the college of agriculture.

SIMILARITY TO SCHOOL SYSTEM OF UNITED STATES.

The small district system of schools which prevails in Ontario is similar in origin to the system on the American side of the border. In both it came into being in the colonial days when no other system was possible. It was well enough adapted to pioneer conditions, and answered the needs of the household economy farmer admirably; it is becoming a mooted question whether this small school with its one or two teachers can really be revitalized to such a degree as to bring to pass the miracle of the new agriculture.

In the United States the feeling prevails more and more that the ultimate solution must be sought in some form of school association or consolidation. Meanwhile, Ontario has limited its activities to infusing the new spirit into the old schools and awaits the growth of a stronger public opinion concerning the needs of reorganization.

II. THE ONTARIO SCHOOL SYSTEM IN SOME DETAIL.

THE PROVINCIAL DEPARTMENT OF EDUCATION.

Ontario has had a well-organized system of schools for many years. Crown lands were set aside for educational purposes as early as 1797. The department of education was organized about 1852 and became an integral part of the provincial government in 1876 under a minister of education.

The minister of education is the administrative head of the provincial department of education. He nominally enforces all statutes and regulations respecting all public, separate, and higher schools, and public libraries. He has the management and control of all

teacher-training schools and certain eleemosynary institutions. In addition to this he has many powers and duties that need not be enumerated here. Upon the whole, the Ontario system is more strongly centralized than is the average State system in the United States, and the minister of education has more final authority than the State superintendent in the United States.

Superintendent of education.—The minister of education holds his portfolio in the cabinet of the party in power. Under him, assisting in the administration of the educational affairs of the Province are a deputy minister of education and a superintendent. Though the minister is a political appointee, the department is administered with little regard to political considerations. The deputy minister is an executive official; the superintendent of education is the expert educationist and adviser in the department. This official has the practical supervision and direction of the several kinds of schools that comprise the system. And he "shall make such recommendations to the minister as he may deem expedient with respect to any matters arising out of such supervision and direction."[1]

Advisory council of education.[2]—The minister of education has the valuable assistance of a consultive committee of 20 educators, consisting of the heads of the higher institutions of learning—the superintendent of education "who shall, subject to the direction of the minister, represent him, but shall have no vote;" and members representing the public, separate, and high schools, and the school inspectors and school trustees of the Province.

This council and the provincial educational association, which meets annually at Toronto, have done much to shape the educational policy of Ontario.

THE ELEMENTARY SCHOOLS.

These comprise the public elementary schools and the Roman Catholic separate schools. The former are free to all and are undenominational, although they can scarcely be termed secular, since the Lord's Prayer and the reading of the Bible are required in the opening of the school each day and the Lord's Prayer at closing. Children whose parents profess conscientious objections may absent themselves from these religious exercises.

Since 1863 the Roman Catholics have had the right to establish separate schools. Such schools are numerous in some sections of the Province. A separate school may be set up in any community at the request of not less than five family heads. The school is maintained by taxes (rates) levied on all who send their children to the school. It receives, in addition, its pro rata share of Govern-

[1] See 6 Edw. VII, ch. 52, sec. 25.

[2] Abolished in 1915.

ment grants. Supporters of separate schools are exempt from taxation for support of the regular public schools.

The instruction in elementary schools is completed in five forms of two years each, although this does not mean necessarily that all the children must remain in the school 10 years. The fifth form is practically the same as the first two years of the high school, and only in comparatively few schools do pupils go beyond form four, which corresponds to the seventh and eighth grades in schools in the United States. In Ontario the time element is somewhat subordinated to a system of examinations. Whether a pupil remains in school 10 years or less really depends on the type of secondary or higher school he is aiming for and his aptness and ability. The system of examinations will be considered elsewhere.

SECONDARY EDUCATION.

The classes of schools which offer secondary education are three in number: Continuation schools, high schools, and collegiate institutes. In the United States these schools would be considered only as high schools of varying degrees of equipment and facilities for work. In Ontario, however, this is hardly the case, since each was originally established under separate legislative enactment for its own specific purpose. It is true that of late years the three schools have begun to resemble one another more and more and differ now chiefly in name and intensity of work.

The continuation schools.—This class of secondary school was founded to answer the demands from many rural communities and villages for additional school facilities above the elementary grades. In the United States they would be classed as rural high schools.

Such a school may be organized in a single school section or by the union of two or more school sections (the Canadian term for the American school district); they may be established within any township which does not already comprise a high-school district—here they would be similar to the American township high schools; a village may be organized as a continuation school district, to which the county council can, if it finds it advisable, annex certain rural territory; finally, the county council may take the initiative and "establish in any township, town, or village in the county one or more continuation schools, each of which shall have a staff of at least two teachers engaged for their whole time."[1]

These schools must not be confused with advanced departments in the public elementary schools as they exist in the United States. Although they may be under the ordinary public school board, they are usually distinct schools under their own boards of trustees and are maintained in buildings separate from the elementary schools.

[1] 9 Edw. VII, ch. 90.

The schools are maintained in part by the local district (union section), in part by pupils' fees, and in part by the township or townships which they serve. The minister of education also pays into the school treasury a certain annual grant from the legislative appropriations, which sum shall at least be duplicated by the county council.

The kind and amount of school work which can be pursued in a continuation school depends chiefly upon the number of instructors on the teaching staff. The highest grade school must have the full time of at least three well qualified instructors; the lowest grade must have at least the equivalent of the full time of more than one instructor, but less than that of two.

The standard Ontario secondary school embraces a time limit of six years, divided respectively into the lower school, the middle school, and the upper school, each nominally of two years.

The work of the continuation schools is, in the main, limited to general courses in the lower and middle schools.

There are at this time in Ontario 125 continuation schools, with a a teaching staff of 218. The highest salaries paid the principals and male and female assistants for the past year are, respectively, $1,800, $1,400, and $900; the average salaries paid the same positions are $1,082, $917, and $732.

High schools and collegiate institutes.—High schools are established in the larger villages, towns, and cities of the Province. They draw their maintenance from local and county taxes, from pupils' fees, and from general and special legislative grants apportioned by the minister of education.

All high schools established since 1891 must have a principal and at least two assistants. Government aid is withheld from any high school that does not provide an initial equipment of at least the following value: Library, $300; scientific apparatus, $300; maps, charts, and globes, etc., $50; and art models, $50. The legislative aid is distributed as a fixed annual grant, ranging from $350 to $375, and as an award for good school equipment and housing accommodations, being not to exceed $260 for equipment or $120 for accommodations. There is also an additional special legislative grant ranging from $40 to $120 annually. In this way the Ontario government offers its awards of merit to appreciative school communities.

Any high school may be advanced to the rank of collegiate institute whenever it complies with the government regulations for the establishment of such schools, which require a larger teaching staff, with specialists in charge of at least classics, mathematics, modern history, and science, and additional accommodations and equipment.

The high schools are divided into so-called lower, middle, and upper schools, nominally of two years each. There are two ways of gaining admission to the schools: (1) By taking the entrance examinations and (2) upon certificate of the public school principal.

Pupils of the public or separate schools may gain entrance by one or the other of these. The so-called junior high-school entrance examination entitles the candidate to a place in the lower school, and the senior high-school entrance examination admits to the middle school. The aim of the elementary and continuation schools is, in large measure, to prepare for these examinations, and much that is really worth while in school life, but which can not come within the scope of the examinations, is too frequently eliminated. This seems to the outsider a serious weakness in the Ontario school system.

Pupils may also gain entrance to the lower school upon certificate of the principal, showing that they have completed in a satisfactory manner the fourth form (eighth grade) of the elementary school.

The curriculum is similar to that in the American high schools of similar rank, and need not be included here.

There are in Ontario at this time 161 high schools and collegiate institutes, employing 970 teachers, of whom nearly 60 per cent are men. The highest salary paid by the collegiate institutes is $3,700; the average for principals is $2,155; and the average for all instructors, male and female, is $1,555. In the high schools one principal receives $6,000. This is for the technical high school in Toronto. The next highest salary is $3,100, the average for principals is $1,611, and the average for all is $1,252. Finally, the average salary for all the instructors in both high schools and collegiate institutes is $1,409, an increase for the past year of $51. These salaries can well bear comparison with what high-school teachers are paid in the United States.

In 1907 encouragement was given to the establishment of agricultural departments in one of the secondary schools in each county. Graduates of the agricultural college were appointed as county agricultural representatives, and it was proposed that they should also act as regular teachers in the agricultural departments of the high schools located in the towns where their offices were located. The county was required to vote a grant of $500 annually toward the support of the work while the Province provided the remainder of the funds required. This plan has not developed as it was thought it would, however; and owing to the fact that the county agricultural representatives are fully employed in field work other measures will be taken to secure the establishment of the high-school agricultural departments.

HIGHER EDUCATION.

The provincial university is located at Toronto. With its affiliated colleges it has a staff of 400 and more than 4,000 students. It maintains a faculty of education which prepares teachers for the secondary schools. Besides this, there are the University of Ottawa, at

Ottawa; Queen's University, at Kingston; McMaster University, at Toronto; and the Western University, at London, established under the auspices of the Roman Catholic, Presbyterian, Baptist, and Anglican Churches, respectively. Queen's University has a faculty of education also. All except the University of Ottawa are coeducational.

The Ontario Agricultural College, at Guelph, founded and endowed by the government, wields a powerful influence over the agricultural progress of the Province. More recently Macdonald Institute was established as a part of the agricultural college, being made possible through the generosity of Sir William Macdonald, of Montreal, a great friend of vocational education. The institute has been of incalculable value in instructing Ontario young people in the household arts and agriculture and in preparing teachers in these subjects for the rural and other schools.

Up to about 1900 teacher training was carried on in numerous so-called model schools and two normal schools. The model schools confined their instruction to the professional side of the work, since the students were already graduated from the high schools. With the organization of five new provincial normal schools the model schools were reduced and are now limited to about eight county schools, holding four months' sessions in the fall term and six summer model schools held in July for the special training of teachers for poor and backward districts. The department of education aims to eliminate, as far as possible, all "third-class teachers," as those from model schools are called, and to replace them by teachers holding professional second-class certificates obtained by a year's attendance at one of the seven normal schools. The faculties of education in Toronto and Queen's Universities (university teachers' colleges) furnish all the teachers of secondary schools as well as teachers holding professional first-class certificates required in some places for principalships of graded schools.

Further details of the work of the agricultural college and the teacher-training schools will be given in a later section.

SCHOOL INSPECTION.

Possibly the strongest link in the Ontario school system is the close professional inspection of the schools. All school inspection centers in the department of education; to it the inspectors are directly responsible and to it they may make their appeals for assistance when necessary.

The Province has, first of all, 90 public elementary school inspectors, who are chosen by the local county councils and ratified by the department of education. These professional educators are kept in office during life or good behavior. They are divided as county,

district, and joint village and rural inspectors, as necessity may warrant. They are capable, well-educated men, who make a life profession of their work. There are also five separate school inspectors and five inspectors for English-French public and separate schools.

In addition to the above, there is a chief inspector of all public and separate schools; a director of industrial and technical education, who is also inspector of the normal schools; three high-school inspectors; two continuation-school inspectors; an inspector of manual training and technical education; and a director of elementary agricultural education.

III. RURAL SCHOOL ADMINISTRATION AND MAINTENANCE.

SCHOOL ORGANIZATION NOT SATISFACTORY.

The Ontario school section (district) is scarcely more satisfactory than is the small district unit now in use in 24 American States. There, as with us, it is proving too small to offer the people anything more than an elementary school taught by one teacher and occasionally a continuation school of two teachers. The best the small schools can do is to prepare the children for the lower school of some town high school or collegiate institute, and to give the big majority who never will attend any other school a taste of agriculture through school gardening and home projects.

It is only fair to state, at this juncture, that the average school section (district) in Old Ontario contains fully as large a number of children as one finds in the one-teacher school in the United States. According to law—

> No section shall be formed which contains less than 50 children between the ages of 5 and 21 years, whose parents and guardians are residents of the proposed section, unless such proposed section is more than 4 square miles in area, provided that a smaller area, although it contains a less number of such children, may be formed into a school section, where, because of lakes or other physical conditions, a section convenient for school purposes containing an area of more than 4 square miles can not be formed.

Ontario educators are beginning to realize, however, that there must be a vital reorganization in the whole system, looking toward centralization and consolidation before the rural school can take its place in the vanguard of rural transformation.

PLAN OF SCHOOL MAINTENANCE GOOD.

Under the Ontario system all the power of taxation is not left to the local board. It is generally conceded that such a thing would be unwise, since it might mean the control of this vital factor in the

hands of too few to be secure against personal selfishness or local parsimony. Under the present system the local board provides part of the taxes only.

School funds come from the following sources: (1) The local ratepayers (taxpayers), (2) the township in which the school district is situated, (3) the county of the same, and (4) fixed and special legislative grants and bonuses.

The municipal council of the village or rural district levies an annual tax on all the assessable property in the district for all regular disbursements over and above what is received from the other sources mentioned below. The district may also bond itself for such extraordinary purposes as the erection of new school buildings, etc.

The township levy plays an important part in the Ontario tax levy. It really forms the center of the entire system with the other sources of supply as auxiliary only. Thus, where the assessed value of the property of the public school supporters in a township of a county is at least equal to an average of $30,000 for each section therein, the township council collects at least enough money through taxation to give each school district in the township $300 for each teacher it employs for two consecutive terms (one school year), and the further sum of $200 for each additional teacher engaged for two consecutive terms, and a proportionate sum for each additional teacher if engaged for one term or longer. This means that the township will pay every school employing one teacher by the year, $300, one with two teachers for the entire year, $500, and so on.

Besides the general township school tax which provides the statutory grant for each school, there is the special tax for each school district as levied on the request of the trustees of the district. This will vary as the needs of each school vary. This tax is collected through the township assessor and treasurer.

The county council levies annually a tax on all the assessable property of the county "at least equal to that part of the legislative grant which is apportioned by the minister of education on the basis of the equipment and accommodations of the rural schools of the county." This means, as will appear below, that the county school taxes are used for the improvement of general school equipment and betterment of schoolhouse accommodations, toward which the one-half is provided through provincial grants.

APPORTIONING LEGISLATIVE GRANTS.[1]

The first point of note in the Ontario system of apportioning its legislative grants is that these are based neither on school population nor on enrollment, but on the average attendance at all the schools

[1] Modified somewhat in recent regulations.

in a county. The total grant thus apportioned to a county is next reapportioned to the several schools in accordance with an interesting scheme of fixed grants, and grants for teachers' salaries, teachers' qualifications, etc., based on the local inspector's report. The following are the most important of these regulations:

FIXED GRANTS.

Where the average section assessment of the township is less than $30,000 each school shall receive a fixed grant of $30; where it is at least $30,000 and less than $40,000, the fixed grant shall be $25; and where it is at least $40,000 and less than $50,000, it shall be $20. Where it is $50,000 or more there shall be no fixed grant.

GRANTS OF SALARIES.

Each school shall receive 40 per cent of the amounts paid in teachers' salaries each school year (beginning in August and ending in June) up to a maximum of $600 salary in the case of each teacher, the computation being as follows:

1. At $150 for a principal teacher and at $100 for each assistant teacher where the average section assessment, as defined above, of the township where the school is situated is less than $30,000.
2. At $200 for a principal and at $150 for each assistant where said assessment is at least $30,000 and less than $40,000.
3. At $250 for a principal and at $150 for each assistant where said assessment is at least $40,000 and less than $60,000.
4. At $350 for a principal and at $250 for each assistant in the case of all other assessments.

Where the teacher performs all the duties of caretaker the inspector shall deduct from the amount paid him for his services as teacher and caretaker a sum not exceeding $25 in any one case, and where he performs part of the duties a proportionate amount of $25.

GRANTS ON TEACHERS' QUALIFICATIONS.

The following grants shall be paid on the basis of the grade of the teacher's professional certificate and the length of his successful experience, the competency of each such teacher being duly attested by the county or provincial inspector, as the case may be, of the school for which such grant is claimed. For teachers employed for the whole academic year the full grant shall be paid in each case, and the grant shall be one-half the amount if the teacher with the certificate has taught for less than a year, but for at least one term.

1. If the teacher's total experience in the schools of the Province of Ontario shall have been at least five years on July 1 next: (a) For a first-class certificate, $40; (b) for a second-class certificate, $25.
2. If said experience shall have been less than five years on the same date: (a) For a first-class certificate, $30; (b) for a second-class certificate, $15.

GRANTS ON EQUIPMENT AND ACCOMMODATIONS.

Out of the combined legislative and county grants each school in a district shall receive 10 per cent of the approved value of its school equipment up to a maximum grant of $20 for each principal and $2.50 additional for each assistant.

Out of the combined legislative and county grants each school shall receive a grant on the character of its accommodations, the maximum being $30 for a one-teacher school, $45 for a two-teacher school, and $60 for a school with more than two teachers, in accordance with the following table:

TABLE 2.—*Showing how legislative grants for school accommodations are apportioned.*

Grade.	One teacher.				Two teachers.				Three teachers and over.			
	I.	II.	III.	IV.	I.	II.	III.	IV.	I	II	III.	IV.
Closets	$4.00	$3.00	$2.00	$1.00	$6.00	$4.50	$3.00	$1.50	$8.00	$6.00	$4.00	$2.00
Water supply	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
School grounds	4.00	3.00	2.00	1.00	6.00	4.50	3.00	1.50	8.00	6.00	4.00	2.00
School buildings	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
Classrooms	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
Halls					2.00	1.50	1.00	.50	3.00	2.25	1.50	.75
Cup rooms	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
Private rooms	1.00	.75	.50	.25	1.50	1.10	.75	.40	2.00	1.50	1.00	.50
Desks	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
Blackboards	1.00	.75	.50	.25	1.50	1.10	.75	.40	2.00	1.50	1.00	.50
Lighting	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
Heating	4.00	3.00	2.00	1.00	6.00	4.50	3.00	1.50	8.00	6.00	4.00	2.00
Ventilation	4.00	3.00	2.00	1.00	6.00	4.50	3.00	1.50	8.00	6.00	4.00	2.00
Total	30.00	22.50	15.00	7.50	45.00	33.70	22.50	11.30	60.00	45.00	30.00	15.00

LOCAL SCHOOL BOARDS AND INSPECTORS.

In Ontario, as in many States of the Union, the small local district, or school section, is administered by a board of three trustees, elected by the taxpayers of the district. There, as with us, it is difficult to get board members who have had adequate educational advantages to appreciate the honest needs of modern school education. Those who are most capable of filling this important office are too often too busy with other interests to be bothered, or they do not consider the work worth their while. The result is that frequently the local schools are left in the hands of honest, well-meaning men, but ignorant of school needs, and therefore in danger of becoming self-opinionated and of overstepping their authority—either this, or they leave too much responsibility in the hands of the teachers and inspectors.

For the most part, however, the local school boards in rural Ontario are directed in their duties by the local inspectors upon whom rests, by common consent, the chief responsibility for the success or failure of the schools. The inspectors are usually of high professional rank and of long tenure in their inspectorates. They know intimately the needs of each school community and have the support of the patrons. The local boards are generally satisfied to be guided by them and follow their advice. The actual work of the local boards becomes reduced to custodianship of the local school property, to acting as helpful mentor of the teacher, and to following out the advice of the inspectors in choosing their teachers, and in similar affairs. Many important matters which in the United States devolve upon the local boards, such as regulation of the length of school year, time for beginning and closing the term, etc., are vested in the provincial department of education. Under these circumstances the small school boards play a far less important role in Ontario than in the United States—much to the advantage of the schools.

PROFESSIONAL SCHOOL INSPECTION.

It was stated above that the Province has a complete system of professional inspection of elementary and higher schools. The success of the system lies in the fact that professional fitness and long preparation and experience is demanded of all the men who undertake the work.

The Ontario inspectorates do not always coincide with county lines. The number of inspectors depends upon the number of children and the number of schools in a given community. The department of education aims to limit inspectorates to a reasonable number of teachers. A county may have one, two, or more inspectors, according to need. There may be joint inspectorates of several counties in the sparsely settled sections with one or more inspectors, or there may be a joint inspectorate of town and county, under which arrangement the same inspector supervises both the urban and rural schools. In any case, the department of education has the power to create new inspectorates and reorganize old ones whenever it finds it necessary. The rearrangement or reorganization of inspectorates is under the supervision of the chief inspector.

How chosen.—The inspectors are appointed by the county councils or, in cities, by the public-school trustees. Every appointment is subject to the ratification of the minister of education, to whom the inspectors are likewise directly responsible and who prescribes the regulations for their direction.

Qualifications.—The regulations require candidates for positions as inspectors to be the holders of or entitled to the departmental certificate as inspector of public schools. To secure this the candidate at present has to hold an honor degree from a recognized university, must have had seven years' successful experience in teaching, five of which shall have been in public schools, and is required to have passed the examination in this special course for inspectors provided by the faculties of education. Some years ago university degrees were not required. A glance at the list of 90 public-school inspectors discloses that all except 10 of them have at least a bachelor's degree from an accredited Canadian university or college. In addition to this, 21 have master's degrees and 4 doctorates.

Salaries.—The county inspectors receive fairly good salaries. They get $1,700 the first year, $1,800 the second year, $1,900 the third year, and $2,000 each subsequent year. One-half of this salary is paid by the treasurer of Ontario and the other half by the county council. This is significant, since it makes the inspector feel that he is in the employ of both the Province and the locality where his labors are.

In addition to the regular salary, the inspector receives from the county council an allowance to cover reasonable expenses for traveling, printing, postage, and stationery. An office with equipment and clerical assistance is also provided by the county council. For the unorganized districts in the newer and sparsely settled parts of the Province the inspectors are appointed by the minister and all expenses connected with these officers are met out of provincial funds.

Tenure of office.—The Ontario school inspectors are permanent officials, holding office during life or good behavior. Herein lies the secret of their success. The investigator found several inspectors who had been in office for 20 years or more. These men are real leaders in their respective communities.

An inspector may be suspended or removed from office or his certificate canceled by the minister of education for neglect of duty, misconduct, inefficiency, or physical infirmity. The county council of his inspectorate may suspend him for similar reasons, but the minister of education must pass upon the suspension and decide whether or not it shall stand and the inspector be removed.

SUPERANNUATED TEACHERS AND INSPECTORS.

Ontario has at present no regular system of teacher pension for teachers who have entered the profession since the year 1886, but the Province has long managed a fund for superannuated teachers and inspectors which partakes much of the characteristics of life insurance—both regular life and endowment. The insured must have kept up his annual payment of a sum of at least $4 annually into the fund while in the profession to get its benefits.

On the death of the insured the wife, husband, or other legal representative is entitled to receive the whole amount paid into the superannuation fund by the deceased, with interest at the rate of 7 per cent per annum for the whole period of time.

In addition to the above, each teacher or inspector who has contributed to the fund will, upon reaching the age of 60 years, if he decides to retire from the profession, receive an annual allowance at the rate of at least $6 for every year of service in Ontario. In order to attain this he must furnish evidence of good moral character, age, and length of service. This means, by way of illustration, that a teacher who has served the Province 30 years, upon retiring at the age of 60 years, will be entitled to an annual income of not less than $180 for life. Similarly, a teacher or inspector who has retired from active service before reaching the age of 60 years may also receive this annual benefit provided he has taught at least 30 years.

The table appended below gives the list of superannuated teachers added to the list during the year 1913. It is especially interesting

from the point of view of the great age of these teachers at the time of retirement and the many years of service.

TABLE 3.—*Superannuated teachers, and allowances granted during 1913.*

Register number.	Age.	Post office.	Years of service.	Allowance.
1216	70	Toronto	37½	$262.50
1217	56	Bethel	29¼	203.50
1218	53	Wilton	25	150.00
1219	73	Toronto	50	346.00
1220	80	Berlin	54	378.00
1221	71	Milton	47½	331.50
1222	66	Windsor	43¾	303.00
1223	73	Belleville	51	357.00
1224	60	Owen Sound	30	207.00
1225	71	Wardsville	32	219.00
1226	59	Toronto	20	140.00
1227	64	Madoc	32½	224.50
1228	62	Ingersoll	40½	283.50
1229	60	Port Elgin	34	234.00
1230	61	London	43	301.00
1231	68	Toronto	41½	290.50

During the past few years a special committee of the Provincial Educational Association has been working on the details for a new superannuation scheme. In this the committee has had the encouragement of the department of education which has declared its intentions of securing legislation for the establishment of the scheme in the near future.

IV. THE MANAGEMENT OF THE SCHOOLS.

A UNIFORMLY LONG SCHOOL YEAR.

All high, continuation, public, and separate schools in Ontario have a uniformly long school year. Its actual length, together with time of opening and closing school and holidays and vacation periods, is specified by the department of education. For the school year 1914–15 there are exactly 198 teaching days for all the schools, or only two days short of 10 school months. All teachers are accordingly paid for at least 10 months out of the year and some receive extra remuneration for looking after the school premises, including the school gardens, during midsummer holidays.

Teachers who were interviewed upon the point were unanimous that the long school year, with its comparatively short summer vacation, is a most fortunate thing for the pupils. School education thus becomes, they maintain, a continuous process with small opportunity to forget or to get out of the habit of study. Many of the children, indeed, continue their school garden work throughout the summer months, so that with them the process of education is continuous.

SCHOOL ATTENDANCE.

The total school enrollment in 1912–13 was 529,029 pupils with a daily average attendance of 324,329. The percentage of average attendance is not yet as high as it should be, although it shows considerable improvement over past years. The following table gives the school population, enrollment, and average daily attendance for all public and separate schools (exclusive of secondary schools, kindergartens, and night schools) by periods of years from 1867 to 1912:

TABLE 4.—*School population, enrollment, and average attendance.*

Year.	School age.	School population.	Pupils enrolled.						Average daily attendance.	Percentage of average attendance to total number attending school.
			Under 5 years.	5 to 21 years.	Over 21 years.	Total.	Boys.	Girls.		
1867	5 to 16	447,726	.....	[1] 380,511	[2] 21,132	401,643	213,019	188,624	163,974	40.82
1872	5 to 16	495,756	.....	[1] 433,664	[2] 20,998	454,662	238,848	215,814	188,701	41.50
1877	5 to 16	494,804	1,430	488,553	877	490,860	261,070	229,790	217,184	44.25
1882	5 to 16	483,817	1,352	469,751	409	471,512	246,966	224,546	214,176	45.42
1887	5 to 21	611,212	1,569	491,242	401	493,212	259,083	234,129	245,152	49.71
1892	5 to 21	595,238	1,630	483,643	391	485,670	253,091	232,579	253,830	52.26
1897	5 to 21	590,055	1,385	481,120	272	482,777	251,677	231,100	273,544	56.66
1902	5 to 21	584,512	1,001	452,977	110	454,088	232,880	221,208	261,480	57.58
1907	5 to 21	590,285	691	447,452	75	448,218	229,794	218,424	266,503	59.45
1911	5 to 21	604,555	665	459,247	[3] 36	[3] 459,948	[3] 236,147	[3] 223,801	[3] 281,984	61.30
1912	5 to 21	609,127	471	466,529	[3] 25	[3] 467,022	[3] 239,187	[3] 227,835	[3] 291,210	62.35

[1] 5 to 16 years. [2] Other ages than 5 to 16. [3] Continuation school attendance excluded.

It appears from this table that the school population in Ontario includes all children between the ages of 5 and 21, but the age of compulsory school attendance is counted from 8 to 14 years only. Because of this the actual enrollment (476,022) in the schools is somewhat smaller than it would have been had the compulsory limit been longer. The per cent enrollment of the school population for 1912 was 76.66. The total average for the entire United States, including children 5 to 18 years of age, for the same period was 72.54 per cent, and for the North Central Division, 77.42 per cent.

The daily attendance has increased gradually from 40.82 per cent in 1867 to 62.35 per cent in 1912. In this particular, too, our country makes a better showing with an average daily attendance of 71.4 per cent.

COMPULSORY ATTENDANCE LAW.

The compulsory attendance law does not differ materially from the laws in most of the American States. Every child between 8 and 14 years of age must attend school for the full term in the district where he resides. There are, of course, reasonable excuses for breadwinners,

etc., but the efforts of the truant officers and the watchful care of the local inspectors, together with wholesome fear of the law, have resulted in a very large per cent of the school population between the compulsory ages being in school throughout the school year.

SCHOOL ACCOMMODATIONS AND EQUIPMENT.

The Government grants discussed above have been of the greatest value in getting the boards to provide their schools with the best possible equipment and accommodations.

The department of education furnishes printed instructions to be used by the local inspectors as a basis for grading their schools. It will be recalled that every school gets a fixed annual grant amounting to 10 per cent of the value of its equipment and it may, in addition, get from $30 to $60 on the excellence of its accommodations.

The inspectors base their reports to the minister of education in the main on the following requirements:

School grounds.—The school site shall, under ordinary conditions, be not less than 1 acre in area, properly leveled and drained, and provided with suitable walks. For the highest grading the grounds must be ample for a variety of school games and have room for ornamental plots in the front yard. The grounds should also be planted with ornamental shrubs and trees and inclosed by a neat and substantial hedge or fence with suitable gates. Unless so protected, the school grounds will not be rated of highest grade.

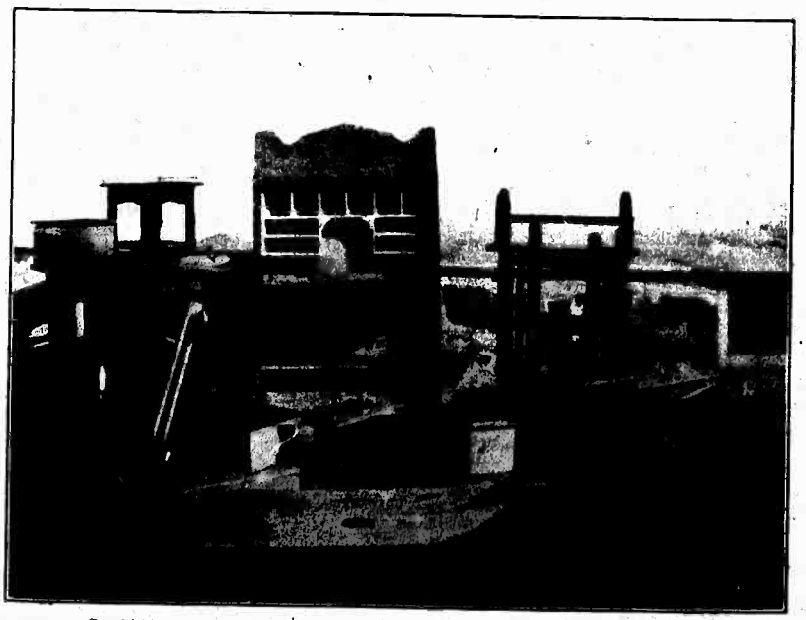
The department of education for the encouragement of school ground improvement issued some years ago to the teachers and members of school boards a pamphlet entitled, "Improvement of School Grounds." This has aided materially in improving the school grounds of the Province. In this cause the department of landscape gardening of the Ontario Agricultural College has lent valuable practical assistance.

Closets.—There are strict regulations in regard to placing and erecting closets for the two sexes. These must be placed far enough apart and so constructed as to insure absolute privacy. They are to be lined with glazed brick or similar material; or, if wood is used, must be painted a suitable color and sanded. Floors must be of cement, brick, or hardwood placed at least a foot above the ground. In addition to the ordinary screens, the entrance is to be protected by a living hedge or shrubbery. The principal must see to it that the doors are securely fastened at night and opened again before school in the morning.

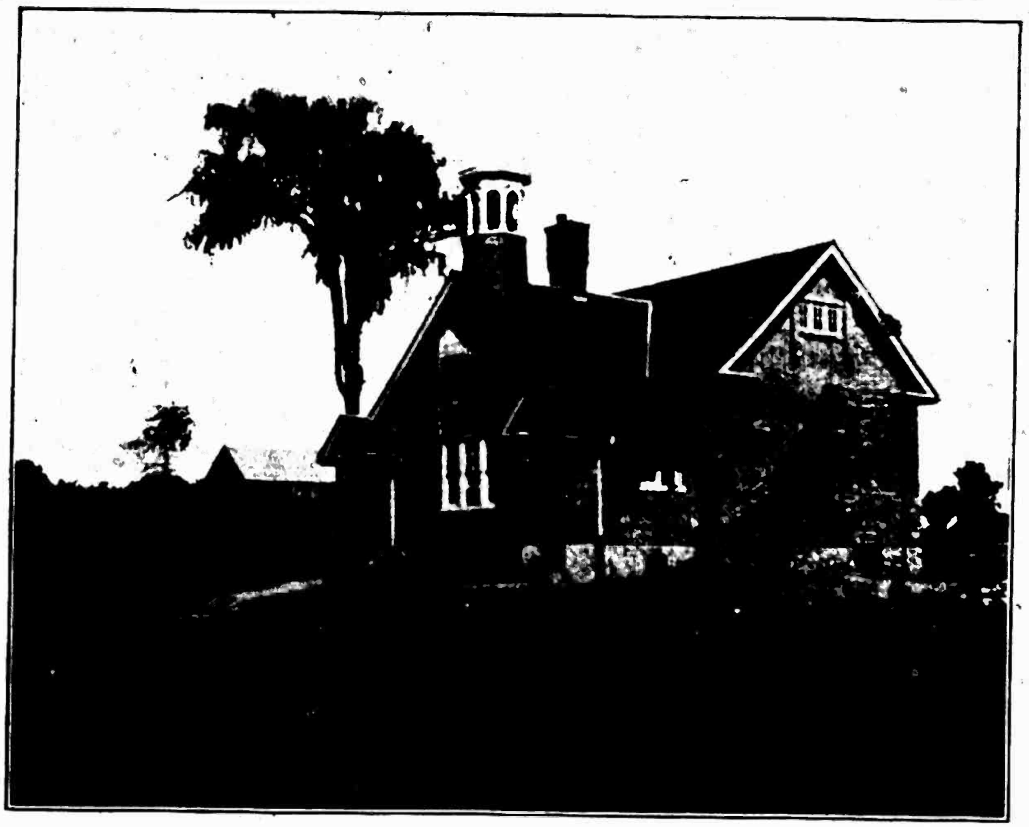
Other requirements are:

Water supply.—The water supply shall be pure and adequate. The school grounds shall be supplied with a deep flowing well, artesian if at all practicable. This shall be carefully protected by a platform and be provided with pump. Granite-ware pails with covers or, for the highest grading, earthenware tanks with covers, and individual drinking cups shall be provided and kept scrupulously clean.

A. RURAL SCHOOL AT NORTH GRIMSBY, LINCOLN COUNTY.



B. MANUAL TRAINING WORK AT RITTENHOUSE RURAL SCHOOL.



A. A MODERN ONE-TEACHER SCHOOL IN MIDDLESEX COUNTY.

It utilizes the entire basement, and has, in addition to a large well lighted and equipped main room, library, rest room, etc.

B. A NEW ONE-TEACHER SCHOOL IN SIMCOE COUNTY.

The building is constructed of cement blocks, has separate entrance and cloakrooms for the boys and girls, and has a commodious room for the teacher.

School building.—The grading of a school building shall depend on the character of its site and construction. The building should be well constructed of brick, stone, or cement with brick partitions. It should have a southern or southeastern exposure and must be at least 30 feet from the nearest highway. There shall be separate entrances and separate means of egress to the outdoor closets.

Every school should have, as a recreation room, a basement at least 7 feet in the clear, ceiled with wood or metal sheeting, and with cement or hardwood floor.

There shall be at least 16 square feet of floor space and not less than 250 cubic feet of air space per pupil. Hardwood is preferable for floors and stairways. Wood finish instead of plaster may be considered for highest grade. Where it is difficult to keep the ceiling in repair, metallic ceilings shall be used. Suitable color schemes for halls and classrooms shall be adopted.

Teacher's private room.—There should be a room for the private use of the teacher, of suitable size, and comfortable furnishings. Schools for more than one teacher to be erected hereafter must be provided with such private room or rooms for the teachers.

Halls and cloakrooms.—Halls, vestibules, and entrances shall be roomy and well lighted. There shall be separate stairways for the two sexes, easy of access, and well guarded. For the highest grading, separate cloakrooms for the two sexes must be provided. They shall be properly heated and ventilated and convenient to the classrooms. They shall also be provided with wash basins, sanitary towels, and all necessary appliances for storing umbrellas, caps, and cloaks.

Desks.—Every school shall be equipped with desks having noiseless joints; single desks for sanitary reasons being preferable and necessary for the highest grading.

Blackboards.—Slate blackboards are preferable to plaster, wood, or hyloplate. The troughs and erasers shall be regularly and frequently cleaned. Every precaution must be taken against dust in the classrooms.

Lighting.—For the highest grading, the classrooms must be lighted from the left of the pupils only, the lower edges of the windows being above the heads of the pupils when seated. Where there are supplementary windows in the rear they must have the shades drawn except on dull days. The windows shall have an area of not less than one-sixth of the floor space.

Heating.—The temperature of the classrooms, halls, and teacher's private room shall be as nearly as practicable 67°. A Fahrenheit thermometer shall be provided and used for every classroom. For highest grading, steam radiators or hot-air furnaces or jacketed ventilating stoves are necessary.

Ventilation.—Provision shall be made for an adequate supply of pure air at all times. In all new buildings a double-flue chimney shall be built, the ventilating flue opening into the classrooms.

The department of education makes provision for two sets of equipment for rural schools. Set No. 1 provides all such necessary working paraphernalia as globes, maps, mathematical blocks, charts, weights and measures, and a school library containing an atlas or a gazetteer, a standard reference dictionary, geographical and hygiene readers, and certain other books recommended by the minister of education. As soon as this equipment is obtained beginnings may be made for set No. 2.

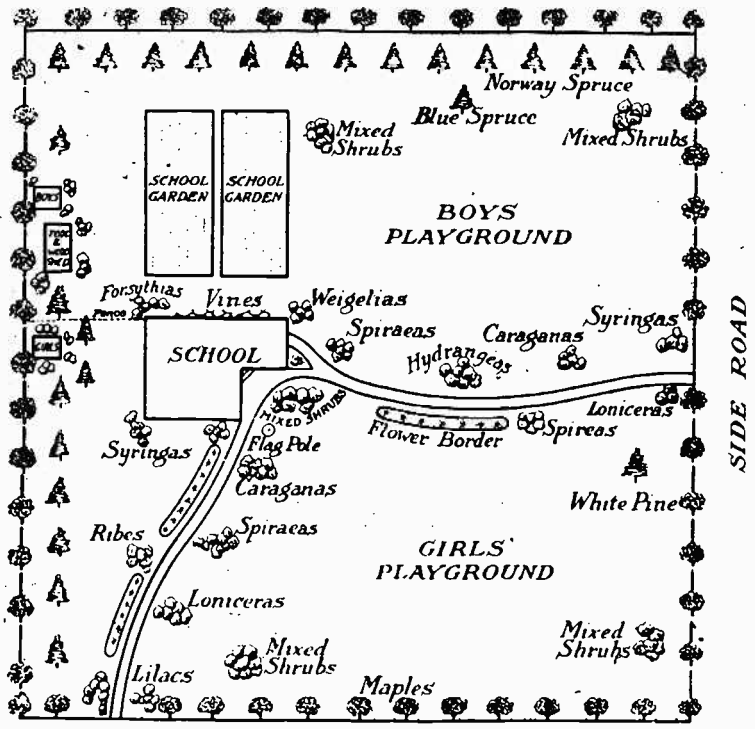
The minister of education sends out circulars containing lists of scientific apparatus and equipment for domestic science, school gardens, etc. From these lists the second equipment may be selected with the advice and approval of the inspectors.

GROUNDS AND BUILDINGS.

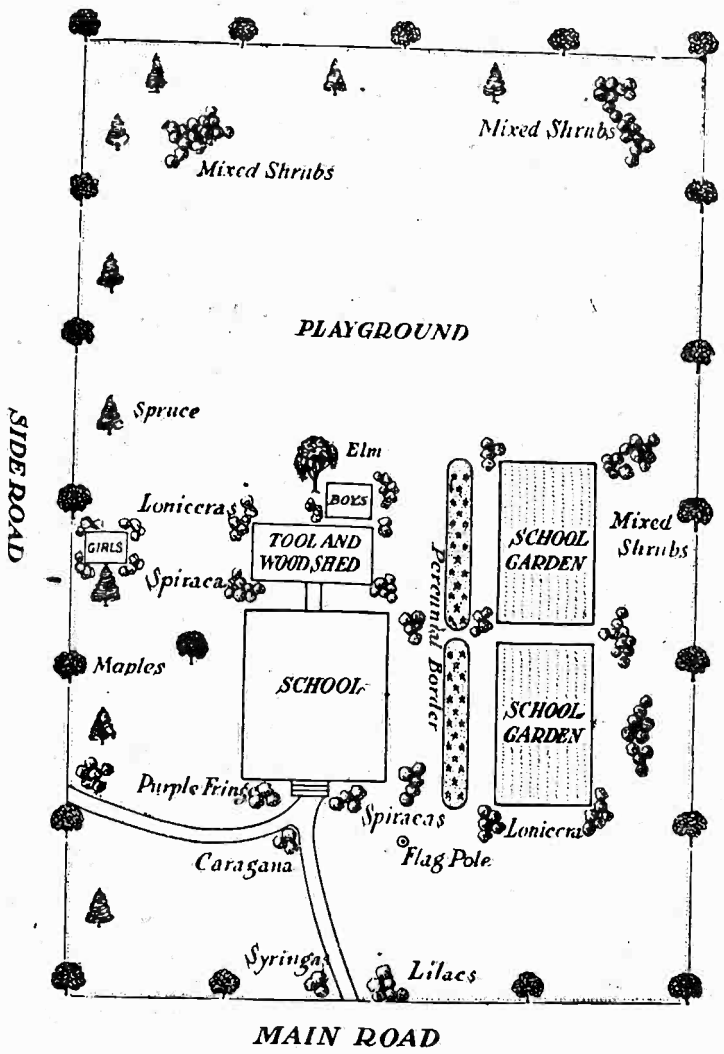
A special study of the one-teacher schools in the rural districts of Kent, Middlesex, Wellington, Simcoe, and other counties, both as to architecture and grounds, showed that with very few exceptions the buildings are substantial and attractive; frame structures are very few, brick and stone being the materials ordinarily used. Slate is commonly used for roofing. Most of the buildings are large and have rest rooms for the teachers. The older schools are not correctly lighted, but they are better off in heat and ventilation, ventilating stoves being found in many of them. The newer buildings are constructed more and more with a view to community center purposes and have large cemented basements, correctly lighted and heated classrooms, teacher's office and library combined, and sometimes one or more additional small rooms for sewing and agricultural purposes. Several of the recently constructed schoolhouses have cost from $3,500 to $5,000 each.

The school grounds made an even better impression than the buildings. While the latter are generally substantial and well suited for classroom purposes, the grounds show even greater care and bespeak well the efforts of the department of education to inculcate through the schools a love of the beautiful and useful in nature. Occasionally the school premises are found covered with weeds and rubbish, but such instances are very few. The increasing demands for teachers with preparation in nature study, agriculture, and school gardening, together with the provincial bonuses for beautiful grounds and school gardens, have induced many teachers to take special courses in vocational work of this kind after leaving the normal schools. This is gradually furnishing rural Ontario with teachers who understand the problems of rural life and are eager to do their best through the new education to keep the farmers' children on the land.

The grounds are nearly always fenced or hedged, so as to keep out stray farm animals. Cement or brick walks usually run all the way from the gate or turnstile to the main entrance of the school building and around to the closets and woodshed. There is generally a flagstaff from which flies the Canadian flag. The lawns must be mown in order to get the highest grade. Flower beds border the walks or are banked around the schoolhouse. Some have window boxes and hanging baskets full of flowers, which are moved indoors or stored in the basement or cellar when cold weather comes. Nearly all have some sort of flower garden. An increasingly large number have remarkably fine flower and vegetable gardens as laboratories for their regular class work. These will be considered in detail later.



Another Plan suggested in the bulletin *Improvement of School Grounds*. This is suitable for a ground of two acres or more. The school and gardens are at the back of the lot, and the ample playgrounds occupy the foreground.



Plan of School Grounds suggested in the bulletin *Improvement of School Grounds*. This is intended for a small school ground. The building and gardens occupy the foreground the common playground lies in the rear.

CLASSROOM WORK AND EXAMINATIONS.

The prescribed course of study and daily program of classes in a good one-teacher school in Ontario varies but little from the same grade of school in the United States. The teachers of the small schools there, as with us, have too many classes to enable them to do the best kind of work. Then, unfortunately, a large part of this precious time is devoted to preparing for the entrance examinations to the secondary schools. It seems to the writer, at least, that this worship of examinations is maintained at the expense of much that is good and practical and wholesome in life, for which there can be little time in such a system as this. It is true that the schools offering agricultural work have been able to overcome much of the deadening effects of the examination system.

All the textbooks used in the schools are authorized by the minister of education. The Province virtually publishes, or causes to be published, most of the books used. A few books, especially such as are used in small quantities, as for class reference and supplementary reading may be adopted from the sales lists of regular book houses of Canada and the United States. The books are furnished the children at a price quite as low as is procured under the most favorable conditions in the United States; but many of the books seem inferior to the American makes, both in subject matter and workmanship.

V. RECENT PROGRESS IN AGRICULTURAL EDUCATION.

AGRICULTURAL INSTRUCTION ACT OF 1913.

In Canada the Federal and Provincial Parliaments exercise concurrent power of legislation on the subject of agriculture. The Federal Parliament may make laws which concern the Dominion at large and the Provincial Parliaments may pass any law on agriculture for the Provinces, provided only that this be not contrary to the fundamental law of the Dominion.

"The passing of the agricultural instruction act (1913) by the Dominion Parliament during its last session, at the instance of the minister of agriculture, Hon. Martin Burrell, is," according to Prof. S. B. McCready, "the most momentous event that has occurred in the history of agricultural education in Canada in recent years." [1] "From it," says Mr. McCready, further, "A great impetus for agricultural education has been generated." This encouragement lies in the favorable sentiment awakened by the Federal Parliament's action perhaps as much as in the generous vote of money.

[1] Present Status of Agricultural Education in Canada. By Prof. S. B. McCready, B. A. Publication of the International Institute of Agriculture. Rome, Italy, 1914, 8 p.

By this act the large sum of $10,000,000 was voted for distribution among the several Provinces on a pro rata of population basis, to be expended by the provincial authorities practically unhampered by Federal restriction; for it should be understood that agricultural education in the restricted school sense is the exclusive prerogative of the provincial authorities. In the more liberal sense of educational agencies, however, the Federal and Provincial Governments exercise concurrent power.

The freedom with which the Provinces may use their apportioned share of the fund for all lines of educational propaganda, whether already under way or newly planned, has been of extraordinary value to the cause of agricultural advancement.

The enterprises now being supported under this act fall readily under two heads: (1) Instruction through a variety of agricultural organizations, and (2) instruction immediately through the schools. The former, again, readily divides into the heads of provincial agricultural organizations and Dominion agricultural organizations. These may now be considered briefly.

PROVINCIAL AGRICULTURAL ORGANIZATIONS.

Numerous organizations have come into being under the stimulus of the agricultural instruction act and many others already in existence have been enabled to increase their usefulness as educational factors. What these organizations are and their purpose has been set forth so well by Prof. McCready that it is reproduced in detail below:

> These agencies are more numerous perhaps in the Province of Ontario than in the other Provinces of Canada, although they are more or less represented in them all. Their objects are educational; they seek to promote some particular branch of agriculture or farm life through shows, competitions, annual meetings, printed reports, and courses of lectures. They are designated as associations, societies, institutes, and unions. Of those called associations there are the vegetable growers', fruit growers', beekeepers', corn growers', cattle breeders', sheep breeders', swine breeders', horse breeders', and dairymen's. Of those called societies there are the agricultural, horticultural, and entomological. Of the institutes there are the farmers' institutes and the women's institutes. The Agricultural and Experimental Union is another educational organization. All of these receive funds from the provincial treasuries and are under the supervision of the departments of agriculture. Besides these organizations, numerous farmers' clubs, and boys' and girls' clubs have come into existence within the past few years and may be considered as educational factors in agriculture. There are very few parts of the country where at least one of the organizations is not represented. Their membership is made up of the most progressive people as a rule, although there are still many people to be reached by them. Demonstration trains, too, have, in recent years, taken instruction and demonstrations to the farmers; they are operated jointly by the railroad and the departments of agriculture.[1]

[1] Present Status of Agricultural Education in Canada, p. 3.

DOMINION DEPARTMENT OF AGRICULTURE.

Many other organizations of a national character are working in conjunction with the Dominion department of agriculture. Of these the Dominion Seed Growers' Association instructs its members in growing pure selected seeds and, besides, procures and distributes such seeds to Canadian agriculturists. Cow-testing associations are organized by the dairy and cold-storage branch of the department of agriculture. These associations have proved of inestimable value for the future of Canadian milk and beef production. In a similar manner the seed branch, live-stock branch, and publication branch of the department do excellent service in their respective fields. The organization brought closest to the Canadian farmers is, perhaps, the Dominion experimental farms. These are organized at points of vantage throughout the Dominion. Here, practical experiments and demonstrations are carried on continuously for the benefit of thousands of farmers; staff members work outward among the rural communities and speak at farmers' institutes; finally, much printed material and even shrubs and trees are sent to the farmers, gratis.

LOCAL AGRICULTURAL EXPERTS.

Canada, like the United States, is beginning to bring the science of agriculture from its laboratories in the colleges of agriculture right to the farmers by placing in their midst county or district agricultural representatives. So far as Ontario is concerned, these experts are, all of them, graduates of the agricultural college of Guelph, holding the degree of B. S. A.—in itself an assurance of a thorough preparation.

The activities of these men are not limited to advising with the farmers. Much of their work is of an immediately educational nature. They assist rural teachers in their agricultural work, and instruct in short courses and to a less extent in the regular classes in agriculture in the local high schools. They likewise organize farmers' clubs, boys' and girls' growing clubs, school fairs, pure-seed clubs, egg-gathering associations, and a variety of other organizations of value to agricultural progress.

ONTARIO AGRICULTURAL COLLEGE.

The Ontario Agricultural College stands at the center of the Ontario scheme of activities in agricultural education and "should be given credit for supplying the stimulus in lower forms of educational institutions." It was organized as part of the University of Toronto 39 years ago, although the school is situated at Guelph, in one of the finest agricultural regions in the Province.

In 1901, Sir William Macdonald, well known for his philanthropy, provided funds for the establishment of Macdonald Hall and Institute as an integral part of the agricultural college. This department of the institution offers courses in household economics, manual training, and nature study for teachers who wish to instruct in these subjects. Sepecific courses in household economics are also open to girls from the rural communities in cooking, sewing, and other practical household work.

The agricultural college proper offers two-year and four-year courses. The two-year course is arranged to meet, so far as practicable, the needs of modern, scientific agriculture in Ontario. The four-year course covers an additional two years, devoted to scientific study, and leads to the degree of bachelor of science in agriculture.

The school is especially noted for its short courses of many kinds, through which it strives to reach the entire agricultural population. These include courses for cheesemakers and buttermakers, courses in seed and cattle judging, in poultry keeping, fruit growing, and beekeeping. There are also interesting short courses for teachers, which will be discussed later.

RURAL SCHOOLS IN AGRICULTURAL EDUCATION.

The elementary schools of Ontario are making marked advances in teaching agriculture. Especially is this true of the rural schools. This phase of school work is in charge of a special officer designated "Director of elementary agricultural education," who has the following to say about how it is being taught and with what results:

No textbook is prescribed; the work is based on nature study and school gardening. Teachers are specially trained in spring and summer courses at Guelph, receiving the elementary certificate in agriculture. Special grants are paid to teachers and trustees undertaking the work. The work is optional but public sentiment in favor of it is growing steadily. One hundred and eighty schools entered for work in 1913 to qualify for the special grants. Many other schools are conducting school gardens and giving some instruction in agriculture without engaging to fulfill all the requirements for the special grants. Through the schools' division of the experimental union, choice planting material is furnished free to the schools for experimental and demonstration purposes. During the past season field agents in agricultural education assisted the director of the work in supervising and inspecting the work in these schools, besides giving instruction at teachers' institutes and the model schools where teachers are trained. At the normal schools also teachers receive instruction in elementary agriculture and school gardening.[1]

A NEW METHOD FOR AN OLD SUBJECT.

The beginnings of agricultural education in Ontario date back to 1847, when the first provincial normal school was established at Toronto. From the outstart, courses were offered in agricultural

[1] Present Status of Agricultural Education in Canada, p. 4.

chemistry, and field experiments were conducted in crops and fertilizers. The Governor General even went so far as to give attractive prizes to the winners in the examinations. But it was all of little avail, since the rural population were not yet awake to the importance of agriculture teaching and would offer no special inducements to teachers so prepared.

A little later textbooks in agriculture appeared, and their use was authorized by the department of education. Agriculture next became obligatory in the public school course of study. And still no real headway was made. Mere textbook courses in agriculture have proved futile wherever tried, whether it be in Canada or the United States. Indeed, it is just as practical to teach chemistry and physics from books as it is to teach a love and understanding of nature and its wonders and works from within the two covers of a textbook. Under this system, then, agriculture did not prosper in the schools of Ontario.

Real progress did not begin until textbook courses were abolished and the subject ceased to be obligatory. Instead of the old compulsion the study was made attractive and practical as a part of the daily experience of each child—an experience lived in the home and at school and on the highway between home and school. Then a new kind of teacher with the right vision and outlook on life began teaching in the schools, attracted to the work in part by a sense of duty, and in part by the special grants offered by the Government.

The department of education has this to say of the revitalized subject:

> The agriculture taught in the public schools to-day shaped itself from the nature study that was introduced into the schools about nine years ago. It is the common-sense nature study for the country. Its textbook is the home, the garden, the field, the orchard, and the school farm or garden. Its course of study is the common plants and animals, the common work and interests of the common people who send their children to the common schools. Its method is a natural one: instruction is based on the pupil's natural interests, his present and prospective environment and his own activities.[1]

And in another place:

> The teaching of agriculture means more than the mere introduction of a new subject. It means a new school. It means education for country life.[2]

WHAT HAS BEEN ACCOMPLISHED.

The writer was impressed with the new interest manifested by the pupils in the schools where the new agriculture has been introduced. The old subjects are being well taught and a certain amount of real

[1] Agricultural education. Bulletin No. 2, 1913. Ontario Department of Education, Toronto, p. 2.
[2] Elementary agriculture and horticulture. Circular 13. Ontario Department of Education. Toronto, 1913, p. 3.

"farm leaven" is gradually creeping into them. The school is finding a new field of service. It is beginning to realize that it need not be limited to the four walls of the school. Through school gardens, home gardens, and experiment plots the school is introducing and testing new varieties of vegetables and field crops; through well-kept lawns, shrubbery, and flowers it is teaching a new love of the rural environment; and through the revitalized school plant it is inviting the countryside to social gatherings, teaching in all a new whole-hearted contentment.

AGRICULTURAL PROGRESS.

The two maps which appear in these pages are reproduced from one of the agricultural education bulletins published by the Department of Education for the promotion of the work. They give some idea of the rapid growth of the agricultural movement; and yet the maps scarcely do it justice, since they include only the schools immediately under direction of the director of elementary agricultural education. The 1912 map, it will be seen, indicates the distribution of a number of district representatives who have organized township school fairs independent of the department of education. Then many other gardens and experiments, which do not get Government grants, are not reported.

Table 5 illustrates this growth in yet another way. The number of reported schools doing work in practical agriculture has increased from four in 1903 to 278 in 1914, and the grants, both to trustees and teachers, have increased in the same ratio:

TABLE 5.—*Progress in agricultural teaching.*[1]

Year.	Number of schools.	Grants to trustees.	Grants to teachers.
1903	4	$400.00	.....
1904	8	450.00	.....
1905	5	140.00	.....
1906	8	290.00	.....
1907	2	40.00	.....
1908	14	680.00	$120.00
1909	16	560.00	150.00
1910	17	750.00	510.00
1911	33	1,310.00	900.00
1912	101	1,803.03	2,203.00
1913	159	2,889.27	3,131.00
1914	278	.....	.....

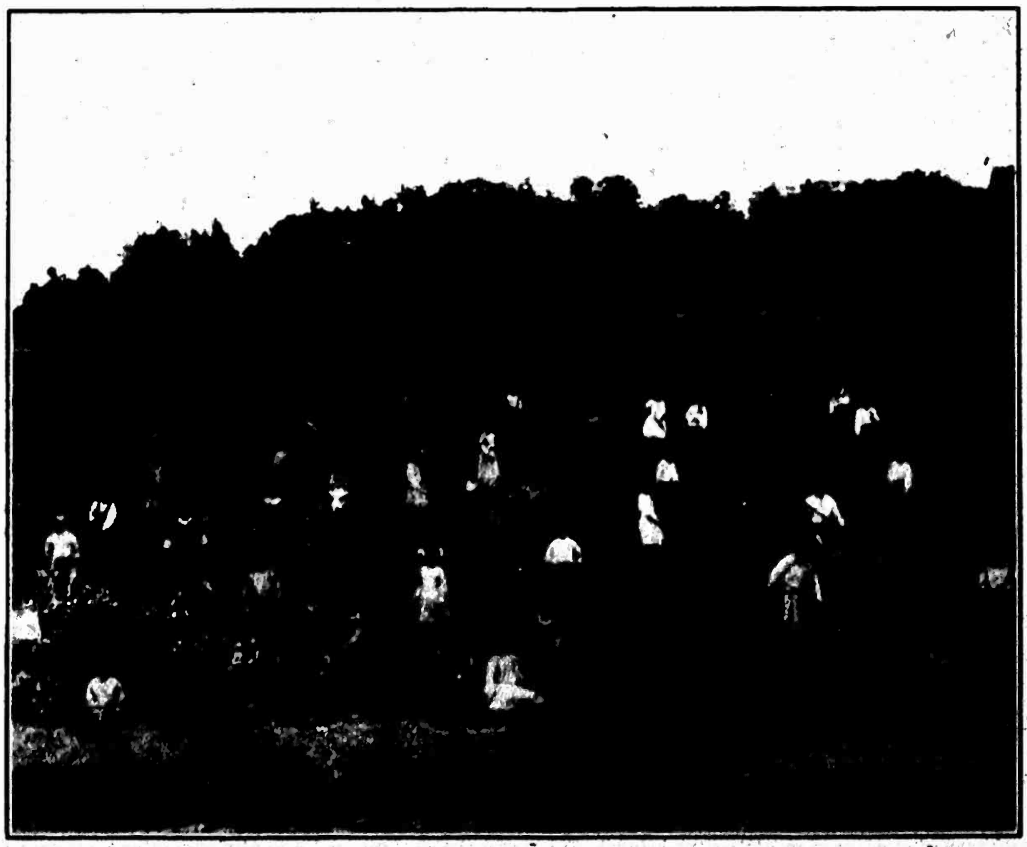
[1] From Agricultural Education Bulletin, No. 10.

REASONS FOR SUCCESS.

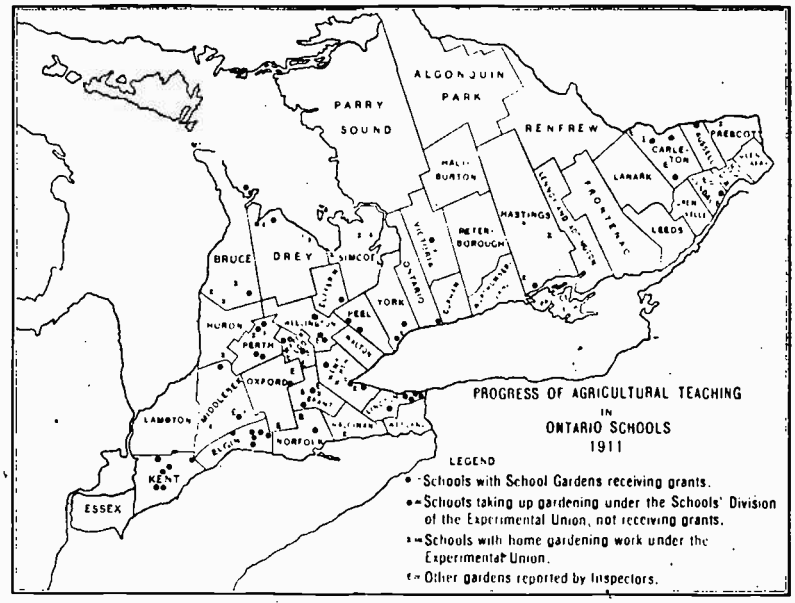
The subject of agriculture is taught through school gardening, home gardening, and school-farm experiments. The teachers do not make these the ends to be sought, but rather the means to the end. This is important, for otherwise the real spirit of the thing might easily become lost in the mere physical garden plot.

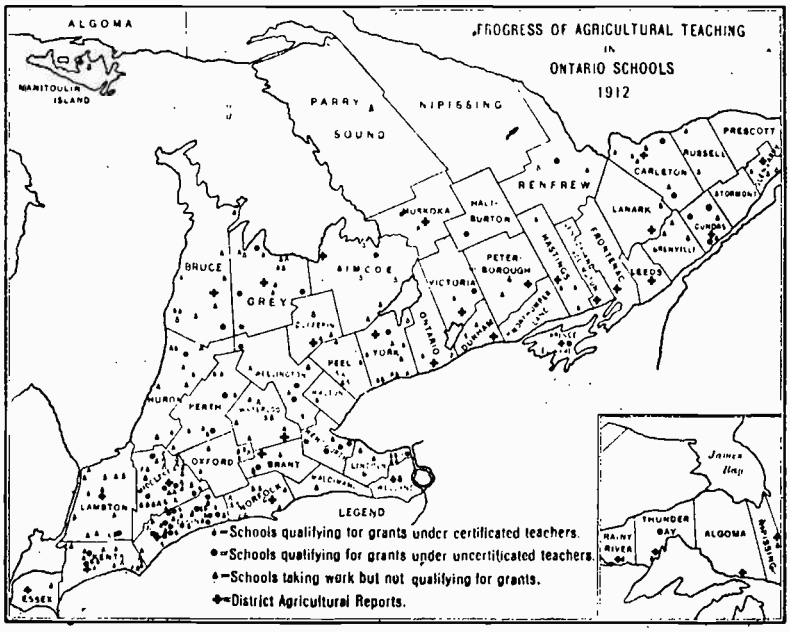
A. THE VINELAND RURAL SCHOOL AND GARDENS, LINCOLN COUNTY, NEAR ST. CATHERINES.

Garden work has aroused the keenest interest in agriculture in this community.



B. ANOTHER VIEW OF THE VINELAND SCHOOL GARDENS.


PROGRESS OF AGRICULTURAL TEACHING
IN
ONTARIO SCHOOLS
1911
LEGEND
• Schools with School Gardens receiving grants.
• Schools taking up gardening under the Schools' Division of the Experimental Union, not receiving grants.
Schools with home gardening work under the Experimental Union.
Other gardens reported by Inspectors.
ALGONQUIN PARK
PARRY SOUND
RENFREW
PRESCOTT
CARLETON
LANARK
LEEDS
FRONTENAC
HASTINGS
PETERBOROUGH
HALIBURTON
VICTORIA
ONTARIO
YORK
PEEL
SIMCOE
GREY
BRUCE
HURON
PERTH
OXFORD
MIDDLESEX
LAMBTON
ELGIN
NORFOLK
KENT
ESSEX


PROGRESS OF AGRICULTURAL TEACHING
IN
ONTARIO SCHOOLS
1912
LEGEND
• Schools qualifying for grants under certificated teachers.
• Schools qualifying for grants under uncertificated teachers.
Schools taking work but not qualifying for grants.
District Agricultural Reports.
ALGOMA
MANITOULIN ISLAND
PARRY SOUND
NIPISSING
RENFREW
PRESCOTT
RUSSELL
CARLETON
LANARK
LEEDS
GRENVILLE
DUNDAS
STORMONT
FRONTENAC
HASTINGS
PETERBOROUGH
HALIBURTON
MUSKOKA
VICTORIA
ONTARIO
YORK
PEEL
SIMCOE
GREY
BRUCE
HURON
PERTH
OXFORD
BRANT
NORFOLK
LAMBTON
ESSEX
James Bay
THUNDER BAY
RAINY RIVER
ALGOMA
NIPISSING

In the United States rural school agriculture through gardening has made little or no progress in recent years, and in many places it is even being abandoned as impracticable. Home garden projects are recommended by many as more feasible, and some progress is now being made where they are tried. But here, also, headway is too slow. These statements refer primarily to American one-teacher schools, since the larger consolidated schools are better prepared to utilize all such means.

The success of elementary agriculture in Ontario rural schools must be sought in (1) teachers of peculiar preparation for their work; (2) satisfactory division of the school year; (3) Government grants to schools; and (4) good system of organization. These factors are discussed briefly below.

Teacher requirements.—The work in school agriculture may be done (1) under teachers holding special certificates in elementary agriculture and horticulture and (2) under teachers of proved ability but not specially certified.

Teachers who are already regularly certified may procure the certificate in elementary agriculture and horticulture in any one of the following ways: (1) A 10-week spring course at the Ontario College of Agriculture; (2) two summer sessions at the college of agriculture and a directed winter's reading course; or (3) a course in agriculture at a high school, followed by a further course at the normal school and one summer session at the Ontario Agricultural College.[1]

Under these requirements competent teachers only can receive Government recognition and be entitled to the special grants.

Division of the year for agricultural purposes.—The most prevalent cause for failure in school gardening and agricultural experiments in the small American school is the generally short school year and its time of beginning and ending. In many parts of the United States this begins in September and ends too early in the spring to permit vegetation to gain a satisfactory growth before school closes. To this may be added the short tenure of the American teacher. One or the other, or perhaps both, of these reasons are persistently pointed to as the real cause of failure in rural United States.

Under the Ontario regulations "for the purposes of apportioning grants for this work, including practical gardening, the year will be the calendar year (January to December) and not the school year." The Ontario school year is 10 months long, and July and August are the only growing months during which the schools are not in session. But ample provision for the care of the gardens must be made or full Government grants will not be paid.

[1] See Information, Regulations, Instructions, and Course of Study in Elementary Agriculture and Horticulture, Circular 13. Toronto, 1913.

Government grants.—Under the regulations now in force, a rural school board or a school board of a village that provides and maintains satisfactorily to the minister, throughout the year, a course of instruction in elementary agriculture and horticulture shall be entitled to special grants as specified hereunder; in no case, however, will the grant exceed the total amount expended by the board during the calendar year for the work. If the teacher leaves at the summer holidays, due consideration will be shown provided an effort is made by the new teacher and the trustees to have the work of the year completed satisfactorily.

To the teacher who carries out this work satisfactorily on the reports of the inspector and of the director, the minister will pay, in addition to the salary paid by the school board, an additional grant, as specified hereunder.

The grants, with the requirements for earning them, are shown in the following table:

TABLE 6.—*Grants to school boards and teachers.*

Requirements.	Where teacher is not certificated in agriculture.				Where teacher is certificated in agriculture, or receives the certificate during the year.			
		To teacher.				To teacher.		
	To trustees.	For full year.	For winter and spring term.	For fall term.	To trustees.	For full year.	For winter and spring term.	For fall term.
A. HOME GARDENING.								
(1) Instruction throughout the whole year, to be completed satisfactorily, with requirements regarding pupils' records, teacher's report, trustees' statement, etc., fulfilled. (2) Supervised home gardens or projects by pupils of Forms III, IV and V. (3) Well-kept grass and flower plots, borders, screens, etc., at school for beautifying grounds and for instructional purposes.	[1] $8.00	$8.00	$4.00	$3.00	[1] $20.00	$20.00	$10.00	$8.00
B. SCHOOL GARDENING.								
(1) Instruction throughout the whole year to be completed satisfactorily, with requirements regarding pupils' records, teacher's reports, trustees' statement, etc., fulfilled. (2) A well-conducted pupils' school farm or school garden, at or in connection with the school, having at least 6 square rods for experimental and observation plots of local use and interest. (3) Well-kept grass and flower plots, borders, screens, etc., for beautifying grounds and for instructional purposes. (4) For other pupils of Forms III, IV and V, not represented in the work on the 6 square rods, either additional plots in the school garden, or supervised gardens or projects at home.	[1] 12.00	12.00	6.00	5.00	[1] 30.00	30.00	15.00	12.00

[1] Up to but not exceeding.

Agricultural work well systematized.—Another reason why the Ontario school gardens do well is because they are no longer looked upon as a fad or side issue to be cared for or neglected at the whim of the teachers and pupils. It is a serious part of the schools' tasks.

When the work is first organized the secretary of the board of trustees and the teacher are both obliged to file separate notifications of their intentions to teach agriculture in the schools. This makes all parties concerned feel their responsibility.

The school trustees must also make the necessary arrangements for its introduction and support, sharing with the teacher both the labor and interest.

Again, a definite time must be allotted to agricultural instruction. It must have a definite place in the program, and shall not be less than one hour each week. Needless to say much more time than this is usually devoted to it.

Complete accounts must be kept of the cost of the school garden work and be submitted at the close of the year to the department of education.

The teacher must keep a record from week to week of just what phases of the work have been tried out, on special blanks provided for the purpose. The school register, indeed, contains such forms for every week in the year. At the close of the year the forms are forwarded to the minister of education through the local inspector. The school grants are based largely on these reports.

The report must show also how the garden has been planned; how it has been cared for in the summer holidays; and the condition it was in at school opening in September.

The following outline shows the topics suggested for the instruction to be given in the fall and early winter months. The teacher is not expected to cover all of these themes but to use such as are best suited to the local interests of the farming community. The teacher's report to the minister of education shows in the blank spaces allowed for the purpose just what has been accomplished with each topic.

SEPTEMBER.

Plant studies.—1. Weed-study excursion—Preparation of mounted collections—Seed collections—Identification tests—Methods of eradication. 2. Pupils' selection of corn in standing crop for seed and exhibition.

School fair.—Display of Progress Club's products (homemade articles, poultry, potatoes, oat sheaves, etc., by boys, and sewing, cooking, and canning by the girls), garden produce, collections, demonstration of experiments carried out at school—Judging and awarding of prizes of books, bulbs, etc.

Insect studies.—The housefly, its structure, habits, life history, and suppression—Estimation of damage of codling moth.

Reading.—Selection and purchase of agricultural books for school and home libraries. A farmer's library—Winter's reading plans.

OCTOBER.

Plant studies.—1. Collections of apples and other fruits for competition and judging—Talk by local fruit grower—Testing pupils' ability to recognize varieties—Methods of packing and shipping. 2. Collections of injured or imperfect fruit—Causes and remedies.

Farm and orchard work.—1. Thrashing—Storage of crops—Model barns—Silos—Estimates of yields—Determination of weights of bushels of grain. 2. Fall preparation of soil—Implements used and problems on cost of plowing, etc. 3. Fall pruning—Practice on neglected trees—Cover crops.

Garden work.—Taking cuttings and plants from garden for school or home windows or wintering over—Planting bulbs in school border or forcing for winter bloom—Fall preparation of school garden, cleaning, manuring, and plowing.

NOVEMBER.

Corn fair.—Collections of selected corn for competition—Judging competitions—Reading prize essays.

Farm work.—Wintering the farm animals—Good stabling and up-to-date appliances—Feeding—Care of poultry—Best henhouses.

Reading.—Class debates; discussions on agricultural topics.

Physical science.—Simple experiments on air.

DECEMBER.

Animal studies.—Breeds of farm poultry—Visits to poultry or live stock shows—Survey and census of local poultry industry—Marketing poultry.

Reading.—Reviews of subjects read up by pupils in books, papers, or bulletins.

Physical science.—Practical exercises with thermometers—Use of dairy thermometer—Weather records.

THE EXPERIMENTAL UNION.

The schools division of the Ontario Agricultural and Experimental Union, which was organized six years ago for the purpose of extending practical aid to the schools that offer courses in school agriculture, has proved a valuable factor in the work. It furnishes the schools, free of charge, excellent collections of planting materials for school gardens and pupils' home gardens. The seeds and plants are of choice varieties from the Ontario Agricultural College experiment fields or specially secured from well-known seed growers and dealers. Through their distribution to the schools and thence to the farm homes much has already been done to improve field crops and to teach a deeper love of farm home improvement and beautification.

TESTIMONY OF THE TEACHERS.

At this point it is interesting to learn what the Ontario teachers themselves think about the value of agriculture-teaching by means of gardening and home projects. The director of this work, Prof. S. B. McCready, has from time to time published excerpts from correspondence and reports, showing the difficulties and hindrances as well as the successes and rewards of the teachers in the field. A few of these excerpts are reproduced in the following paragraphs:[1]

[1] See also Regulations Relating to Elementary Agriculture.

IS IT WORTH WHILE?

I would not be without the garden now for any consideration, although I am looking forward to twice as much work personally next year, as the oldest pupil is only 11 years.

We are going to continue the work, as I shouldn't want to teach if I couldn't have a garden.

THE ATTITUDE OF THE PUBLIC—HOW GARDENING SLOWLY GROWS IN FAVOR.

Some parents are indifferent; others have become interested on seeing their children interested.

The people are delighted with the garden. The people who opposed the garden at first have either turned indifferent or favorable.

The chief complaints were the expense and waste of time.

Skeptical parents influence the older pupils to think the work is only a particular teacher's hobby or whim. People are satisfied to have it go on.

The parents and trustees seem interested in the work and give us great encouragement, though little practical assistance.

THE EFFECT ON THE PUPILS—HOW THEY LIKE THIS SCHOOL SUBJECT.

It has a good effect on discipline.

They seem to enjoy coming to school and have developed an interest in nature.

The pupils are always willing and anxious to work. We attribute the general good behavior to the good relations established in the garden.

I find all my pupils are taking a more intelligent interest in the work.

The pupils often came very early in the morning to work in their plots and seemed to be well satisfied with their opportunity to do this work.

It promoted a spirit of friendliness and helpfulness among the pupils. A number of them also walked a couple of miles during the holidays to water and care for their plants a few times.

A bond of sympathy between teachers and pupils—both interested in the same pleasant work.

I was very much pleased when they (the pupils) suggested taking the money they get for carrying in wood ($1.50) to buy bulbs. So we have a lot of bulbs planted in our border along the road fence.

THE CARE OF THE GARDEN DURING THE HOLIDAYS—HOW THE HOLIDAY PROBLEM CAN BE SOLVED.

The Women's Institute undertook the care of it.

The trustees looked after the garden during the holidays. They weeded it and tended it.

Children went to the garden twice a week to care for their plots. The board hired a man ($10) to water and look after the garden in general.

The garden was left as clean as possible at the end of June. I made two trips to attend to the garden and two or three pupils came at the same time.

Teacher and pupils met at garden each Friday afternoon from 2 to 4 o'clock.

The pupils came each week and cared for it in turn.

The children attended to it. Some plots were neglected.

The children visited the gardens at least once a week. On account of scarcity of labor the boys did not come so often.

THE NEED OF GOOD NEIGHBORS, GOOD FENCES, GOOD SOIL, AND SOME TOOLS.

Plots were more or less destroyed in summer holidays.

Some visitors think they have the right to pluck the flowers and eat anything they like in the garden.

On the 21st of June our garden suffered a real disaster from five head of cattle unhooking the gate and entering during the night.

Ten of the plots were not a success, owing to destruction by sheep. We were most disappointed about our barley experiment which was carefully planted and almost all destroyed.

SCHOOL LESSONS IN AGRICULTURE AND HORTICULTURE—WHAT SOME SCHOOLS TEACH.

We have experimental window boxes and develop a great many experiments in these.—Haldimand County.

We have made a study of the apples of the neighborhood by having the pupils bring different varieties. The district agricultural representative helped us in naming some of them.—Hastings County.

We had an experimental plot where we tried transplanting vegetables thinned out of the pupils' plots and were very successful, indeed. We tried beans with four and six leaves without losing a single plant.

I have arranged to take one agricultural topic each week from the topics suggested in the leaflets, but feel the need of a definite course and a source of information on some topics.—Lincoln County.

SCHOOL FAIRS—HOW TO AROUSE PUBLIC INTEREST.

We had a school fair with what we had grown. The broom corn was the greatest curiosity.—Hastings County.

The school garden fair was held in the schoolroom on September 18 and about 60 visitors were present. The district agricultural representative conducted a weed-seed contest among the older pupils. Each one who brought an exhibit and did not get a prize was given two tulip bulbs. Prizes were also given for the best garden journal.—Victoria County.

We had a corn fair last fall—an exhibition of corn by the pupils, with literary and musical program.—Kent County.

For two hours last night the village of Swansea was dark. No lights shone forth from the windows and the houses for the time being were deserted. Up at the grounds of the public school, however, there was a strange contrast. Here was assembled the whole population and everything was gay and bright. The occasion was the public school annual flower show, and within the large red tent on the campus was as fine a collection of flowers as one could wish to see.—Toronto Globe.

COOPERATION—HOW SOME PEOPLE HELP.

The trustees gave the manure for the plots.

We sold $2.30 worth of produce from the class plots. There was no garden produce wasted or unused.

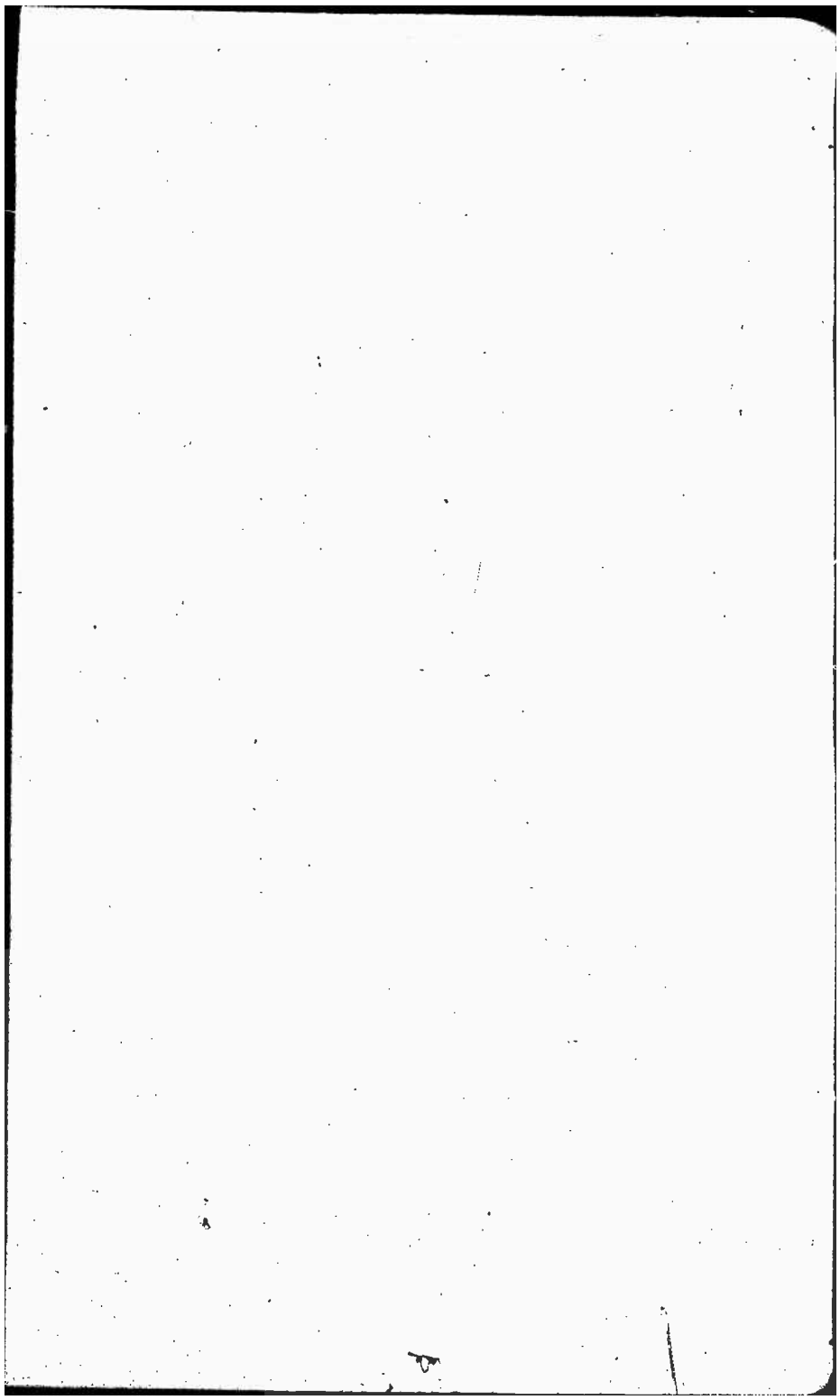
The Women's Institute was interested in the flowers.

The four plots marked X were planted with different varieties of asters given us by one of the trustees. They had the most beautiful flowers on them I ever saw.

We had a number of tomato plants given us and we planted them in an experimental plot.—York County.

PRIZE COLLECTION OF FLOWERS AND VEGETABLES.

This was grown on the grounds of Union School No. 6, Raleigh, Kent County, and won first prize at the local county fair. Hundreds of other school gardens have done just as well.



VI. THE CAUSES OF SLOW PROGRESS IN SCHOOL CONSOLIDATION.

GENERAL STATEMENT.

The above section tells how Ontario is striving to solve the educational problems of modern rural life through its one-teacher schools. The best-taught and best-equipped schools of this type have already done much to improve rural-life conditions; but, after all, teachers of special gift are required to make the small school of the pioneer-day type a vital force in any modern agricultural life. Such teachers are at best few and hard to get for the open country. Ontario is no exception to this rule. Its rural teachers are doing all that can be expected of them under the prevailing school system. The study of agriculture through gardening and home projects furnishes the vitalizing element, yet the fact remains that the average rural school in the Province is unable to offer enough of what is vitally interesting to the larger boys and girls to keep them in school. There, as in the United States, many farm children leave school too early because the open country does not offer the kind of education for life they crave.

There has been little demand for a radical reorganization of the rural schools in Ontario up to the present time. The farmers are conservative and cling tenaciously to the old ways. The schools have made sufficient changes to satisfy all except the most aggressive of the rural population. When the Macdonald movement for school consolidation began in 1904, it was felt by many to have been in advance of the times, on which account it did not meet with the enthusiasm that under other conditions might have been accorded it.

But before discussing the subject of school consolidation in Ontario it may be well to give a somewhat detailed description of a few strong one-teacher schools as they were viewed by the investigator—schools which have made any further reorganization in their own communities seem unnecessary.

SCHOOL SECTION NO. 6, RALEIGH TOWNSHIP, KENT COUNTY.

Kent County lies about 30 miles across from Detroit in a fertile section of the Province. The soil is exceptionally good and well adapted to the grains that are usually found in this latitude. Orchards of apple, pear, and peach are found at many of the prosperous farmsteads which dot the landscape in every direction. The Raleigh School occupies large, well-fenced, well-planned grounds. Shade trees, open lawn, a fringe of flowers along the cement walks, and a well-kept school garden give it a striking setting. On the grounds lie the schoolhouse and teacher's home, the latter being at

this time occupied by the janitor and his family. The schoolhouse is an attractive structure, built of brick, with tile roof, costing $3,500. It is well heated and ventilated. Among other things it has a good rest room for the teacher. The equipment, too, is satisfactory. Outside were window boxes full of seasonable flowers, and Boston ivy gave an added touch of beauty to the schoolhouse walls.

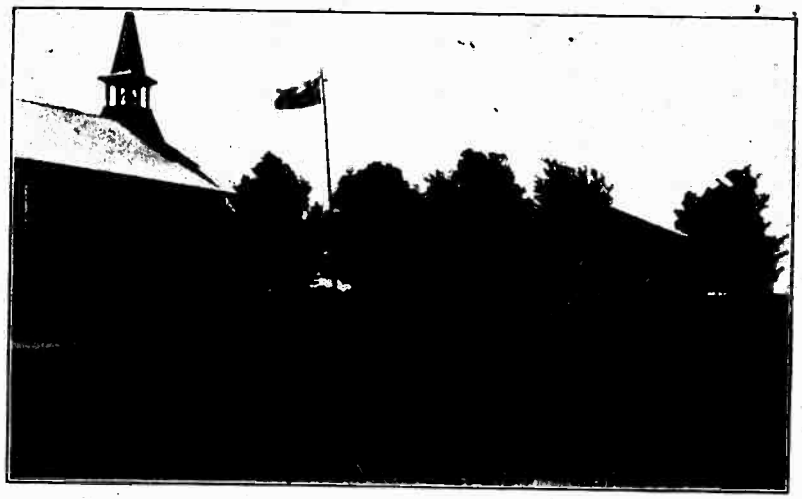
This school has done its best work of instruction through agriculture taught in an informal way. No textbook in agriculture, it will be recalled, is used in these schools. A suggestive outline alone is followed from day to day. The garden was remarkably attractive. Each child had his or her own garden plat, and each was eager to show the visitor what he was growing. All displayed good knowledge of soil culture and the common grains, vegetables, and flowers. The Raleigh School community was proud of its recent first-prize winnings at the annual county fair on an excellent school display of vegetables and flowers. Aside from the county fairs at which most of the schools have displays, interschool fairs are commonly held by groups of rural schools in many of the counties.

The teacher of the Raleigh School, like teachers elsewhere in Canada, spends 10 months of the calendar year in teaching, beginning the school year on the 1st of September. Any change in instructors will accordingly occur, as a rule, at the commencement of the fall term. The teacher who closes the spring term of school is held responsible for the upkeep of the garden during the short summer vacation. In the Raleigh School the children had a voluntary organization which maintained the gardens and lawns in the teacher's absence. Occasionally one will find a neglected Ontario school garden at the opening of the fall term, but this is exceptional. It should be added here that the Raleigh teacher is a graduate in agriculture from the Ontario Agricultural College, in addition to holding a diploma from one of the normal schools. Such well-prepared, long-tenure teachers become real community leaders, who master in a large measure the usual obstacles of the small school in its work of rural socialization.

TEACHERS' HOMES.

Unfortunately it is not usual to find teachers' homes erected on the premises of the Ontario rural schools. Some communities organized in the early days by Scotch Presbyterians have substantially built schoolhouses, each with its teacher's cottage, as was the custom in the old country across the sea. Wellington County has a number of such schools, and so happily do they work for community welfare that the entire Province can well profit by imitation.

The first one of the group to come to the investigator's attention lies about 4 miles from Guelph in school section No. 1, Eramosa

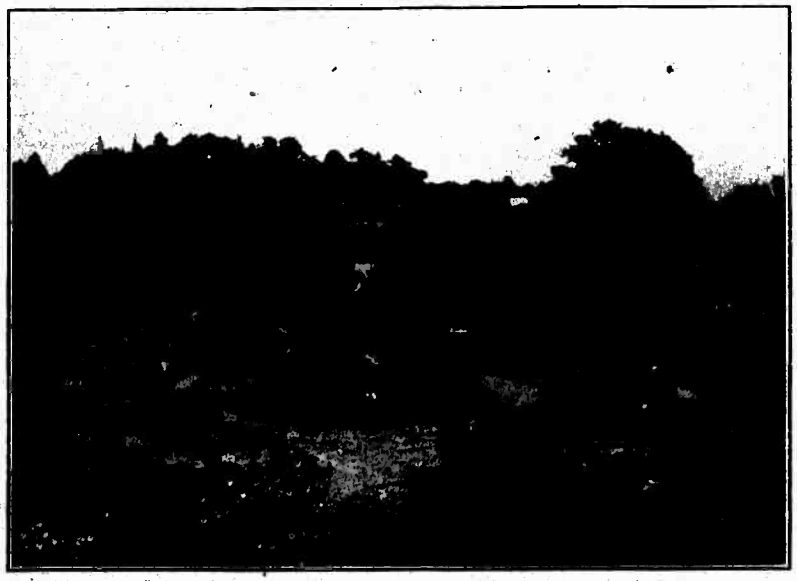


A. WATSON'S SCHOOL, GUELPH TOWNSHIP, WELLINGTON COUNTY.
The teacher's cottage and garden are shown in the immediate foreground.

B. SCHOOL IN ERAMOSA TOWNSHIP, WELLINGTON COUNTY.
Equipped with teacher's cottage.

A. A VIEW OF THE RITTENHOUSE SCHOOL GARDEN.

Such gardens would be possible in the average rural community of the United States if the school year began in January instead of in September.



B. ANOTHER INTERESTING VIEW OF THE SAME GARDEN.

Township. The schoolhouse is substantially constructed of native stone and, while comfortable and heated with a good ventilating stove, is of the old type of architecture. The teacher in charge of the school was a young woman of broad experience. She made her home at the teacher's cottage, living with her mother as housekeeper. The latter also manifested a great delight in caring for the flowers and shrubbery on the grounds and assisting in the garden work. This teacher was a natural community leader who, living as she did in the midst of her people, was able to make use of these gifts to a large degree.

School section No. 2, Guelph Township, is the center of another very interesting school. It is usually known as Watson School. The premises are well fenced and contain a large schoolhouse, a teacher's home, and large sheds for teams. There are large playgrounds and an interesting garden used in common by the teacher and the school. These structures, too, are built of native stone and are substantial. The entire basement of the school is utilized. A part of it is used for furnace and fuel, another is occupied by the agricultural laboratory, and the rest is used for play purposes. On the first floor is a well-equipped library and shelves containing much material such as one should expect to find in a real community school. The school is the social center of the whole community.

The teacher and his young wife live here throughout the year. The teacher, indeed, told the investigator that he could not have continued in the profession in the open country had it not been for this teacher's home and what it meant to his family life. And so it is in many other places. Here the teacher dwelt in the community 12 months of the year. He was Sunday school superintendent and the accepted leader in agricultural and educational affairs. His avocation in this instance was the breeding of fine poultry, which are known as winners in many parts of the Province.

Only a short distance from Watson School lies the Marden School which similarly has been a vital force in community leadership. Here, too, the thoughtful early settlers had reared a substantial home for the teacher and his family and close by had set a good school house in the midst of large grounds. The school garden and experimental plats were perhaps as interesting as any seen upon the trip. Careful experiments were carried out in soil culture and rotation of crops. One large school garden took the place of the usual individual plats. A good sized area was devoted to the culture of evergreen and deciduous trees and shrubbery, native and exotic, which had been provided through the Ontario College of Agriculture. These, as they grow up, are being distributed among the patrons of the school. In this way as in many others the local school is a link between the college of agriculture and the farm homes.

RITTENHOUSE SCHOOL.

The Rittenhouse School, Lincoln County, is one of the most attractive schools in all Ontario. It is a community center in the truest sense of the word, offering exceptional educational advantages for the children and educational and social opportunities for their parents. The district is legally designated as Union School Section No. 1, Clinton, and No. 2, Louth, but is more commonly known as the Rittenhouse School from its benefactor, Mr. Moses F. Rittenhouse, of Chicago. The school lies in the Niagara fruit belt about 1 mile from Jordan Harbor and the same distance from Vineland railway station. The school ground comprises 4 acres of which 1 acre is used for a school garden. The grounds are adorned with native and imported trees and shrubs. Flower beds, low hedges, and a bubbling fountain adorn the front yard. The playgrounds are large and equipped for both summer games and winter sports.

The school is an attractive brick-and-stone trimmed structure. Its equipment is as complete as is found in the best of town schools. It has a concrete basement, one part of which is used for manual training purposes and the other as playroom for the children in winter time. A hot-water furnace and lavatories for the children also occupy a portion of the basement. The main floor contains two well-equipped classrooms and a library room. The former are seated with single desks; the floor is covered with linoleum and the walls are hung artistically with pictures. The library boasts a well-selected book collection of more than 2,000 volumes, including the best reference books, books on art, and the leading British, Canadian, and American periodicals. A part of one of the classrooms contains an excellent museum with interesting archæological collections and collections of birds and wild animals, minerals, plants, etc.

The school has 2 teachers and 45 pupils, ranging from the primary to the tenth grade. The literary subjects are thoroughly taught, as are also the various phases of vocational work such as sewing and constructive work for the girls, manual training for the boys, and agriculture and school gardening for all the classes.

The Rittenhouse Garden serves the double purpose of a nature laboratory for the children and cooperative experiment ground for the patrons, especially in the best varieties of tomatoes for the district. This 1-acre garden has been maintained year after year at a surprisingly low cost. Mr. Harvey M. Gayman has written so interestingly on this and other phases of the Rittenhouse Garden activities that he is quoted at some length below. He writes:

> Now that our garden is well established, we can conduct one such as the illustrations suggest for the small sum of the ordinary school grant for that purpose, which is $30 per year.

When so many avenues are open to assist rural schools, it should be comparatively easy for most sections to have at least one-eighth of an acre, which could be used for experimental purposes.

This, along with the yard proper, which should include flower-beds, shrubs, and lawn, will give sufficient work for the average school. No doubt in many sections, where the land is clayey, one-sixteenth of an acre or less could be used to better advantage than a larger area.

We must not err by thinking that a beautiful garden is essential to school gardening, or that area is the principal consideration. The best lessons may be taught in gardens, which may not be brought before the eyes of the public. The tendency with some teachers is to attempt too much. If the pupils are with one teacher four years or more, they will become familiar with all phases of garden work.

As to the time spent, we have devoted about two spaces of 45 minutes each Tuesday and Thursday, each teacher taking a number of pupils at different periods. If it is excessively hot we change the day. We spend about one day to get the plots ready and plant them. There is no fast rule to make regarding the time one might profitably spend at this work, but rather than discourage this new subject on our curriculum we should be judicious.

About Arbor Day, if the weather is favorable, we devote this time for the preparation of our individual plots, which are 6 by 10 feet, for the third, fourth, and fifth classes. These are divided and subdivided for the first and second classes. Each child levels and gets his own seed bed in good condition for sowing. Then he cleans the paths around his plot. If weather conditions are unfavorable, we postpone our Arbor Day until a suitable time. This day gives most work, and here a gardener, laborer, or willing hand is needed to assist in the rough and heavy work.

A few months before garden work we try to interest the pupil in his plot, and the planning of the same, by a series of lessons bearing on planting and germination. The child should have his plans worked out in his exercise book. Last year each child in the third, fourth, and fifth classes was allowed to plant in his own garden what pleased him best. By this method each child showed his individuality, and results were quite satisfactory.

Across the road from the school lies Victoria Hall. It is in the midst of a 5-acre tract of woodland and open lawn, all of it being used for community center purposes. Just beyond the hall are ample sheds for horses; on the grounds are a bandstand, swings for the children, benches, table, and stands for community gatherings of every kind. The hall, in the annex of which a carekeeper and his family lives, is used for lectures, school entertainments, musicales, women's meetings, Y. M. C. A. gatherings, and the like.

Nine acres are here dedicated to rural community interests, most of which was made possible through the generosity of a native son who had not forgotten his old home after he had amassed a fortune in the United States. The Rittenhouse community, indeed, is a striking object lesson which men of means might well emulate elsewhere.

THE MACDONALD EDUCATIONAL MOVEMENT.

Sir William C. Macdonald, of Montreal, is known as a particular benefactor of the Canadian farm folk. He was among the first to see the importance of the right kind of education in modern agri-

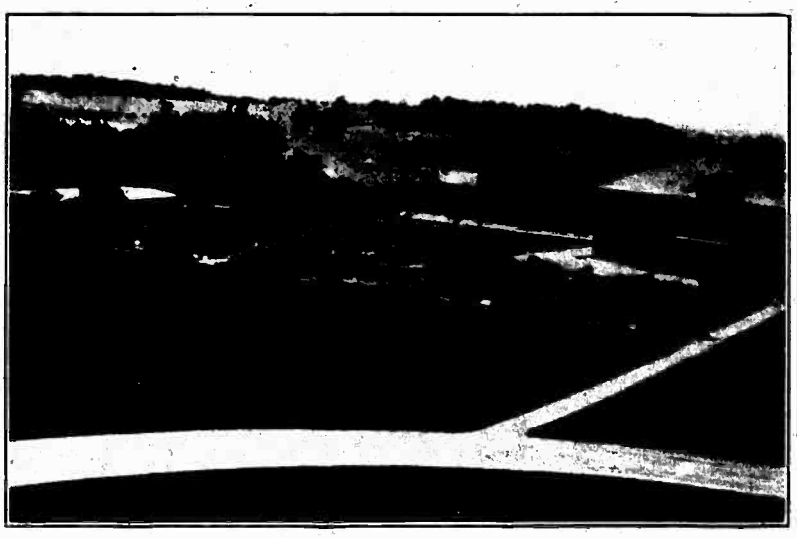
cultural life. He became eager to combine broad culture with thorough preparation for practical living. The rural schools did not seem to him close enough to the problems of everyday life. He wanted the head, heart, and hand education. To this end he determined to establish certain funds to be used in promoting agriculture and other industrial education throughout Canada. "The Macdonald Movement," as it is termed, has really been a series of striking object lessons of great value to all the people of the Dominion. It has pointed the way in much that was new and untried and has stimulated to greater effort in the old and tried.

The Macdonald manual-training fund dates back to 1898. It established manual-training centers in connection with the public schools in 21 places throughout Canada. These were maintained entirely free of cost to the people for a period of three years, at the end of which time there were 45 manual-training instructors employed, with more than 7,000 boys in their classes. It is fair to say that much of the interest manifested in manual training in Canada at the present time is traceable to this great object lesson.

The Macdonald-Robertson Seed Growers' Association received its start from this manual-training fund. Mr. James W. Robertson, who later became Mr. Macdonald's personal representative in his benevolent works, had found the results of a seed-grain competition, in which he had ventured $100 in prizes, so satisfactory that he induced Sir William Macdonald to use $10,000 of the fund for this purpose. The young competitors were obliged to pick each year by hand the choicest heads from the most vigorous plants of wheat and oats in sufficient quantity to obtain seed to sow a quarter of an acre the following year. As a result, several hundred grain plots were soon established. This was the beginning of the present Canadian Seed Growers' Association which has been of incalculable value in improving seed grains, etc., throughout the Dominion.

Among the other Macdonald funds to be mentioned are the Macdonald rural-school fund for the establishment of school gardens and consolidated schools. The Macdonald Hall and Institute fund, out of which was established and equipped the industrial institute at Guelph, and finally the fund for the establishment of Macdonald College at Ste. Anne de Bellevue, Quebec, which is the crowning effort in the list of benefactions.

Of these funds, the Macdonald rural-schools fund is of most direct interest at this point. Under it arrangements were made for establishing a school garden at each of five schools in each of five Provinces. One garden specialist was placed in charge of each group of five gardens. This man had received expert training for the work at Cornell University, the University of Chicago, the Ontario Agricul-



A. THE MACDONALD CONSOLIDATED SCHOOL AND GARDEN, GUELPH, ONTARIO.
This photograph was taken from the rear in order to show the individual plats to best advantage.

B. TEACHERS-IN-TRAINING AT GUELPH PREPARING THEIR GARDEN PLATS.
Macdonald Institute in the background.

tural College, and elsewhere. No doubt much of the present success in public-school gardening can be traced to the Macdonald school-garden movement.

In much the same way four well-equipped consolidated rural schools were established, one in each of the four Provinces—Ontario, New Brunswick, Nova Scotia, and Prince Edward Island. In this instance Mr. Macdonald paid for a period of three years the additional expense of the consolidated school over the former cost of the small rural schools. As a further inducement, a new contribution of $1,200 a year for a second three years was made to each of the four schools to assist the communities in adjusting themselves to meet the cost of maintenance. The schools were all set in ample grounds and given a good equipment of laboratories, manual-training shop, and household-science kitchen, together with classroom facilities in the general school subjects and nature study. Perhaps the most interesting part of the outdoor facilities of the schools were the gardens. The Macdonald rural-schools fund amounted to about $261,600.

THE MACDONALD SCHOOL AT GUELPH.

The Macdonald Consolidated School for the Province of Ontario was established at Guelph in 1904. The fine, commodious brick building lies in ample grounds adjoining Macdonald Hall and Institute on the one side and the Ontario Agricultural College proper on the other. It has an ideal atmosphere for farm children aside from the fact that many of them are obliged to come through the city of Guelph on their way to school. This may be considered an unfortunate circumstance inasmuch as the intervening city did not permit of the organization of a compact consolidated district. This one thing as much as anything else, perhaps, led to the school's partial undoing a little later. Five districts were consolidated. Three of these later withdrew, but not because of the increased burden of taxation which the majority of taxpayers felt was not too high when the increase in educational advantages under the new system was taken into consideration. The three districts withdrew, it is maintained, partly because of the above-mentioned lack of compactness and partly through the machinations of some disgruntled individuals of the community who were opposed to all innovations. Then, too, the people of the community, who are naturally conservative, hardly felt the need of the new school, believing their children were getting all the education they needed in the old one-teacher schools.

The school is doing good work in elementary agriculture. The children's individual gardens and the school experiment plats are exceptionally well used. The work in home economics and manual

training is likewise of high grade. In 1913 the school had an enrollment of 193. Of these pupils 29 studied agriculture, 37 home economics, and 29 manual training. Five teachers are required. The school building with equipment has cost $27,000.

OTHER CONSOLIDATED SCHOOLS.

Another consolidated school has been organized at Tamworth in Addington County. In 1913 this school was attended by 130 pupils. The value of the school property is about $12,000. This school has not yet been able to offer courses in the vocational subjects.

Still another consolidation has taken place in the Timiskaming district, known as the Hudson Consolidated School. Its attendance, however, is small and the school does nothing of mark to distinguish it from the average small school.

NEED OF REORGANIZATION.

Leading educators of the Province are beginning to realize that the one-teacher school, even under the best conditions, can not fully solve the problem of modern education in the country. The introduction of elementary agriculture has worked great improvement; but alone and unassisted by higher schools it can not offer the growing youth what they need to prepare for most satisfactory living.

It is true the model consolidated school, erected at Guelph as a demonstration of what the new kind of school should do for a community, has not been entirely successful. But this partial failure is due to such evident mistakes in organization that it should discourage no one. The fact remains that Ontario does not offer rural children secondary school facilities without going away from home to seek them. And the town and village high schools are but poorly adapted to give farm people the education they need.

It was pointed out elsewhere in the bulletin that the small district organization in Ontario is just as unsatisfactory as in the United States. There can be little progress in consolidation before a new unit is adopted. The township is probably the best for this purpose in Ontario. The people are not ready to abolish such of the small schools as are doing good elementary school work. While nothing definite has been proposed as yet, the new scheme will probably include the erection of a township high school in each civic township, using the small schools as feeders and directing their activities. The plan will probably prove similar to the Minnesota Associated Schools, under which the central high school directs all the work in the one-teacher schools. Such an association might, in time, lead to the abandonment of the small schools, one after another, as the need should be felt. The central high school would, of course,

have special teachers in agriculture, domestic science, and manual training who would not alone meet the needs of the pupils in the high school and the outlying schools in these subjects, but who would project the new work into every farm home as well through short courses and home project enterprise.

VII. PREPARATION, SALARIES, AND TENURE OF TEACHERS.

TEACHER EFFICIENCY.

The progress made in the rural schools of Ontario is explainable chiefly through the increasing efficiency of the teachers. The department of education has succeeded particularly well the last five or six years in supplying the schools with well-prepared teachers. This has come about chiefly (1) by offering better remuneration as an inducement for teaching in the country through the system of special grants, and (2) by increasing the professional requirements of the teachers.

Some educators insist that with increased salaries it should not be difficult to secure strong teachers, while others maintain that as soon as the teachers have secured this professional preparation the salaries are sure to advance, because teachers generally get what they are worth. It is safer, no doubt, to attack the problem from both ends, as Ontario is doing, and offer special salary inducements and at the same time increase the professional requirements.

HISTORY OF TEACHER TRAINING.

The teachers are ranked, respectively, as third, second, and first class. Teachers of the third class include all who hold local certificates from the so-called "old county boards." These teachers, fortunately, are decreasing in number year by year. Other teachers of the third class are the graduates from the model schools, which, in many respects, resemble the American teacher-training classes in high schools. These, too, are less numerous than formerly. The teachers of the second class come from the provincial normal schools and form the most important supply for the progressive rural schools.

The teachers of the first class are graduates from the faculties of education of Toronto and Queen's Universities. They become teachers in the secondary schools or fill the better positions in the larger graded schools of the larger towns and of the cities.

The supply of teachers required year by year to fill the vacancies that occur is considerably smaller than in the United States on the basis of the total number of teachers. Because of this the whole

number of student teachers in attendance at the professional schools at any one time will seem quite small. Thus, there were, in 1913, 350 students in the faculties of education, 1,186 in the seven normal schools, and 362 in the 11 model schools.

Table 7 sheds some additional light on teacher certification in the Province:

TABLE 7.—*Number and kind of certificates in the elementary schools.*[1]

Year.	Number of teachers.	Male.	Female.	First class.	Second class.	Third class.	Other certificates, including "old county board," etc.	Number of teachers who attended normal school.	Normal college or faculty of education.
1867.....	4,890	2,849	2,041	1,899	2,454	386	151	666	.....
1872.....	5,476	2,626	2,850	1,337	1,477	2,084	578	828	.....
1877.....	6,468	3,020	3,448	250	1,304	3,926	988	1,084	.....
1882.....	6,857	3,062	3,795	246	2,169	3,471	971	1,873	.....
1887.....	7,594	2,718	4,876	252	2,583	3,865	924	2,434	.....
1892.....	8,480	2,770	5,710	261	3,047	4,299	873	3,038	.....
1897.....	9,128	2,784	6,344	343	3,386	4,465	934	3,643	.....
1902.....	9,367	2,294	7,073	608	4,296	3,432	1,031	4,774	.....
1907.....	9,893	1,783	8,110	715	3,847	3,452	1,879	4,587	.....
1911.....	10,542	1,499	9,043	647	6,076	1,695	2,124	6,384	545
1912.....	10,757	1,511	9,246	674	6,419	1,804	1,860	6,705	614

[1] Kindergarten and night-school teachers are not included in this table.

From this it appears that 10,757 teachers were required by the public and separate elementary schools. Of these, 1,511, or 14.04 per cent, were men and 9,246, or 85.96 per cent, were women. In the secondary schools the percentages show marked differences. In the high schools 59.27 per cent of the teachers were men in 1914 and in the continuation schools 31.65 per cent were men in the same year. The percentage of women teachers in these schools is rapdily increasing, however. The most important fact gleaned from the table is the increasingly large number of second-grade teachers. These now number a total of 6,419, having almost doubled since 1907. In the same period of time the third-class certificates have decreased by about one-half of the whole number.

MODEL SCHOOLS.

The system of schools now in use for teachers-in-training is an evolution. As with us in the United States, several expedients have been used and discarded when no longer required. Prior to 1871 nearly all certificates were issued by the so-called "old county boards." These certificates were similar to the county certificates of the United States. One normal school issued provincial certificates.

In 1871 the "new county boards" took the place of the old boards and began issuing second and third class certificates upon questions

prepared by the department of education. Of these certificates, the second class were permanent and good throughout the Province; the third class continued as a temporary local certificate. Gradual improvement was made in teacher certification, especially in 1877, at which time a system of county model schools was organized to prepare third-class teachers.

It had long been felt in educational circles that some professional preparation should be required of all beginning teachers. The model schools were consequently organized for the convenience of those who could not attend the longer terms in the more remote normal schools. The certificates were at first limited to county use and good for three years only, but in 1881 they were made provincial and the county board which issued them was authorized to renew them for three years.

Under the new arrangement all young teachers were required to attend the model schools or enter the normal schools. The model school term was at first limited to 8 weeks, it was later extended to 11 weeks, and finally to 15 weeks. The academic requirements for entrance were also, in time, made the same as for entrance to the normal schools.

The model schools were introduced as a tentative measure only. It was confidently expected that the young teachers getting these certificates would, most of them, wish to continue their studies in the normal schools in order to gain the advantages of a permanent certificate and the increased salaries for second-grade teachers. These expectations, however, were not fulfilled and soon the Province found itself flooded with third-class teachers apparently satisfied to remain as such.

Meanwhile, the normal schools had dropped all academic work and were devoting their entire time to professional preparation. The term was (1903) extended to one school year of 10 months, which also added considerably to the cost of obtaining a second-class certificate and tended to decrease the normal school attendance, while further crowding the model schools.

In 1908 only 26 per cent of the rural teachers held second-grade certificates, while nearly 73 per cent held third-grade certificates. The average age of the teachers was less than 19 years and the average tenure a little more than three years. Under these conditions the department of education determined to discontinue the old model schools.

Meanwhile, the system of grants for teachers' salaries and teachers' certificates was introduced. The effect was wholesome. School trustees began demanding teachers of the second class, with the result that those holding the lower certificate found it advisable to take a normal-school training.

It is interesting to note that the increasing supply of second-grade teachers has already lengthened the term of service in the schools materially, resulting in a decreasing demand for inexperienced teachers. This makes it annually more difficult for teachers with temporary certificates to find employment.

Finally, it should be added, 15 model schools were retained in a reorganized form after the abolition of the old schools. This number has been since reduced to 9, not including the 7 special summer model schools for the training of teachers for the districts and 5 English-French model schools for the training of teachers for bilingual schools. The purpose of these is to provide a lower grade of teachers for the newly settled or other sections which, on account of poverty, might be unable to secure better prepared teachers. It is believed, however, that these schools will be temporary only.[1]

PROVINCIAL NORMAL SCHOOLS.

The normal schools are 7 in number, situated at Hamilton, London, North Bay, Ottawa, Peterborough, Stratford, and Toronto. These institutions differ from American normal schools primarily in this that they devote most of their time to the professional subjects, observation work, and practice school teaching. Where the American schools offer two, three, and four year courses, the Ontario schools have only a one-year course. All the academic subjects must have been completed in the secondary schools. It will be recalled that the normal schools prepare teachers for the elementary schools only.

The normal schools are under the immediate direction of the department of education. Applications for admission must be made direct to the deputy minister. Candidates who have complied with the prescribed entrance requirements will be admitted to one of the seven normal schools to be selected by the minister. By this means it is possible to regulate the attendance of the several schools, all of which utilize an identical course of study prescribed by the department of education.[2]

The entrance requirements fall under two heads, viz, general preliminary, and academic and professional:[2]

GENERAL PRELIMINARY REQUIREMENTS.

"The applicant shall forward with his application to the deputy minister, on official forms supplied by him, the following certificates:

A certificate from competent authority that he will be at least 18 years of age before October 1.

A certificate from a clergyman or other competent authority that he is of good moral character.

[1] See J. J. Tilley. Report relative to the training of teachers, and other matters.
[2] See Syllabus of Regulations and Courses for the Normal Schools, Session 1914-15.

PROVINCIAL NORMAL SCHOOL AT LONDON, ONTARIO.

This is one of seven such schools which prepare "second grade" or elementary teachers.

A certificate from a physician that he is physically able for the work of a teacher and, especially, that he is free from serious pulmonary affection and from seriously defective eyesight or hearing.

ACADEMIC AND PROFESSIONAL REQUIREMENTS.

The candidates for entrance are classed as grade A and grade B.

Grade A.—Those who hold certificates of having passed the full examination for entrance into the normal schools or faculties of education, and who hold third-class certificates, and have taught successfully a public or a separate school for at least one year as certified by an inspector of public or separate schools.

Grade B.—All others who hold certificates of having passed the full examination for entrance to the normal schools or the faculties of education.

The academic entrance requirements may be met by students in the secondary schools who are sufficiently well advanced in their courses to stand the following examinations:

1. LOWER SCHOOL EXAMINATION.

One of the following: (a) Senior high school entrance examination, with the elementary science and agriculture, and bookkeeping and business papers option; (b) the model school entrance examination; (c) the senior public school diploma examination; (d) the departmental examination in the following lower school subjects—

Oral reading, writing, spelling, bookkeeping and business papers, art, elementary science and agriculture, geography, English grammar, and arithmetic and mensuration.

Candidates who take also at the lower school examination the examination prescribed in the lower school course in either manual training, household science, or agriculture and who make at least 50 per cent at the practical examination and in the examination papers, shall have the marks so obtained added as a bonus to the aggregate of their marks on the obligatory subjects.

2. MIDDLE SCHOOL EXAMINATION.

In addition to the examination in the lower school subjects prescribed above, candidates for entrance into a normal school shall pass the departmental examination in the subjects of the middle school of the high school, as follows:

English composition, English literature, British and Canadian history, ancient history, algebra, geometry, physics, and chemistry.

Candidates for entrance into a normal school who take also at the examination the papers in the middle school course either in Latin (the pass matriculation course) or in art, and who make at least 33⅓ per cent on each of such Latin or art papers and 50 per cent of the aggregate of the marks assigned to both papers, shall have the marks so obtained added as a bonus to the aggregate of their marks on the obligatory subjects.

NORMAL SCHOOL COURSE OF STUDY.

The program of studies is the same for all the schools. Some idea of its comprehensiveness may be gained from the following general statement of the requirements for 1914–15:

(a) A thorough review of the public and separate school courses and of the subjects prescribed for admission into the normal schools, especially those of the lower school, from the standpoint of pedagogy and the requirements of the public and separate

schools, with such an extension of said academic subjects as time will permit; also special instruction in reading, writing and bookkeeping, art, physical culture, hygiene, vocal music, household science, manual training, manners.

(b) Those teachers-in-training who have passed in household science as a bonus at the examination for entrance to the normal schools may be exempt from the purely instructional course in sewing and cooking, but such students shall attend all classes dealing with the pedagogy of the subject.

(c) Those teachers-in-training who have passed in manual training as a bonus at the examination for entrance to the normal schools may be exempt from the course in wood-working, but shall take the manual training for Forms I, II, and III of the public and separate schools, and shall attend all classes dealing with the pedagogy of the subject.

2. The science of education, including psychology, child study, and general methodology; the history of education; school organization and management; special methodology.

3. Supervised observation in the model schools, and in the affiliated rural schools of the adjoining county or counties.

4. Supervised practice-teaching in the model schools.[1]

Teacher certification.—The grade A teachers-in-training who have passed satisfactorily the prescribed examinations at the conclusion of the school term, are entitled to permanent second-grade certificates, under certain restrictions; and grade B teachers in training get an interim second-grade certificate which is made permanent after two years' successful experience.

Courses in special methodology.—From the above it appears that the normal schools of Ontario differ materially from normal schools in the United States. The American schools offer academic and professional courses side by side. The subject matter, with us, is not generally limited to elementary courses, nor are the schools limited to preparing elementary teachers. A great many of the schools vie with the college and university schools of education in preparing teachers for secondary and higher institutions. As to whether our system is altogether a wise one there may be some difference of opinion.

It must not be understood, however, that the Ontario teachers-in-training do not get a great deal of valuable academic information in their year's work. Besides the careful review of the elementary subjects mentioned above, much time is devoted to special methodology. This course is primarily intended to enable the student teachers to apply the principles of education, and to adapt the principles of general school methods to classroom practice.

The various subjects of the curriculum are considered, one after another, in these relations; but at the same time the student's academic knowledge is rounded out and becomes deeper rooted. The courses comprise a careful consideration of language and composition, reading, spelling, literature, and grammar; history; nature study and agriculture, and elementary science; arithmetic, algebra,

[1] See Syllabus of Regulations and Courses for the Normal Schools, session 1914-15.

and geometry; writing and art work; manual training and household science; music; physiology and hygiene; and manners.

TEACHING AGRICULTURE.

The normal schools give good courses in household science and manual training, with some work in agriculture and school gardening. They are generally equipped with gardens and experimental plots.

At the same time it is felt that the most satisfactory preparation for teaching agriculture can be secured at the Ontario Agricultural College, with its large equipment and agricultural atmosphere. Accordingly, all the normal school graduates who are ambitious to get the elementary certificate in agriculture and horticulture must spend some time in study at Guelph.

Spring and summer courses.[1]—The special courses for teachers at Guelph are open to actual teachers only, who hold professional certificates qualifying them to teach in the schools of the provincial system. The special certificate is granted only to candidates who have completed either the spring course (10 weeks) or two summer courses (five weeks each).

Special inducements to attend.—The department of education, realizing the great importance of the courses, undertakes to repay students in the spring courses all necessary outlays for board and lodging and traveling expenses incident to attendance upon the course, provided the student is willing to bind himself to teach for three years in the Province immediately after completing the work; or, in case of unforeseen failure to do so, agrees to make a complete refund. The spring course has been provided for grade A teachers who were graduated from the normal schools at Easter. In the case of teachers attending the summer courses the railway expenses only are allowed. In both cases there are no tuition fees for Ontario teachers.

What the courses comprise.—The courses are extremely practical. Instruction is given in lecture room, laboratory, workshop, garden, and field. All the theory and laboratory work is illustrated by outdoor practice. There is very little book study. For observation purposes the college and its entire equipment is utilized. Every student is provided with a garden for practice and observation. He must visit it each day and keep full records of all work and observations in a garden journal. The student is held responsible for the success or failure of the garden work. In general the mornings are devoted to indoor work and the afternoons to work in the fields and woods.

The courses are very comprehensive, including all the phases of agricultural life which are essential to a teacher's success in the average farm community. The spring courses comprise the following: Rural

[1] See spring and summer courses and examinations in 1914 for teachers' certificates.

school administration and methods of teaching; farm life and rural needs; nature study and agricultural literature; school gardening; botany, embracing economic plants, weeds, and plant diseases; horticulture, embracing fruit growing, vegetable gardening, landscape gardening and floriculture; field husbandry; farm animals; soil physics, entomology, soil chemistry; and bacteriology.

The summer courses differ somewhat from the above because of the shorter time devoted to the work. During the first summer session a special study is made of the following: Plant studies, including school gardening; agricultural horticulture, plant propagation, and botany; animal studies dealing with insects, birds, and farm animals; physical nature dealing with soils, weather, and astronomy. During the second summer session the work embraces school gardening, botany, field husbandry, horticulture, physics, agricultural chemistry, bacteriology, entomology, and beekeeping.

In addition to the above, candidates for the certificate are required to read and make a synopsis of at least three books in the interval between the two summer sessions. These books may be selected from a list of three groups compiled for that purpose. These books deal with agricultural and rural life.

In 1913 this scheme of teacher-training was extended to include courses for high-school science men. Their courses lead to the intermediate certificate in agriculture and the plans under development are for the teaching of agriculture in high schools along similar lines to those developed for the elementary schools.

Rural teachers' and inspectors' conferences.—A rural teachers' conference was held during the last week of the summer session of 1914. Every county teachers' association in the Province was requested to send two delegates selected from the rural and village teachers. Of these one must be a teacher who had received special training in agriculture at Guelph and the other a teacher who had not had such training. In both cases these teachers must be carrying on school gardening and teaching agriculture. The delegates' expenses for traveling and board were in every instance paid by the department of education. They were trained to carry on a propaganda amongst their fellow teachers at teachers' institutes. These sessions were devoted to practical round-table talks, addresses by specialists on agricultural and rural subjects, and in practical field work.

In 1913 the school inspectors to the number of 80 were brought together at the agricultural college also for a week's short course. In this they were specially instructed in the new needs of agriculture and rural life and discussed plans for rural education betterment in general. It is proposed to hold a two-weeks' course during the summer of 1915.

REMUNERATION OF TEACHERS.

The teachers of Ontario receive better pay than do American teachers. But even as it is, their salaries have scarcely kept pace with the scale of remuneration in other professions.

The following table gives the salaries for the teachers in the elementary schools by periods of years from 1867 to 1912, including the highest salary, the average salary, and salaries of city, town, village, and rural teachers taken separately:

TABLE 8.—*Average salaries.*

Year.	Highest salary paid.	Average salary, male teacher, Province.	Average salary, female teacher, Province.	Average salary, male teacher, cities.	Average salary, female teacher, cities.	Average salary, male teacher, towns.	Average salary, female teacher, towns.	Average salary, male teacher, incorporated villages.	Average salary, female teacher, incorporated villages.	Average salary, male teacher, rural schools.	Average salary, female teacher, rural schools.
1867.....	$1,350	$346	$226	$532	$243	$464	$240	.....	.....	$261	$189
1872.....	1,000	360	228	628	245	507	216	.....	.....	305	213
1877.....	1,100	398	264	735	307	583	269	.....	.....	379	251
1882.....	1,100	415	269	742	331	576	273	.....	.....	385	248
1887.....	1,450	425	292	832	382	619	289	.....	.....	398	271
1892.....	1,500	421	297	894	402	648	298	.....	.....	383	269
1897.....	1,500	391	294	892	425	621	306	.....	.....	347	254
1902.....	1,600	436	313	936	479	667	317	.....	.....	372	271
1907.....	1,900	596	420	1,157	592	800	406	$659	$372	458	379
1911.....	2,200	767	518	1,395	706	963	496	733	463	536	464
1912.....	2,200	788	543	1,320	703	977	519	779	492	566	493

The average salary of male teachers in rural schools shows an increase of $108 since 1907, while that of female teachers shows an increase of $114. There is every reason to believe that similar increases have been maintained since 1912, when the last official compilation was made. The figures for the secondary schools show large increases also. In 1913 the average salary paid to teachers, including male and female, in the collegiate institutes was $1,555, in the high schools $1,252, and in the continuation schools about $800.

TEACHER TENURES INCREASING.

Rural teacher tenures have increased in length in direct ratio to the increase in number of professional certificates. The average experience in years of all male teachers (1912) was 11.81 years; of all female teachers, 7.41 years; and of all teachers, 8.06 years. The second-grade teachers, from whose ranks the most proficient and best paid rural teachers are drawn, make an exceptionally good showing. The average experience of the male teachers of this class was 14.72 years; of the female teachers, 9.16 years, while the two sexes in the third-grade class stood, respectively, at 5.39 years and 4.96 years, and all other temporary certificates showed only 1.36 years and 1.75 years.

From all that has been said above it is self-evident that professional preparation, salaries, and length of experience depend on one another, and all are essential to school welfare.

LIST OF REFERENCES ON RURAL EDUCATION IN ONTARIO.

Agricultural Gazette of Canada, vol. 1, nos. 6 and 7, June and July, 1914. Ottawa, Canada, Department of Agriculture.

Canadian Seed Growers' Association and its work. Ottawa, Ontario. 4 p.

McCready, S. B. Present status of agricultural education in Canada. Rome, Italy. 8 p. (International Institute of Agriculture.)

Ontario Agricultural College Review, vol. 26, no. 10, July, 1914. Guelph, Canada, Ontario Agricultural College Publication Association. p. 460–506.

Ontario. Department of Education. Acts. Toronto, 1909. 174 p.

——— ——— Agricultural education. Toronto, 1913. 36 p. (Bulletin no. 3, 1913.)

——— ——— ——— Toronto, 1913. 16 p. (Bulletin no. 5, 1913.)

——— ——— Elementary agriculture and horticulture. Toronto, 1913. 18 p. (Circular 13.)

——— ——— Elementary agriculture and horticulture, and school gardens. Toronto, 1912. p. 39. (Circular 13, 1912.)

——— ——— English-French schools, certificates, and summer and model schools. Toronto, 1912. 4 p. (Circular 31, 1912.)

——— ——— Improvement of school grounds. Toronto, 1908. 35 p.

——— ——— List of reproductions of works of art. Toronto, 1914. 31 p. (Educational pamphlets, no. 5, 1914.)

——— ——— The normal schools. Syllabus of regulations and courses. Toronto, 1912. 31 p.
Syllabus session; 1912–13; and session, 1914–15.

——— ——— Official calendar for the year 1914. Toronto, 1913. 8 p.

——— ——— Public and separate schools, and teachers in the Province of Ontario, for the year ending June, 1914. Toronto, 1914. 378 p.

——— ——— Public school inspection, duties of inspectors in county and joint inspectorates. Toronto, 1910. 6 p.

——— ——— Regulations and courses of study for the high schools and collegiate institutes, 1911. Toronto, 1911. 60 p.

——— ——— Spring and summer courses and examinations in 1914. Toronto, 1914. 74 p.

——— ——— Teachers' institutes, statutory provisions, and departmental regulations. 6 p. (Circular 12, 1912.)

——— Minister of Education. Report for the year 1913. Toronto, 1914. 822 p.

Rittenhouse school and gardens, Jordan Harbor, Lincoln County, Ontario. Toronto, 1911. 79 p.

Tilley, J. J. Report relative to the training of teachers and other matters. Toronto, 1914. 17 p.

BULLETIN OF THE BUREAU OF EDUCATION.

[NOTE.—With the exceptions indicated, the documents named below will be sent free of charge upon application to the Commissioner of Education, Washington, D. C. Those marked with an asterisk (*) are no longer available for free distribution, but may be had of the Superintendent of Documents, Government Printing Office, Washington, D. C., upon payment of the price stated. Remittances should be made in coin, currency, or money order. Stamps are not accepted. Number omitted.

1906.

*No. 3. State school systems: Legislation and judicial decisions relating to public education, Oct. 1, 1904 to Oct. 1, 1906. Edward C. Elliott. 15 cts.

1908.

*No. 5. Education in Formosa. Julean H. Arnold. 10 cts.
*No. 6. The apprenticeship system in its relation to industrial education. Carroll D. Wright. 15 cts.

1909.

*No. 1. Facilities for study and research in the offices of the United States Government in Washington. Arthur T. Hadley. 10 cts.
*No. 2. Admission of Chinese students to American colleges. John Fryer. 25 cts.
*No. 3. Daily meals of school children. Caroline L. Hunt. 10 cts.
No. 5. Statistics of public, society, and school libraries in 1908.
*No. 6. Instruction in the fine and manual arts in the United States. A statistical monograph. Henry T. Bailey. 15 cts.
No. 7. Index to the Reports of the Commissioner of Education, 1867-1907.
*No. 8. A teacher's professional library. Classified list of 100 titles. 5 cts.
*No. 9. Bibliography of education for 1908-9. 10 cts.
No. 10. Education for efficiency in railroad service. J. Shirley Eaton.
*No. 11. Statistics of State universities and other institutions of higher education partially supported by the State, 1908-9. 5 cts.

1910.

*No. 1. The movement for reform in the teaching of religion in the public schools of Saxony. Arley B. Show. 5 cts.
No. 2. State school systems: III. Legislation and judicial decisions relating to public education, Oct. 1, 1908, to Oct. 1, 1909. Edward C. Elliott.
*No. 5. American schoolhouses. Fletcher B. Dressler. 75 cents.

1911.

*No. 1. Bibliography of science teaching. 5 cts.
*No. 2. Opportunities for graduate study in agriculture in the United States. A. C. Monahan. 5 cts.
*No. 3. Agencies for the improvement of teachers in service. William C. Ruediger. 15 cts.
*No. 3. Agencies for the improvement of teachers in service. William C. Ruediger. 15 cts.
*No. 4. Report of the commission appointed to study the system of education in the public schools of Baltimore. 10 cts.
*No. 5. Age and grade census of schools and colleges. George D. Strayer. 10 cts.
*No. 6. Graduate work in mathematics in universities and in other institutions of like grade in the United States. 5 cts
No. 9. Mathematics in the technological schools of collegiate grade in the United States.
*No. 13. Mathematics in the elementary schools of the United States. 15 cts.
*No. 14. Provision for exceptional children in the public schools. J. H. Van Sickle, Lightner Witmer, and Leonard P. Ayres. 10 cts.
*No. 15. Educational system of China as recently reconstructed. Harry E. King. 10 cts.
No. 19. Statistics of State universities and other institutions of higher education partially supported by the State, 1910-11.

1912.

*No. 1. A course of study for the preparation of rural-school teachers. F. Mutchler and W. J. Craig. 5 cts.
*No. 3. Report of committee on uniform records and reports. 5 cts.
*No. 4. Mathematics in technical secondary schools in the United States. 5 cts.

*No. 5. A study of expenses of city school systems. Harlan Updegraff. 10 cts.
*No. 6. Agricultural education in secondary schools. 10 cts.
*No. 7. Educational status of nursing. M. Adelaide Nutting. 10 cts.
*No. 8. Peace day. Fannie Fern Andrews. 5 cts. [Later publication, 1913, No. 12. 10 cts.]
*No. 9. Country schools for city boys. William S. Myers. 10 cts.
*No. 13. Influences tending to improve the work of the teacher of mathematics. 5 cts.
*No. 14. Report of the American commissioners of the international commission on the teaching of mathematics. 10 cts.
*No. 17. The Montessori system of education. Anna T. Smith. 5 cts.
*No. 18. Teaching language through agriculture and domestic science. M. A. Leiper. 5 cts.
*No. 19. Professional distribution of college and university graduates. Bailey B. Burritt. 10 cts.
No. 22. Public and private high schools.
*No. 23. Special collections in libraries in the United States. W. D. Johnston and I. G. Mudge. 10 cts.
No. 27. History of public-school education in Arkansas. Stephen B. Weeks.
*No. 28. Cultivating school grounds in Wake County, N. C. Zebulon Judd. 5 cts.
No. 29. Bibliography of the teaching of mathematics, 1900–1912. D. E. Smith and C. Goldziher.
No. 30. Latin-American universities and special schools. Edgar E. Brandon.

1913.

No. 1. Monthly record of current educational publications, January, 1913.
*No. 2. Training courses for rural teachers. A. C. Monahan and R. H. Wright. 5 cts.
*No. 3. The teaching of modern languages in the United States. Charles H. Handschin. 15 cts.
*No. 4. Present standards of higher education in the United States. George E. MacLean. 20 cts.
*No. 6. Agricultural instruction in high schools. C. H. Robison and F. B. Jenks. 10 cts.
*No. 7. College entrance requirements. Clarence D. Kingsley. 15 cts.
*No. 8. The status of rural education in the United States. A. C. Monahan. 15 cts.
*No. 12. The promotion of peace. Fannie Fern Andrews. 10 cts.
*No. 13. Standards and tests for measuring the efficiency of schools or systems of schools. 5 cts.
*No. 16. Bibliography of medical inspection and health supervision. 15 cts.
*No. 18. The fifteenth international congress on hygiene and demography. Fletcher B. Dresslar. 10 cts.
*No. 19. German industrial education and its lessons for the United States. Holmes Beckwith. 15 cts.
*No. 20. Illiteracy in the United States. 10 cts.
*No. 22. Bibliography of industrial, vocational, and trade education. 10 cts.
*No. 23. The Georgia club at the State Normal School, Athens, Ga., for the study of rural sociology. E. C. Branson. 10 cts.
*No. 24. A comparison of public education in Germany and in the United States. Georg Kerschensteiner. 5 cts.
*No. 25. Industrial education in Columbus, Ga. Roland B. Daniel. 5 cts.
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*No. 30. Education in the South. 10 cts.
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*No. 34. Pension systems in Great Britain. Raymond W. Sies. 10 cts.
*No. 35. A list of books suited to a high-school library. 15 cts.
*No. 36. Report on the work of the Bureau of Education for the natives of Alaska, 1911–12. 10 cts.
No. 37. Monthly record of current educational publications, October, 1913.
*No. 38. Economy of time in education. 10 cts.
No. 39. Elementary industrial school of Cleveland, Ohio. W. N. Hailmann.
*No. 40. The reorganized school playground. Henry S. Curtis. 10 cts.
*No. 41. The reorganization of secondary education. 10 cts.
No. 42. An experimental rural school at Winthrop College. H. S. Browne.
*No. 43. Agriculture and rural-life day; material for its observance. Eugene C. Brooks. 10 cts.
*No. 44. Organized health work in schools. E. B. Hoag. 10 cts.
No. 45. Monthly record of current educational publications, November, 1913.
*No. 46. Educational directory, 1913. 15 cts.
*No. 47. Teaching material in Government publications. F. K. Noyes. 10 cts.
*No. 48. School hygiene. W. Carson Ryan, jr. 15 cts.
No. 49. The Farragut School, a Tennessee country-life high school. A. C. Monahan and A. Phillips.
*No. 50. The Fitchburg plan of cooperative industrial education. M. R. McCann. 10 cts.
*No. 51. Education of the immigrant. 10 cts.
*No. 52. Sanitary schoolhouses. Legal requirements in Indiana and Ohio. 5 cts.
No. 53. Monthly record of current educational publications, December, 1913.
No. 54. Consular reports on industrial education in Germany.
No. 55. Legislation and judicial decisions relating to education, October 1, 1909, to October 1, 1912. James C. Boykin and William R. Hood.

No. 58. Educational system of rural Denmark. Harold W. Foght.
No. 59. Bibliography of education for 1910–11.
No. 60. Statistics of State universities and other institutions of higher education partially supported by the State, 1912–13.

1914.

*No. 1. Monthly record of current educational publications, January, 1914. 5 cts.
No. 2. Compulsory school attendance.
*No. 3. Monthly record of current educational publications, February, 1914. 5 cts.
No. 4. The school and the start in life. Meyer Bloomfield.
No. 5. The folk high schools of Denmark. L. L. Friend.
No. 6. Kindergartens in the United States.
No. 7. Monthly record of current educational publications, March, 1914.
No. 8. The Massachusetts home-project plan of vocational agricultural education. R. W. Stimson.
No. 9. Monthly record of current educational publications, April, 1914.
*No. 10. Physical growth and school progress. B. T. Baldwin. 25 cts.
*No. 11. Monthly record of current educational publications, May, 1914. 5 cts.
*No. 12. Rural schoolhouses and grounds. F. B. Dressler. 50 cts.
No. 13. Present status of drawing and art in the elementary and secondary schools of the United States. Royal B. Farnum.
No. 14. Vocational guidance.
No. 15. Monthly record of current educational publications. Index.
*No. 16. The tangible rewards of teaching. James C. Boykin and Roberta King. 50 cts.
No. 17. Sanitary survey of the schools of Orange County, Va. Roy K. Flannagan.
No. 18. The public school system of Gary, Ind. William P. Burris.
No. 19. University extension in the United States. Louis E. Reber.
No. 20. The rural school and hookworm disease. J. A. Ferrell.
No. 21. Monthly record of current educational publications, September, 1914.
No. 22. The Danish folk high schools. H. W. Foght.
No. 23. Some trade schools in Europe. Frank L. Glynn.
No. 24. Danish elementary rural schools. H. W. Foght.
No. 25. Important features in rural school improvement. W. T. Hodges.
No. 26. Monthly record of current educational publications, October, 1914.
*No. 27. Agricultural teaching. 15 cts.
No. 28. The Montessori method and the kindergarten. Elizabeth Harrison.
No. 29. The kindergarten in benevolent institutions.
No. 30. Consolidation of rural schools and transportation of pupils at public expense. A. C. Monahan.
No. 31. Report on the work of the Bureau of Education for the natives of Alaska.
No. 32. Bibliography of the relation of secondary schools to higher education. R. L. Walkley.
No. 33. Music in the public schools. Will Earhart.
No. 34. Library instruction in universities, colleges, and normal schools. Henry R. Evans.
No. 35. The training of teachers in England, Scotland, and Germany. Charles H. Judd.
*No. 36. Education for the home—Part I. General statement. B. R. Andrews. 10 cts.
No. 37. Education for the home—Part II. State action, schools, agencies. B. R. Andrews.
No. 38. Education for the home—Part III. Colleges and universities. B. R. Andrews.
No. 39. Education for the home—Part IV. Bibliography, list of schools. B. R. Andrews.
No. 40. Care of the health of boys in Girard College, Philadelphia, Pa.
No. 41. Monthly record of current educational publications, November, 1914.
No. 42. Monthly record of current educational publications, December, 1914.
No. 43. Educational directory, 1914–15.
No. 44. County-unit organization for the administration of rural schools. A. C. Monahan.
No. 45. Curricula in mathematics. J. C. Brown.
No. 46. School savings banks. Mrs. Sara L. Oberholtzer.
No. 47. City training schools for teachers. Frank A. Manny.
No. 48. The educational museum of the St. Louis public schools. C. G. Rathmann.
No. 49. Efficiency and preparation of rural school teachers. H. W. Foght.
No. 50. Statistics of State universities and State colleges.

1915.

No. 1. Cooking in the vocational school. Iris P. O'Leary.
No. 2. Monthly record of current educational publications, January, 1915.
No. 3. Monthly record of current educational publications, February, 1915.
No. 4. The health of school children. W. H. Heck.
No. 5. Organization of State departments of education. A. C. Monahan.
No. 6. A study of colleges and high schools.
No. 7. Accredited secondary schools in the United States. Samuel P. Capen.
No. 8. Present status of the honor system in colleges and universities. Bird T. Baldwin.

No. 13. The schoolhouse as the polling place. E. J. Ward.
No. 14. Monthly record of current educational publications. May, 1915.
No. 15. Monthly record of current educational publications. Index, February, 1914-January, 1915.
No. 16. Monthly record of current educational publications. June, 1915.
No. 17. Civic education in elementary schools as illustrated in Indianapolis. A. W. Dunn.
No. 18. Legal education in Great Britain. H. S. Richards.
No. 19. Statistics of agricultural, manual training, and industrial schools, 1913-14.
No. 20. The rural school system of Minnesota. W. H. Foght.
No. 21. Schoolhouse sanitation. William A. Cook.
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No. 24. Adjustment between kindergarten and first grade. Luella A. Palmer.
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No. 30. Bibliography of education for 1911-12.
No. 31. A comparative study of the salaries of teachers and school officers.