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Vol. XX.

No. 1

The
D. N. G.
Review

OCTOBER

1907

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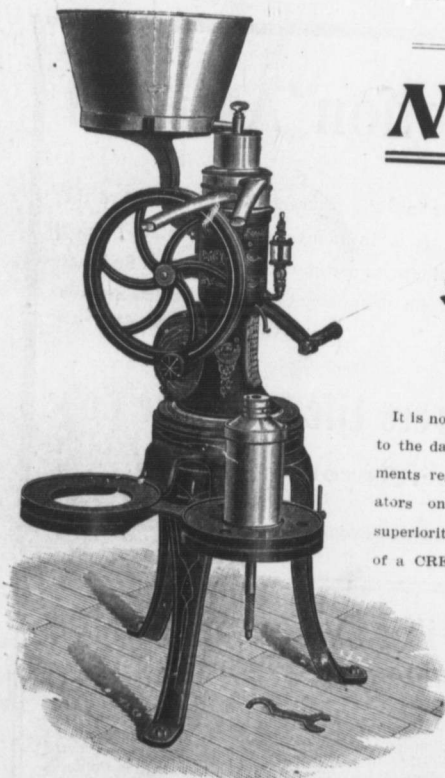
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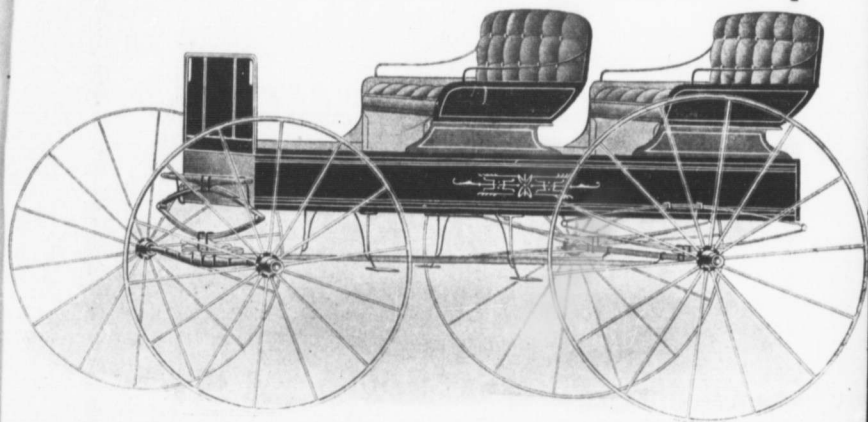
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The O. A. C. Review

THE DIGNITY OF A CALLING IS ITS UTILITY.

VOL. XX.

OCTOBER, 1907.

NO. 1.

The Future of Ontario's Agricultural Societies.

By H. B. COWAN, late Provincial Superintendent of Agricultural Societies.

BEFORE we can consider, intelligently, the future of the agricultural societies in Ontario, we must be acquainted with their past and present condition and have, also, a clear conception of the lessons taught by the history of similar societies in other countries. It is impossible to estimate the value we Canadians have derived through being able to watch the failures and successes of our cousins across our southern border. The lawlessness that reigned when their western states were being opened and settled showed us the need for our Northwest Mounted Police. The abuses that followed in the wake of the introduction of politics into municipal government revealed themselves in time to prevent their introduction, at least to any considerable extent, in Canada. Many other instances might be cited of the benefit we have derived through having the examples, to follow or avoid, afforded by our enter-

prising neighbors. If we are wise, we will profit, also, by taking to heart the lessons taught by the history of their agricultural societies.

We have reason to be proud of the grand work that has been accomplished by the agricultural societies of Ontario. Outside of the Legislature they are the oldest form of organization we have. The first societies were formed over one hundred years ago when agriculture in Ontario was in a crude condition. The early settlers were few, and lived far apart. The annual fairs afforded them almost their only opportunity of meeting their distant neighbors and of comparing things agricultural. Our early exhibitions partook almost as much of the character of an agricultural exchange as they did of an exhibition of farm products.

The best societies were not content to follow only this line of work. They organized agricultural libraries and imported pure-bred stock, implements

and improved grains. Later, the holding of plowing matches was introduced. As there were no Farmers' Institutes, and as such an institution as an agricultural college was undreamed of, the value of these early societies was great. In passing, however, it might be noted that such an attraction as a modern horse race was unknown in Ontario at that time, and its need for the purpose of attracting the crowds was not felt.

Between 1792 and 1830, agricultural societies were formed in all

being kept of pure-bred stock and later was instrumental in inducing the Government to establish the Department of Agriculture. Thus, we see, our agricultural societies laid the foundation upon which our present splendid system of agricultural organization and education is based. Their past is one of which they may well be proud.

Conditions To-Day.

What of their present position? Are our societies accomplishing as valuable work to-day as formerly?



A portion of the Race Track and some of the side shows at a fair in South-Western Ontario.

thickly settled portions of the Province. In the latter year, the Legislature passed the first act granting aid to the societies. A sum of \$800 a year was set aside to assist the agricultural societies in each district. In 1846, the various societies united and appointed representatives to act on what was known as the Provincial Board of Agriculture. It was this organization that held the first Provincial exhibition, which led to records

Are they doing as good work as they did fifty, even only twenty-five years ago? While some, possibly, are, many are not. This is due in part to conditions over which the members of the societies have no control. Of late years, our rural population has become so numerous, our farmers are so well supplied with agricultural and other periodicals, the country is so intersected by good roads and railway lines, that nearly all the incentives

that led the people to attend exhibitions in the early days, have disappeared. Now-a-days, it is so easy for a farmer to buy a pure-bred animal from a neighboring breeder, or through an advertisement in an agricultural paper, or by jumping on the train and attending some sale, he no longer finds it necessary to postpone such action until the date of his local fair. The splendid work that has been accomplished, of late years, by our Farmers' Institutes, the Experimental Union, Dairymen's Associations, and kindred organizations has deprived the societies of still other lines of work that they were called upon to perform more or less thoroughly thirty or forty years ago. Over ninety per cent of our societies, therefore, confine their work now, to the mere holding of an annual exhibition.

Many of these societies are of great value. They are keeping the cause of agriculture ever before them. By means of the rivalry they create among local breeders and other exhibitors as well as by the object lessons they afford on the days of their exhibitions, they are productive of much good. Most of these societies are in purely agricultural sections. Unfortunately, societies of this character are rapidly decreasing in number. They are being replaced by a more modern form of society, some of which, at least, are productive of more harm than good.

The cause of this change is to be found in the increasing size and number of our towns and cities. Whereas, in the early days, nearly the whole population of the Province was directly interested in agricultural pursuits, of one form or another, to-day a large proportion of the citizens of Ontario

live in urban centers. They care little or nothing for agriculture. These people have no interest in purely agricultural exhibitions. They, and an increasing proportion of our rural population, want something more exciting. They desire to be amused. This element in the population already, has changed, completely, the character of many of our smaller exhibitions. The metamorphosis has taken place by degrees, but it is none the less complete.

The change is effected so gradually, that the residents of the community, where the society is located, hardly recognize that it is in progress. In probably nine cases out of ten, it starts with a simple horse trot. The claim is made by some of the members or directors that something is needed to amuse the crowd. It is finally decided to have a farmers' trot, confined to members of the society. Generally but little exception is taken to this simple innovation, and the event is greatly enjoyed. The next year, the prizes are increased and more entries are received. Soon, one or two fast horses are developed by members of the society against which none of the other members will make entries. This situation makes it necessary to change the customary program. By this time the people have become accustomed to looking upon horse races as a feature of the fair. Finally, it is decided to have one open race. In this event, horses from a distance are entered for the first time. Pride is aroused and a desire to see the local horses win soon makes this event the feature of the day.

From this time on, the change continues more or less rapidly. In the case of many societies, it is not long

before most of the races are thrown open; and larger and larger purses are offered. Ere long, it becomes necessary to engage bands to amuse the crowds between the races. In some cases, vaudeville performances are introduced and side shows, of a more or less questionable nature, become a regular feature.

In the meantime, but so gradually, it has occasioned but little comment, the agricultural features of the exhibition have been relegated more and more to the background. Gradually, enthusiastic lovers of a fast horse have crowded themselves on the board of directors and some, at least, of the farmers have been shoved off. Each year a few of the better class of people have dropped away from the society and have been replaced by a more sporty element. Generally, once this class gains a footing, ten to fifteen years is all that is required to completely change the character of an exhibition.

Whole Sections Affected.

The insidious change that creeps over one agricultural society affects, in time, whole communities. Attractions in one form or another are introduced first by one society. Generally, this society is located in a town or city. The innovation, being out of the ordinary, succeeds in drawing a large crowd, and in creating considerable excitement. Soon, the directors of surrounding exhibitions, that are purely agricultural, are informed that their fairs are "no good," that the crowd "won't turn out to see pumpkins." Within a few years, one society after another follows the example set and introduces attractions of one kind or another.

Many boards of directors, when

they consent to the holding of the first horse trot, do so with the honest belief that one or two small races are all that are required. They are determined that they will never allow the horse racing element to gain the ascendancy. What is the result? Sooner or later, they find themselves in the grip of conditions over which they have no control. First one neighboring society and then another increases the purses offered for their speeding contests, or the money spent for attractions. Gradually, a growing section in the community demands that this shall be done. In time, the influence, which forced the directors to hold their first horse trot, compels them to increase their purses and to follow in the steps of the adjoining societies. Those directors who rebel and fight to have the society conducted on agricultural lines disappear, sooner or later, from the board, and the change continues.

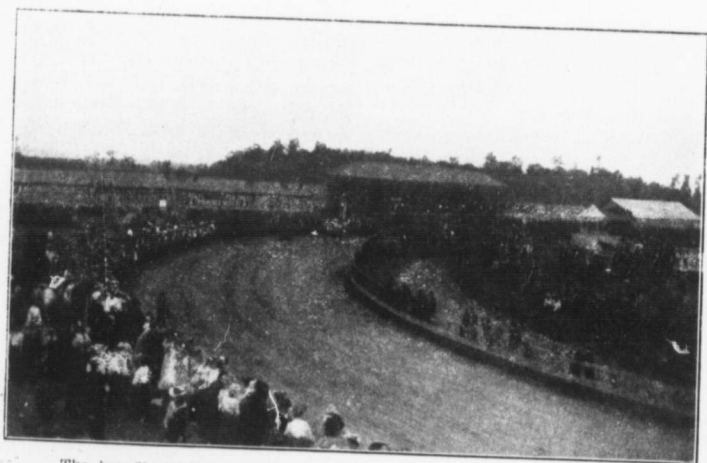
This new element has made itself felt most in connection with the growth of our towns and cities. The fairs in Ontario, that spend the most money for races and special attractions and that generally have the most undesirable features, are those held in places like Morrisburg, Prescott, Brockville, Lindsay, Collingwood and Chatham. Their influence radiates through the surrounding country. As these towns and cities grow, and new centers spring up, unless decisive action is soon taken, we may expect to see this influence spread until the conditions of our Ontario societies have become as demoralizing as they are in many states in the American Union.

Some of the Arguments.

We are all familiar with arguments

that are advanced in favor of the holding of horse races and special attractions at exhibitions. It is claimed that by this means more people are attracted to the fairs and that the increased gate receipts thus secured make it possible to expend more money in prizes in the agricultural sections. This is true of many exhibitions. Sooner or later, however, the unhealthy appetite for excitement that is created makes it necessary to

where it finds it necessary to spend more money for horse racing and vaudeville performances than it does for all its agricultural features combined, it is a misnomer to call it an agricultural society. It is a wolf in sheep's clothing, and it is no more entitled to receive a government grant than a theatre or amusement park that might introduce a few so-called educational features to disguise its real character.



The benefits of horse racing include the necessity of spending large sums of money to keep the race tracks in order.

expend more and more money for attractions and leaves less and less available for the legitimate work of the society.

As long as a society continues to devote its energies and funds mainly for the promotion of agriculture, just so long will it deserve to be called an agricultural society, and be entitled to receive a government grant. When, however, a society reaches the point

You may say that there is little likelihood of such conditions becoming prevalent in Ontario. If you do, you do not yet realize what is taking place in Ontario.

Conditions in the States.

A recent investigation of the work being performed by the agricultural societies in the New England States and in the States of New York and Ohio, revealed an astonishing

condition. In Maine, which has many excellent agricultural societies, the government reports show that more money was being spent for horse racing alone than for all agricultural purposes combined. Vermont and New Hampshire do not give grants to their agricultural societies. The agricultural societies in Massachusetts are decreasing in number. An official of the State Board of Agriculture has stated that horse racing has killed more societies in that state than any other one cause. The dates of the fairs in Massachusetts are so arranged that the fastest horses in the country can attend. These horses take practically all the prizes.

In Connecticut in 1904, \$20,599 was expended by the agricultural societies for all agricultural purposes combined. The sum spent for horse racing was \$19,876, and for special attractions, \$10,376. In other words, \$9,653, or almost one-third more was spent for horse racing and special attractions than for all agricultural purposes combined. In this state, the immoral element, that attends such exhibitions, had become so obnoxious that recently the State Legislature deemed it necessary to pass a law prohibiting the presence of tents of ill-fame on the exhibition grounds at fair time.

The agricultural societies in Ohio, in 1904, spent \$105,014 for all agricultural purposes combined, and \$107,627 for horse races alone. Many thousands of dollars additional were spent for vaudeville shows and other similar attractions. In this State, the average receipts of the sixty-nine county societies from side shows alone was \$880. When societies have reached such a stage, what is their main object? Is it to promote agri-

culture or to encourage acrobatic performances, and horse racing?

The Danger at Our Doors.

Similar conditions promise to prevail, ere long, in Ontario. Already we have some societies which expend more for horse races and special attractions than for all agricultural purposes combined. Five years ago, such was not the case.

Until the Ontario Government enforced the law preventing the operation of games of chance at exhibitions, dozens of our societies permitted such features. They even sought them for the revenue they produced. One society attempted to put the Government detectives off the grounds when they undertook to arrest some sharpers. Last year a side show for men only, that had been put off the grounds of the Toronto Industrial Exhibition, on account of its immoral character, operated at a number of fairs held north of Toronto. Recently, the editor of a paper, who, as the secretary, for years, of his local agricultural society, had been attempting to conduct its annual exhibition on agricultural lines, was voted out of office, at a packed meeting. His successor, later, said to me, "We don't give a d— for agriculture. What we want is to make money and we are going to do it, if we have to hold horse races or any other old thing." This is only one instance, but it is typical of many others. Two years ago, a Government detective reported that he saw over 150 people, during September and October, making their living by fraud at the fall exhibitions held in four counties in south-western Ontario, near the United States border. These societies were, and

still are drawing Government grants.

Horse Racing Likely to Increase.

We may expect soon to see a great increase in the number of societies in Ontario that hold horse races. The reason that more societies do not hold horse races is due largely to the fact that there has been a law on the statute books making it a crime to hold a horse race at an exhibition. While many societies boldly ignored this law, others did not and refrained from holding any races. At the last session of the Ontario Legislature, an amendment to the act relating to horse races at exhibitions was passed. By this amendment, it is now impossible for any person, even a Provincial constable, to prosecute the officers of a society that allows horse races, unless he has been a member of that

society for at least two years. In other words, it is now safe for societies to hold horse races. Already the effect can be noticed. This year, more societies held horse races than ever before. Next year, we may expect to see the number still further increased.

I trust that enough has been said to show that the future of the agricultural societies in Ontario is closely wrapped up with the horse racing problem. Unless the people, and particularly the farmers of Ontario, awaken to the change that is taking place, and take steps to prevent it, our societies will degenerate until they reach the point where, like the societies in the States mentioned, they expend more for demoralizing and degrading features than they do for the cause of agriculture.

I LOVED MY ART.

I loved my art, I loved it when the tide
 Was sweeping back my hopes upon the sand;
 When I had missed the hollow of God's hand
 Held over me, and there was none to guide,
 I set my face towards it, raising high
 My arm in token that I would be true
 To all great motives, though I sorely knew
 That there was one star wanting in my sky,
 Touching the chords of many harmonies,
 I needed one to make them all complete;
 I heard it sound like thunder-gathered seas,
 What time my soul knelt at my lady's feet,
 And there transfigured in her light I grew
 In stature to the work that poets do.

—Gilbert Parker.

The Macdonald College.

By PROFESSOR W. LOCHHEAD.

THE family of agricultural colleges in Canada is increasing very rapidly. The eldest member, the O. A. C., is so much older than the others that she may be looked upon rather as a mother than as a sister. She has grown up to maturity under trying and adverse conditions, but by her helpfulness and earnestness she has earned the good-will and confidence of the people to whom she ministers. In overcoming her early difficulties she has made conditions more favorable for her young sisters who are just beginning their life-work.

The eldest of her young sisters is the Agricultural College, Truro, N. S. She is a healthy creature, and under the careful guidance of Principal Cumming, a student of the O. A. C., she is doing a very important service, not only for Nova Scotia but also for the other maritime provinces, in training young men to become better farmers.

Two years later came the Manitoba Agricultural College, Winnipeg, who is already walking and talking and doing things in earnest. She is under the care of Principal Black, also a man trained by the O. A. C.

The youngest sister of all is the MacDonalld College at Ste. Anne de Bellevue, P. Q., not yet walking or talking but doing some crawling and a little crying. She is supported by a

competence of her own and in her own name, and not by a provincial government, as is the case with her sisters. This freedom from state control has its advantages as well as its disadvantages. There is greater liberty of action in educational and agricultural experiment and investigation and in the selection of the staff. There is a delightful freedom from political pulls. The great practical outside-departments can be conducted on a commercial paying basis to the great advantage of the students and of the institution, for as a private enterprise they have a right to compete in the open market with other private enterprises.

On the other hand, the state institution has means of co-operation in investigation that are simply impossible in a state-free institution. All the government-aided agricultural societies and the Agricultural Department itself are supposed to keep in close touch with their agricultural college, and to give the workers in each subject facilities for observation and research.

The Scope of Macdonald College.

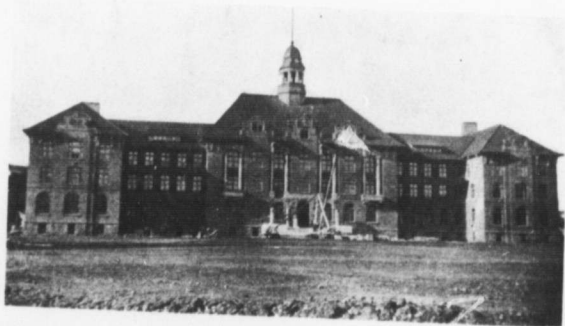
A question naturally arises: In what respect, if any, does the scope of Macdonald College differ from that of the O. A. C., for example? This may be answered in the words of the founder in the deed of gift to the Governors of McGill University:

"Macdonald College was founded for the following, among other purposes: 1. For the advancement of education; for the carrying on of research work and investigation, and the dissemination of knowledge; all with particular regard to the interests and needs of the population in rural districts. 2. To provide suitable and effective training for teachers, and especially for those whose work will directly affect the education in schools in rural districts."

It will be observed that the main

lines, viz., Agriculture for young men, Household Science for young women, and Teacher-Training for young men and women who aim to teach in rural schools, to the end that there may be greater productiveness in the field and in the industries of the farm, greater comfort and enjoyment in the home, a better taught school for the children, and a more thorough appreciation of the possibilities for good in the co-operation of home and school.

Macdonald College cannot hope to



THE MAIN BUILDING.

difference is the relative attention paid to the training of teachers. In the Macdonald College the training of teachers forms an integral part of the work of the Institution, for it recognizes that the key to the development of greater efficiency among the rural population—the greatest national problem of the day—is the rural school with its possibilities for better service under teachers acquainted with, and imbued with a love of rural life.

Accordingly, the work of the College will be conducted along three

surpass the excellent work done in Agriculture and Household Science by the O. A. C., with her thirty years of successful experience in dealing with young men and women. It is our privilege, however, to adopt those things that experience has proven to be of most worth at the O. A. C., and our laudable ambition to develop these features to the full extent of our ability. There is room enough for the whole family of agricultural colleges in this great and rapidly expanding country. There is a place for that friendly, healthy rivalry that makes

for more effective service, but there is none whatever for jealousies that hinder co-operation and good work. It is recognized that each of the colleges has her own constituency to serve, and her own peculiar problems to solve on account of the different needs of each constituency. Each of the colleges has the same conception that the proper ideal effort is the education of the people by the people, and for the people, and realizes that education is broader than schooling. The predominating influence of the O. A. C. with her hundreds of sons and

and the Campus nearly 50 acres. The Farm Buildings formerly belonging to Robert Reford, Esq., have been enlarged and overhauled, and are now well adapted for the purposes in view. (Since this was written these barns have unfortunately been destroyed by fire. Steps are, however, being taken to rebuild them.—Ed.)

Considerable attention will be paid to the development of a good dairy herd, composed of representatives of the main dairy breeds. To the large herd of Ayr-shires will be added this month a small herd of imported Hol-



View from Horticultural Farm — Main Building in center, Biology Building on right, Men's Residence in distance, Women's Building on the left.

daughters in all parts of the land, many of them occupying high positions of trust, will probably be always recognized by all her sisters. Her sons and daughters in no small numbers are already helping the sisters in the great work in which they are engaged.

Material Equipment.

A few words on the material equipment of the Macdonald College: The property consists of 561 acres, of which the Main Farm contains 387 acres, the Small Cultures Farm and Experimental Plots about 125 acres,

steins, a small herd of Quebec Jerseys and another of imported dairy Short-horns.

A concrete piggery provides accommodation for a large number of the different breeds of swine, while special provision has been made for the rearing of young pigs in small colony houses.

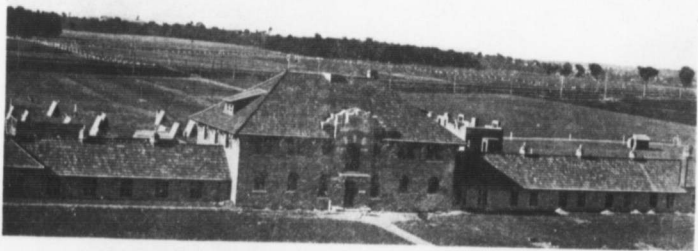
The Horticultural Department has about 85 acres under its care. This area will be used for productive work, demonstration and investigation with large fruits, small fruits and vegetables.

The Poultry Department is thoroughly well equipped for instruction, demonstration and commercial work in poultry-keeping. From 1,000 to 1,500 laying hens will be kept in colony houses, and apprentice-students will get experience by taking charge of these houses. The incubator, brooder, fattening and other rooms are fully equipped for the best work.

The proximity of a good market for the produce of the dairy, poultry yards, orchards and gardens offers unusual facilities for the development of

influence by distributing at low rates selected seeds, grains, small fruits, and breeding stock such as cattle, swine and poultry, particularly to agricultural societies and farmers' clubs, throughout the Province of Quebec.

The College buildings are unique in many respects. They are of fire-proof construction in stone, brick, steel and concrete. The roofs of the six main buildings are of steel and reinforced concrete, and those of all the buildings are covered with red tiles. Every building is provided with a complete



Poultry Buildings, showing railways and farm in background.

the commercial, productive side of these agricultural branches, and apprentice-students will have excellent opportunities for observation and practical experience. Lessons can be learned in modern business methods which demand power of organization, the application of knowledge to practical ends, and co-operation in putting produce upon the market in convenient and attractive forms.

The College will not limit its influence to the instruction of the young men and women who attend the classes, but it hopes to exert a wider

system of ventilation whereby fresh air is supplied to every room, including bedrooms, and is heated, lighted and supplied with water from a large power house. The laboratory and work room accommodation and equipment for the various departments are very complete, and have been arranged with an eye to the probable demands of the future.

The Founder and the Principal.

This large baby college is the gift of Sir William Macdonald. With a true appreciation of the most important needs of Canada, Sir William has,

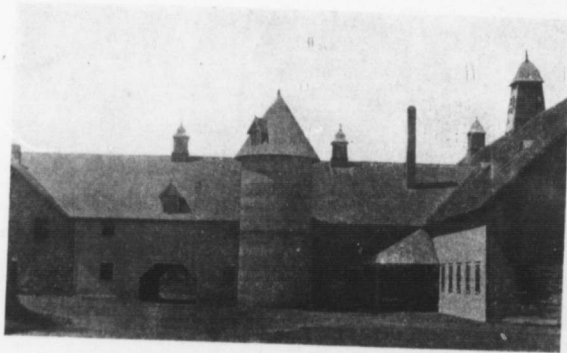
with large-hearted generosity, made this gift of two millions of dollars in land, buildings and equipment for the benefit of the rural population of Canada. Besides donating the whole property without encumbrance, he has placed a sum of over two million dollars in the hands of the Governors of McGill University as an endowment for the maintenance of the work of the Macdonald College.

To Dr. James W. Robertson, Sir William has entrusted the execution of his wishes. His long successful

The Trinities.

The motto of the College is "Mastery for Service," which implies that the whole man or woman—"the head, the hand and the heart"—is to be educated, to the end that he or she may be of greater service to the community, and, as a means to that end, the College stands for the introduction of Nature Study, Manual Training and Domestic Science into our schools.

The work of the College will be done in three schools—the School of



East approach to Stock Barns (recently burned.)

experience as Commissioner of Agriculture and Dairying for the Dominion gave him unusual opportunities for the study of the agricultural and educational conditions. He has a habit of "doing things" and of "making things go," and in his selection as Principal of the new Macdonald College, the public is assured that the baby college will succeed. It has been said that "an institution is the lengthened shadow of one man." In the case of Macdonald College that man is Dr. Robertson.

Agriculture, the School of Household Science, and the School for Teachers, where young men will get that training that will enable them to make more of themselves and of their farms; where young women will get that training into ability which will enable them to conduct sanitary, comfortable and happy homes; and where teachers will be trained to bring their work into harmony with the occupations, resources, customs, and traditions of rural life in order that they may lead the people upward and onward through the children.

Manitoba Agricultural College.

BY PRINCIPAL W. J. BLACK.

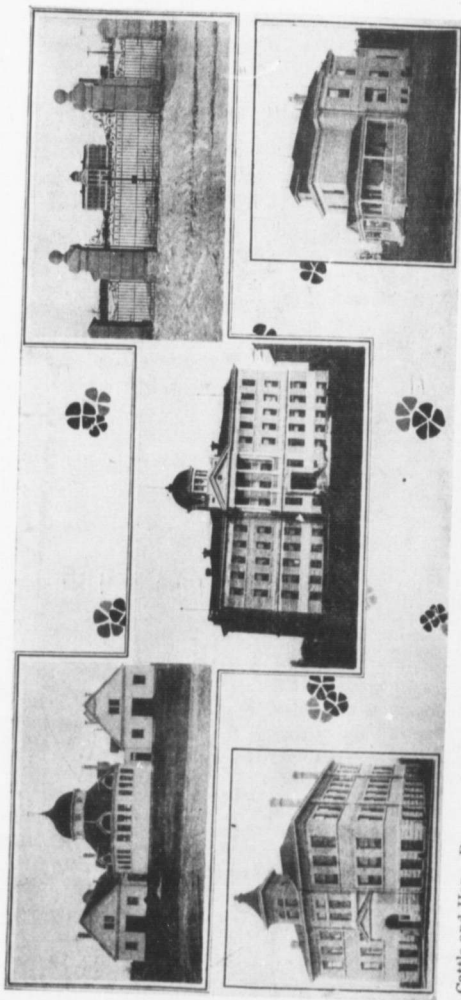
THREE years have passed since the Board of Directors of the Manitoba Agricultural College was organized. At that time no plans of buildings had been prepared, no officers appointed, and no equipment secured for the new institution. Then was the beginning—the first systematic effort calculated to provide adequate facilities for teaching agricultural science to the young men of Western Canada. It was thought that provision should be made for teaching fifty students, that a staff of four or five professors or lecturers would be sufficient, and that an expenditure of not more than two hundred thousand dollars would meet the needs of agricultural education for a time.

But this estimate was made in a young province, populated largely with farmers who had learned to appreciate the value of knowledge, and it was made in a growing time. Today, over three hundred thousand dollars have been spent in buildings and equipment, and two hundred and eighty thousand more have been appropriated for the same purpose. Several new structures, the most important of which is a young men's dormitory, are now in course of erection. The staff, too, has been increased until there are thirteen professors, lecturers and instructors, and the number must increase rapidly. But

probably the most gratifying feature of the college growth has been the large student attendance. During the first year, eighty-five registered in the regular course, and three months before the opening day of this year there were ninety signed applications.

The students who attended the college last year were farmers' sons who intend to return to agriculture when their course has been concluded. Seldom has a new institution been so fortunate in securing so many young men possessed of a definite purpose. Without an exception, almost, it may be said that each young man entered the college halls determined to improve himself as an all-round man. Most of them had arrived at a time when they could appreciate, to some extent, what a good education meant. Their ages ranged from sixteen to thirty-seven, the average being twenty-one. In educational training some had but a public school experience, while others had gone higher as far as qualifying for third year university work in arts. But the comparatively high educational standing of the class was not so gratifying as the expressed determination of its members to prepare for an influential part in the great human struggle to accomplish some useful purpose.

In organizing the college and opening new departments, the authorities were determined to meet the demands



Cattle and Horse Barns and Judging Pavilion.

Dairy and Science Building.

Administration Building.

Entrance to the College Grounds,
Principal's Residence.

A GROUP OF BUILDINGS AT THE MANITOBA AGRICULTURAL COLLEGE.

and recognize the appreciation of those in the west most interested in agricultural education. For administration and teaching purposes there are now ten divisions, the latest to be added being the Department of Agricultural Societies and College Extension Work. A few months ago the position of managing director of agricultural societies and farmers' institutes was incorporated with the principalship of the college, and hence the direction of these local organizations has been transferred from the Provincial Department of Agriculture at the Parliament Buildings to the new seat of agricultural education located close to the city of Winnipeg. This change was made because it was believed that in order to unify agricultural teaching and make most effective the efforts towards developing and popularizing agricultural education in Manitoba, all organizations tending thereto should be under one control. By the new arrangement all judges in live stock, grains, dairy and horticultural products for the principal local agricultural shows are chosen by the managing director. Likewise, will be the selection of speakers who will address the principal meetings of the farmers called for the purpose of dealing with farm problems. Under the title of college extension work it is hoped to supersede the old time unenthusiastic institute campaign by delivering at farmers' meetings, under the auspices of their local organization, during the summer months, the most practical lectures given to the students in the college halls during the winter term. A beginning of this work was made in June last by running on certain lines in the Province a special train

equipped with apparatus for giving practical instruction in dairying. For next year a much more extensive work of this kind is being planned.

College extension work, also, includes the conducting of investigations in such problems as the growing of farm crops, management of live stock and care and use of farm implements. An organization known as the Agricultural College Research Association, having as its members the college faculty, students and leading agriculturists throughout the Province, has been formed for the purpose of carrying out more fully the aims of the new department. Hereafter, it is hoped to have all field experimental work inspected at least once each summer by a representative of the Agronomy Department of the College.

But the benefits to be derived by having an intimate relationship exist between the college and agricultural societies are not more fully appreciated by the latter than by the institution from which they are directed. No college can be a success without a reasonable number of students. To obtain them for an agricultural college, agricultural societies located in all parts of a province may have a mighty influence. In Manitoba the future appears to present no difficulties in this respect. The college will have to build fast to keep pace with the demand for greater teaching accommodation.

When an Agricultural College for Manitoba was first being considered it was thought that a course of study extending over two winters would be sufficient to meet the needs of western agriculture for some time; but already there is an urgent demand for instruction in advanced work, such as

might qualify a young man for a degree in scientific agriculture. In response to this, steps already have been taken which it is believed before many months will lead to affiliation with the Provincial University. But while provision is being made for higher courses, it is not intended to emphasize the work of the first two years any less than at present. Upon the success of those who finish the two year course, pass the required examinations and return to practical agriculture, the college hopes to obtain its most desirable reputation. Western agriculture needs more men who will be capable judges of live stock, and put the principles of animal breeding into practice, who will deal intelligently with nature's storehouse of plant food in the soil, know something of the advantage of sowing selected pure seed, apply knowledge to their efforts in the dairy, the garden, the work shop, and in the management of the business affairs of the farm and home. In order to become best prepared for this work, the student must be taught to think more conclusively and to act for himself; his knowledge and command of his native language must be improved, and his individuality developed. To meet these needs the two year course has been specially designed. In detail it probably differs considerably from courses at many institutions, but in general is similar to some. An effort is being made to develop a system of individual tutoring suited especially to the requirements of those whose primary education has been neglected. To what extent it can be applied to all students has not yet been determined.

Special attention is given also to the study of parliamentary procedure and

practice in public speaking is made a compulsory part of the course. In order to secure co-operation in the observance of the rules and regulations of the college, a special committee of students appointed by the student body becomes responsible to the faculty for the good conduct of those rooming within the residence. Each young man entering the college halls is regarded as a gentleman until he happens to be so unfortunate as to prove himself otherwise. In this way each one has occasion to feel that he has a desirable reputation to maintain and an individual responsibility to fulfil.

In the country the attitude presented toward Manitoba Agricultural College is in general very friendly. The day of those who styled agricultural education as useless book learning and agricultural colleges as places where young men were led to believe farming a profession too undignified for them, has almost passed. Occasionally one meets a man, who reads but little and meditates even less, expressing antagonism against agricultural education and every other movement calculated to improve the human race, but happily for those of us who are young in the direction of college work, such men are few. The pioneer work has been done by such men as the wise and honored late principal at Guelph, of Canada's oldest agricultural college, and by others whose good influence ceased only when the allotted span of their life had been run. Canada owes to some of them a debt she never can pay, and to their memory a depth of respect, to which only the most ennobling influence can contribute.

Is There Room for the Boy?

By JOSEPH E. WING.

THIS is a very busy world and everyone seems hustling for himself, and all the jobs worth while seem to be taken. What show, then, is there for the lad, when he is turned out from under the parental roof, or from the Alma Mater, into the hustling, cold, cruel, careless world?

Let me tell, briefly, a story illustrating an episode in my own life. I, a timid, gentle, shrinking farmer boy, in my early twenties, soft of muscle, but yet pretty strong, found myself at a little mining camp high up in the Rockies. I was in a little boarding house down in the board village and wondering what on earth I could do that would bring me bread without butter on it, and a place to sleep, and a little money for that ideal of mine, a little money to provide some day for that home that I hoped to make for a certain sweetheart that I had left far away amid the Ohio hills.

Work I must have, but how to get it?

"Go up to the Old Jordan Mine," an old man said, a kindly old fellow. "Ike Hazelgrove, the superintendent, up there is a good fellow. He nearly always needs men. He is a very busy man and always in a hurry. If he does not give you work when first you find him don't bother him, but go back again to-morrow."

I found the Old Jordan far up the gulch, in a deep cleft in the mountains.

A little stream came roaring down the bottom, pines grew far up the sides of the mountains between. Men had devastated as much as they could. The mountain was dug into and disembowelled, a little village of board shanties lay stretched along the mountain road, a great mill with high smokestack, a boarding house like a barn, the rest hills of waste earth and rock, the "dumps," a shaft house where busy spurts of steam told of cages being hoisted. I found Hazelgrove walking rapidly from the office to the shaft-house. "Is this Mr. Hazelgrove?" timidly. "It is," with a quick, keen, searching look. "What do you want?" The question, though blunt, was not in an unkind tone. "I want work. Do you need a man?" "No. I do not need any one this morning," and he turned away and walked rapidly off. I was discouraged you may be sure, and made my way slowly back to the boarding house.

That afternoon I remember climbing over a mountain, and sitting long under a pine, and thinking of the great, cold, callous, cruel world, that cared nothing for boys! I wished I were back in my father's corn field, it was corn shucking time, and there I could have been busy! And yet I was hungry for supper, and enjoyed the merry talk later in the livery stable, which was the lyceum of that camp. Very good was some of the discussion that was handed around in that livery stable office!

Next morning, early, I again struck out for the Old Jordan. Again I found Mr. Hazelgrove, this time busily directing some men who were repairing the mill.

As soon as I could get his eye I asked, modestly, "Mr. Hazelgrove, do you need a man this morning?" He gave me a quick look of recognition, and half smiled, he had a good-humored face, lined with deep lines that meant a stress of inward energy. "Why, aren't you the boy who was here yesterday?" "Yes." "Well, I don't need anyone, sorry, good-bye." I went away again, this time not so despondent. Something in his attitude gave me hope. The third time I went up the canyon, early, before time to go on shift. This time I encountered him as he came from breakfast. He grinned good humorously. "Say, are you the lad who wanted work yesterday? Well, come with me. I've a job for you this morning." I followed him joyfully into the old mill. There lay a great packing box, maybe three feet square and ten feet long. "In that box is an electric lamp outfit for this mill. It needs cleaning up, the rats have filled it with trash. Don't lose any of the little screws."

Away he went! I tackled the job. There is a sort of a mountain rat that is a miser, it hoards eternally. A pair of them had built a tunnel through to the boarding house and they had packed that box literally chock full of biscuit and beans and meat and pie, and all of it was rotten! What a mess! How the men laughed to see me at it! I was the butt of them all, and many were the jibes made at me; but I persevered. In the afternoon, when I had quite an array of little brass parts cleaned up and set

along a beam, and had wheeled to the dump a good many wheelbarrow loads of rotten stuff, Mr. Hazelgrove came back. "What, still at it? How are you getting along?" "Pretty well, I am not nearly dope, though." "All right, keep at it," and away he went, smiling. I finished it that night and was heartily glad. Then I brought up my blankets and was assigned a place in a bunkhouse. Next morning Hazelgrove inspected my work. "Good! Why, boy, you are the third man I have set at that job; none of the others stuck at it. Now can you saw off a board and drive a nail?" I said I thought so. "Well, then you are a carpenter. Come with me!" I went up on the hillside and helped a gang of carpenters on the mill. They were good fellows, and worked hard, but they never worked a second after the whistle blew. I have seen a man with his saw drawn up to make a cut when the whistle blast struck him, and he would draw the saw on out and never make the down stroke. I have seen men with their hatchets poised to drive a nail calmly walk away leaving their hatchets in the air when they heard the whistle blow. I was not of that sort. I had been trained to work on our own farm, and took an interest in what I was doing. I soon got interested in the mill that we were building, and worked at it as though I owned it. I remember more than once I worked a little over-time, when some part of the work seemed to me to need completion, once when I insisted on finishing boarding up a side of the building, because the snow was drifting in. The men laughed at me, and were even angry with me because I would work now and then after the whistle had

blown. "You are not paid for that, what in hell do the bosses care for you," was their criticism. I replied that I did not care, I was bound to shut out that snow.

I had no idea that Hazelgrove saw, or cared. Later I learned that he did, and noted too.

One day Hazelgrove came dashing up to me in that long-legged stride of his. "Here, Joe, I've been wanting to give you a better job. I've got it now. Follow me." I followed him up the mountain-side to a tunnel that ran into the side of the mountain. A great car stood there on the little railway track that penetrated to the depths of the mine. "See that car? Well, all I ask of you is to run it into the mine and fill it, it will run out of its own accord, dump it into that ore bin. Tally every car as you come out. When you don't run a car don't tally. See? Murphy is just going down the trail, fired, because he ran out 28 cars yesterday and tallied 45. I wish you to run out about 40 cars a day, but anyhow run what you can, try to keep her full, and tally as you work, and do no more."

"Now, come on." Away he went up the tunnel, and I tried to follow. How hard that car pushed! I thought it would kill me. Hazelgrove all but disappeared in the distance, then he waited for me to catch up. "Come on, Joe. I'm in a hurry!" and off he went again. At the end of the tunnel was a chute reaching far up into the upper levels. Here I was shown how to prise up a gate and let the ore come tumbling down to fill my car, then to stand on a brake to retard it a little and let it go thundering down the darkness and out into the glare of day again, and on across a high

trestle to dump into the third story of the mill. The first day or two was terribly hard. Then my muscles grew. I learned also where the hard places were, and how to take advantage of them and get by them. In a short time I could run out my 40 loads a day with ease, and have time to rest between. I learned to run on regular schedule, and by making haste could make a load in ten minutes, giving me five to rest. Then I dug a little hole in the side of the tunnel and propped open a book there, and left an old silver watch, and a candle, and there I would read five minutes, then dash out with my load of ore, and hurry back to get five minutes more of my absorbing book. In that way I read through Darwin's voyages, and nothing ever stuck to me better than what I read in the Old Jordan mine.

I had now \$3.00 a day, and rejoiced, for I could lay away a part of it, and every day brought me nearer to my ideal, a home, somewhere, a little farm where I could plant things, and where Sweetheart would be. And every week, on Wednesday, I had a letter from her down at the little camp post office. So, in spite of the hard work, I was a happy boy.

And again I forgot to watch the whistle. Often I would run a few extra loads, when it seemed desirable that more should be run, and I was ever ready to help repair the old mill, or do whatever seemed needful to make things go, as though I owned the mine. And again Hazelgrove took notice.

"Joe, can you figure?"

"I used to be good at figures, at school."

"Well, come around to the office to-night. You might better loaf there

than around the saloons, and you will be company for me."

I had never loafed much around the saloons, nor drank one glass of liquor in them. Why, how could I? It all belonged to that sweetheart, and it was a joy to work for her, and to save for her. But I went gladly to the office.

"See here, I have to make out the time and the pay checks for 75 men. I ought to have a clerk. It's a shame to heap this work on me. Do you want to help?"

I did, and I helped, without pay, of course. But the pay came from knowing Hazelgrove, one of Nature's great men, a giant in body, in energy, in brain. He had no advantages of education, but his native ability was wonderful. He told me of how he got to his present position as superintendent of the best group of mines in the best camp in that part of the Rockies. I think he had \$10.00 a day. It was a thrillingly interesting story, but I have not time to tell it now. It was by working, and thinking, and being faithful to his employers.

One day he came to me again, "Joe, do you want a better job?"

"Yes," doubtfully, "what is it?"

"In the mill. You can work the jigs as well as any one. It's a twelve-hour shift, we never stop the mill, but it's big pay, \$3.50 a day." I went into the mill. It was killing hard work, but I grew to be a young giant. I loved the old mill soon, and tried how well I could run my part of it. I suggested improvements, they were simple things, that any intelligent boy would have seen, and some of them were adopted. Then the foreman left suddenly. He was not of much good anyway. Again they came to me.

"Wing, will you keep the time of the men in the mill?"

"Yes, if you wish me to do it."

"Will you take the samples for the assayer?"

"Yes."

"Will you keep account of how much coal is burned?"

"Yes."

"Then, we will get along without any foreman in the mill. You boys know well enough what you ought to do without any boss."

I did this, and more things, and my wages were not raised, nor had I any privileges. The other fellows said I was a fool, that I did all, and more, than Smith, the old foreman, and that he had \$6.50 a day, and never touched a shovel, while I was working like a slave. This was all true, but the work did not hurt me. The lead hurt, though, and one day I found myself strangely and violently ill with outrageous colics. It was lead poisoning from the lead impregnated Galena ore. Other men before me had been so stricken, some had gone away, some had recovered, some had died. I gave sober thought and saw that my chances for a long and happy life some day with Sweetheart were in serious peril. I went to Mr. Hazelgrove. "I am going away, sir."

"What, not quitting, Joe? Don't do that. Rest up a bit. Go down to Salt Lake and get rid of your colic, then come back. We can't afford to lose you, Joe!"

"But I fear I can't stand the lead, Mr. Hazelgrove. Do you honestly advise me to try it?"

He studied a bit, his face serious. "No, Joe, to tell you the truth, there is nothing in working in it. It is liable

to ruin your health for life. But we can fix it so that you won't long have your hands in it. At any rate, go and see Mr. Holden before you leave for good."

Mr. Holden was a son of the mine-owner; he had general charge. I went to see him. "What's this, Joe; you are not leaving us, are you? Mr. Hazelgrove writes me something about your wishing to leave!"

"Yes, Mr. Holden. I've quit the Old Jordan."

"Why, boy, don't do that; we need such boys as you!"

"Maybe, Mr. Holden, but I am afraid of the lead, and besides I think I was cut out to be a farmer."

"Think better of it. I've had my eye on you for some time. I've got a property over on the other side of the mountain, in a lovely valley. You can see all the farms you need to see from the camp, and there's no lead there. Go over there and work for me. I'm building a mill over there. You can work at it as a carpenter, and when it is ready to run you can run it. I'll give you carpenters' wages till the mill runs, and \$6 a day after that. Is not that worth while?"

Worth¹ while! My head swam! I stretched myself and stood up about seven feet high. My head swelled till it was as large as a pumpkin. The whole world looked round and rosy to me, everywhere men were seeking me and desiring to give me fat, soft jobs! My swelled head overmastered my good judgment, maybe, and I jauntily replied, "No, Mr. Holden, thank you, but I've decided not to mine any more. "I'll ranch a while now I think."

"Good day," said Mr. Holden, stiffly.

And it was a long time before ever another man offered me \$6.50 a day, for anything! I should have stayed a few years, and yet I am glad that I did not. I am so much a man of one idea that had I stayed even one year and "made good," as I think I would, I would have come to think that the whole world was made for me to bore holes into, and all rocks for analysis and worthless if they carried below 12% of lead, \$12 in silver, and \$5 in gold.

Some day I may tell about my ranching, and how I became foreman on the old Range Valley ranch.



Agriculture.

A Review of Some Aspects of Our Potato Industry.

THERE was a smaller acreage planted to potatoes in this Province in 1906 than in any year since 1880. Since 1895 the acreage planted to this crop has decreased by 50,000 acres; the product in round numbers by 6,000,000 bushels. Last year our potato crop was short several million bushels of supplying local consumption. In the past ten years there has been a complete reversal in the direction taken by the potato trade. Then we exported in large quantities to United States, today we are importing from Michigan and New Brunswick. Numerous causes may be readily given to account for these changed conditions. Labor is a potent factor in potato production, and when labor is as scarce and as high priced as it has been in recent years the tendency is to decrease the acreage planted to the crop. Then the seasons since 1901 have all been unfavorable for potato growing. The rainfall of the growing season, in each of the past five years has been from one-half to five inches greater than the average for the same months for the preceding 25 years. Potato prices, too, for a number of years

prior to 1901 were unusually low, so low in fact that potato growing was unprofitable. These three conditions reacted unfavorably on the potato industry, their natural tendency was to drive farmers from the business. But the great cause of failure in recent years is due to the rot, and to the fact that farmers generally do not understand the nature of this disease, and the remedies that may be applied to lessen its ravages.

Whatever the causes of present conditions are, the fact is that potato growing in these days is something of a lost art in many parts of Ontario. Not only are we paying to the people of the Maritime Provinces and United States thousands of dollars every year for goods that we can produce most profitably on our own farms, not only have we lost a good many dollars in recent years through failure of the potato crop, but we have lost as well the very best potato markets of the Province, and to re-establish our own goods in our own markets is one of the largest problems that is before the potato growers and shippers at the present time. Take the example of Toronto as an illustration. With an

estimated consumption of three thousand bags per day, or thirty cars per week, Toronto is drawing practically her entire potato supply for nine months of the year from the Maritime Provinces. And the same is in a measure true of every city in Ontario. Scarcely five years ago these potatoes were unknown to our market. To-day the New Brunswick Delawares command the best trade in the Province, and sell in the open market every day in the year at from 10 to 25 cents per bag higher than Ontario produce. They do this not so much because they are superior in quality, though consumers claim they are worth the difference in price, but largely because the men who grow and ship them have learned how to place their goods upon the market. New Brunswick potatoes come into Toronto market day by day, in car lots of one variety, graded down to size almost as closely as oranges. Ontario car lots reaching the same market usually contain samples of every variety grown within the district from which they come, tubers of every size, color and condition are in evidence, and the only wonder is that there is not greater discrimination shown in favor of the imported stock. Quality, of course, fixes the price in potatoes as in everything else, but more of the supposed superior quality of these Eastern potatoes is due to the manner in which they are marketed than to any other virtue of which they may be possessed. Ontario has produced, and, in some districts is producing to-day, better potatoes than ever came out of New Brunswick or the United States. What the growers of this Province need most to learn is how to market their goods.

The general market of Ontario requires a large sized potato, white in color, free from rot or scab, clean in appearance, shallow eyed and dry. This at least is what the consumer is looking for. Shape is usually of minor consideration, though in some markets, particularly Toronto, an oval potato after the Delaware, Carman, Rural New Yorker or Dooley type is favored. To supply this trade the farmers of the Province are growing about one hundred distinct types of potato. Altogether too many varieties are under cultivation. This multiplicity of kinds is due in part to the carelessness of the growers themselves in the matter of selecting seed, but it is in a larger measure due to seed merchants who seem to have a common mania for developing new potatoes, or re-naming old ones, and thus producing a new variety that sells at a fancy price. At least sixty-five per cent. of our farmers are still growing old, poor yielding varieties, many of which are subject to rot. Varieties such as Empire State, White Elephant, American Wonder, Beauty of Hebron, Rural New Yorker, Pearl of Savoy, and Early Rose; varieties which, in experimental work, conducted at our own station and elsewhere, have been found away above the average in susceptibility to rot, and with one exception rather poor yielders as well. Had the potato crop of last year been made up of the ten best varieties available instead of the hundred odd kinds that were grown, some of which ran up as high as forty and fifty per cent., the yield in the Province would have been increased by at least ten million bushels, which, valued at the average current prices for 1906, would have been worth

\$5,000,000. In a general way it is impossible to recommend any variety as the best under all, or even average, conditions. The best variety is the one that comes nearest to the requirements of the market, that is a good producer and not too susceptible to rot. What that variety is can be learned only by experiment. Potatoes that do well and are free from disease in one district may be poor producers and very subject to rot in another.

An important point in potato growing that receives scant attention from the average grower is the selection of seed. To select seed potatoes properly, it is well to bear in mind that that portion which we use for seed, the tuber, is a portion of the stem of the plant, and naturally it will reproduce not its own characteristics, but the characteristics of the plant from which it comes. Hence seed should always be selected while the crop is growing and should be taken from hills that have produced a good number of large-sized, smooth tubers, true to variety, type and free from disease. Selecting year by year the largest-sized tubers for seed, may in the course of time develop a strain of large-sized potatoes, but the chances are about even that it won't. However large and fine the tubers may be that are selected, they may have come from plants that set a large number of small ones, and just as surely as such tubers produce their generation will they produce it in kind, and the plant and crop that springs from them will partake of all the characters good and bad of the plant and crop from which they come. Seed selection is in truth the mainstay of the whole industry, the most significant factor

involved in potato production. And when we know how few of our growers have any intelligent appreciation of this fact, how few of them use any care or judgment whatever in the matter, it is not passing strange that Ontario's potato industry should find itself in the condition it is in to-day, neither is it difficult to discover why varieties so frequently "run out," nor why growers generally have got into the habit of believing that luck, not the application of common sense practices, plays the most important part in determining what the nature of the crop shall be that springs from the particular tubers planted. Without entering into a discussion as to whether or not such a thing as luck really exists, we would like to remark that in Ontario the men who are making the largest success in potato growing are those who disregard its existence altogether; these, however, are unfortunately a conspicuous, but notoriously small minority.

Passing over the ordinary details of potato growing we shall glance briefly at marketing. The kind of selling methods at present in vogue in Ontario are not the kind likely to win out in competition as close as the competition in the potato markets has become since Eastern potatoes began to be imported.

These New Brunswick people whom we have now to meet are experts in every branch of the potato business. That particular section of New Brunswick from which most of our Delaware potatoes come, lies immediately adjacent to Aroostook County, Maine, perhaps the most famous potato district in all America. The soil is ideal for potato production. For years these people, together with

their Aroostook neighbors, have been supplying the potato markets of the great American seaboard cities. Engaged in this, they gained that insight into the growing and marketing of potatoes which has made them such formidable competitors with us. Some few years ago, in 1895, to be exact, there were millions of bushels more potatoes produced in America than had ever been produced in a single year before. The market was overstocked, and prices slumped to a point lower than they ever touched before. The New Brunswick shippers, handicapped by an import duty equal to about twenty cents per bag, were unable to retain their American markets. Driven from them, they turned their attention to Ontario, though it was not until five years later that their shipments to this Province became large enough to seriously affect local trade. In every year since 1900, however, the volume of their business here has shown a steady increase until to-day they supply the best trade of the Province, and secure prices for their goods far in advance of what the local producer secures for his.

The problem that presents itself to the Ontario farmer then is this: How can he produce potatoes equal to those the Maritime people are pouring into our markets, and having produced them, can they be disposed of for an equal price? Conditions in Ontario in most districts are favorable to potato growing. Quite as much so as the East. Potato growing, however, ought to be made more of a special line of farming than it is now. The men who are making a success in the business are those who are making it a specialty line. It should be a specialty not only for individual

farmers, but for whole districts. No one district should be producing more than one variety or type of potato. So long as nearly every farmer, in every potato shipping township in Ontario is growing from one to a dozen distinct varieties of potatoes, and every car shipped from that district contains samples of nearly every kind grown in the Province, there can be no improvement in the potato situation so far as price is concerned. The Maritime goods will sell above the Ontario product every time. What is required is more co-operation between the buyer and the producer. Co-operation among the farmers themselves for the purpose of selling their crop, would work for the salvation of the industry better than anything else, but there is little hope of much being accomplished in this direction. The local shippers can, by discriminative buying, by insisting that all potatoes delivered shall conform to a certain standard in size, color and shape, do much to help the industry along. There would, of course, be some little dissatisfaction for a time among producers, but it would ultimately work to the advantage of all concerned. The Farmers' Institute, too, in these districts where potatoes have been and are still largely grown could do much more to improve matters than they have done or are now doing. Summer demonstration work in addition to the usual winter meetings should be undertaken. The Experimental Union is another organization that could help to improve matters. If it were possible for it to get, say four or five experiments started in each township, we do not mean variety tests, but experiments to demonstrate the value of fungicides

in controlling such potato diseases as the rot, a great deal of permanent good could be accomplished. In such work it would be necessary to supply the grower with all materials required, except the seed, also to furnish him

with instructions for making and applying such mixtures as Bordeaux; instructions, too, that are not quite so scientific and ambiguous as the ordinary directions for making this mixture are.

H. B. Smith.

Reminiscences of the Winter Fair at Guelph, December, 1906.

HUNDREDS of times I have thoughtfully recalled the system inaugurated by the board of managers of your winter fair, viz., the cattle judges (it should include all live stock awards), giving reasons for their acts.

Add another similar feature. Ask the exhibitors of all champions to tell method of feeding, kind of and quantity of food, in fact how they are made. Such rules should be applied at every fat stock show in the Dominion. We know some men when invited to act in the capacity of judge may object to give reasons why, but this they will bravely overcome and return to their homes, feeling better than if their reasons were smothered. Add this rule also: Eliminate the cow and heifer class unless martin heifers or spayed.

Among the exhibits last year were some pregnant cows, and few were at all attractive. Contrast them with the champions. Then it looks plain enough; either one or the other is wrong and out of place.

Do not countenance anything without merit, i. e., instruct your judges to

turn them down. Visitors will waste less time complaining, but will more thoroughly admire meritorious stock, especially the junior classes.

I doubt if the Board of Managers of our Fat Stock Shows here will follow the good example set by those of your Winter Fair at Guelph. Newspaper editors and beef cattle association secretaries have so much influence here, and all worship at the dollar shrine.

For the money appropriations given by the various beef cattle associations of registration, duplicating fair premiums Fair managements have bartered away the rights of appointing judges, more than once. New aspirants as breeders and exhibitors have been dictated to by their herdsmen to suggest certain ones to act in the capacity of judge, and threatened to withhold their entire exhibits unless the appointee submitted by them was used.

Guess the results. Would such judges care to give reasons for the awards? or such herdsmen enlighten enquiring visitors about the method of feeding for such results? Think

over these facts and your vision is good if you can see an educational feature.

A person in quest of knowledge may visit half a dozen of our state fairs and fat stock shows at considerable cost and get little for his pains, when one hour a day at a college short course will do him more good, fortifying him with real information.

I have another suggestion to offer, viz:—All cattle intended for the slaughter test should be, exhibited in their respective classes by ages, judged by the O. A. C. students in animal husbandry, the results submitted in writing, and passed upon by the Professor in charge of the class. Carcass awards will solve the problem. A winter fair session is not long, so care should be taken to allot necessary time for this work to be thoroughly done—not in the least slighted or hurried, 'tis too interesting and important a feature of the fair.

Referring again to champions in the live rings:—In the Breeders' Gazette of July 31st, '07—John Imboden wrote "They (the champions) are not easily understood by the feeder."

After reading that writer's comments Mrs. Gosling said: "Live champions at fat stock shows and winter fairs are like a problem in

algebra—something imaginary, or an unknown quantity remains."

The only criticism on your winter fair champion steer in 1906, was that his rather coarse hair indicated slight lack of quantity, which would give the fat a tallowy tendency. At the close of the fair I met the purveyor who purchased him and told him he would find him very fat, and that not of the best quality. When I visited Guelph, in January of this year, your Mr. Barber, wholesale butcher, merely hinted such was the case and the carcass was somewhat disappointing, which corroborates the above statement. Canadian and English breeders like quality; both know so well its value in feeding stock—any kind.

Some years ago a bull calf, of the Hereford breed, was exhibited at the New York State Fair. A Canadian gentleman judged that breed and placed him second on account of his course wire hair and stiff hide. The animal's form was about as nearly perfect as possible. He never stood below first place afterward and twice made champion at our big shows— notwithstanding, the Canadian was right in standing by his principle. Quality, on the whole, is far preferable to exact or perfect form in a stock bull.

John Gosling.



Horticulture.

To keep abreast of recent progress in Horticulture—which is our aim, a series of articles has been planned embracing the whole field of the subject in its scientific, experimental, economic, practical and educational phases. These will be written by men well informed and up-to-date in their respective lines. Among these will be Dr. L. H. Bailey, of Cornell; W. T. Macoun, and A. McNeill, of Ottawa; Wm. Gammage, of London; and H. S. Peart, of St. Catharines. These articles will have a special bearing on Canadian conditions and progress. The following, the first article of the series is an outline of past and present experimental work in Canada, and, we believe, shows very well the present status of experimental work in this country.—Editor.

Experimental Horticulture in Canada.

IN order to gain an intelligent idea of the present status of Canadian experimental work in Horticulture, it will be necessary to review briefly the work of the different agencies that have been at work in the interest of Horticulture up to the present time.

The Horticultural Department of the Central Experimental Farm, Ottawa, possesses a most creditable record, and an interesting review of its work has been recently published as an Interim report. A glance at the report of the Horticulturist shows the nature and scope of work done. The division was organized in 1887, and in the score of years just past has conducted a great deal of timely and valuable experimental work. Here, as at all stations, preliminary variety testing has formed an important feature, but in addition many experiments of a cultural and commercial nature have been conducted. Some of the most important are Fall vs. Spring planting of trees; top grafting; methods of preventing injury by sunscald and mice; the use of hardy stock for grafting and budding purposes; the influence of cover crops on soil moisture,

plant food and depth of freezing of soil; and new methods of preparing kerosene emulsion. Several trial shipments of apples have been made to Great Britain, and a closely planted commercial orchard of Wealthy has furnished some interesting and suggestive figures on the profit to be derived by that method of planting. In addition to the prosecution of experiments of this nature, a great deal of excellent work has been done in hybridization of fruits and in selection of seed of garden vegetables. Numerous variety tests and cultural experiments with vegetables have been carried on and valuable results have also been secured in combatting fungous and insect pests by the use of spraying mixtures of different kinds.

In connection with the work of the Central Experimental Farm, it is probably well to note also the establishment and work of the four branch farms established at the same time as the Farm at Ottawa. One for the joint use of the Maritime Provinces is located at Nappan, N. S. One at Brandon has done good work for Manitoba, and one at Indian Head, Saskatchewan, serves the other Prairie

Provinces. The remaining one is situated at Agassiz, B. C. The work of all these farms has been directed from Ottawa, and the excellence of the services rendered has been quite in keeping with the comprehensiveness of the plan upon which they were founded.

Horticultural work at the branch farm at Nappan, N. S., assumed such importance that a Horticulturist was appointed, who, for several years devoted a large part of his time to the forwarding of experimental work in his special line. At all of the Dominion Experimental Farms the work done is intended to be of practical value to the farmers of each representative district. At Nappan the experiments took the line of variety and cultural tests with all kinds of fruits and vegetables. At Brandon, Man., attention has been paid principally to the origination and testing of new varieties of apples and plums. Some very promising hybrids have been produced. At Indian Head, Sask., little attention has been paid to fruit growing, but extended tests of vegetables and flowers, both annual and perennial, have been made. At the British Columbia Farm variety testing of fruits has been the leading feature and no small amount of credit is due this farm for the awakening of active interest in the possibilities of British Columbia fruit growing. At one time there was growing at Agassiz the largest number of varieties of fruit to be found in any one place in the world. The branch farms have been supplied from Ottawa with material for testing which, in turn, they have distributed throughout their own sections.

In addition to the branch farm established by the Dominion Government, the Province of Nova Scotia es-

tablished in 1901 an experiment station in connection with the previously organized School of Horticulture. Since that time experimentation has been closely connected with demonstration work and rapid horticultural progress is the result. Model orchards have been established in some thirty-three localities, and under the management of the Professor of Horticulture of the Nova Scotia Agricultural College these have developed into excellent object lessons. Each model orchard is located in a representative section, and is in reality a test of the suitability of the locality for fruit growing. Varieties are tested and growers have, right at their doors, a continual demonstration of the efficiency of up-to-date methods in orchard management. Two of these demonstration orchards were established in 1901, and the subsequent rapid increase in their number gives some idea of the esteem with which the fruit growers regard them. The experiment station has been also of considerable value to the horticulturists of the Province, and in addition to extended variety tests the following is a partial list of the experiments reported on from time to time: Methods of pruning; cover crops; methods of preparing and time of application of Bordeaux mixture; treatment of black knot and canker; tests of various spraying materials; fertilizers for apples, and methods of destroying couch grass in orchards.

Under the direction of the Superintendent of Farmers' Institutes, ten model orchards were planted in Prince Edward Island in 1902-3, and in 1905 the Department of Agriculture of New Brunswick established ten in that Province. This number was increased

to fourteen in 1906, and while little else has been attempted in either of these Provinces, it is doubtful if any more profitable line of effort could have been undertaken.

In British Columbia little has been accomplished save the work done by the branch farm. At the Eighth Annual Farmers' Institute Convention, held in February, 1906, a resolution was passed asking the Dominion and Provincial Governments to co-operate in establishing a series of "illustration stations" throughout the Province. The writer is not aware of any action that has been taken in response to this resolution. A commercial apple orchard has been planted at Agassiz, to be used as a basis in determining the profits to be derived from apple growing in that district.

The Department of Agriculture of the Province of Quebec as long ago as 1894, established fruit testing stations in various sections of the Province. In 1904 seven stations reported the result of variety and cultural tests with many varieties of fruits. For many years also valuable horticultural work has been carried on at the Oka Monastery. Large plantations of apples, plums, grapes, and other fruits have demonstrated the possibilities of fruit growing, and much valuable instruction has been based on the results achieved there. Thousands of trees and plants have been grown in the nursery, and distributed through the Province. It is said that some of the European plums grown at Oka are hardier than any plums of that class grown elsewhere in America.

Ontario has had for several years important agencies working for the advancement of horticulture. In 1894 four fruit experiment stations were

established in as many important fruit growing sections. The number was increased to ten the next year, and four others were added soon after. The fundamental work of the fruit experiment stations has been variety testing and they have done excellent work in that line. Occasionally other experiments, such as the prevention of sun scald in the northern sections, thinning of fruit, and spraying, have been conducted. A great deal of valuable information as to the hardiness and comparative value of different varieties of all kinds of fruit has been secured, and in most cases the stations are prepared to recommend with authority the best varieties for planting in their respective districts. In 1905 the Board of Control of the Fruit Experimental Stations recommended that the number of stations be reduced, and that an experimental farm be established in the Niagara District, where experimental work of value to the fruit growers of the entire Province would be carried on. They proposed to reduce the number of stations to four, but this has not yet been officially decided upon. In fact, this last season a station, or what is probably the beginning of a station, was located on an experimental farm chosen by the Minister of Agriculture in the Temiskaming District. The Niagara District Experimental Farm has been established at Jordan, and is preparing to undertake the work for which it was created. It is probably well to note here some remarks on the question of the future of the Fruit Experiment Stations made by Mr. A. McNeill, ex-President of the Ontario Fruitgrowers' Association. In his address as President of the Association, at its annual meeting in 1905,

he recommended the appointment of an expert who should have charge of the Experiment Stations of the Province. A discussion of this suggestion took place, the gist of which was that the work of the stations could be considerably broadened, and that a great deal of experimental work of value should be continued upon the foundation already laid down. At the same meeting a discussion took place on the advisability of recommending the establishment of the new Experimental Farm in the Niagara District. A resolution asking for the establishment of such a farm was moved, but was finally withdrawn. It was thought that such an action would be contrary to the idea expressed by the President in regard to the enlargement of the work of the already existing stations. However, the farm has since been established and since no one will deny that President McNeill's suggestion was a wise one, it would almost seem practicable under the present circumstances to combine the two ideas brought forward at that convention, and to appoint the Director of the new Experimental Farm as supervisor of the work of the remaining Fruit Experiment Stations. A decrease in the number of fruit Experiment Stations may or may not be advisable. Certain it is that each representative fruit district should possess one. Each station represents a district more or less limited in area and none is representative of any large part of the Province. Several of the men now conducting Experiment Stations are undertaking to solve in an unofficial manner problems which perplex them. Many of these problems are of a general nature,

and under the wise direction of an officer whose duty it should be to give a large part of his time to the solution of them great good could be accomplished. Certain problems of fertilizing, pruning, spraying, and certain methods of culture require careful and extended experimentation before solutions can be reached. There are also many problems of a commercial nature about which fruit and vegetable growers are asking many questions. It is doubtful if a better way can be discovered for the working out of these than by the systematic prosecution of co-operative experiments under the direction of a competent head. The model orchards of the Maritime Provinces are object lessons in this respect. They have served their purposes in variety testing and in methods of culture and are now in a position to be made the basis of commercial experiments in apple growing in the various sections of these provinces.

The new Agricultural College of Manitoba and the Macdonald College at Ste. Anne, Quebec, will no doubt fill important positions in connection with the advancement of Horticultural progress. Already the fruit plantations at Ste. Anne are laid out and it is understood that they are to be conducted largely on a commercial basis.

The work of the Horticultural Department of the Ontario Agricultural College is, as far as the purposes of this article are concerned, identical with that of the Experiment Stations above mentioned. Extended variety tests of all fruits likely to be of value in climates similar to that of Guelph have been conducted. Tests have also been made of many varieties of vegetables and of flowers, bedding plants, and shrubs for home adornment.

Other experiments, such as cold storage of fruits, and tests of cover crops have been carried on.

Another line of experimentation that has been productive of splendid results in Ontario is the work of the Experimental Union. In 1894 sixty experimenters received plants of the leading varieties of small fruits for testing purposes. So great has been the demand for experiments of this nature that in 1907 over 2,400 names comprised the list of experimenters in fruit alone. Up to the present time plants have been sent out for over 6,800 experiments. This year vegetables have been listed for test for the first time, and 1,100 persons representing all parts of the Province have taken advantage of the offering made. No further proof is required of the value that might accrue to horticulture generally through the work of carefully conducted experiment stations than the reports received from these hundreds of individuals throughout the Province. Each is trying earnestly, but too often crudely, to solve his own problems, and there is not one among them who would not welcome, most heartily, an authoritative statement by some one who has thoroughly tested the matter and is capable of advising him. It is worthy of note in this connection that a very large proportion of those now reporting on experiments are residents of New Ontario. There is no doubt that an experiment station in that locality is sorely needed and would be greatly appreciated.

By way of summary, it is worthy of note that the large majority of the experiments heretofore conducted have been of a varietal and cultural nature. With the experiment station

the case is the same as with the individual and straight variety testing is always the initial step. Next in order is the testing of different methods of culture and treatment, and it would seem that many of the stations in Canada have nearly, or quite, reached the completion of this stage. Beyond question there is, at present, a strong and growing demand for accurate information on such questions as cost of production, economy in handling and the profits to be derived. This is true not only in fruit growing but in floriculture and vegetable gardening as well. It may be that the business of apple production will always be more or less speculative, but it is nevertheless certain that business men with money to invest are demanding statements of the financial side of the business. One has only to refer to the reports of the recent convention of the Canadian Horticultural Association to discover that the florists are following the same line of thought. The farmer, too, is becoming more of a business man, and is beginning to manifest some curiosity as to the direction of fluctuation in his bank account. It is significant, also, that Macdonald College, the newest and probably the best equipped agricultural college on the continent, is preparing to engage problems of this nature. The same may be said of some of the leading institutions in the United States. Plant improvement, of course already occupies a large place in experimental work, but if it is safe to forecast at all one might venture to state that the horticultural experiment work of the future is likely to be of a distinctly commercial nature.

J. W. Crow.

The O. A. C. Review.

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Editorial.

Again the O. A. C. has opened its doors to a fresh body of students, and again all is life and activity on College Heights.

The Spread of the Agricultural College.

The enrollment in this college this year is the largest upon record. No less than one hundred and fifteen freshmen have entered, the sophomore class contains fifty-six men, there are thirty-seven Juniors, while the class to graduate in May next is the largest ever, having thirty members.

This record attendance is noteworthy at this present time. In spite of various and conflicting harvest reports there seems to be little doubt

but that the total yield of nearly all crops the Dominion over will be less than the average. This factor, combined with the stringency at present being felt in other lines of industry, would, one would have thought, have tended to a somewhat smaller attendance at this Agricultural College than for the past three or four years, during which time the country has been so generally prosperous. But this year this increased attendance is yet more noteworthy because of the recent opening of other Agricultural Colleges in other parts of the Dominion. Nova Scotia's Agricultural College at Truro has been in operation for two years, the Manitoba Agricultural College at Winnipeg opened a year ago, and this

autumn sees the commencement of the splendidly equipped Macdonald College at Ste. Anne de Bellevue, Québec. At this time, too, there is a distinct agitation for the establishment of an Agricultural College in Alberta.

With four Agricultural Colleges in full swing and with a fifth soon to be organized, with agriculture on the curricula of some of the High Schools in Ontario, a new era has dawned for agricultural education and agricultural life in Canada. With the special training received at an Agricultural College goes a wide vision over the whole realm of agriculture, and this wide vision is perhaps the largest benefit which a young man reaps from his course at such an institution. He becomes large-minded. To use a famous phrase he "thinks Imperially" of agriculture, and with such large-minded men leading a country's foundation industry, that country must ever be prosperous.

During the two weeks of Toronto Fair this year a suggestion was hinted which, if carried into effect would be of great benefit to the many students, ex-students and others keenly interested in this college. The suggestion was that in future there should be a college tent upon the grounds where ex-students might register and where the old acquaintances of college days might be renewed. Each day of the Fair sees many ex-students upon the grounds. Some of these meet casually and in course of conversation some others who happen to be present on the same day are mentioned, and naturally enough the one to whom such are mentioned wishes to see them. At present it is

**The O. A. C.
at
Toronto
Fair.**

an impossible task to search out one or two persons from among the immense crowds which are always present. With a tent as College headquarters, this difficulty would to a very large extent be done away.

Not only would such a headquarters be of considerable benefit to college ex-students, but it would as well prove of direct value to the institution itself. From such headquarters literature, bulletins and other information could be very easily distributed, and the place should, because of the information disseminated regarding the O. A. C., be a valuable means of attracting students here.

From time to time suggestions have been made that a cap of uniform design be adopted and worn by the student body. In the past it has been a habit with succeeding Freshman classes to adopt for themselves a class cap. Though this has been so often done, yet seldom have these caps been worn for many days after their adoption. One reason for this is not hard to seek. We have had red slouch hats, which certainly make a splendid contrast to the green of the campus, sky-blue caps which earned for their owners the epithet of "blue jays," we have seen red and blue in quarters looking like jockey headgear, and last of all a brown cap made its appearance.

In a large university there is probably a place for a class cap, but whether there is such a place in an institution such as the O. A. C. may well be doubted. In the past there has been "too prominent a class spirit among us. This has almost entirely disappeared during the past two years,

and now upon the start of a new year it should be the aim of all students and organizations to live for the whole and to foster a keen College spirit. As an aid to this we hope that one of the societies or the student body as a whole will take upon itself the task of adopting an official cap, one that shall be fit to be worn upon the street, as well as in less public places. If this is done a valueless distinction between classes and a hindrance to a spirit of unity will be abolished.

OCTOBER.

Like gallant courtiers, the forest trees,
Flaunt in their crimson robes with brodered gold;
And, like a king in royal purple's fold,
The oak flings largess to the beggar breeze,
Forever burning, ever unconsumed,
Like the strange portent of the prophet's bush,
The autumn flames amid a sacred hush;
The forest glory never brighter bloomed.
Upon the lulled and drowsy atmosphere,
Fall faint and low the far-off muffled stroke
Of woodman's axe, the school boy's ringing cheer,
The watch-dog's bay, and crash of falling oak;
And gleam the apples through the orchard trees,
Like golden fruit of the Hesperides.

—Wm. Henry Withrow.





Photo by

Geo. Stevens.

College Life.

When Autumn brings the new returning men

From evanescent joys of rural life,
From seeking pleasure, recreation,
work,

In many diverse places, far and near,
Once more to work, where grandly
spreads

Its noble limbs, the O. A. C.'s home-
ly pile.



WITH almost incredible swiftness, the summer months have come and gone, and so once more we are beginning a new college year. Its work and sport we should enter into enthusiastically; its advantages we should make the most of; its disadvantages we should strive hard to overcome. The enrollment in the freshmen class this fall is the largest yet recorded in the history of the institution, and although the combined attendance in the sophomore, junior and senior classes is below that of last year, yet the accommodation is not sufficient to

permit of all the students being quartered in the residence. Consequently, the "aliens" (probably on account of their superior deportment and gentility of manner), were requested to secure rooms and board outside of the residence. There they must patiently bear the inconvenience and extra expense thus incurred until the completion of the new addition to the residence.

Improvements.

For some years past it has been apparent to those interested in the welfare of the college that more dormitory accommodation was urgently needed, and it will be gratifying to them to hear that this need is being met with by an extension to the northwest portion of the main building. The new building extends back to the electric railway track, and in construction and architecture is precisely similar to the older portion of the residence. The two upper stories will provide accommodation for some forty students, and the ground floor will be used as an addition to the

present dining hall. This new extension was to be ready for occupation by the middle of September, but to quote Burns, "The best-laid schemes o' mice and men gang oft agley," and from present appearances it will be two or three months before all the students enrolled can be accommodated in the residence.

No. I. classroom and the room adjacent no longer exist as such; they have been transformed into a commodious and comfortable sitting-room. In the provision and getting up of this room, the whole student body feels that a long-needed and much-felt want has been provided, and they heartily appreciate the untiring efforts of President and Mrs. Creelman, who have worked long and hard to procure for them this additional comfort. Now that it is here, let us all take good care and make good use of it. The new sitting-room is large, airy and well-lighted, and contains a piano and numerous tables, chairs and settees. The furniture is in the mission style, and of black oak. Among the pictures adorning the walls are four admirably executed oil paintings of Shakespeare, Scott, Carlyle and Tennyson. For these works of art we are indebted to our popular dean of residence, Mr. D. H. Jones.

Some new sidewalks have been laid down during the summer, and some of the old ones have been widened. We are especially glad to see that the "toboggan slide" leading from the residence to the Massey Hall and Biological Building has been replaced by a sidewalk, upon which one can venture without incurring the risk of fracturing some part or other of one's anatomy.

Changes in the Staff.

Since the last issue of the Review several changes in the staff have been made. R. W. Wade, B.S.A., replaces H. S. Arkell, B.S.A., as Assistant Professor of Animal Husbandry. Mr. Wade was born in Lincoln County, and for some time previous to his entrance to the O. A. C. he was engaged in school teaching. He graduated from this institution in 1904, and since then has filled the position of Assistant Professor of Animal Husbandry at the Arkansas State College of Agriculture. Mr. Arkell left us to become Professor of Animal Husbandry at the Macdonald College, St. Anne de Bellevue, Quebec. In the Horticultural Department, J. W. Crow, B.S.A., one of last year's graduating class, replaces H. S. Peart, B.S.A., who is now Superintendent of the new Horticultural Experimental Farm at Jordan Harbor. M. F. Coglon, B.S.A., also of last year's graduating class, is now Fellow in Chemistry, vice G. G. White, B.S.A., '06, who left here in June to become lecturer in Chemistry and Physics at the Agricultural College, Winnipeg. H. H. Ledrew, B.S.A., former business manager of the Review, is now lecturer in Economics and English. On the Experimental Department, C. R. Klinch, B.S.A., '06, replaces H. G. Bell, B.S.A., '04, who is now assistant lecturer in Agronomy at Ames, Iowa. A. W. Mason, B.S.A., '05, and R. W. Mills, B.S.A., '07, are engaged in plant-breeding work on this department.

The Initiation.

The initiation, if such it may be called, is over. Owing to the great disparagement in the strength of the respective years, it could hardly be

expected that the sophomores would succeed in gaining a decisive victory over the freshmen. A somewhat novel feature of the initiation this year is that it took place in broad daylight, and the fact that it did so speaks volumes for the pluck and determination of the second year men. During dinner on Saturday, September 21st, the Dean of Residence announced to the student body that at one o'clock the sophomores would proceed to lower the freshmen's colors, which were then flying from the top of an eighteen foot pole, erected on the southwest corner of the campus. As the whistle screeched out the hour of 1, the two years clashed round the pole. Some two or three minutes later an ambush of sophomores, emerging from the cover of the shrubs nearby, attempted by jumping on the backs of those surrounding the pole to gain the flag. This attempt, as was to be expected, failed, for every sophomore was immediately pounced upon by two or three freshmen, and although strenuously resisting, was hauled back from the pole. For some twenty-five minutes the space surrounding the pole was covered with a struggling, seething mass of greasy humanity, whose main object was apparently to divest itself of as much clothing as possible. At 1:30 o'clock, when hostilities ceased, the freshmen's colors still waved aloft. While the freshmen are to be commended for the manner in which they upheld their colors, at the same time the sophomores are to be congratulated upon their valiant struggle against almost overwhelming odds. Since a feeling of friendship and respect now exists between the two years the aim of the initiation has been gained, and the

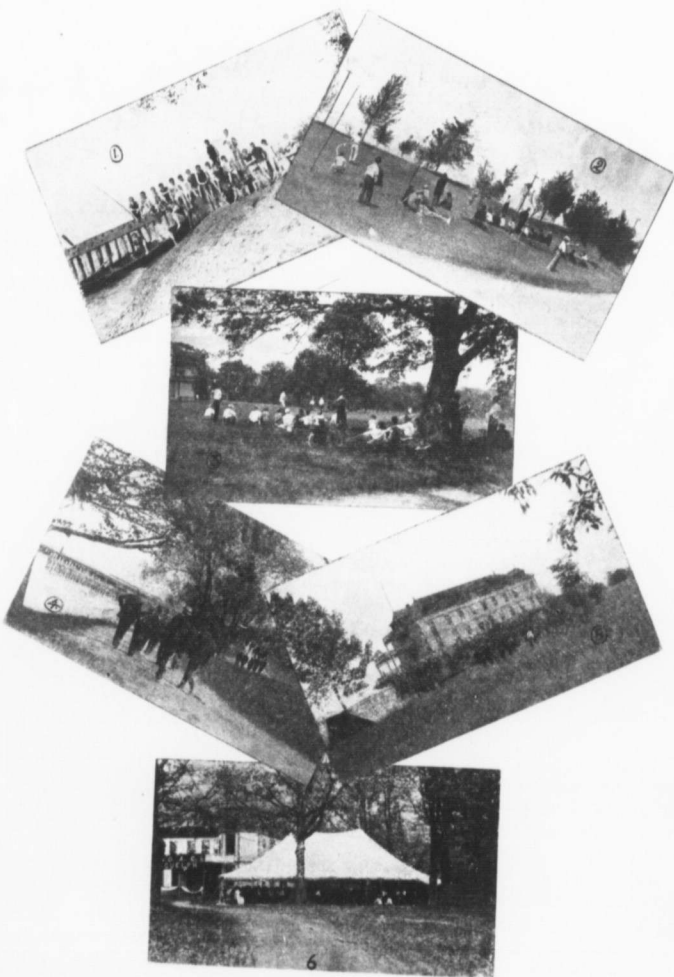
freshmen and sophomores should now direct their united strength and intellect to the furtherance of the welfare and prestige of the O. A. C.

Reception to the Freshmen.

In marked contrast to the somewhat barbaric proceedings of the afternoon, was the Y. M. C. A. reception to the freshmen in the evening. About 8 o'clock, the students, old and new, together with most of the members of the faculty and their wives, gathered in the gymnasium for the purpose of making one another's acquaintance.

After half an hour spent in a social chat, the chair was taken by W. Baker, President of the Y. M. C. A. Addresses to the freshmen were then given by the chairman, President Creelman, and Mr. W. H. Day, B.A. Mr. Day impressed upon the freshmen the advantages which they would derive from becoming enthusiastic and active members and supporters of the various college societies. The new students would do well to bear Mr. Day's address in mind when called upon to give their support to and co-operate in the work of these societies. The gathering was then delighted by a solo from Miss A. Springer, who was very heartily encored. A humorous reading was very ably rendered by Mr. J. M. Lewis, of the sophomore class, and this was followed by some laughable athletic stunts. Refreshments were then served, after which one and all joined in singing the college songs, and a very sociable evening was concluded about 10:30 by singing "God Save the King."

The first chapel service of the college year was held in Massey Hall on



1 Aquatics. 2 Lawn Tennis.
3 Baseball.
4 Returning From a Meeting. 5 The "Strathcona."
6 Meeting Tent and O. A. C. Headquarters.

SCENES AT THE NIAGARA CONFERENCE.

Sunday, September 22nd. Mr. Baker, President of the Y. M. C. A., assisted by Mr. D. M. Rose, Chairman of the Bible Study Committee, conducted the meeting. Prof. Harcourt gave a history of the growth of the Y. M. C. A., and Prof. Reynolds outlined, in an

able address, reasons for Bible study. During the service Miss Drummond, of Guelph, sang in good voice, "The Shepherd King." A pleasing feature was the enlistment of almost every man in Bible study work.

Impressions of the Niagara Conference.

The first Y. M. C. A. student conference held upon Canadian soil was a striking success, and will almost certainly be repeated and become a permanent institution. Three hundred students, representing fifty universities, colleges and preparatory schools, were in attendance. The O. A. C. is to be credited with twenty-five of these delegates, and we are proud of the fact that more delegates came from Guelph than from any other one institution. These three hundred students met together in mass meetings, small group classes, sat together in the dining hall and rivaled one another on the sports field. All had what each had anticipated—a good time, good mentally, physically and spiritually. Sports were always much in evidence. Lake Ontario, upon whose shores is situated the Strathcona, the conference headquarters, offered unsurpassed bathing and boating facilities, the ball grounds and tennis courts were much used, inter-college schedules in each of these games being played. On the Wednesday evening a grand calithumpian parade was held, during which the various colleges represented contributed their respective songs and yells.

In every mind, however, could be detected an undercurrent of enthusiasm for things pertaining to the Kingdom of God. This conference, as

others previous to it, marked a revolution in many a student's life, and many determined from that time forward to live a better, purer and stronger life than before. Personal purity of thought was a phase of student character upon which great emphasis was placed by many of the speakers. Few who heard it will ever forget John R. Mott's address upon "Habit," nor that quickening phrase of his, "a decisive act of will."

As at Northfield Conference, so at Niagara-on-the-Lake, the evening "Life Work Talks" were a never-to-be-forgotten feature. Seated under the trees on the shore, looking towards the setting sun, each evening we heard some strong speaker put forward opportunities for Christian service in different callings. "Service" was pre-eminently the keynote of the conference, and following the heart-searching addresses of Mr. Robt. E. Speer, many men decided that their field of labor should be, if God permit, the foreign missionary field.

After ten days of wonderful inspiration, the conference closed. This was all too soon, but we cannot always live in conferences. There is work to do, and real life to live. To this we have returned thankful for those days and still hearing ringing in our ears Speer's closing words, "Stand fast; quit ye like men; be strong." W.

Athletics.

IT IS with pleasure that we present to our readers this month a picture of our new athletic trainer, Mr. W. R. Reeds, who for the last few years has been actively engaged in athletic work at the Central Y. M. C. A., Toronto. And Mr. Reeds comes to us with a reputation. He is the 145-lb. champion amateur wrestler of



W. R. REEDS,
Athletic Trainer.

Canada, winning the title only last spring; he is a pole vaulter of the first calibre, clearing over ten feet at the C. A. A. U. games held this summer; he is a first-class man at jump-

ing, in fact at almost any exercise he is the peer of any man in the College, and even in those events for which he is not suited in athletic build, he knows how they should be done and can start one in the right method. But it is as a worker that Mr. Reeds particularly impresses one. The very first night he was here and met the students he found out what each man did and privately arranged for him to be out on the campus the next afternoon, where he was met and instructed personally for a few brief moments. After such an expression of his intention to bring athletics into the prominent position they should attain, we have no hesitation in saying that Mr. Reeds will become fully as popular as his predecessor, if he is not already so. Personally, our trainer is of a slightly modest disposition, and has such a frank engaging way of meeting one that he appeals to one at once. We were indeed fortunate in our choice.

Summer Sports.

Although the college year proper ends with the close of the winter session, and most of the college boys betake themselves to other fields to beguile the vacation days till college reopens, still we have been by no means idle in athletic lines this summer. The senior years utilized the spring months in attaining proficiency in the arts of

tennis and baseball, while later in the season cricket came into its own.

Early in the spring a baseball team was organized and exhibition matches arranged with the strongest church teams in Guelph, namely, St. George's St. Andrew's, and Knox. In these games the college won from St. Andrews and Knox, but were defeated by St. George's under the pitching of "Toad" Saunders, who has since developed into one of the best amateur pitchers in Guelph. But we ex-

leading, then the other, and it was only in the last innings that Arkell obtained and held their lead of one run, the game ending with the score of 9-8. Later in the season a team visited Arkell and returned home that evening sadder but wiser men.

Although this was the first year a baseball team has been organized at the college, its innovation has been a decided success, and many star players were unearthed. The event of the season was the fielding of Reg. Arkell,

his great one-handed stabs and certainty of catching being a feature.

Foster and Fairbairn are fielders of the first water. Hare looked after the offerings of slab-artist Albert Greene; Johnson meandered around first in his usual happy manner; E. Lewis looked after second; and Hodson fielded what came his way at third. Brown occupied the right garden, while Fairbairn usually occupied short.

For cricket an amalgamation was formed with the Guelph team and the

combined O. A. C.-Guelph team entered in the league with the Brantford S. O. E., Galt S. O. E., Galt and Berlin. The O. A. C.-Guelph team were much the strongest team from the start of the season and won every game played by substantial scores, with the exception of a single defeat at Berlin. The championship pennant as a result rests in Guelph for the winter. At various times during the summer exhibition matches were played



Guelph O. A. C. Cricket Club.

perienced two more reverses. Arkell came in one night and played us a friendly game of ball. And they could play ball. Their fielding was above the average, but it was in their batting that they showed especial proficiency. Every man seemed able to hit the ball at any time for one or more bases and it was only magnificent fielding by our boys that kept the score down. The game itself was a nip-and-tuck contest, first one side

on the college campus with Rose-dale, Parkdale, Deer Park, and the touring Chicago Wanderers, all resulting favorably for the home team, with the exception of the last-named team.

O. A. C. Guelph team:—

1 Herb Carter, 2 S. Carter, 3 Dr. H. O. Howitt, 4 H. Bond, 5 W. Ryan, 6 W. Persse, 7 W. Hunt, 8 R. C. Treherne, 9 P. McLaughlin, 10 W. Cotton, 11 W. Tytler.

Letters From An Old Sport.

Dear Boys:—The summer, which we are leaving behind, brings us to the good old days of the autumn when every good sport returns to college. The freshmen are to be seen in great numbers doing new stunts on the football field, stunts which afford considerable amusement to veteran old footballers as are to be found in the junior and senior classes. Now's your chance, boys, get the dust out of your garret, and make everybody think you are a new automatic house-cleaner by cleaning everything up.

In days to come you do not want to be shoved into a 20-storey building on Easy street and be a sort of a manager of a children's home.

I know a lot of old mummies that say that a rolling stone gathers no moss, and they're right, boys. So if you don't want to get moss grown and moldy keep rolling. A rolling stone raises the most dust and butts into more opportunities than the moss grown boulder. While we're on the subject, boys, I might say there is an awful bunch of these old maxims which were ripped off by a lot of stiffs away back in the dark ages when the batting average of a literary genius consisted entirely of sacrifice hits. Those old, sour mugs, now-a-days, get positions for writing in the Hints to

Housekeepers' column in some one-horse town daily.

I remember when I was at school I got the writer's cramp copying a line which reads, "When angry count ten before you speak, and when very angry count one hundred." Then I diagrammed it, parsed it, cursed it, recited it backwards, frontwards and edgeways to make it stick in my nut.

I never yet found the guy who would let me count five, and found it is generally the referee who counted ten before I came up. Another bunch of false alarm dope says a soft answer turneth away wrath. You can take my tip that the only thing a soft answer will do with wrath is to cause the guy packing the wrath up to get busy with you with his maulers.

These old, ossified pedagogues of the knowledge factories who perpetuate this dope of the dark ages to store into the rising generations are largely responsible for the bunch of molly coddles turned out of these institutions. They let out a howl like a dog catcher's wagon being side-swiped by a hog train about athletics putting their institutions on the bum, but I can tell you if it were not for athletics their old shacks would be nothing more than fop factories.

There are a lot of old moss backs who cannot see where athletics butt into business training, but you can take my tip that it takes the same mental qualifications to buck the rush line in football for short gains as it does to buck through the obstacles to the goal line of business success. The gritty guy who hammers away at the opposing rush line in spite of three cracked ribs, a fractured wing, a couple of shaded lamps and a twisted spine is not very blamed apt to stay

out when he gets slammed back for a loss in the business game. The guys who have smeared their way down the field fighting tooth and nail to overcome fierce resistance while the others push over the line with the winning touchdown spitting out chunks of hair and cuticle, or the scrappy bunch who, after putting up an up-hill fight on the diamond, come up in the ninth and smash out a victory—these are not the slobs who butt into business and stick at the 25-yard line because the game ahead is hard.

Now, boys, when you are making an athlete out of yourself you are also laying in a stock of goods essential in making a self-made man. Given the same amount of mental ability the guy who has won his letters in athletics will easily beat the bookworm in any walk of life. Hoping to hear good reports of your doings before I write you next month.

Yours truly,

Old Stager.

Review of Year in College Sports.

For the benefit of freshmen particularly a review of the whole college year in athletic lines is herein presented. The principle athletic event of the year is our annual Field Day, held every fall in the early part of October, when the track and team events of the year are run off. About a month later our annual cross-country run is held, the distance being about five miles, and the winner becoming the holder of the McKillican-Hallman Cup for the ensuing year. Throughout the whole fall term football practice is regularly held, and a schedule is to be played this fall with the intermediate teams of Varsity and McMaster, the winner to play off

with the leader of the eastern section of the Inter-Collegiate League.

After Christmas hockey is the principal game, and a series is to be played in the Inter-Collegiate League. Basketball and indoor baseball occupy much time, and both year and exhibition games take place frequently throughout the winter term. In March our indoor meet is held, at which takes place exhibitions of gymnastic work and skill, and competitive tests of events that are readily held indoors. This ends up the list of our recognized college sports, but the list is so large and varied that any student may find ample scope for distinction in any game he may be especially proficient in.

Medals for Record-Breaking.

There is one objection to the way the men who break records on Field Day are treated. At the present time there is no special inducement for a man to try to break a record; all his energies are devoted to becoming the grand champion of the day, or to the winning of the medal offered for the leader in each one of the four divisions of the sports. No man thinks of entering only one event, and of training specially in that one line for a month or longer in order that he may make a record. It is true that an emblem is given for every record broken, but no man will overdo himself in any event after he has safely won it if he thinks he will thereby injure his chances of winning a following event, and the championship. As a result on Field Day we have very few records created, although many of our present records could easily be broken by men now in the college if only some inducements were offered. Surely we pay

too much attention to the grand champion of the day, and to the winners of the different groups, if by so doing we discourage men from endeavoring to raise the standard of track athletics at this college. We must pay more attention to record-breaking, and one very easy way would be the giving of a gold medal suitably inscribed to every man who creates a new record this present Field Day. Such a medal would be cherished in years to come and would be a more lasting souvenir than an emblem can possibly be. If by this means men could be induced to enter fewer events, and more men could be got out to train, the result would be more lasting good to many more students in the college, competition would be better, and the standard of athletics raised. The only objection we have heard raised to this plan is that one man might win two or three medals if he broke some records. Well, let him; records are not broken every year, and if the standard is raised by special training for a few events, a man will well earn everything he gets. This is a matter that deserves careful consideration from our students.

The Covered Rink.

For many, many years at this college we have been hampered every winter by lack of proper ice accommodation. In the old days when the college was young, and contained on an average fewer than one hundred students, the old open-air rink in the bull paddocks sufficed for all skating and hockey purposes, and was all that the students could afford to keep in working order. But the college grew, the number of students doubled, new build-

ings sprang up everywhere, and the college had out-grown its first rink. The next step of progress was the building of the present large open-air rink in the orchard field. This was a very great improvement, affording ample space for the carrying on of hockey and accommodating all the students at skating. But there are great and serious objections with all outdoor rinks in this climate, and ours proved no exception to the rule. When the ice is required for use after even a light fall of snow, it is hardly ever available, owing to scarcity of help in clearing; the large ice area is very expensive to keep clear of snow; on a bright day in winter the sun destroys a large strip of ice all around the edges; the ice surface cannot be kept perfectly level; and finally the skating season is late in starting and ends too early in the spring. A covered rink would overcome all these difficulties, and as the college has once more almost doubled in size, the number of regular students at present attending the O. A. C. and Macdonald Institute being over 350, and as our college is this winter to be again grouped with other colleges in hockey, our Athletic Executive feel that we must at once provide suitable accommodation in the form of a covered rink, and that the time is now ripe for action.

After due deliberation the Athletic Executive have come to the conclusion that for the sum of six thousand dollars a modern building of good appearance, sufficient size, and permanent in structure could be built. Already a start has been made; a committee has been appointed to receive all contributions and to place all such in safe deposit in the bank to be used for no other purpose than for the erection of

a covered rink; and already the sum of \$500 has been raised from outside sources. All the students at present at the college will be personally appealed to for the largest amount they can spare, and all the staff will be asked to contribute as generously as possible to the fund. But it is to you, ex-students, that the Review especially makes its appeal, you who cannot be appealed to personally. Every man who has spent some time at our college, and who has gone away after a varying time full of fond reminiscences and recollections of his college course, is asked to lend a helping hand, and to give generously to the cause. As age grows upon us, and the days of youth are past, and the college days recede more and more into the dim future, our recollections of college days becomes more and more dear to us, and it requires but the meeting of a few old boys to bring back to us visions of hard fought college games, midnight tappings, cherished jokes, faces of old classmates, and the thousand and one things that make up a man's college career, which comes but once, is past, and can only be recalled by memory. We all love our college, our dear old Alma Mater. She takes

us in young, inexperienced, and rough; educates us, and then turns us out ready to face the world fully equipped to fight the battle of existence. Such a debt can never be fully repaid; but one may partly pay his debt by helping us to better the accommodation for the present students. We expect you to deal generously, fairly and squarely with us.

All contributions should be sent in at once to the Secretary of the Athletic Association, with the full name and address of the donor, so that such may be published next month in a complete list of all contributions to the Covered Rink Fund. Donations of any size are quite acceptable; do not be afraid to send your offering because you think it too trifling; all remittances will be thankfully received and recorded. With this appeal the matter passes almost entirely from the hand of the Executive, and the responsibility passes into the hands of all who are interested in the welfare of the college, who, if they will but take it up, and do with it as they should, will no doubt make it a most brilliant success, and make a covered rink an assured fact at once.



Our Old Boys.



The Class of '07.

THE proof of the pudding is in the eating of it, and the test of the college is the ability of its graduates. It is then evident why the Ontario Agricultural College has a world-wide reputation as the foremost of the colleges giving instruction in the agricultural sciences. Her graduates scattered all over the world are winning renown for themselves and reflecting honor on the College by their accomplishments in the improvement of agriculture. The graduates of '07 will hold the College standard as firmly aloft as any of their predecessors.

There were twenty men in the class. They were characterized on the whole

by perseverent studiousness. It is consistent with their application to studies that they did not shine as stars in the inter-year athletics, but this was due to preoccupation, and not to lack of ability, as they fully demonstrated in the team events on the field-day of their final year. On this day they defeated the teams of the other years in the tug-of-war, the relay race, and the hose and reel contests, establishing the College record in this last.

Of more honor to them was their accomplishment in retaining for the College the highest honors in competition with the other agricultural colleges at the International Fat Stock Show at Chicago. The bronze bull

trophy, given by the Union Stock Yards Company for competition between teams from all the agricultural colleges on the continent, fell an easy prey to our College team chosen from the class of '07.

Of the twenty men in the class, fourteen specialized in Agriculture, three in Horticulture and one in each of the Biology, Chemistry and Dairy Options. They are now entering the various spheres of activity directly connected with agriculture, for which their training specially fitted them.

P. M. Ballantine, Lacombe, Alberta.

"Billy" is now on his ranch at Lacombe, making two blades of grass grow where but one grew before.

Horace Barton, Vankleek Hill.

Barton is a strong man in any company, and there is no fear of him failing to bring honor to his alma mater in his present position as Assistant Professor of Animal Husbandry at Macdonald Agricultural College, Ste. Anne de Bellevue, Quebec.

T. G. Bunting, St. Catharines.

"Billy" Bunting was always ready for fun. This made him popular with his fellow students, while his high standing in the examinations gained him the approval of the staff. At home, near St. Catharines, he has a great career before him as a fruit-grower, and is already favorably known by the fruitgrowers in Niagara as "Young Bunting."

M. F. Coglon, Bath.

That he was an immovable anchor on the tug-of-war, and the backbone of the scrimmage at Rugby, was once champion of Indoor Sports, and also served on the Athletic Executive, is but inadequate tribute to his ability

as an athlete. He was an assiduous student and well earned the position he now holds as Fellow in the Chemical Department.

J. W. Crow, Welland.

Crow is now aiding to improve this country of ours by instilling First and Second year men with the most advanced ideas on horticultural matters. Judging from his record as a student, he will be a valuable acquisition to the college staff. As President of the Young Men's Christian Association, he exhibited great tact and executive ability, and we might add, versatility, for while he was a success as a leader in things spiritual, he was also an adept at laying up treasures of fruit where moth and rust doth corrupt and students break through and steal.

T. H. Binnie, Bunessan.

Binnie is first and foremost a dairyman. He was an ambitious student, and made excellent use of his opportunities while at college. He developed in no mean measure the talent of speaking in public on practical matters. At present he is an assistant of the Dominion Dairy Division, with his headquarters at Peterborough.

P. Diaz, Ferrol, Spain.

If Pelayo Diaz is a sample of the average young manhood of Spain, then the Spanish are indeed a superior race. He entered college with scarcely an elementary knowledge of English, but he so far overcame this impediment that he was early known as a leading student, and was a successful rival to those who competed for honors at public speaking. He returned to his home, shortly after the conferring of degrees, and already we hear Cupid has struck him with a dart.

R. S. Hamer, Toronto.

Shortly after entering the college, Hamer became connected with the Review, and it was well that he was selected as Editor-in-Chief, for in the troubled seas encountered in establishing the paper upon its present firm basis, he brought the ship safely through by his firm hand. In spite of his editorial labors he was able to keep to the fore with his studies, and in his final year brought honor to the college at the International Fat Stock Show. On this occasion he secured the highest number of marks of any individual competitor entered in the judging competition. At present he is directing the High School Agricultural course at Perth, Ontario. May he succeed as he always did.

W. J. Hartman, Woodbridge.

Hartman has found scope for the use of his many talents as assistant in the Veterinary Department of the Agricultural College at Bozeman, Montana. He was a thoughtful student, and highly esteemed by all, and has left his name on our roll of fame as a winner of running events on Field Day.

H. F. Hudson, Forest Gate, Essex, England.

Hudson, that burly Englishman, returned to England at the completion of his course. We hope he will come back soon and give his strength to the building up of this Canada of ours.

W. S. Jacobs, Toronto.

"Jake" was an "all-round man." A hard worker on the Rugby team, active in the literary society, a wise counsellor on the Athletic Executive and a great help to the Review. He is now Assistant Agriculturalist at the

State Experiment Station, Fayetteville, Arkansas.

A. McKenny, Corinth.

Angus is now an Agricultural Pedagogue. He is in charge of the High School work at Essex, Ontario, and we are sure he will leave a good record in this pioneer work he is doing.

R. W. Mills, Toronto.

"Reg" was chosen by his class to receive the '05 class medal for the best all-round man among this year's graduates. His executive ability was lent to several of the student organizations, but the Athletic received the greatest benefit, since he was its President. There is a very marked improvement in the college athletics, due in a large measure to his untiring efforts. We are sorry to report that he has been very ill for some weeks with nervous breakdown.

C. C. Nixon, St. George.

Nixon is at home applying principle to practice, and we are sure that Brant County has at least one intelligent, progressive farmer.

F. H. Prittie, Toronto.

F. H. Prittie graduated with the class of '07, having come back after two years' absence. Those who knew him previously will be glad to hear of his graduation. In his final year he specialized in Horticulture.

F. H. Reed, Georgetown.

"Frank" Reed, after dropping out of the class of '05, to be resident master, re-entered the course to graduate in '07. He is now Agriculturist at the Collegiate Institute, Lindsay.

**G. E. Sanders, Roundhill, Annapolis,
Nova Scotia.**

Sanders made good use of his time at college. He was a naughty freshman, an aggressive sophomore, a studious junior and a scholarly senior. At present he is engaged in the State Department of Entomology at Urbana, Illinois, and we would like to warn the noxious insects of that State to beware.

**C. B. Twigg, Dungannon, Ireland, and
New Denver, B. C.**

Genial "Pat" visited the "old sod" during the summer and was with us again for a week just before the opening of the term. He is now at New Denver, where he intends to follow the "call of the soil." Were more men in the world of Pat's happy disposition, there would be less worry and

more happy people. His name is graven on the college roll of athletic honor as holder of the record for the mile walk, in which event he was successful each of the four years of his course.

H. W. Scott, Lancaster.

Scott was prevented by sickness from completing his course with '06, so he took his final year with '07. He was a small parcel, but of the very best goods. He is now managing a large farm at Yardley, Pennsylvania.

H. C. Wheeler, Hubbard, Ohio.

Wheeler came here to learn, and he consistently studied to accomplish that end. He returned as he came, with a purpose, and is at present improving the methods adopted on the paternal farm.

C.

The Alberta O. A. C. Boys' Association.

At the annual Fat Stock Show and Sales held in Calgary early in April, about twenty-five or thirty ex-students of the O. A. C. were in attendance. Seeing that so large a number were located in the Province the suggestion that they hold a meeting met with the approval of all. Mr. E. L. Richardson, of Calgary, secretary of the Live Stock Associations, asked the boys to meet at his residence and kindly invited them to luncheon, to which invitation they heartily responded. After partaking of a rich repast, prepared by the hostess, Mrs. Richardson, a toast list was arranged and an hour spent in recitations, songs

and speeches, which led the boys in their thoughts to the days spent at their Alma Mater. At this juncture it was moved, seconded and unanimously carried that an Alberta O. A. C. Boys' Association be organized. The following officers were then appointed:

Honorary President—Geo. Harcourt.

President—G. H. Hutton.

Sec.-Treas.—T. B. R. Henderson.

Committee—E. L. Richardson, H. A. Craig, M. D. Geddes, E. C. Hallman.

The following is a list of the members of the Association, together with their occupation and post office address:

George Harcourt, Deputy Minister of Agriculture, Edmonton.

G. H. Hutton, Supt. of Experimental Farm, Lacombe.

H. A. Craig, Supt. of Institutes and Fairs (at present Secretary of Beef Commission), Edmonton.

Lorne Muir, Revillion's wholesale hardware, Edmonton.

E. L. Richardson, Secretary of Live Stock Associations, Manager of Calgary Exhibition and Secretary of Board of Trade, Calgary.

A. E. Cross, Manager of Calgary Brewery, Calgary.

M. D. Geddes, Editor of Farm and Ranch Review, Calgary.

J. B. R. Langley, Farming, Calgary.

T. Tinney, Farming, Medicine Hat.

D. H. Galbraith, Breeder of Shire Horses, Nanton.

E. C. Hallman, Breeder of Clydesdale and Hackney Horses, Airdrie.

G. D. McVicar, Farming, Cayley.



Back Row—C. E. Craig, G. H. Greig, W. S. Jacobs, C. M. McCrae, Langley.
Center Row—E. L. Richardson, Dr. J. G. Rutherford, G. H. Hutton, Jas. Murray, T. H. Tinney, H. H. Miller, M. D. Geddes, A. E. Cross.

Front Row—H. A. Craig, W. A. Munro, E. C. Hallman, Geo. Stouffer

ALBERTA O. A. C. BOYS AT CALGARY FAIR, 1907.

W. C. McKillican, Representative of Seed Branch for Dominion Dept. of Agriculture, in Alberta and British Columbia, Calgary.

G. Brownlee, Great West Saddlery Company, Calgary.

A. J. Irving, Chief of Collecting Dept., Massey-Harris Company, Calgary.

W. J. Thompson, Great West Saddlery Company, Calgary.

Rev. J. B. Allison, Presbyterian Minister, Leavings.

J. Weir, Ranching, Carbon.

J. Pope, Ranching, Carbon.

J. P. Cleal, Ranching, Airdrie.

Gordon Cleal, Ranching, Airdrie.

E. W. Snyder, Farming, Wetaskiwin.

C. Craig, Foreman of Experimental Farm, Lacombe.

F. Sissons, Farming, Lacombe.

P. Ballantyne, Farming, Lacombe.
 Geo. Stouffer, Assisting Provincial Poultry Commissioner, Innisfail.
 B. C. Gilpin, Farmer and General Merchant, Gilpin.

Jas. Sangster, Ranching, Carbon.
 C. G. Montgomery, Farming, Ranfurly.

R. B. Rankin, Real Estate Agent, Calgary.

H. H. Miller, Seed Branch, Dominion Dept. of Agriculture, Ottawa. (Formerly of Calgary.)

W. A. Munro, Instructor in Agriculture, Morrisburg, Collegiate Institute (Formerly of Dept. of Agriculture, Edmonton).

T. B. R. Henderson, Live Stock Clerk and Librarian, Dept. of Agriculture, Edmonton.

It is gratifying to note that with a few exceptions the boys are engaged in the vocation for which they made preparation while at Guelph. They are more enthusiastic in their work than ever, are leaders in Agriculture in the districts in which they are located, and are determined to place the "last west" at the head of the list in this occupation.

The Stock Judging Schools held in

the Province during the first three months of the year under the management of H. A. Craig had, with a few exceptions, O. A. C. Boys as instructors. At the close of the schools at each place prizes were offered for the best judges in the various classes of live stock. The winners at the different points met at Calgary at the Fat Stock Show and competed for a valuable trophy offered by the Dept. of Agriculture. This trophy was won by T. H. Tinney, of Medicine Hat, whose name appears in the above list. George Stouffer and C. Craig also entered in a number of classes in the judging competitions and were successful in securing the majority of prizes.

It is hoped that at no distant date some of the members will be induced to enter the political field where a greater opportunity will be afforded for advancing the best interests of the farmer. All the graduates have become members of the first convocation of the University of Alberta, which gives them the power to vote on any question that may be discussed. The Association will meet at least once a year, when important matters relating to agriculture will be discussed.

Hymeneal.

Since the issue of our last number Cupid has been exceptionally busy among our Old Boys, and many are the victims that have fallen before his bow. It has been elsewhere stated that marriage was a gamble, and this element undoubtedly formed a strong

factor in, at least, one matrimonial venture which we have to record. On August 28th, Mr. W. P. Gamble, of the Chemical Dept., relinquished the joys of single blessedness and entered his name on the ever increasing list of benedicts. Mrs. Gamble was

formerly Miss Jean Telford Christie, only daughter of Mr. and Mrs. D. D.

Another member of our staff who has lately assumed all the responsibilities incidental to the donning of double harness is Mr. J. E. Howitt, of the Biological Dept. Mr. Howitt was married on June 29th to Miss Eleanor Orton Robinson, eldest daughter of Dr. and Mrs. Robinson, of Guelph.

Those attending the College in '04-'05 will remember L. W. Wright, who entered as a member of the '08 class, but who dropped out after one year. He has joined the lists of the benedicts, his being one of the numerous weddings occurring in that too often treacherous month of June. On the 29th of that month he led to the altar Miss Annie Ivel, of Harrison. Wright occupies the position of secretary of the Davies Packing Co., situated at Har-riston.

W. A. Munroe is still keeping up his reputation as a hustler. Graduating in '06, his vim and energy were early recognized; in the spring of '07 he was selected as one of the staff of Agricultural High School teachers, with head-quarters at Morrisburg, in his home County of Dundas. Soon after accepting this position he decided to take the important step, and in accordance with all his practices, secured a good start which soon disposed of all rivals. Promptly at 6.30 a. m., August 12th, he led to the altar Miss Jennie Deane, daughter of G. F. Deane, of Landsdowne. Immediately after the ceremony the happy couple left for a short trip before taking up their residence in Morrisburg, where "Billy" will be glad to hear from old friends.

Another of the class of '04, who has fallen a victim to Cupid's wiles, is Walter Hamilton, now of La Larga, Julio, Argen. Rep. Hamilton entered the College in 1900, hailing from Ravenshoe, Ont., taking his four years' course without a break. His duties as Estate manager prevented his returning to Ontario to claim his bride, so the bride-elect pluckily journeyed out to Buenos Ayres. The bride was Miss Buchard, of College Heights, Guelph. Hamilton got more from Guelph than a college training.

Conspicuous in the ranks of the '09 class in its freshmen year was J. E. Ferguson. A liver of the strenuous life, "Fergie" abandoned the placid walks of agriculture to take up commercial work in Ottawa. An evidence of his success is the announcement of his marriage on Sept. 18th to one of Ottawa's fair maidens, Miss Mildred Gillespie.

Jesse B. Elderkin entered the O. A. C. in the fall of '02, taking a two year course. After receiving his diploma he returned to his native Province of Nova Scotia, where he engaged in agricultural pursuits. On June the 18th he was married to Amy, daughter of Mr. J. C. Harlow, Cleveland, Ohio. During their wedding trip the happy couple visited Guelph and called on his many friends at the College and in the city. Jesse is now farming at Port Greville, N. S.

The class of '10 needed no longer than their first year to gain for themselves a reputation for enterprise. There was no venture into which their seniors might lead but they were

prepared to follow. Caught in the hymeneal vortex which seems to have been unusually effective the past summer, R. Curtis, of the freshmen class of '06-'07, was married on July 31st to Miss Edith Northcott, at the home of

the bride's parents, Northumberland street, Guelph.

To all of these now happy ones the Review and College boys extend their congratulations and heartiest good wishes.

Notes and Doings.

Among those who are forging to the front, in the work of agricultural education, none stand out more prominently than does Andrew M. Soule, B. S. A., '93, born near Hamilton, Wentworth Co., Ont., in 1872. After an early training received at the local public school and the Niagara Falls High School, he entered the Ontario Agricultural College in 1890, graduating in 1893 with an enviable record. After graduating his first work was at the Missouri Experiment Station where he occupied the position of assistant director for a short time. Since then he has filled responsible positions at the Texas College of Agriculture and Experimental Station, and the University of Tennessee. In 1904 he was appointed Dean of the College of Agriculture and Director of the Agricultural Experiment Station in connection with the Virginia Polytechnic Institute. His work in field experiments there was so successfully conducted that when a directing head was wanted for the new \$200,000 Agricultural College recently erected at Athens, Georgia, he was selected for the position. He has proved a notable success as a conductor of field experiments, and as an Institute worker.

Another of Ontario's sons, and a graduate of the O. A. C., who is meeting with success in agricultural work, is Jas. Murray, '02. Immediately after graduating he went west to assist the Dominion Seed Dept. in their pure

seed propaganda. In 1904 he joined the staff of Agricultural experts gathered by Hon. W. R. Motherwell in the Saskatchewan Dept. of Agriculture. When Prof. Wolverton resigned the superintendence of the Experimental Farm at Brandon, Man., the Government acted with commendable wisdom in selecting Jas. Murray as his successor. Born in Simcoe Co., he spent the first twenty years of his life on his father's farm and there obtained that intimate practical knowledge of farm practices which, when associated with a thorough technical training, makes each doubly valuable. Murray will bring to his work at Brandon a happy combination of experience, scientific knowledge and youthful energy which should bring results in the near future.

H. Mayberry, of the class of '05, has received the appointment of Professor of Animal Husbandry at the Cuban Agricultural College.

Mr. Louis Toole, '77, '78, '79, visited the College on its opening day bringing with him his son, A. A. Toole, who is enrolled in the first year. Mr. Toole is operating a farm of some three hundred acres at Mt. Albert, York Co., giving special attention to the breeding of Shorthorn cattle and the selection of improved seed grain. To Mr. Toole belongs the honor of being the originator and first President of the Experimental Union. He is still an active member and is an enthusiastic advocate of seed selection.

Locals.

ENQUIRING Excursionist to Student—What is that big tank affair away up there?

Student—Oh, that's the new steel silo we constructed this summer!

Excursionists to the college rigidly stuck to the rule—"No fishing allowed in this reservoir!"

Freshmen to Soph.—Will you please show me the way to the boozier's office?

First Freshman—I am informed that we use the meet-her (metre) system here.

Second Freshman—Is that what we learn at Macdonald Hall?



An Attempt To Climb the Pole.

Freshman (when Rose held up Bible study book in chapel service)—I suppose there is another book to buy.

While President Creelman was crossing the campus to the scene of the initiation, a big, husky freshman slapped him on the shoulder saying:

"Are you a sophomore?"

President Creelman—"No."

Freshman—Then why in the d— don't you get off your coat and get in to the scrap.

John to senior on the evening of the first day at student labor:

John, standing back by the window, points a finger of scorn at the wash-room towels. "See!" he mutters.

The senior looks; he sees three great dark blotches on the first towel, the second towel very dirty, and the third by no means clean.

John—I put those up at 2 o'clock!

Senior—What made them so dirty?

John (in desperation)—The freshmen! They wipe in the water and wash on the towels!

Mr. Hare—To-night there will be an athletic meeting of the whole student body.

Bewildered Freshie—The whole student body! Does that mean us, too?



Holding Them Down.

On the announcement that Mr. Reeds hoped to start a class in fencing, a freshman angrily remarked—"What do we want to do at fencing; many's the day I helped to put up pole fences on me father's old farm!"

Overheard at Toronto Fair:

Farmer to Prof. Zavitz—Well, Mr. Zavitz, I can beat you ali to pieces with the winter wheat; I had fifty-five bushels to the acre this year!

Prof. Zavitz—Oh! oh! I can beat that; I had over seventy-seven bushels to the acre!!

Farmer's wife, stepping forward—Which of you gentlemen can tell the biggest lie?

Dan Patch (giving results of observation in Nature Study)—I am studying a bush down near Mr. Crawford's.

Prof. McCready—What kind of a bush?

D. P.—A barberry bush.

At "trial" of a fresh freshman:
Judge—So you perceive that you are not in the good graces of the fellows around the college. What are you going to do about it?

"Try to get into them! your honor! My Lord!"

On being hard pressed at a certain point in "the trial" the freshie feelingly exclaimed—"Where has that lawyer of mine gone 'to'?"

Next morning in the dining-room:
"Mr. Jones, I've learned something since the first time I went to bed last night."

Mr. Douglas, beware! The freshies are so green that they are pulling the



Outskirts of the Fray.

green turnips and eating them whole-sale. A big freshman has been seen lugging a large turnip to his room for a spare lunch.

The freshmen are now out of suspense; initiation is over for this year.

Many were the suggestions and expressions of sympathy given to the "poor sophs." After planting the emblem of the freshmen on the campus, the sophs invited them out to defend it. How nobly they fought—no wonder; who wouldn't fight for such a banner? The sophomores seemed to have a veritable sea of humanity to wade through and many times they



Tattered and Torn.

were near the flag, but lost strength as they came in closer contact with the picture.

Many amusing scenes were witnessed. Freshmen seemed to have a strong liking for one another. Sophs previously disabled were kindly attended to by freshmen. Many men fought single handed, while at the same time fiercely gripping their breeches with the other. After thirty minutes, many hasty retreats were made toward the dormitory.

"A" division of freshmen apparently think they can't go far wrong if they follow the sophomore class, especially when the destination is Macdonald Institute; but the sophs thought the freshies were rather affectionate when they clumped into second year English and sat down with a deep air of satisfaction.

"Get out of this, you green freshmen," commanded the sophs, "or there'll be trouble"; but just then Mr. Jones arrived, and touchingly announce to the terrified freshies that they return to attend their lecture on Soil Physics.

The confusion of their exit was greatly increased by the sophs thundering forth in stentorian tones—"Back to the soil! Back to the soil! you freshmen."

Quite an interesting scramble for rooms in the dormitory was witnessed on the 18th, and many were the downcast looks seen on the faces of non-residents when they were greeted with the words—"Call later, and we'll see what we can do for you." But it was evident that our President did his utmost to bring into use every available space, as was indicated by the notice which appeared on the Bulletin Board—"12 cock-pens are now vacant at the Poultry Department. Students desiring the same may have them at \$2.50 per week.

N. B.—Use of the boiler free.
Apply at President's Office."

Mr. Thom, in surveying—When you have found a straight line, how would you get one perpendicular to it?

Mr. Tothill—Use a "T" square.

Angle, one of a number meeting "Mac" girls at the station, steps up to two "old girls" and politely inquires—"Excuse me, but do you know your way to Macdonald Hall?"

Mr. Angle engaged in a discussion of languages for the third year—"It seems to me what the German part of the class understands is a misunderstanding."

"Ginger" Smith, while returning to the college, had quite a thrilling experience. At a station along the road, the ever gallant "Ginger" noticed a portly old lady—as described in his own words: "She had no sides at all!"—endeavoring to get quite a large parcel on the train. Stepping forward and tipping his hat he offered his assistance; but, lo! he was awe-stricken, when on taking up the parcel he heard within a satisfied grunt—"umph! umph."

"Why," says Ginger, "it's a pig!"

Back came the reply—"Sure, and a vary nice piggy he is; please be vary careful with him, me little mon!"

Mr. McKee on Experimental, while thinning carrots 3 in. apart and 396 plants to the row, was addressed by Prof. Zavitz—Well, how are you getting along?

Mr. McKee—This reminds me of a stanza written by "Bobbie" Burns when once he found himself in very uncomfortable surroundings. The last two lines read thus:

"And if the Lord did send me here,
'Twas surely in his anger!"

W. H. Robertson, sympathizing with Freshies—"Oh, they're green, but they'll improve; I was green myself once!"

Clowes—"Have you improved, 'Bobbie'?"

Bobbie—"Sure."

Clowes—"Well, you certainly must have been green when you came here!"



The Coveted Trophy.

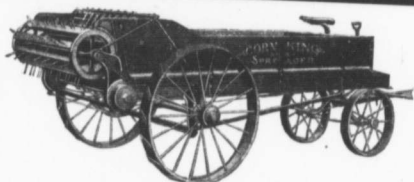
At athletic meeting:

Mr. Reeds—Other big, skinny fellows should be able to run like a Hare.

Mr. Lewis (second year)—If a fellow can run, jump, etc., he isn't any little sissy—he's a man, that's all.

It was moved and seconded that Mr. Johnson be hockey manager for the coming year.

Freshman—Mr. Johnson will please stand "up."



GOOD CROPS

It is the ambition of every farmer to raise good crops. The only possible way to do so is to keep the soil well fertilized.

If the soil is cropped continuously without having plant food elements returned to it, it becomes depleted and unproductive.

If, however, farm manure is properly applied to the soil its productiveness may be retained and increased. To properly apply farm manure, use an I. H. C. spreader.

These spreaders are made in two styles; CORN KING return apron, and CLOVERLEAF endless apron. Both spreaders are made in three sizes; small, medium, and large.

See local agent and make a personal investigation of the spreaders, or write nearest branch house for illustrated catalogue and colored hanger.

CANADIAN BRANCHES: Calgary, London, Montreal, Ottawa, Regina, St. John, Winnipeg, Toronto.

International Harvester Company of America (Incorporated)
CHICAGO, U. S. A.



Beauty and Solid Comfort

BRICK FIREPLACES
made from

Milton Brick

Are not only useful but are decidedly ornamental in a room. The cost is reasonable. Send for free catalogue.

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IS THE PLACE FOR

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GANDIES



CALL AND SEE US BEFORE RETURNING

: : : TO THE COLLEGE : : :

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LOWER WYNDHAM STREET,

GUELPH, ONTARIO

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Sam Lee Hing

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Say, Boys!

For 12 years I have been doing your laundry work without a single complaint.

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Work done by hand only.

Shirts ironed so as not to hurt your neck.

Standup collars ironed without being broken in the wing.

No acids, lime or other chemicals used.

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First laundryman to advertise in the Review.

College calls made on Mondays, Wednesdays and Fridays at 7 a.m.

Phone 547.

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Next Marriott's Flower Store

ST. GEORGE'S SQUARE.

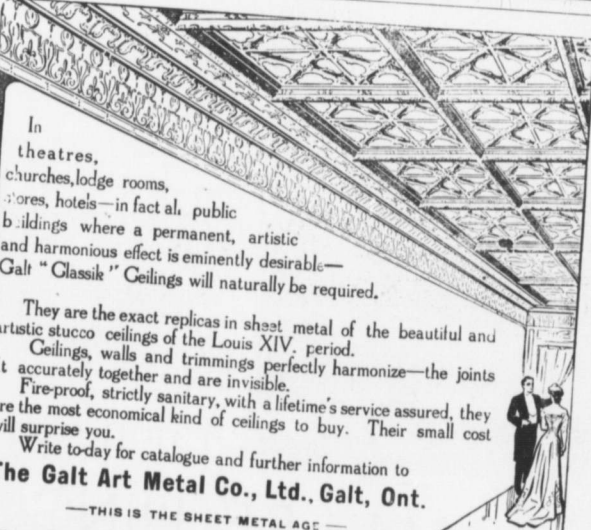
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"The man who whispers down a well
About the goods he has to sell
Will never reap the golden dollars
Like he who climbs a tree and hollers."

We Have Something to Holler About!

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This Magazine is printed at The Advertiser Job.



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churches, lodge rooms,
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buildings where a permanent, artistic
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They are the exact replicas in sheet metal of the beautiful and
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Will not chafe. Will not break. Self-locking.

Nothing Like It on the Market.

☐ Our Water Basins will pay for themselves in two years. HOW? In increased milk, to say nothing of saving of labor.

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to our city, and when in need of anything in the SHOE and RUBBER line we will appreciate a call. We sell the best makes of shoes, such as the

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Also a full line of sporting shoes.

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Don't mistake the place. First shoe store you come to coming from the college; on Market Square. Bring your repairing to us.

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If you'll scan through the immense display of new cloths and tweeds, your answer will be;

"Well, I had no idea that such a showing was here."

Lots and lots of men are just in your fix—paying enormous sums for suits not a bit better or made a fraction nicer than these suits we turn out.

The old story of extravagance will sooner or later cause many a regret.

Save yourself this future annoyance—save money now—see the fall display of all the new and wanted materials—good enough for the best dressed man in town.

Our tailoring must be satisfactory to you or the suit is ours—not yours at all.

Is this a straight proposition?

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Men's Clothiers and Furnishers, Lower Wyndham St.

If you appreciate GOOD VALUES, you will
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Shirts, Ties, Collars, Hats and Furnishing Goods

Here. The choicest stock in the city.

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An advertisement in the Weekly Mercury always brings paying results.

J. J. McINTOSH.

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A Sophomore Color Scheme:—

Brown must have felt pretty blue when he was done brown for being too green. He looked pretty white—barring the blacking. Honk! honk!

~ ~

Charlie Murray just arrived in college; meets President Creelman, and is immediately greeted with the query: "Well, Murray, how's the girl."

~ ~

Boys working on roof of Experimental barn, repairing it, under direction of Mr. Crawford. Fraser descends ladder and talks to students working in experimental cellar. Crawford's voice is heard, and Fraser, thinking he is called, says: "Somebody lend me a hammer, quick, so I can pound on this wall and make a rattle."

Experimental Student—Hit your head on the wall and it will rattle.

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QUALITY is one of the first considerations in all the goods we handle, and you can always depend upon getting the best from us.

Apparatus for Chemical and Physical Laboratories.

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Goods**

E. R. BOLLERT & CO.

**Ladies'
Goods**

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Fit-the-form Ready-to-wear Clothing, very good and very cheap.
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Wyndham St.

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25 and 27
Wyndham St.

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FOR FIELD, GARDEN AND ORCHARD

POTASH is not merely a stimulant, but is a direct plant food.

POTASH promotes maturity and allows the truck farmer to place his produce on the market several days earlier than he could without its aid.

POTASH improves quality of all crops, and no crop can be successfully grown unless a sufficiency of available Potash be present in the soil.

Potash in the highly concentrated form of Sulphate of Potash and Muriate of Potash is obtainable of all leading fertilizer dealers, and ought to be applied along with a phosphate fertilizer early in spring.

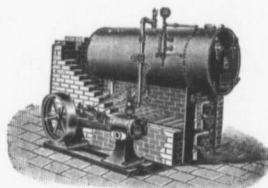
Pamphlets treating of the results of fertilizer experiments, etc., may be obtained gratis from

THE DOMINION AGRICULTURAL OFFICES
OF THE POTASH SYNDICATE

Temple Bldg.

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Are used for CHEESE AND BUTTER FACTORIES THROUGHOUT CANADA. They have the largest output of any other manufacture. They are preferred for the reason that the Engines have short Steam Ports, Evans' Noiseless Governor, and the Boilers are thoroughly manufactured and tested to high-water pressure before shipment.

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MINERAL WOOL

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Lowney's Chocolates

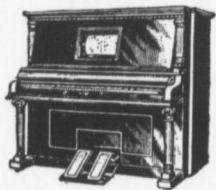
When you eat Chocolates you want to enjoy the best obtainable. Lowney's goods have a world-wide reputation, and are always to be relied upon. J. A. McCREA & SON can supply you. Let us have your order when getting up those little "Suppers."

J. A. McCrea & Son

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THE AUTONOLA
The Piano everybody can play
and play well.



BELL PIANOS

AUTONOLA
PLAYER PIANOS
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BIG
HARDWARE
STORE
THE
BOND
HARDWARE
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'PHONE 97**



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supply their needs
in Hardware, Cut-
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Goods.

We keep every-
thing in Hardware
and prices are
always right.

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Rest. 5,000,000

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The Favorite of them All!

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DOUBLE
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Points of Merit :

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Fitted with Roller Bearings, Steel Shafting, and all that is Latest and Best in Principle, Material and Construction.

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Are usually particular about their appearance. They demand character in their clothes.

We make the kind of suits and overcoats that give a man that "well-dressed" appearance so much desired.

We make the clothes to fit the man; TAILOR individual style and shape into them.

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Being on a side street, our store rent is very small compared with main street rentals. It is this combination—a big business done in a small store, with very light expenses—that makes it possible for us to turn out such high grade work at prices so much less than other tailors have to charge you.

Tweed and Worsted Suits \$15 to \$25.

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Trousers \$4 to \$7.50.

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IF YOU WANT A FIRST-CLASS JOB

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**Plumbing, Gas,
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Foot Balls

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**Agents for Spalding's
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Drug and Book Store

Headquarters for
Everything in College
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We are agents for the famous

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Your wants at our Drug and Prescrip-
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T. & D. CLOTHING

Is the kind that stylish young men want to wear.

Made on the latest and most fashionable models, of the finest fabrics, hand-tailored in our own perfectly equipped factory.

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We Invite Your Inspection.

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Well - Dressed Men

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We have a very complete stock of

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For Students. At Students' Prices.

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We Deliver Promptly.

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You think a furniture store should have what you want, we can fill your order and save you money on every purchase. TRY US.

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Store a few doors above Post Office.



We send Greetings for the fall season to

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We trust that we will have the pleasure of serving you when ready for your Fall Shoes.

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The salt that *saves* money and *makes* money in the dairy—

Windsor Salt

Less of this evenly-dissolving, full-savoured salt goes farther and does more perfect work than more of any other salt,

If you use it, you know this. If you don't, there's better butter coming—just as soon as you get Windsor Salt from your dealer.

128



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This means not only that we give quick and accurate service, but that here you get exactly what you should have—not something picked out of a box, nearly what you want.

When your EYES require attention go to one whose whole time is given to this work.

A. D. SAVAGE Guelp's Only . . .
Exclusive Optician

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Prof. Graham—What do you understand as a chick?

Freshie—A chick is a little duck.



We wish it to be officially announced that the illustration of the Rosedale team in the College Life has been procured through the kind offices of Mr. Elton Lewis. Look up illustration.



"Crackle" Owen, in Nature Study, hears a very peculiar sound, and thinking has discovered a new bird, anxiously asks the professor the query: "What bird is that?" Professor listens intently and says: "Do you mean that noise?"

"Yes."

"Why, that's a frog croaking." And the laugh is on Owen.

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Opposite where the Street Cars stop.



Text Books, Exercise Books, Foolscap
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Capital Authorized - \$2,000,000
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The principle of this guide is fully protected by our patents. Other typewriter manufacturers have been working overtime in the endeavor to circumvent us in the matter of a guide—without success.

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Our prices will be found as reasonable as is consistent with the high standard maintained by this House.

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Entomological Supplies,
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Fountain Pens
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O.A.C. and Macdonald Students
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Buy a Sterling Fountain Pen and
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The best value for your
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The finest assortment of goods shown in the city. Come in and see us.

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Cars leave College Landing for City as follows:

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P. M.—12:15, 12:35, 12:55, 1:15, 1:40, 2:00, 2:20, 2:45, 3:05, 3:30, 3:50, 4:15, 4:35, 5:00, 5:25, 5:50, 6:15, 6:40, 7:00, 7:20, 7:45, 8:05, 8:25, 8:45, 9:10, 9:30, 9:50, 10:15, 10:35, *10:55.

Returning cars leave St. George's Square 10 minutes later. *Saturday night only.

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Mares and Fillies, Hackneys and Shetland Ponies

Your choice of 30 Mares and Fillies, including winners in Scotland, at moderate prices.

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SMITH & RICHARDSON
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Importers of Clydesdale Horses

Now on hand a great number of Stallions and Mares, among them several Scotch Winners

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Long Distance 'Phone at Residence.

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**SCOTCH SHORTHORNS
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W. E. EDWARDS & CO., Limited

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Awarded First Prize at Montreal for Breeder's Young Herd

YOUNG ANIMALS OF MERIT FOR SALE

Pedigrees and particulars to parties wishing to purchase. Address:—

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Home of the oldest and largest herd of Cruickshank Shorthorns in America.

Shropshire flock founded 1871.

Station—C. P. R., Myrtle, 3 miles.

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INDIVIDUAL SITTINGS

Promptly attended to.

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**ELECTRIC BOILER
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Walker's Electric Boiler Compound

High Grade Lubricating Oils, Greases, Packings, Belt Lacings, Flue Scrapers, Etc.

Crystal Cream Separator Oil
A SPECIALTY

WATERS BROS.,

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Note Books, Drawing and Writing Materials, Seed Bottles, Microscopes, Field Glasses, Waterman Fountain Pens, etc.

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For a good Shave and Hair Cut

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Corner of Wyndham and Macdonnell Streets

Over Dominion Bank

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CLEANED, PRESSED AND REPAIRED

Work done right. Prices right.

Quebec St., opposite
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R. H. McPHERSON, Barber

HAIR CUT, 15c; SAT., 5c EXTRA

Close 7 p.m.

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Try us for Sporting Shoes of all kinds. Satisfaction guaranteed.

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FLORISTS,

Roses, Carnations, Chrysanthemums, Smilax, Asparagus, Etc.

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The best and most convenient Barber Shop for O.A.C. Students.

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Street Cars every 15 minutes. Three chairs. No waiting.

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Clear Skimming
Easy Running
Long Wearing

U. S.

Vermont Farm Machine Co.

Bellows Falls, Vt.

Prompt deliveries of U. S. Separators from warehouses at Montreal, Que. and Hamilton, Ont. No delay. Address all letters to Bellows Falls, Vt.

SKIMS CLEANER

than other separators, and produces so much more actual profit that it pays for itself many times over in what it saves. Remember, the improved U. S. holds world's record for cleanest skimming.

Holds World's Record For Cleanest Skimming

IS THE SIMPLEST,

both in operating mechanism and bowl construction, having only two parts inside the bowl. All parts simple and easily gotten at.

WEARS LONGEST,

because it has a strong, solid frame inclosing all the running parts, is carefully and accurately made by skilled workmen from the best materials obtainable. Durability is best proved by the satisfaction it gives to those who have used it ten to fifteen years.

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because the gears are correctly proportioned, accurately made, run in oil, and ball bearings are used at high speed points. All bearings are finely made and fitted with great accuracy, easily gotten at, and quickly adjusted.

IS THE SAFEST.

All farm dairy sizes have the gears entirely inclosed in an iron casing, which not only protects them and the operator and others from danger of injury, but keeps out dust and dirt that would cause friction and reduce their wearing qualities.

IS EASY TO HANDLE,

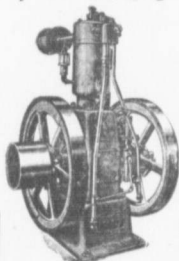
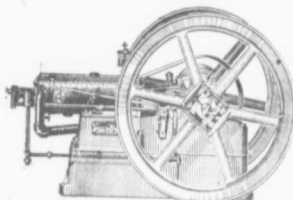
because it has few parts, requires little attention, doesn't easily get out of order, and has the low-down milk receiving can.

IS THE MOST PROFITABLE

for everyone, because with less labor and in less time it extracts more cream from the milk, and because it makes better butter and more of it, and leaves the skim-milk warm, sweet and pure for feeding or other use.

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Do 10 Hours Work
of 4 or 5 Horses
for 75c to \$1.00



What farmer won't give a great deal to have power equivalent to that of 4 or 5 horses ready for use in a moment, and at a cost of 7 or 8 cents per hour? That is exactly what the farmer has who owns a 4-horse power I. H. C. gasoline engine.

A semi-portable gasoline engine may be converted into a power plant on the farm. It may be transported from place to place about the farm, wherever the farmer requires power for shredding fodder, grinding feed, sawing wood, pumping water, operating cream separator, churn, etc.

The I. H. C. gasoline engine line includes Vertical 2 and 3-horse power, Horizontal (portable or stationary) 4, 6, 8, 10, 12, 15 and 20-horse power; pumping engines and jacks, spraying outfits, and a 1-horse power air cooled engine.

For further information concerning I. H. C. engines call on the local agent, or write for illustrated catalogue and lithographed hanger.

CANADIAN BRANCHES: Calgary, London, Montreal, Ottawa, Regina, St. John, Winnipeg, Toronto.

International Harvester Company of America (Incorporated)
CHICAGO, U. S. A.

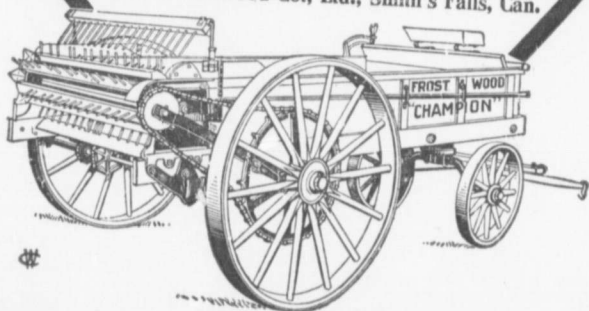
YOUR FARM IN DANGER?

TAKE WARNING—its richness and fertility cannot last indefinitely. Brother Farmer, are you working on a definite plan to turn back to the soil the fertility you take from it? If not you will mightily regret it, or your sons will. Eighty loads of lay means a depreciation yearly of \$48. Putting it back by hand—the old, hard, back-breaking way—is discouraging, slow work, and never well done. The time of yourself and your hired man, and increase of crops, will in two years pay for a

CHAMPION MANURE SPREADER

A stronger, more durable machine there cannot be found in the Dominion. Has rigid, stiff-braced sills and frame; also solid cold-rolled steel, rear power axle, 2 1/2 inches in diameter. Light draft, uniform spreading, by beater and apron through pulverizing take driven by large sprocket wheel and worm gear, are only a few features out of a score that make the Champion a money-maker for you. We cannot tell all the good news about this Spreader here, but we have done it with photos and interesting descriptions in booklet, "How to Feed Your Crops" and Catalogue. Send for them, both free, and very valuable to every farmer. Ask our local agent to show you our Champion Manure Spreader. He'll answer any questions asked.

The Frost & Wood Co., Ltd., Smith's Falls, Can.



AN AWFUL LOSS

In Ontario, Quebec and the Maritime Provinces, there are in round numbers

2,370,000 Cows

Assuming the average dairy to contain 10 cows, there are in the business

237,000 Dairymen

Estimating the number who use Cream Separators at 60,000, and allowing 77,000 for cheese factories and milk dealers' supply, there remain of those who are doing their part toward the annual loss of ten dollars per cow

100,000 Dairymen

**Who lose Ten Million Dollars
per year**

A sum sufficient to buy every one of the 100,000 dairymen a large capacity, clean skimming, easy running, durable and old reliable

De Laval Cream Separator

These are the figures. Head off any further runaway butter fat.

The **DE LAVAL SEPARATOR CO.**
173-177 WILLIAM ST., MONTREAL