

Vol. XVIII.

No. 1.

The  
D. M. G.  
Review

October Number,

1905

# Cream Separator Facts

## SPEED



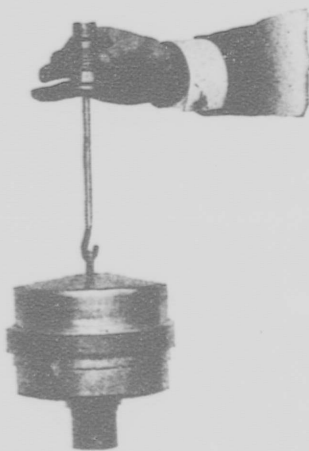
THE speed necessary to affect separation depends on the width of the bowl. In a wide bowl 6,000 revolutions per minute will suffice, but in a long narrow bowl the high speed of from 15,000 to 16,000 revolutions per minute will be necessary. There would be no harm in this high speed, as compared with the more usual speed of 6,000 to 7,000 revolutions per minute, if it were not for the great increase of wear and tear on the gears and bearings combined with the great increase in oil consumption. The actual difference on the principal wearing parts, viz.: the bowl spindle and bearings, is clearly shown in the following comparative table, wherein the Melotte Cream Separator is compared with the high speed machines:

|                                | "Melotte"<br>Sizes A, B, C, D. | "Melotte"<br>Sizes 1 to 6. | High<br>Speeders. |
|--------------------------------|--------------------------------|----------------------------|-------------------|
| Revolutions per minute . . .   | 6,000                          | 7,000                      | 16,000            |
| Comparative wear . . . . .     | 36                             | 49                         | 256               |
| Comparative oil required . . . | 36                             | 49                         | 256               |
| Comparative durability . . . . | 7                              | 5                          | 1                 |

When the speed of gear wheels is doubled the wear is increased fourfold (and much more than that unless four times as much oil is supplied), and the gears will give out in one-fourth the time. Similarly, when the speed is increased three times, the wear and oil consumption will be nine times as great, and wheels will give out in one-ninth the time. In technical language, friction varies as the the square of the speed.

### OUR OBJECT

In these SEPARATOR TALKS it is to set those interested thinking more closely about Separators, so that they may be in a better position to judge which machine will best suit their purpose. We want those interested to judge for themselves whether in mechanical construction, in ease of operation and in cleaning, the "Melotte" is not far ahead of all others, as it is unexcelled for close skimming, and whether they are not getting in the "Melotte" by far the best value on the market.

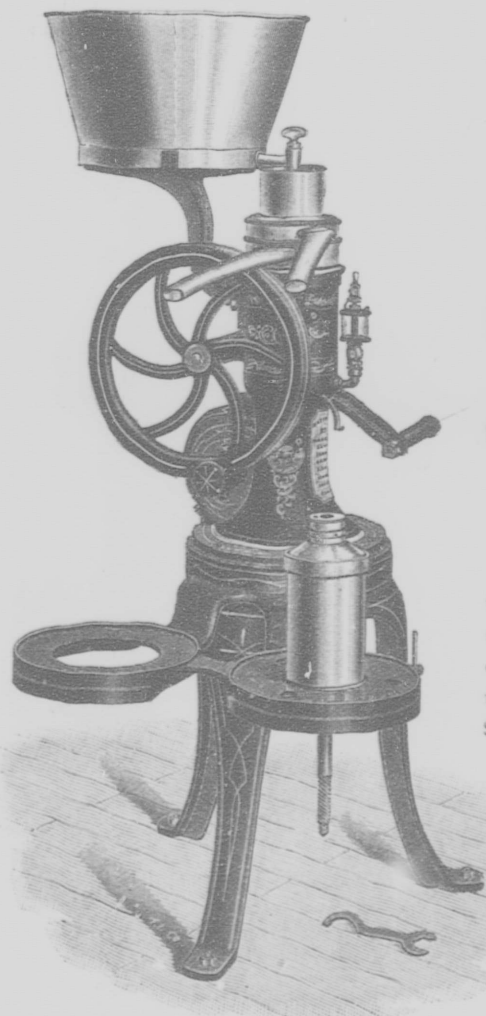


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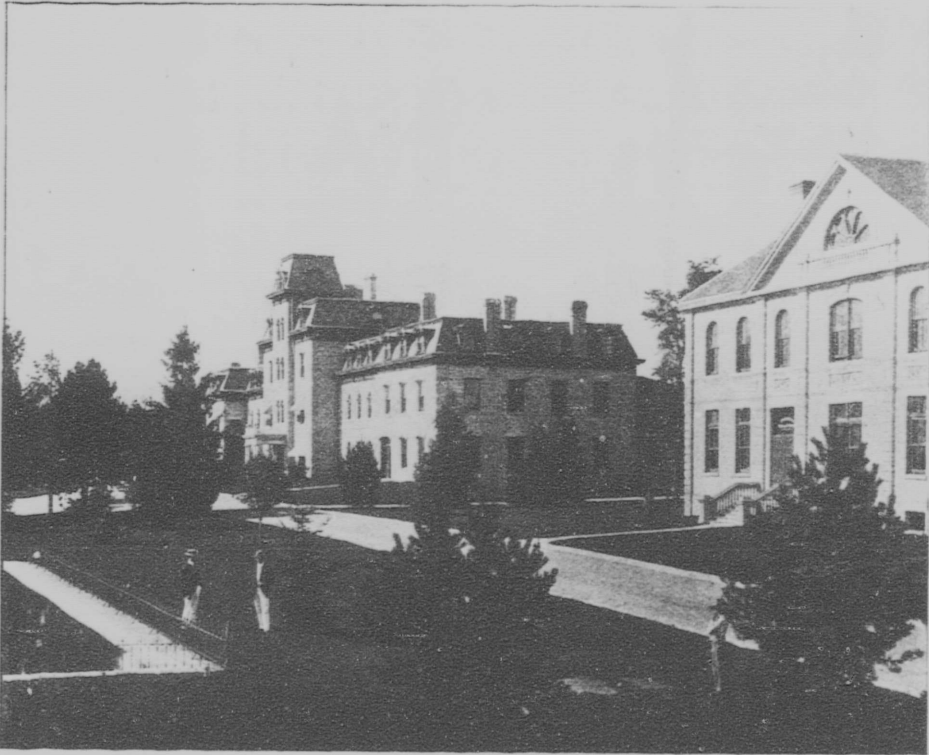
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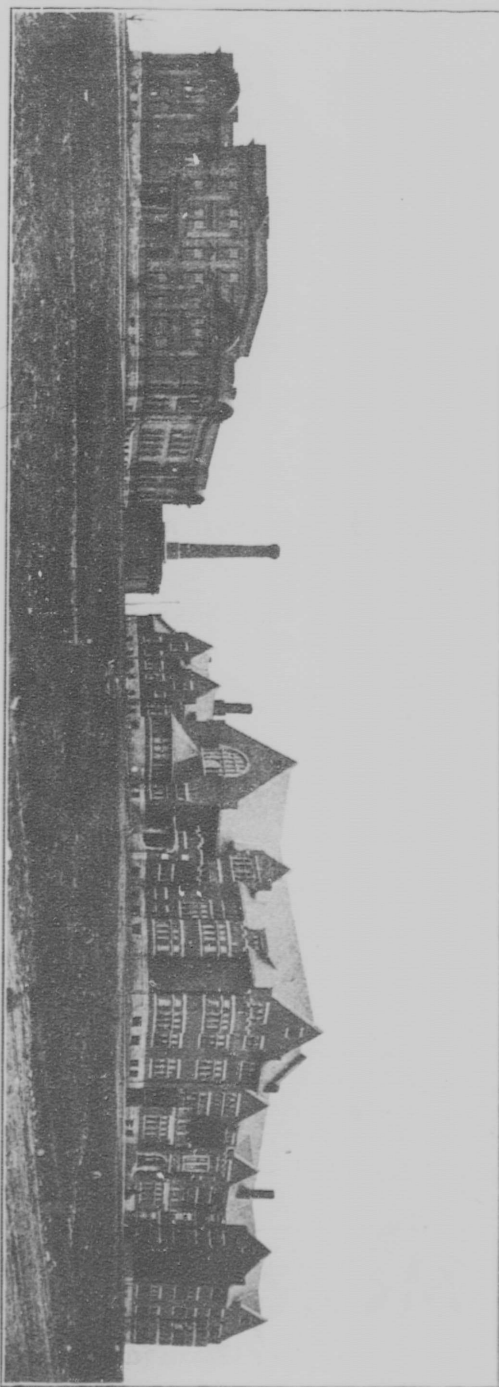
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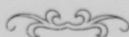
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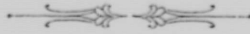
# EVERYTHING



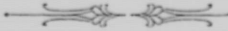
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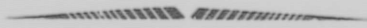
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# The O. A. C. Review

Published Monthly during the College Year  
by the Students of the Ontario Agricultural College, Guelph, Canada.

THE DIGNITY OF A CALLING IS ITS UTILITY.

VOL. XVIII.

ONTARIO AGRICULTURAL COLLEGE,  
OCTOBER, 1905.

No. 1

## Protecting the Forests.

By E. J. ZAVITZ, B.A., M.S.F.



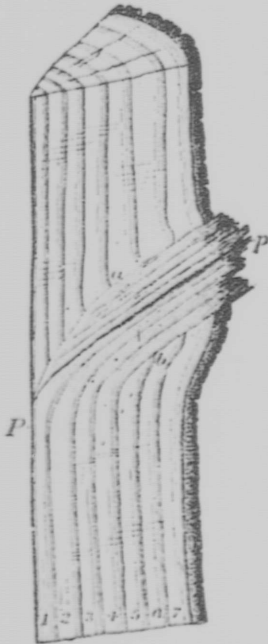
E. J. ZAVITZ, B. A., M.S.F.

IT is difficult for us to appreciate the extent to which forests have influenced the economy of man and nature. Large areas have been kept forested where pleasure or game was the chief thought. Protection to water sources and mountainous districts make it imperative to keep certain areas forested. Enormous sums of money are being spent in the mountainous regions of southern Europe to replace the forests that were despoiled. We have the forest existing as a source of wood supply. This last function may be more or less achieved in the pleasure or protection forest and is probably the greatest object of forest growth.

The forested areas of any country necessarily become restricted to the non-agricultural lands. There are in Ontario considerable areas of non-agricultural land, cleared either by the lumberman for the wood itself or cleared by the farmer for agricultural purposes. It is with such land that the forester is particularly interested and the reforestation of these lands presents various problems.

One frequently hears the statement that the once forested areas will take care of themselves and give us a second growth if only protected from fire. This general statement contains a certain amount of truth but these areas present various conditions which do not all require the same treatment.

The growth and development of the "virgin" or original white pine with tall, clean stems was the result of generations of competition. Many of these giants of the forest were four and five hundred years old. In the early history of the individual tree it was shaded and suppressed so that the lowest branches died off while



This cut illustrates the effect a limb has on timber. Up to *a, b* the limb was alive. Then the limb died, and for the last three years the annual layers of wood have been formed about the dead wood. So long as the limb remains the new growth will continue to cover it, and this produces the dead, loose knot common to timber.

yet small and while the diameter of the tree is very small. This produced in time a tree with a long, clean stem. The "second growth" of white pine in many cases is composed of trees growing in the open and producing large, lower limbs, will not drop off for years to come. This produces very knotty timber.

Nature will, in time and on most situations, give us a second crop of trees but she is not particular as to kind, quality or quantity. On the other hand the forester endeavors to reproduce the most useful kinds and of a sup-

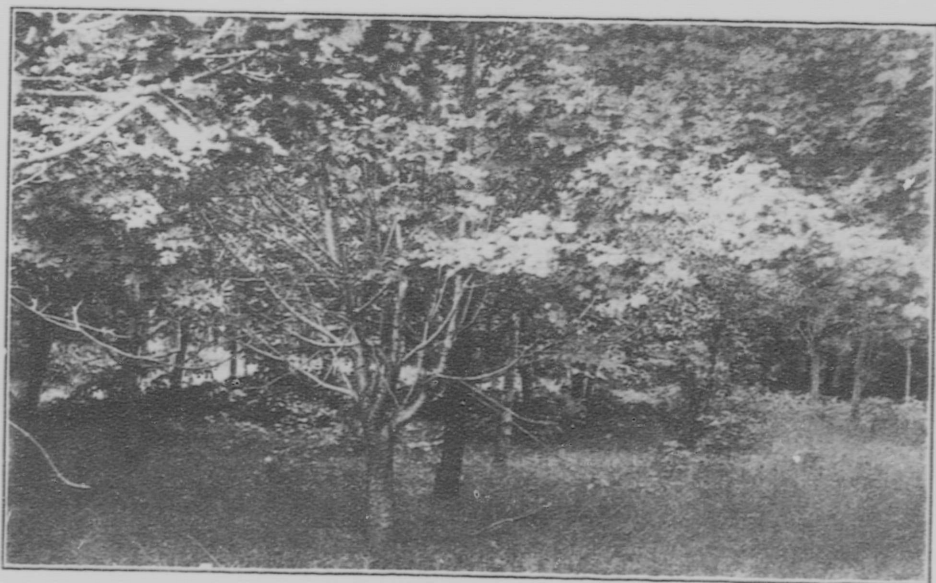
erior quality. The forester follows two methods in producing wood crops. Natural regeneration, when the crop is established by the action of nature, that is, the trees are produced by seed falling from the mother trees or the shoots coming from the stump left after cutting, artificial regeneration, where the crop is established by man either sowing the seed or planting the young tree. For our needs in Ontario both methods will necessarily be followed owing to natural and economic conditions.

Successful natural regeneration of the conifers such



Plantation of Larch, showing the effect of close planting. The lower limbs died from shading while yet very small, and were easily cleaned off, thus giving a tree with a long, clean stem.

Pla



Plantation, composed of mixed hardwoods, principally Norway maple. The tree in the foreground shows the bad effects of wide planting. Large lower limbs have developed near the ground, and are just beginning to die. Grass and weeds still hold possession of the soil.



Plantation of Austrian pine, showing the bad effect of wide planting. The large dead limbs will not drop for years, and it requires considerable labor to prune them. These trees were planted eight feet apart.



White pine three years old, and one year old. The one year seedling is a very delicate structure. The larger specimen is a transplant, and shows a well developed root system.

as white pine depends on various factors. It is first necessary to have the parent tree to produce seed. The soil must be in such a condition that the seed may germinate and establish itself.

The life history of white pine is full of dangers and is interesting to follow. The seed in the cone has ripened and is ready to fall to the ground in early September. During late summer the squirrel carries off many cones and is very fond of the seed. He is one of the first enemies to appear. When the seed falls the birds find a large number. Upon reaching the ground the mice get a share and consider pine seed a dainty morsel. By the following

spring a very small percentage of the seeds gets in close enough contact with the soil to germinate. The pure seedling is a very delicate plant the first summer and has many enemies. The birds are always liable to eat the tender, primary leaves and thus kill the plant. In exposed places the sun and wind frequently kill the young plant at this stage. Probably one of the greatest enemies is a "damping-off" fungus, which kills many at this age. Then some, after having fought out an existence to the end of the first summer, are so suppressed by weeds that they succumb. While frequently trees in the open produce from seventy-five thousand to one hundred thousand seeds, a very small percentage develops into trees.

The distance to which seed may be carried from the mother-tree is very limited, so that to obtain a stand of white pine in a given area there should be plenty of seed trees.

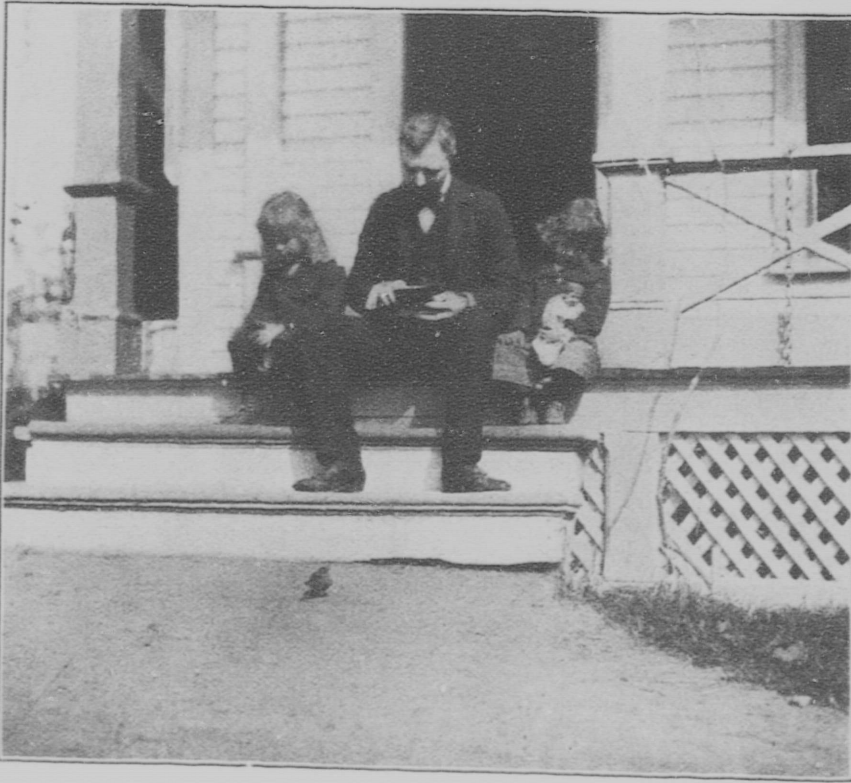
In the older parts of Ontario, where non-agricultural land has been totally cleared there is nothing to be done but to re-plant. In the northern part of the province there are many areas that have no seed trees left so that artificial means will be necessary in order to obtain another growth of pine. Until the danger of fire is removed it probably would not be wise to plant in these northern districts.

In older Ontario there is considerable waste land which it does not pay to cultivate. Steep hillsides, which cannot be cultivated, or if cultivated would probably wash down badly, should be planted. Frequently there is a gravelly ridge or rocky field on the farm which lies waste and does not even afford pasturage. Also there are light sandy soils that have got beyond the possibility of producing annual crops. In some districts these sandy spots are shifted by the wind and are injuring adjoining farm land. Such areas could be planted to advantage and in a few years would be a valuable asset to the farm.

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## Taming the Birds.

By C. F. HODGE, Clark Univ., Worcester, Mass.

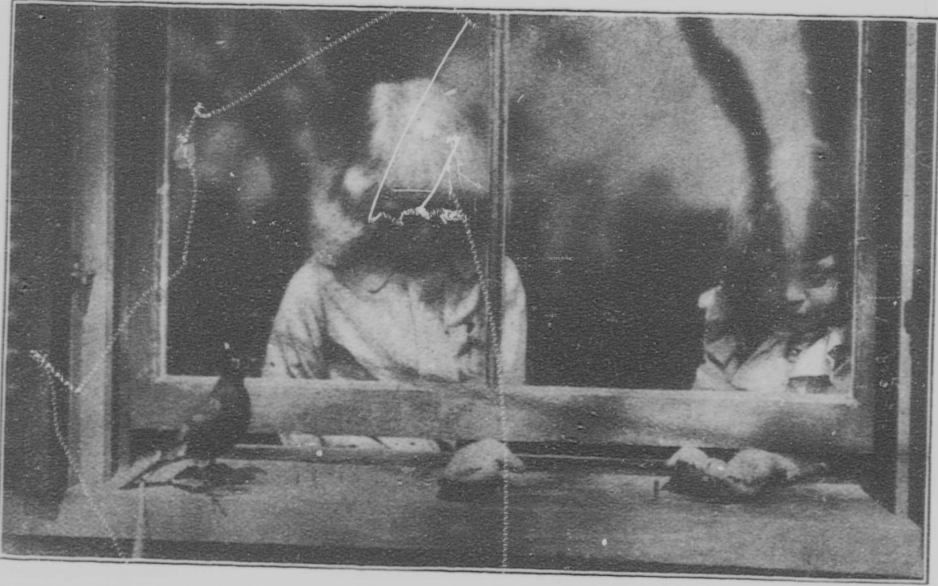


Taming the Robins, by Mrs. Brighturn's method. *Photograph by Mrs. C. F. Hodge.*

A RECENT estimate published by the United States Department of Agriculture, places the annual damage caused by insects at \$795,100,000. Birds are among the most important natural enemies of insects. Professor Brunner has calculated, for example, that the birds of Nebraska eat 16,500 bushels of insects a day during certain months. A French naturalist has estimated that if the birds were exterminated, the entire earth would be

reduced to the condition of a barren desert so far as human food is concerned within the space of nine years. As a matter of fact, when the feather craze struck the milliners of Paris, the birds were almost exterminated over large areas of southern Russia, and within two years we were taking up collections all over this country and sending shiploads of wheat to alleviate the famine in those districts.

Turning to examine the condition of



Same robin tamed by Mrs. Brighturn's method—Back for the fourth season.

Photograph by C. F. Hodge

bird life we find it, over most parts of the United States at least, decreasing at an alarming rate. Dr. Wm. T. Hornaday collected and tabulated statistics from several hundred expert observers in all our different States and Territories and his results showed that for the entire United States, during the fifteen years prior to 1898 we had lost 46 per cent. of our wild bird life. From observations during my recent visit to Canada, I should say that conditions are not much better there. Still, since that date, bird protection has received more attention, the Audubon Societies have sprung up everywhere and we see evidences that the tide has turned in favor of bird life.

John Burroughs, in his "Fresh Fields," speaks of visiting places in England, where there was a bird's nest in every tree and that to see insects or their work on the foliage, or to hear the chirp of an insect was a rare occurrence. Why may we not have such a country?

This question becomes, thus, one of national and even international importance. In fact a number of the governments of Europe have already taken steps looking toward international bird protection. I do not pretend to be able to answer this great question, but shall try to give you the key to my solution of the problem in the fewest possible words and a picture or two.

Let all our boys and girls set to work *taming* the birds about their houses. This will result, not only in increase of birds, but in heart culture of our children, which on our side of the line, at least, we need even more than we do the birds. Shaler says on this point in his *Domesticated Animals* :

"From this point of view our domesticated creatures should be presented to our people, with the purpose in mind of bringing them to see that the process of domestication has a far reaching aspect, a dignity, we may fairly say, a grandeur that few human actions foresee.

"In a larger way the work of domestication represents one of the modes of action of that





Cats versus Nature Study.

*Photograph by C. F. Hodge*

Killed by the Cats.

Saved from the Cats.

sympathetic motive which more than any other has been the basis of the highest development of mankind.

The teacher who wishes to think this topic out to its logical conclusions should read the entire book in which Shaler concludes that domestication of animals has constituted the greatest step of the race toward civilization. I should be inclined myself to assign first rank to *cultivation of plants* on account of its more intimate association with stability of home. However, neither of these fundamental lines of human effort is anywhere near completed. Both are closely inter-related and with regard to our present problem, any natural means of coping with insect enemies must prove of the greatest importance to agriculture.

Before touching upon the actual work of bird taming, we must see to it that the essentials of bird life are provided for. The chief of these are water, food, homes, and protection from enemies.

Even in places where natural ponds and streams abound, a drinking and bathing fountain, if even a shallow bowl or pan, raised from the ground two or three feet, so as to render the birds safe from the cats, and placed under some shrubbery near the sitting-room window, will serve to draw the birds close to us and make the next step—feeding at the window-sill—easy of accomplishment. The bowl should have a rough cement or gravel bottom which slopes so that the water shall stand about one inch deep on one side and three or four inches deep on the other. Nothing has afforded me more satisfaction during the past ten years than seeing the panting birds come down to drink and bathe.

Abundance of food for all seasons should be provided for by planting bird-food trees and shrubs: mulberry, choke-cherry and black-cherry, huckleberry,

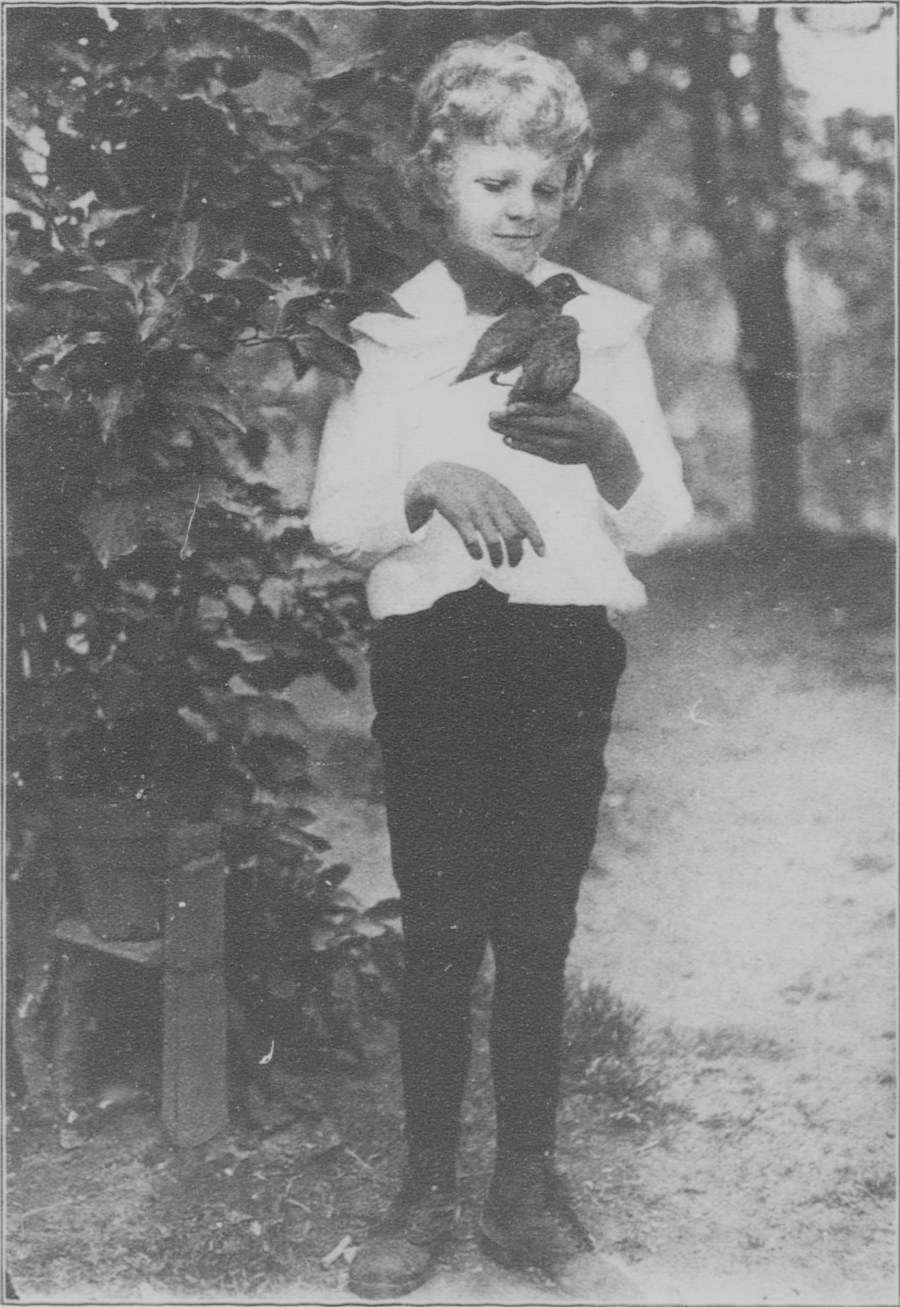
dog-wood, June-berry, poke-berry and other plants native to the locality. Unless this is done, increase of birds may result in serious depredations upon cultivated fruits.

For houses, bird-houses are suitable for blue birds, tree-swallows, martins, house wrens, chickadees, nut hatches and some of the woodpeckers. The bird house has been widely adopted as a model for manual training. Study of the nests of other birds will afford suggestions about supplying nesting materials when birds come in the spring. A small dish of mud will be appreciated by the robins, and will generally induce them to nest near by.

Protection from enemies means chiefly with us protection from cats and the house sparrow. I could write a long article on both, but can only say here to all those who would protect the valuable bird life about their homes—see to it that neither cats nor sparrows are given any chance to thwart your plans. I say this out of long and sad experience.

Mrs. Brighturn should be canonized, along with St. Francis of Assisi, as the patron saint of all harmless wild things. Certainly every child ought to see and read her book, "Wild Nature Won by Kindness." I gladly acknowledge my debt to this sweet lady who suggested through her books the possibility of extending humane domestication to many of our valuable wild creatures and who has thus been the means of bringing to me many of the most delightful experiences of my life. The following is Mrs. Brighturn's method:

A bluebird has come for a drink, Snap a mealworm half way to him. He comes to get it. Bring him closer with the next and the next and so on until he lights on the window-sill or takes them



ROLAND HODGE.  
Shelley's prophecy fulfilled.

*Photograph by C. F. Hodge*



## Practical and Unpractical Men.

BY W. P. GAMBLE.

**I**N contemplating the changes produced in the condition of society by the inventions and discoveries of modern times, we are impressed by the fact that in almost every instance these changes have been brought about by great artists, scientists and thinkers, to whom the epithet of "Unpractical Men" has been often applied. The great point of difference between the work of these men and that of practical men, so-called, lies in the immediate or remote utility of their undertakings. To illustrate clearly what is meant, let us take the example of a man working day after day in order that he may supply the needs of his household. Such an one is a practical man in the world's estimation, and yet all his exertions have done nothing more than supply the needs of the hour. On the other hand, let us consider the lasting benefits which mankind has derived from the labor of so-called unpractical men. Take for example the inventions of Robert Fulton. The advantage of steam navigation is sufficiently appreciated to require no comment; but the point the writer would emphasize is that the value of Fulton's work was not confined to any special month or year. On the contrary steam ships are even more serviceable at the present day than they were fifty years ago. In like manner we might speak of the work of Cyrus W. Field. This master mind in the great scheme of laying the Atlantic Cable had sufficient faith in his work to persevere in the face of adverse circumstances, and the utility of his idea will extend to remote ages. These, and many others of lesser note, are striking examples of so-called unpractical men, the usefulness of whose work was not confined merely to a few months after its completion, but has continued and will continue to be of utility throughout all time to come.

That such men are practical in the true sense of the word is beyond question, for to be practical is to discover and apply the immutable laws of the world of nature and of man that success may attend one's efforts, to work in accordance with revealed law, not in opposition thereto, to be in complete harmony with one's environment. The truly

practical man, therefore, is one who knows the reasons for that which he practices, who can give an account of the faith that is in him, and who, while he possesses the readiness of mind and dexterity of action that arises from a long-continued daily intercourse with the subject of his profession, also possesses the necessary amount of theoretical and scientific knowledge which justifies him in pursuing any process he adopts. Such knowledge in many cases enables him to devise new processes, or at all events, if he be not of an inventive turn of mind, will enable him to appreciate new processes devised by others. This is the truly practical man, about whom nothing disparaging should be said. But the practical man as commonly understood, means the man who knows the practice of his trade and knows nothing else concerning it; the man whose wisdom consists in standing by, seeing but not investigating the new discoveries, which are taking place around him; in decrying those discoveries, in applying to those who invent improvements the epithet of theorists, and then when he finds beyond all dispute that some new thing is good, in taking it grumblingly, but still taking it because if he did not, he could not compete with his co-manufacturers. It is such a practical man as this who delays all improvements. For years he delayed the development in England of the utilization of waste gases of furnaces. As before stated the so-called practical man derides those who make new inventions and calls them mere theorists. No doubt they do theorize but it is well for the world that there are men who do so. It may also be true that the majority of such theories or visions prove unsuccessful. Still it must be recollected that the whole progress of art and manufacture has depended and will depend on successful discoveries, which in their inception were and will be born of the imagination just as much as those discoveries that have been and will be abortive.

The study of Astronomy is perhaps one of the apparently most useless of pursuits in which certain of these so-called unpractical men are interested. To most of us a sheet of astronomical calculations looks like a puzzle, while a volume dealing with calculations of this kind, though written in English, may contain scarcely a sentence which has any meaning for us. But the knowledge which astronomers have thus gathered has been applied in many unexpected ways. To illustrate more clearly the importance of astronomical research, let us imagine ourselves on board a ship. The captain appears on deck and says that to-morrow he hopes to see land, and even mentions the hour. As the hour approaches the passengers are on the look-out, and sure

enough just on the horizon, is what looks like a gray cloud. The captain may never have been there before, and yet he knows precisely to what point to guide the vessel. How is this known? How have we been guided so unerringly across the pathless ocean? It has been accomplished by looking up and seeing the sun, moon, and stars. Some years before our voyage, calculations were made as to the exact place which these heavenly bodies would occupy from hour to hour as seen from different parts of the earth's surface and the results for the present year were entered in the captain's log book, a book without which no ocean-going ship leaves the shores of our continent.

Blind chance, the supposed cause of so many discoveries, had nothing to do with the finding of America. Columbus alone conceived the brilliant idea of raising the mysterious veil which, before his time, covered the western limits of the Atlantic Ocean. In his quest for a near route to India, that foremost of navigators had the far greater fortune to discover a world lost to the view of civilized man during, it may be, a thousand years or more. At the outset of his voyage Columbus was mainly looked upon as a mere adventurer and nothing of value was expected from his attempt.

In like manner the people of the present day look upon the search for the north pole as little short of a craze, and as far as we can see there would be very little gained by such a discovery. It may, however, happen that in the years to come something of value will be discovered. But to-day we look upon Perry, Ross and Nansen as the worst kind of cranks. Time alone will tell in how far such judgment is correct.

There are many other researches which have appeared to men, even to the most intellectual, as even more absurd if possible than that for the north pole. We cannot find a more striking example of this than in the words of Herbert Spencer. This great philosopher, speaking sometime about the middle of the last century said: "Such a thing as an electrical machine is an impossibility." That he was mistaken is perfectly evident to anyone living at the present time.

Permit me also to mention the names of some notable men who have spent their lives in endeavoring to remedy the evils and abuses around them. Thomas Clarkson and William Wilberforce are honored as the leaders of the party which did away with the Slave trade. Clarkson was the first who effectually stirred up public opinion against this cruel traffic, and he and his associates were seconded in

parliament by Wilberforce. After agitating the matter for nearly twenty years, they succeeded, in 1807, in abolishing the trade. Sir Samuel Romilly is distinguished for his efforts to mitigate the severity of the law.

In conjunction with such great moral and political forces, the arts have unquestionably afforded a means, without which society could never have become what we see it at the present day. It is difficult, however, to select, from among the triumphs of modern arts, those which ought to receive our first attention. The introduction of the compass into navigation, of gunpowder into military operations, has effected in both these fields of human enterprise, an entire revolution. But the art of printing, which soon followed, has surpassed both of these in the importance of its results, and may be considered the material basis of modern civilization and intelligence.

When we consider the facts, thus briefly outlined, we are forced to conclude that the services which so-called unpractical men have rendered to the world cannot be overestimated. The so-called practical man is too often the man of contracted vision, of undeveloped imagination, of immediate and direct utility. He is inevitable; he is needed; let us not despise him. But let us give more honor to the so-called unpractical man, who, with some exceptions, it must be admitted, is the man of large vision, of developed and free imagination, of ultimate and far-reaching utility. And let us give most honor to him whose thoughts go out to the ends of the earth and of the heavens, who sees to the past and the future, and yet who neglects not the needs and duties of the hour.





## Agriculture.

### The Farmer's Boy and the Horse.

THERE are few boys who have not, to a greater or less degree, an inherent love for the horse, and this is especially so with those born and raised on the farm. Whether this love (if we may be allowed to use the term in speaking of animals) be increased or allowed to die depends, in many cases, upon circumstances. The question is often asked, "How can we keep the boys on the farm?" We think that a great deal can be done in this line by encouraging his love for horses and other animals. Few will deny that the love for animals is a very desirable characteristic in any person. When we see a man, woman or child fond of animals, making a pet of a horse, dog, cat or other animal, we are safe in concluding, notwithstanding what his general character may be, that there is something good about him, and all that is required to make his good points apparent is favorable environments.

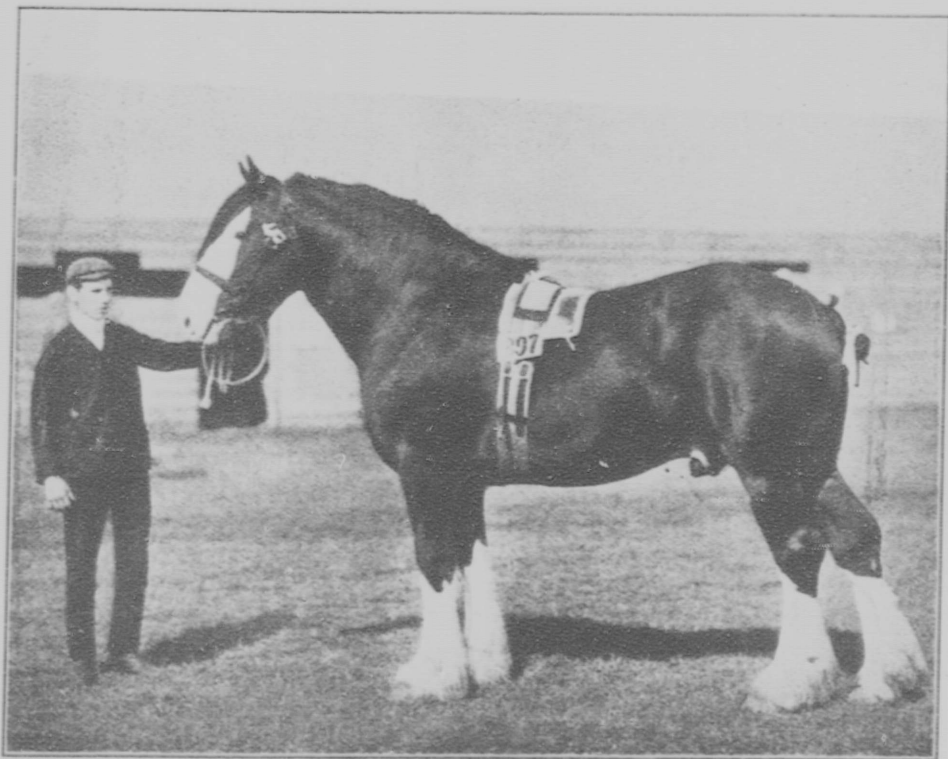
As we are now discussing the "boy and the horse," we shall eliminate from the discussion other animals than the horse.

Of course the development of the boy's love for horses depends greatly upon his father, as we refer to the farmer's son. Many farmers consider it extravagant to keep more horses on the farm than are required for work, and under such conditions the boy is liable to look upon the horse simply as a machine or means for performing the work. We think it is not

an extravagance to keep one or more horses that are not required for everyday labor, and upon which the boy is allowed to spend some time and food to make look nice and with which he is also allowed to have some pleasure. A boy who likes a horse will not grumble at spending some of his spare moments daily in attending to him to keep him looking nice, and he will soon take a pride in him, especially as the possession of him and a nice set of harness and a nice buggy, enables him to appear on the roads, when he has a little spare time, with as good or better turnout than his neighbor. This increases his love for the animal, tends to make him a good horseman, makes him more contented with the farm and less envious of the town or city boys. While the boy who, though he may drive a team on the farm, has none that he can drive for pleasure (as the horse that does regular farm work six days in the week is not likely to reflect credit upon the boy if he be driven or ridden in the evening, on holidays, or to church on Sunday) is not liable to become fond of them. He, in all cases, associates them with labor, and if he wants to go to town, to call on a neighbor, or on other errands, he will prefer to walk rather than drive a horse that needs rest. We say we do not think it extravagant to allow the boy to have a pleasure horse. Then, again, the keeping of one or more extra horses does not necessarily entail a financial

loss, as a well kept, good roadster, carriage or saddle horse, is always in demand, at a good price, and if the boy is allowed to sell he can often do so to advantage, and then give his attention to another that he has bred or that he can purchase as a colt, and care for and train until he gets a purchaser for him. Supposing a farmer decides that it would be wise to follow somewhat after the lines suggested, the question arises, "How shall I commence?" If he decides to purchase a horse for his boy, he should consult him as to the class of horse, whether of the carriage, road or saddle type, he prefers, and then buy one that suits. But we think it wiser and probably more profitable from all standpoints, to breed. It may be that the boy does

not care particularly for any of the lighter classes, but prefers a heavy fellow, that excels in the heavy draught classes, rather than in carriage, buggy or saddle. If so, he must provide the best brood mare his means will allow. While there are many classes of draught horses, and we don't wish to depreciate any, as they are all good, we think there is no doubt that the Clydesdale and Shire are the most profitable for the Ontario breeder to raise. Hence, we say, get as good a mare of this type (as the two classes mentioned are of similar type) and breed her to the best stallion of the same type, the services of which can be secured. In breeding horses of any class we consider it utter folly to select a sire other than of pure breed,



GOOD TYPE OF DRAUGHT HORSE.

and in breeding any class we should carefully consider the dam, and if there be any undesirable points about her we should select a sire that is extra strong where she is weak, or rather light where she shows higher development, etc. etc., in order to correct in the progeny the faults of the dam.

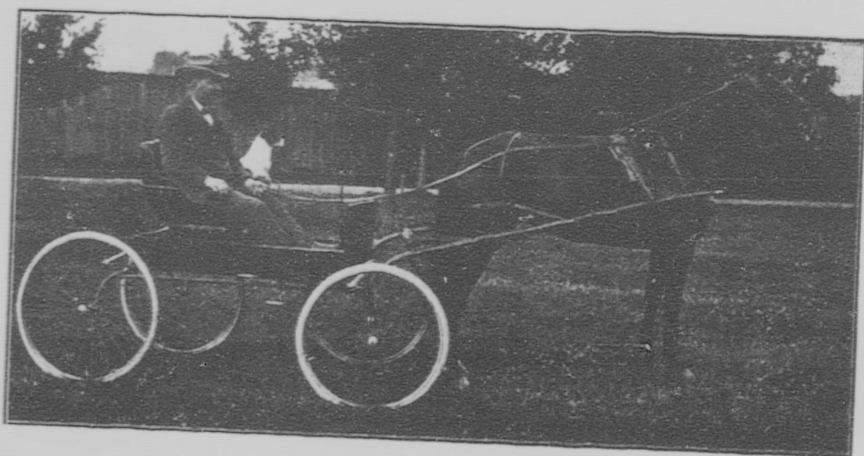
It may not always be wise to give the dam absolutely to the boy, but give him the foal. Let him know that it is his own, and that he is expected to take care of it; of course it is usually advisable for the father to advise as to the proper methods of feeding and caring, but upon the boy depends the performance of these duties, and when he knows that the foal is his own he will take a greater interest in it, and in most cases take pride in keeping it looking well, and in the mean time his interest in and love for horses generally increase.

If, on the other hand, the boy prefers a horse of the lighter classes, the same care should be exercised in the selection of a dam. Of course it would be well to start with a registered dam, but this may entail a greater expense than is thought wise or is expedient. Select a mare as near the type of the desired class as possible. If it be desired to breed carriage horses, the sire should be a registered animal of the hackney, coach, or standard bred, or if the mare be rather large and rough, but with good action, a thoroughbred. The selection of a sire to produce a carriage horse out of a mare of composite breed must be governed to a great extent by the individuality of the mare, and we have not space to discuss this point at length. As with the draught class, in no case should an unregistered sire be selected. We may see a stallion of the carriage class that is exactly what we want to produce, but when we look up his pedigree we

find that he is not pure bred, that he has been produced by a standard-bred, thorough-bred, hackney or other horse, out of a mare that is not pure bred. In such a case we consider that notwithstanding the individuality of the stallion we should pass him by, as he lacks the prepotency to stamp his own individuality upon his progeny, and that by a law of breeding called "atavism" they are very liable to revert in characteristics to some more or less remote ancestor.

If we want to produce a roadster, we, of course, select the best road mare we can procure and breed her to a good standard-bred stallion. Just here I might say that we do not advise an attempt to produce a race horse at either the trotting, pacing or running gait. This is the function of the rich man, and the farmer or farmer's boy who attempts it is very liable to come to grief financially, and in many cases, though not by any means necessarily, morally.

Another class of horse that we think the most desirable, as regards the pleasure that can be derived from him, and one that is probably as profitable from a financial standpoint, is the saddle horse, or we may say, the combination horse. This class is the produce of the thoroughbred out of a common mare. When we say a common mare we don't mean, to use a vulgar expression, "any old thing." We must avoid too violent crosses, hence a large, rough mare of the draught type would seldom produce satisfactorily, even to a thoroughbred, but we do not need to be as careful in the selection of a dam as when breeding to other classes of sires. The thoroughbred has been bred in certain lines for so many generations that he has attained sufficient individuality and prepotency to impart his own characteristics to his progeny, unless the characteristics of the



GOOD SPECIMEN OF ROAD MARE.

dam be violently opposed to his. Hence we can breed a comparatively coarse mare to him with reasonable prospects of success. On account of this propensity we should be even more careful in his selection than with other sires, as, if he have an undesirable disposition or conformation, or be unsound from a breeding standpoint, we often notice that the undesirable points are more and more marked in his progeny than in himself. His produce, if intelligently mated, should make a stylish, good, working horse, that will excel in the saddle and do well in harness. We recommend this class for the boy principally because we think that every boy on the farm should be able to ride. To our mind it is a deplorable fact that few farmers' boys can ride. It is a fact that there are very few farm stables in which can be found a saddle and riding bridle of any kind. This, in our opinion, is not as it should be. We think all farmers should encourage their boys, and also their girls, in saddle exercise. There is no exercise more invigorating and no position in which a boy, and especially a girl who can ride well, looks so well as

when well mounted, and it is astounding how fond either becomes of the exercise. When the boy has a horse that he can either ride or drive he will, in all probability, spend his spare time with his horse instead of in the village or town, and if he have two saddle horses and two saddles, he will enjoy taking his sister, or his neighbor's daughter, out for a ride, and the exercise is not only enjoyable but healthful, and when he gets his horses handy, well gaited and well mounted, he has property that he can sell well at any time. Saddle work also gives him better hands than driving, and we all know that what a horseman calls "light hands" is one of the first attributes of a good horseman.

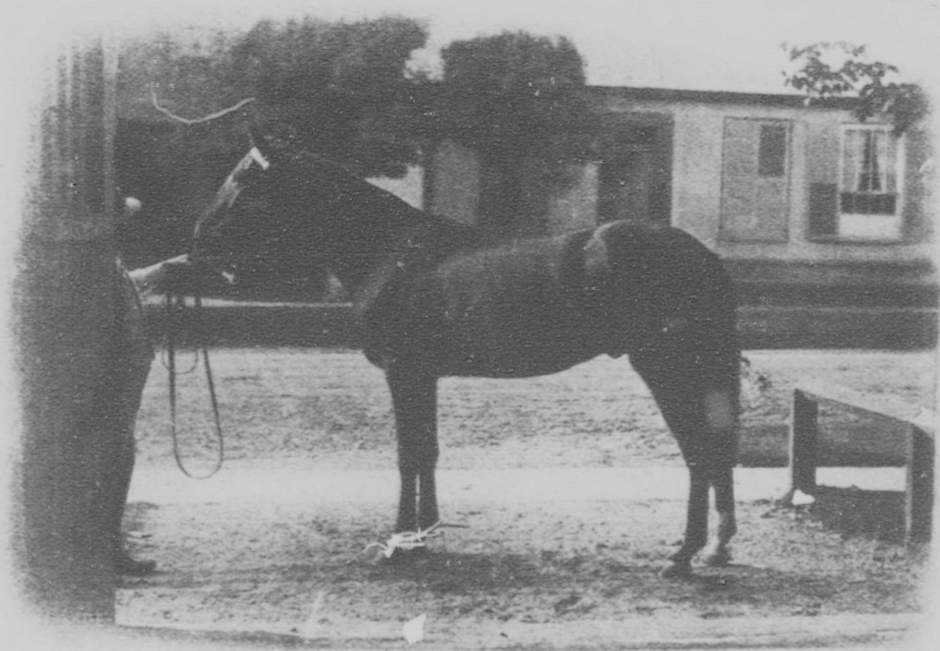
If we may, without intruding too much on your space, we would like to say a few words about the manner in which the boy should handle the colt in order to make him safe and pleasant to ride or drive.

We are accustomed to speak of "breaking colts." Colts should not be broken, they should be educated. We certainly have not space to go into details in this matter, but would like to

give a few hints as to what we consider the proper methods of teaching colts to drive.

The colt should be halter-broken (we shall use the word broken as it is so commonly used) at as early an age as possible, all the better if his education commences when he is a few days old, but at all events it should not be delayed longer than his first winter. He should be taught to lead and to stand tied. He should also have his feet regularly handled and cleaned, and when necessary trimmed to the normal shape with a knife and rasp. During his second winter he should be made accustomed to wearing harness in his stall or paddock, and after he has become used to this he should be driven, unhitched. During his whole education he should be care-

fully taught the signification of certain words, as whoa, back, steady, go on, etc., etc. He should be taught that certain words demand certain actions, and we should be very careful to not use the same word to express different ideas. For instance, when it is "whoa," the boy should teach the colt to stand still, and he should not say "whoa," or "whoa, back," when he simply wants him to lessen his pace, as is so often done. After the colt has been taught to drive and obey the words of command he should be hitched, either singly or with a suitable, prompt mate. If a suitable mate can be had, many prefer to hitch him double. I like to hitch him single at first, and find that when a colt becomes handy in single harness there is seldom trouble in driving him with a



A THOROUGHBRED.

mate. A two-wheeled cart is certainly the proper rig to use. Whatever is used, both harness and rig should be strong, in order that there may be no breaking down, which often causes runaways, frights, etc., which teach the colt bad habits and are liable to undo much of the good we have been so careful to accomplish. Everything should be strong, and precautions should be taken to prevent the possibility of kicking. An individual of any of the classes under discussion is able to do a reasonable amount of ordinary farm work after the age of three years, and thereby help to pay for his feed, but no horse should be

put to regular hard work at less than four years of age, better still if he be five, or six.

In conclusion, allow me to draw the attention of farmers to the advantage of giving the boy a two year course at the O. A. C., if possible, but, at all events, allow him to attend the two weeks course in stock and grain judging, which takes place in January of each year. This course will enable him to become familiar with the desirable points, not only of horses, but of all other classes of farm stock.

J. H. REED.



## In the Mountains.

There's a wild little canyon in the mountains far away,  
Where the foaming waters tumble o'er their rock-strewn course to-day,  
From spray-wet ferns about their feet the cliffs rise grim and grey,  
And the hare-bells on the hillside with the breezes are at play.

There are squirrel-haunted pathways in the mountains far away,  
Where the pines are waving gently in the scented air to-day,  
Where the little sweet-belled Linnaea and bird's-foot orchis grow,  
And the butterflies are flitting round some mossy nooks I know.

There's a lovely, lonely lake in the mountains far away,  
Whose breast the water-crowfoot decks in dainty white array,  
Where the wild-duck leads her nestlings in the dawning of the day,  
And the everlasting hills look down like guardians grim and gray.

Oh! to wander once again in the mountains far away,  
To watch the foaming water and the squirrels at their play,  
To paddle o'er that lonely lake at the closing of the day,  
When the golden halos crown the peaks from the sun's departing ray.

—Marion E. Moodie.

## Horticulture.

### The Business of Fruit Growing.

COMMERCE is the exchange of commodities. In its scope it may it may be local, interstate or international. To be successful in commerce, one must have a commodity to exchange that will bring a high value because it is in good demand. In making the exchange, transportation cuts an important figure; and the better the transportation the more easily the exchange will be effected. These few statements apply with particular force to the fruit business—the production and selling of fruit—which is a branch of commerce.

Safe commerce in fruits depends upon the essential quality of the commodity that we have to offer and of the value that we may get for it. High grade fruit is always in demand. It is only inferior grades that go begging for a market. Commercial reports, the world over, show this to be a fact. How many fruit growers fully realize the force of this fact? The few who do, and who produce a class of fruit that is a little better than the other fellow's, are the men who succeed.

To progress in the fruit business, we must have only a few sorts and varieties and these in reasonably large quantities in each locality. The varieties, when packed for export, must have good shape, large size, high colour, and good keeping qualities. Flavour is an essential

feature of prime fruit; but in the list of export varieties, it is a secondary consideration.

What they want in England first of all is soundness and good-keeping qualities, and nearly uniform size throughout the package. Uniformity in appearance and size means a good deal. Constant improvement in this respect is essential to the general progress of our fruit industry. For the export trade we must have uniformly good fruit throughout the package; fruit in sound condition with good keeping qualities for the dealer and consumer; and then superior quality for those who are ready to pay extra for it.

Export fruit should be sent in comparatively large lots of one sort and of one variety. There should not be too many varieties in one consignment. One reliable variety will give more satisfactory results and better returns than a medley of varieties of unknown, and perhaps, inferior merit. By this, I do not mean to say that only one variety should be grown in our orchards. Orchardists should plant a sufficient number of varieties to cover the entire fruiting season; but only one or two, however, for each particular season. Varieties behave differently in cold storage and in transit; hence, when shipping, one variety in a consignment is better than a number.

Successful commerce in fruits depends also upon the nature and efficiency of the means at hand for transportation. Ocean transportation involves two questions: the question of rates and the question of service. The former largely rests with the individual transportation companies. To secure low rates we must make regular shipments and in such quantity that the transportation people will be forced to appreciate the value to them of our business and treat us accordingly.

Efficient service in transportation, careful handling, proper storage apartments, low temperature and good ventilation, will ensure the safe delivery of fruit, if the fruit is placed on board in a condition that will give it a fair chance. No sort of provision for safe carriage will carry fruit safely that does not start

in that condition that makes it possible to carry it safely. Transportation companies may provide convenience and the provision for safe carriage, but the grower must exercise care, skill and honesty in the production, harvesting and packing of his fruit, if he expects it to arrive at its destination in marketable condition and to command top prices.

In England they have the market for good fruit and they have the money to pay for it. The Canadian fruit grower wants a place in that market and he wants some of that money. To get these, he has only to put and keep the fruit business of the country on a safe commercial basis in regard to the production and selection, and to the handling and transportation of the commodity that he has to offer in exchange.

A. B. CUTTING.



## AUTUMN.

Oh! the green and the gold of the Autumn woods,  
 The haze o'er the Autumn sky,  
 The carpet of leaves on the soft brown earth,  
 And the warm wind's trembling sigh.

They are full of the glory of vanished days,  
 Of the peace of the ripened year,  
 Of the mystery deep of their coming sleep,  
 When the Winter snows appear.



# The O. A. C. Review

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|                                  |   |                                   |
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Advertising Rates on application.

## Editorial.

The beginning of the college term is always the best time for the REVIEW to get in close touch with its readers and this year especially we feel that a more or less definite outline of our plans will be expected. Any who have watched the progress of the magazine for the last few years must have realized that it was becoming much too heavy a proposition for the students to handle. Those who were intimately connected with the paper began to realize it long ago and by last Christmas it was plain that something would have to be done.

That something has been done. In short, a permanent manager has been engaged. Mr. H. H. LeDrew, B.S.A., who managed the business end for the two years previous to his graduation this summer, is now the paid Manager of the REVIEW.

This change will of course relieve the staff of much of the outside work which

formerly took time which should have been devoted to lectures. While the task which Mr. LeDrew has undertaken is one of great responsibility, the student body, through their annually elected staff, still remain the real controllers of the paper. They will have more opportunities for editorial and business training than heretofore and will be saved, much of the monotonous routine of publishing and the endless worry over stray cuts, lost copy, outside articles, "ads." which they have not the time to secure, and many of the other incidental cares which formerly made a whole day at lectures an event of the season.

Of course this change is already well known to most of our readers. Just here, however, is where we wish to emphasize our remarks. Most of those who were aware of the intended change will probably have visions of an October Number "bigger than has been" and a corresponding increase in each succeeding

number. In fact, they expect us to come through this transition stage as if by magic and accomplish in a month or two what may take years to carry through. They forget that the money which carried us through safely last year would be only two-thirds of what we shall need this year, even, if to outward appearances, we do not improve the REVIEW in any particular. Improvements, at our present stage of development, cost more in proportion than they did last year, and consequently twice last year's expenditure would be needed to effect a series of noticeable improvements.

This year we do not expect to raise any such amount, and material improvement in the quality of our magazine will probably not be a feature for a time. The doubling of our circulation since last year has made a raise in our advertising not only advisable but necessary. Such a raise always means a loss of much advertising matter and while many of our old friends are coming back as strong as ever our advertising section will shrink. Our increase per page will more than make up for any falling off in number of pages but even then we have to meet the added cost of a bigger circulation and our Manager's salary before we can consider improvement.

While for many reasons a big October Number is always an advantage we have preferred to make a very conservative estimate of our possibilities. If, therefore, the size of our first number is somewhat of a surprise and perhaps a disappointment, remember that "Rome was not built in a day." This will not be a year of surprises or of outside display but underneath the surface a great deal of quiet, careful, and persevering "digging-in" will be going on. Many of our plans are already drawn, but, as plans are always accompanied by specifications as

to cost, we shall employ our time in laying a broad and deep foundation till all danger of financial embarrassment is over. Then, and only then, can we hope to rear the structure, which shall equal, if not excel, the fondest anticipations of those who have more than once assured us of their deep interest in our undertaking.



One of the most hopeful signs of the times, especially in educational circles, is the increased interest which is being taken in **Agricultural Education.** Agricultural Education. The American Colleges all announce an unusually large freshman class and at the O. A. C. our First Year is a record breaker in size, numbering as it does nearly one hundred and twenty. While there are many factors which contribute to the bringing about of such a satisfactory state of affairs there are also many influences tending to diminish the number of our students at the O. A. C.

Only a few years ago our college was practically *the* Agricultural College in the world. Even to-day we have enrolled a more cosmopolitan body of students than any other institution of the kind. In our Freshman Class this year, we find seven from the British Isles, five from South America, four from the United States, two from Jamaica, one from Spain, one from Belgium, and one from New Zealand. Other provinces have also contributed a few.

But where we now get four from the United States we used to get four or five times that many. Considering the fact that almost every state has now an Agricultural College of its own this decrease is not surprising. Nova Scotia, which, in former years, sent us some of our strongest men, this year sends us not

one. Nor can we expect it, for Nova Scotia now has a college of its own. Our Western quota has never been large nor is it likely to be for Manitoba will have its own College in operation next year. All these sister Institutions have been drawing students from around the edge of our sphere of influence, but there is still another nearer the centre which seems likely to draw them from us in larger numbers. The new Macdonald College at St. Anne's will be open next year and while many of its students will come from Quebec, it is only to be expected that its influence will extend over many Eastern counties of Ontario, from which we now derive over one quarter of our students.

Thus, yearly our territory is being narrowed and to offset the resulting loss of students two things are necessary, increased interest in Agricultural Education and increased interest in the O. A. C. The latter can, to a certain degree, be effected as formerly by the annual June Excursions, by reports, by references in the press and on the platform, and by the successful careers of our graduates. It is with the interest in Agricultural Education that we have to deal chiefly then, and the present time is most opportune, since important changes, if not a complete revolution of the Education system are being contemplated. The rural system of education is admittedly faulty, the main idea being to pass exams., especially the Entrance, and to

pass the "little amateurs" on to the High Schools, where they are, as a rule, gradually educated away from country life and agricultural ideas. It is true there is a subject known as Agriculture, which is supposed to be compulsory in rural schools, but in the average school it is not even mentioned.

Nor under present conditions is there much use in mentioning it for the timetable is already too crowded in most ungraded schools and agriculture lessons would be few, far between, and fragmentary for it is not an "examination subject."

Rural education is under the control of the government of Ontario, and so is the O. A. C. If then any radical changes in the Education System are contemplated, why can not these two be made to work harmoniously? Make the O. A. C. and the Macdonald Institute the goal of the rural child, instead of the High School. Do away with the Examination fever and when the pupils are seventeen or eighteen send them to Guelph for higher education if they wish it. Of course a Collegiate training could still be made compulsory for those wishing to take the degree but if we are to do our duty by the rural people of the province, our first aim must be to train their children toward the farm, not away from it. In this way only can the O. A. C. hope to retain its lead, its popularity and its students.

## College Life.

**A**ND once again the college year has opened. The summer has come and gone amid the ever-changing scenes of the flying year and fair autumn is upon us with its green and golden landscape, its exhilarating air and its fulfillment of the promise of spring.

On Sept. 13th, the Ontario Agricultural College welcomed back to its spacious halls and green campus the boys who still thirsted for a knowledge of the farm. With what interest we had anticipated the day and how we enjoyed the hearty hand-clasp of many a college chum and fair Macdonald maiden or the genial greeting from our Professors! With feelings strange and new, the freshman comes, tells who he is, grasps his key tightly in his hand and starts off to find his street and number. He wanders about the halls as if he were in the wrong town and is ever fearful lest, "on forbidden ground, he should meet the man who imposes the fines." In a short time, however, these men are imbued with the college spirit. We gladly welcome them to our college home.

From year to year, as we return to our study, we find many improvements have been made in and about the College buildings. This year seems to have been exceptionally marked in this respect. The painter's brush has been busy in artistically decorating the interior of our dining-hall. Besides this a number of choice wood-cuts have added to its beauty. It now rivals that of the

King Edward. The halls on the ground floor have all been renovated and re-grained. Lower Panton has also received a fresh coat of the attractive covering and the furniture of all the rooms has been newly varnished.

No longer will the bang, bang, bang of the janitor's pan be heard in the cold grey dawn. No longer shall we hear the familiar, "Time to get up, boys, time to get up" from our jovial caretaker. A number of electric gongs have been placed in different parts of the dormitory so that now the boys may remain in their rooms until the gong sings, instead of crowding around the dining hall door as formerly, awaiting the first tinkle of the dinner-bell.

A new magazine room has been opened in the college dormitory, so that now the boys in their leisure hours will have access to a great number of the choicest English and American magazines. Through the kindness of President Creelman, Room 42 on Upper Panton has been secured. The cost of furnishing and securing reading material is to be borne by the Young Men's Christian Association.

During the summer the work of improving the lawns and the approaches to the Macdonald Institute has steadily proceeded. The western side of the grounds, which last season were bare and brown, is now beautifully enshrouded in a coat of earth's freshest green. Cement walks have also been laid from the Hall

to the street-car waiting-room and from the Institute to the Hamilton Road.

A familiar mark to many of the students and ex-students of the O. A. C. is soon to pass away. The old carpenter shop has been removed to the rear of its previous position near the car track to make room for a large Machinery Hall to be erected this year. There has already been built two new double houses for the farm workmen. They are situated on the Experimental division, one on either side of the farm-foreman's dwelling.



PROF. F. SHERMAN, M.S.,  
of the Biological Department.

During the past few months a number of changes have been affected, both in our college staff and in the arrangement of the various departments. F. Sherman, one of Cornell's Honor Graduates in Science, became connected with the Biology Department about September 1st. Professor Sherman's home is in Virginia but, previous to coming here, he was in charge of the Entomological Department of the North Carolina Experimental Station.

Dr. S. H. Edwards, who will assume charge of the Bacteriological department,

in succession to Prof. F. C. Harrison, is a graduate of Michigan Agricultural College, from which institution he graduated in 1899. He received his degree of M. S. in 1903 after post-graduate study and in the spring of 1904 left to pursue further studies in the College of Medicine and Surgery in the University of Michigan, where he held an assistantship under F. T. Novy in the Department of Bacteriology and Hygiene. With such experienced gentlemen to guide us, we trust that our young and receptive minds may imbibe at least a slight knowledge of the intricacies of plant and animal life. We extend to them a hearty welcome.

Owing to the extent of its scope, the Biology Department has been arranged in two divisions. The work in Botany and Geology will be conducted by Professor Lochhead and Mr. Jackson, while the Zoology and Entomology division will be in charge of Professor Sherman and Mr. Jarvis. This arrangement should help to relieve the strain of work which has hampered the efforts of the Biology staff in their research work in this department during the past few years.

Our Professors are ever busy. It would seem to us on first impression, that the summer is to them but a gala day. But that is quite different, in fact it is in the summer months that they feel the greatest pressure of work. Every department is overflowing with research work and many important investigations are carried out in the different branches of study. Apart from this many of the Professors are privileged to visit Agricultural Institutions elsewhere, study their conditions, their methods of work and its results, that we may benefit by their experience.

The official duties of President Creel-

man kept him within hailing distance of our College during most of the summer months.

Professor Gamble, of the Chemical Department, spent much of the summer in Laboratory work. An interesting and important investigation as to the digestibility of many of the grain by-products was carried out. The results of these experiments, we shall no doubt receive in bulletin form some time during the winter term.

During July and August, Professor Hutt visited the Experimental Fruit Stations of the Province, to study the conditions of the fruit crop in each locality. His holidays were spent in Muskoka.

Prof. Reynolds, accompanied by Prof. Zavitz, spent a number of weeks of the summer in addressing Farmers' Institute meetings held in New Ontario. Both professors speak highly of the future possibilities of our northern districts.

During the June Excursions over 27,000 agriculturalists and sight-seers visited the O. A. C. Thus we are not surprised to find that the students' booths under the management of Messrs. Bracken, Craig and Scott were, from a financial stand-point, a grand success. It will be remembered that last spring permission was granted the student organizations to operate refreshment stands on the college grounds during the summer months. As a result three tents were pitched, one at the Dairy Department, one near the Agricultural Building and another on the campus near the street-car waiting room. On one day alone fifty-six gallons of ice-cream were sold, to say nothing of the large quantities of other delicacies. The proceeds, which amounted to over six hundred dollars, were divided among the Athletic As-

sociation, Y. M. C. A. and Literary Society.

#### DEEDS OF DARKNESS.

Yes, the Freshmen were initiated. It devolved upon the Sophomore class to introduce the new-comers into the wiles of college life. But this presented many difficulties. The Freshies were almost double their numbers and President Creelman forbade the use of the baptismal fluid, as many of the Freshman class of last year had become very damp from standing before the nozzle of the fire hose in a former initiation. So after due consideration, the Sophomores decided to put into execution a programme carefully arranged by some of the more sober heads of their year.

On Friday evening, September 29th, two weeks after college opened, the Sophs. formed in battle array upon the



The freshman feels fresh.

College Campus. There was no hum of the dum-dum bullet, nor flash of the two-handed sword, but each of McKenzie's Veterans was armed with a half-pound of carbon, commonly called lamp-black, tied in the end of a sock in one hand and in the other hand was a "stale" egg. An invitation was then sent to the Freshmen, who were holding a meeting in No.



Anon he gets stale—eggs.

1 Class room, to come to the campus to meet their doom. They came, but not before they had thoroughly organized their forces and each had placed a peck of "Two-in-One" on the tip of his finger. Cautiously they approached, until within a few paces of the Sophomore ranks, when the war-whoop of that body was raised and the battle began. A



A "free-for-all" ensues.

soldier may steal the enemies flag or save a dying comrade, but the man who can

face a shower of addled eggs certainly deserves a Victoria Cross although he gets nothing more than the eggs.

In well organized bands the Sophs. time and again charged back and forth through the wavering ranks of their opponents leaving, at each charge, many a dark streak upon the unfortunate Freshies who ventured within range of their blinding missiles. These were dark days for the Freshmen and some of them attempted to throw a little light upon the subject. A bag of flour was secured from the college pantry but they were readily relieved of it by their Sophomore friends. At last a truce was called.



FINALE.

All coons looked alike to us.

these who could recognize one other, shook hands and all retired to the dormitory. Then came a rush for the baths and the application of water, soap and towel, but all found that what took a few hours to put on, took a few days to remove.

But this was not to be the end. The members of the first year, who had missed such an exciting experience, were not allowed to go free. It was decided by the powers that rule, that they also should acquire the desired knowledge. A notice was posted requesting all first nights' absentees to present themselves

at the Gymnasium on the following Monday evening, for the second act. At the appointed hour, the Freshmen heroes of the fray, ranged themselves in line around the hall, each with a towel, shingle or lath, and one by one the delinquents were forced to crawl on their hands and knees and take their punishment. Then came scene II. of the second act. Each was asked to sing a hymn or any one of his familiar songs, and laughable were the attempts to sing of those who were not of a musical turn, but to others it seemed more of a pleasure than a punishment.

#### OUR LITERARY SOCIETIES.

The Literary meetings of the various societies at the college have been well attended during the past few weeks. This is as it should be and there seems to be a more lively interest in literary work this year than in any of the previous terms. The first of the union meetings will be held in Massey Hall on the evening of October 14th. To our sister societies of Macdonald Hall and their friends we extend a cordial welcome.

The officers for the term are :

#### UNION SOCIETY.

Hon. Pres.—Prof. J. B. Reynolds, B.A.  
 President—H. A. Craig.  
 Vice-Pres.—G. G. White.  
 Secretary—F. C. Nunnick.  
 Treasurer—H. C. Wheeler.

#### DELPHIC.

President—W. A. Munro.  
 Vice-Pres.—W. J. Hartman.  
 Sec.-Treas.—H. A. Woiverton.  
 Programme Committee—H. B. Smith,  
 D. M. Rose, F. M. Coghlan.

#### ALPHA.

President—G. G. White.  
 Vice-Pres.—D. MacKenzie.  
 Sec.-Treas.—C. B. Twigg.  
 Programme Committee—H. Colwell,  
 J. W. Crow, W. E. Walker.

#### MAPLE LEAF.

President—P. E. Angle,  
 Vice-Pres.—G. H. Antler.  
 Sec.-Treas.—A. McLaren.  
 Committee—H. Duffy, M. A. Campbell, G. Coke.





## Alumni.

THE creation of two new provinces in the Canadian West has, of course, necessitated the formation of two new governments. Agricultural interests being pre-eminent in both of these provinces, the Portfolio of Agriculture is one of primary importance and of no little responsibility. That in Saskatchewan one of our graduates, Mr. Motherwell, B. S. A., '81, should be chosen may well be a matter of pride with us. Mr. Motherwell has been farming near Abernethy, Sask., for many years and has more than sustained the reputation he won at college when he carried off the medal for general proficiency. He is known all over the province as one of the most practical, enterprising and successful farmers in all that splendid country of rich wheat plains, above the valley of the Qu'Appelle. Mr. Motherwell's appointment has of course to be confirmed in the elections this fall, but whatever be the fate of his colleagues Mr. Motherwell's election is practically assured.

While to be Minister of Agriculture is to be a man of great responsibility, to be Deputy Minister is to be a man of whom large ideas and great executive ability are expected. Such a man has Alberta gained in its new Deputy Minister of Agriculture, Mr. Geo. Harcourt, B.S.A. Incidentally his appointment is another recognition of the worth of O. A. C. graduates, for Mr. Harcourt is an O. A. C. boy of no little distinction, and is better known in what were formerly the North West Territories than perhaps

any other graduate from the college. In addition to his position as Superintendent of Farmer's Institutes and Fall Fairs he acted as Deputy Minister of Agriculture for the Territories. His headquarters will now of course, be removed from Regina to the new capital of Alberta but his field of operation will by no means be new to him. While Mr. Harcourt's appointment marks an occasion for congratulation, it is scarcely a surprise, for no better man could be found.



J. R. FAIRBAIRN,  
Secretary to President Creelman.

The new Secretary, whom we are all becoming more or less acquainted with in the President's office, needs no introduction to the three older years in the college. Mr. Fairbairn was a member of the present third year, until he received this appointment and his general popularity should go far to make his duties among the students not only easy but pleasant. His business training and experience in commercial life, both in

office work and on the road, will also stand him in good stead.

During the last two years Fairbairn was a tower of strength on the business end of the REVIEW, and a great deal of our financial success has been due to his efforts. Realizing his merits, we predict unqualified success in his present responsible position.

We understand that our former Bacteriological Assistant, Dr. Harris Streit, is no longer convinced that one and one should always be two, especially if one be won, and it is rumored that he is going to demonstrate to his own satisfaction that two can be made one. Cards are out announcing his engagement to Fraulien Bertha Guggisberg of Englishberg, Switzerland. The REVIEW extends its heartiest congratulations.

That the boys from the O. A. C. do not forget their training in stock-judging as soon as the College Heights fade from view, has been demonstrated more than once in the past summer. Both in the East and in the West they have been winning fame, money and medals. In the stock-judging contest at Sherbrooke, Que., J. M. Greenshields carried off the honors in beef cattle and in swine, and also won a place in sheep and dairy cattle, making his share of the prize-money over twenty-five dollars. At the Winnipeg Fair, Baker, '00-'01 won the valuable medal presented by the Farmer's Advocate for sweepstakes and also increased his visible supply of the necessary by upwards of thirty dollars. G. G. White, of the present Senior Year, was also among the fortunate at Winnipeg, heading the list in cash. White stood high in all classes and in sheep was first.

Mr. B. S. Pickett, B. S. A., who, in his capacity of Secretary to the President, has for some time devoted his

energies to seeing that the wheels of the Institution turned smoothly, has resigned his position in order to take a post-graduate course at Illinois. The students, even those who were occasionally disciplined, only too deservedly perhaps by Mr. Pickett, will, we feel sure, join in wishing him as "fine" a time, as if not finer, than he had at Guelph. To him, as one of the former members of the REVIEW staff, the REVIEW extends its best wishes.

In the early part of September, Dr. Robinson, one of our older old boys paid the college a flying visit. Dr. Robinson is the son of Jabel Robinson, late member of the House of Commons. It is upwards of twenty years since he roamed the O. A. C. halls and the many changes and improvements since that time called forth numerous expressions of surprise and admiration. The training, which his agricultural instincts then received has not been forgotten, for, in addition to his duties as Professor of a Veterinary College in Washington, and Chairman of the Board of Control, the Doctor owns and manages a farm of some eight hundred acres near that city.

The classmates of W. A. Linklater, B. S. A., '99, were pleased no doubt to hear of his appointment as Professor of Animal Husbandry at the Washington State College.

We read with pleasure of the appointment of L. S. Klink, B. S. A., '03, to be head of the Department of Agronomy at the New Macdonald College, St. Anne de Bellevue. Mr. Klink was formerly connected with the Iowa State College.

We are glad to hear that our old friend Alfie Howes is happy amidst somewhat different scenes from those of Upper

Hunt. Alfie is on the farm near Harriston but is looking forward to a few days in Guelph during the Winter Fair.

During the past summer F. A. Wilkins, '90, has been construction engineer on a C. P. R. extension in the Saskatoon district.

The Western division of our Alumni are rapidly becoming a body of no small size and importance. An Old Boys' Association has been formed and every year an effort is made to hold an informal reunion during the time of the Winnipeg Fair. This year the meeting was held in the tent of Mr. Gregg, Live Stock Commissioner and, although only about twenty were present there were doubtless many on the grounds who either forgot or had not been informed of the time of meeting. The business end had of course to be disposed of first. Minutes were read, membership fees were collected and officers were elected. Mr. A. P. Ketchen succeeded Mr. W. J. Black as President, and Mr. Geo. Harcourt was re-appointed Secretary. Many plans were discussed and many resolutions were adopted. Among other things it was decided to call upon different members present to prepare a somewhat exhaustive treatise on different subjects of Agricultural interest. These papers will be read at next year's meeting, when a much larger attendance is hoped for.

Those who were present this year were:—Mr. W. J. Black, B. S. A., '02, Deputy Minister of Agriculture for Manitoba; Mr. Geo. Harcourt, B. S. A., '90, Deputy Minister for Alberta; A. P. Kitchen, '02, Editor of Nor' West Farmer; F. S. Jacobs, B. S. A., '02, Assistant Editor of Farmer's Advocate, Winnipeg; M. D. Geddes, Business Manager of Farm and Ranch Review;

Jas. Murray, B. S. A., '02, Supt. of Seed Department in Western Canada; R. Craig, B. S. A., '99, of Forestry Department, Ottawa; W. J. Carson, B.S.A., '02, Prof. Dairying in New Manitoba College; R. H. Reynolds, Supt. Industrial Farm, Regina; W. T. Baker, '99-'00, of Salina, Ontario; C. A. Marshall, '02-'03, of Winnipeg; G. G. White and R. S. Hamer of the O. A. C.



A snap shot of P. S. SEABROOK and wife, taken at Killarney Fair.

One of the REVIEW staff had the pleasure of meeting several O. A. C. ex-students in the West this summer. At Belmont, Mr. Wm. Glass was encountered. Mr. Glass knew the O. A. C. before Dr. Mills was President and had many interesting stories to tell. At Grenfell, Sask., Mr. Jas. Fotheringay, who formerly roomed with Mr. Glass, was met. Both he and Mr. Glass were pioneers in the west, and needless to say are not far from Easy Street.

In the accompanying illustration we have a snap shot of P. S. Seabrook and his wife, taken at Killarney Fair. Mr.

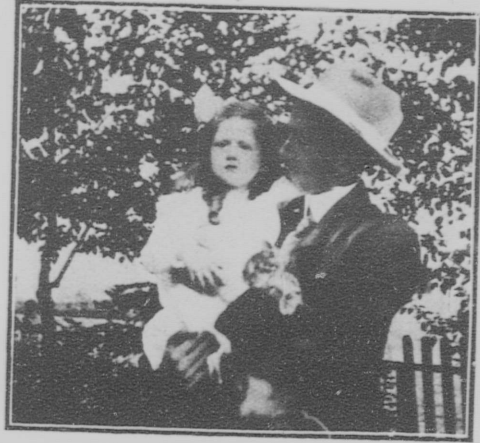
Seabrook remembers the days when he roomed with Hon. Nelson Monteith. He has a large farm near Killarney, and contemplates going in for pure bred Ayrshires.

Before leaving the O. A. C. for the last time as ex-students, the class of '05 decided to undertake something unique in the way of a class memorial. By subscription, about one thousand dollars was raised, the interest of which will, in future years, be given as a graduation scholarship to the best all-round man in the Fourth Year. The details of the plan have not been worked out yet, but the boys of '05 deserve credit and gratitude for their enterprise and generosity.

Once more the class of '07 comes back minus its President. Last year it was McKinley, this year it is Kennedy, who is now applying and adapting theory to practice on his father's farm at Apple Hill. Kennedy will be greatly missed by his year, as he was a leader, not only as student, but also on the various executives bodies. In the Y. M. C. A., in the Literary and in the REVIEW, his absence has left a gap to be filled. The class also mourns the loss of its Vice-President, Broderick of St. Catharines, and its Secretary, Baker of Salina, as well as some twenty-five from the ranks.

Of the graduating class of this year, it may be safely said that seldom has so large a class gone forth and seldom have there been so many outstanding men, men of energy, force, brain and enthusiasm. Moreover, the worth of the majority has been readily recognized, and they have already secured splendid situations.

Wade has crossed the border and is now Assistant Professor of Animal Husbandry at Arkansas Experimental Station.



R. J. DEACHMAN making an impression in the West.

Deachman has returned to the land of his adoption, the West, and is in charge of the Farmer's Advocate at Calgary.

Eddy is Agricultural Editor of the Weekly Sun at Toronto.

McKillican represents the Seed Department of Ottawa, in the far West, and has headquarters at Calgary.

McFayden is also among the journalists as Agricultural Editor of the Mail and Empire, Toronto.

Baker is engaged in work for the Forestry Department, O. A. C.

Esmond represents agricultural journalism in the East as editor of the Maritime Farmer.

Logan is at Victoria, B. C., stimulating interest in Winter Fairs and Farmer's Institutes, for the Dominion Department of Agriculture.

Bell is on the staff of the Experimental Department, at the O. A. C.

Hand is editor of the Canadian Horticulturist at Toronto.

Whyte is at the Brandon Experimental Farm.

Mayberry and Hoodless are on Senator Edward's stock farm at Ottawa.

Howitt is still diligently prosecuting

his studies and is taking post graduate work at Cornell.

Mason is assistant chemist in the Sugar Beet Factory at Berlin.

LeDrew has accepted a position as Manager of the O. A. C. REVIEW.

Irving is assistant instructor in the Dairy Department of the Dakota State Agricultural College.

Leitch is manager of the Farm at the Mimico Industrial School.

Bustamante is making a tour of Europe, visiting all centres of agricultural interest before leaving for the Argentine.

Granel has returned to the Argentine to take charge of a large ranch.

Lennox and Mortimer have both returned to their farms, as was their intention while at college.

A. Robertson, '06, has a farm of 730 acres at Rosser, Manitoba, and is doing exceedingly well. That he will have 5000 bushels of wheat this year speaks well for his prosperity.

R. R. Sloan, '06, is buying grain for the Northern Elevator Company at Arcola, Saskatchewan.

Jack MacBeath, '07, has a fine farm on the banks of the Assiniboine River at St. Francois Xavier, and has been so successful in its management that already many of the neighbors have overcome their inborn antipathy toward college-bred farmers.

W. H. Gunn, '04, is now devoting to the Farming World those instincts for business management, which in the earlier days he turned to such good account in the REVIEW.

C. A. Marshall, '06, has given up the real estate business and is now even further removed from agriculture. He has made his mark in the insurance world

and is at present Winnipeg Inspector for the Imperial Insurance Company.

W. Rush, '02, is achieving fame as a market gardener, catering to the Toronto trade. He has one of the best farms of the region, and that he is appreciated by his competitors, is shown by the fact that he is President of the Ontario Vegetable Grower's Association.

R. D. Prittie, '01, has a 640 acre farm a few miles south of the town of Moosomin, Saskatchewan, on which he contemplates spending the next few years as an ardent tiller of the soil.

J. C. Hutcheson, '00, is now banking in Calgary.

"Billy" Dewar, '04, writes that the locusts have devoured everything in sight in the district in which he is located—the Transvaal.

John H. Cook, an associate of '94 is located in the much advertised Temiscamingue district, at Milberta, where he has a quarter section of good farm land. He has cleared thirty-five acres, has seen enough of the possibilities to have implicit faith in the country, and will doubtless be one of the large farmers of the region. At present he is responsible for the meteorological observations, and is consequently in a position to speak with authority on the climate.

Stanton, '99, is seeking his fortune in the West. Since leaving the O. A. C., he has devoted his attention to dairying, and is now in the Dairy Department at Winnipeg.

Carrick, '94, who was one of the stars when our senior association team won the championship of the province, has not wandered far from the college centre. He is with the Queen City Oil Co. of Toronto and is living at Berlin.

Adam Davis, '98, is a valued servant of the greatest corporation in the Dominion. He is stationed at North Bay, as freight checker for the C. P. R.

Larley, '95, has lately bought a fruit farm near Winona. He is bent on receiving all the benefits of science and was the first to avail himself of the Physical Department in having a complete drainage system prepared for his farm.

Percy E. Reed, '04, is farming near Georgetown, paying special attention to Jerseys and light harness horses. In '04 he took the short course in stock judging, and it is a tribute to this extra training that his stock have this fall been prize winners at several shows, and that at his county show at Milton, he received a special prize for the largest and best exhibit of horses.

John Chisholm, who took three years with the '05 class, and then discontinued for a year to take the position of Farm Superintendent at Ohio State University, is back to this college again to complete his course. He found the work there

most congenial and speaks very highly of the institution and the work it is doing. He was granted a year's leave of absence to complete his studies here, when he will return to Ohio and resume his former position.

This year is peculiar for its number of returned ex-students. Besides Chisholm we have back with us again W. J. Squirell and J. Bower for fourth year; M. F. Coglan, A. McKenney, H. Barton, C. C. Nixon, J. Crow for third year; and John Wood and G. Procnunier for second year.

A. B. Cutting, who spent the year 1904-'05 in the Argentine Republic, returned to Canada again this summer. The six weeks previous to his leaving the Argentine, he spent on the ranch of General Roca, where Walter Hamilton has charge. He brings a very favorable report of Hammy and thinks he is doing alright. Cutting is now taking Post-graduate work at Cornell and also doing some lecturing in his special—Horticulture.



## Macdonald.

THE classes of Macdonald Institute welcomed Prof. Robertson on the morning of the 9th inst. when he gave an admirable address on the Macdonald Movement, speaking more especially to the "Nature Students." He gave them valuable information concerning Nature Study, as a whole, and the consolidated schools, turning out many important points in connection with the latter, which are considered so expensive.

They have their good influences though, as the coming together of such a number of children helps to create the spirit of emulation, and develops the social side of life.

Perhaps, said Prof. Robertson, in the future we may see the illustrated farms being run in vicinities where these schools are erected, and thus the drivers of the vans, conveying the pupils back and forth may be given profitable employment during their hours of waiting for their return trip. In this way the now paid salary of the van driver could be lessened.

He also spoke of the possibilities in view for reducing expenses in connection with the rural movement.

In referring to the Nature Study Course, he said, that it was through the teaching of these special courses in Macdonald Institutions, or others equally as gratifying, that the maintenance of gardens in connection with the rural schools would be kept up to better advantage, and at less expense, than if the services of some one else would have to be engaged. The teacher going out from

these Institutions would be thoroughly prepared to superintend the children in the planting and caring for this particular branch of their education.

The Macdonald School garden fund maintains 25 of these gardens and a compensation of \$30.00 a year to each qualified teacher undertaking this work, and an additional \$20.00 grant for its maintenance. In New Brunswick these monies are paid by the Government of the Province. In Quebec it is sustained by the Macdonald Fund.

Prof. Robertson compared the Canadian man to a savage, inasmuch, that a great many of us live for ourselves—give as little as we can and get as much as possible. He said that selfishness was manifested in every walk of life; that Christianity was not only a lot of ritual but the teaching of the youth to do his little best, to make the path smoother, better and cleaner, and in such co-operation would be found strength and happiness.

It falls upon the parents of our districts to further the educational development, in and around our own home and that one of the best ways of promoting this is by cheerfully and willingly paying the school tax, thus giving and enabling those, that should take advantage of it, a better chance to learn, and become better men and women.

Prof. Robertson spoke of ignorance, helplessness and selfishness being converted into intelligence, ability and unselfishness, which is the basis of all true education.

The students of the various classes of Macdonald Institute met in the Assembly Hall on the afternoon of Sept. 28th inst. to discuss the advisability of continuing the Macdonald Literary Society.

Prof. S. B. McCredie was made Chairman of the meeting and spoke very strongly in favor of the organization.

The Constitution of the previous year was generally adopted with a few changes.

Nominations for officers were accepted and posted, the election taking place on Oct. 2nd, resulting as follows:

Hon. Pres.—The Hon. Min. of Agriculture.

Hon. Vice Pres.—Pres. Ont. Agricultural College.

President—Miss M. Card.

1st Vice Pres.—Miss Fitz-Randolph.

2nd Vice Pres.—Miss M. Davis.

Treasurer—Mr. Peacock.

Cor. Sec'y—Miss Vera Smith.

Rec. Sec'y—C. G. Lawrence.

Con. Mus. Com.—Mrs. Fuller.

Con. Lit. Com.—Miss K. R. Bartlett.

Con. Social Com.—Miss H. McDunough.

Con. Dram. Com.—Miss Barnes.

The meetings of the Literary Society will be held once a fortnight, falling on Friday evening. The first of this series will be on Oct. 13, '05, in the Assembly Hall of Macdonald Institute, when we will gladly welcome all our friends.

#### THE RETURN OF MACDONALD STUDENTS.

The nineteenth of September found Guelph again invaded by crowds of girls all bound for Macdonald Hall. There were merry meetings of the girls of last year and pleasant acquaintances struck up among others, who, while new to the place, felt a word of friendship to all who belonged to Macdonald.

Arrived at the Hall, the girls found Mrs. Fuller to greet them and make them

feel at home, with all the kindness that last year's girls know so well. Dr. Ross was also on hand and, in spite of the formidable set of Rules with which she confronted each newcomer, everyone was delighted to welcome her to the Hall, where she has taken up her abode as Assistant Superintendent. As for the Rules, the girls might grumble a little at the thought of Sunday evening pleasures denied, but they are all ready to stick up for the Rules and obey them too.

Besides the addition of Dr. Ross another change has taken place in the staff for Miss Tennant now fills the position of Housekeeper. The girls were all delighted to see Miss Tennant and proud that one of the Institute graduates should hold this important position.

Everyone was charmed with the Hall, which looked the picture of comfort with the pleasant sitting rooms and cozy corners and flowers everywhere. All this seemed doubly delightful contrasted with the disorder of last year's opening. The rooms were quickly allotted and, before night, a transformation had taken place and the rooms, which in the morning had been bare and empty, were fitted up in truly cozy fashion.

Over at the Institute, Miss Watson was on hand as usual and introduced the girls to their new teachers—Miss Greenwood, who has charge of the Teaching Classes, and Miss Speller, who succeeds Miss Robarts, in the Domestic Art Work. Mr. Springer too was on deck, as all had reason to know by the lightness of their purses after they had paid him a visit.

Three weeks of the term are now past and things are settling down into the routine of study. Captain Clark has once more taken up his classes on Wednesday and Friday afternoons and now



presides over a hundred or more fine looking young ladies who are arrayed in most bewitching gymnasium suits of navy blue and red. The effect when they march up four abreast or twirl round in a bewildering circle is simply magnificent.

All nights but Friday are strictly devoted to study but on that night the girls are free to attend the Literary, receive visitors or, perhaps best of all, share in those delightful little suppers, which are one of the pleasantest features of the life here. In short, the MacDonald girls are here for good, hard work. They appreciate the efforts of their teachers and mean to live up to what is expected of them but they are ready on Friday night for an evening of good fun and relaxation after the labors of the week.

A class in English has been commenced under the direction of Professor Reynolds. The number who have selected this option is gratifyingly large, twenty regularly in the class, and a number of others have decided to attend the class as often as their program of studies allows. The class have decided to read Shakespeare, Milton, and Tennyson,—a strenuous course if faithfully pursued. Certainly those who have started will do full justice to it.

#### TO OUR LATEST ALMA MATER.

Upon thy heights thou sitt'st, not robed,  
nor crowned,  
Yet Queen indeed within each loyal  
heart,  
To-night we bring thee homage, and we  
kneel  
And humbly crave thy blessing ere  
we part.  
For soon the East shall claim us where  
the tides

Fill up old Fundy's throat with yellow  
foam :

Where fair Prince Edward sleeps : and  
where the fleets

Of grey St. John the seas are bearing  
home.

The North shall gather some where rolls  
along

St. Lawrence flanked by purpling  
lines of hills :

And some shall go where wide on every  
hand

The scenes of fair Ontarian beauty  
thrills.

Yea, forth we go to diverse parts and  
far,

Encouraged by true hearts that  
cheered us on.

That, looking forward, pierced the dark-  
some night,

And saw the breaking of a glorious  
dawn.

A bit of cloudless blue, a budding tree,  
A perfumed breath of flowers,—ah,  
who shall blame

If these, or burst of bird song trilling  
clear,

Should float across the memory at  
thy name ?

For deep our hearts have thrilled at  
Nature's touch :

The pathway cleared where once we  
faltering trod :

And common things of earth grew  
strangely sweet,

And led from Nature's work to Na-  
ture's God.

Oh, grant us aye hope rising o'er de-  
feat,

The cheery heart that lights the  
weary way,

The strength that comes from knowing  
we are weak,

The courage needed for the common  
day.

## Athletics.

### The Annual Field Day.

OUR Annual Field Day is over for this year. This is always the first milestone, as it were, in the Fall term and preparation for it commences the first day or rather the first night the boys get back. Those, who have carried off some of the honors in previous years, and those who aspire to do so in their first year, unearthen their running shoes from the bottom of their trunks and in a semi-clad condition rush forth into the night to "get their wind up." For the first few weeks, study hour is observed only as much as need be and the sound of rubber soles in the corridors and on the gravel outside, combined with short gasping breaths and slapping of legs are the most familiar sounds in the residence. Small wonder if a stranger viewing the campus or the buildings by moonlight is somewhat startled by the fleeting apparitions which rush past him from time to time or appear for an instant through the trees, sometimes singly, sometimes in pairs, and occasionally in long Indian files. Or, if he happens to stray among the farm buildings, can we wonder at his shudder of apprehension as he comes upon what appears to be the enacting of a dreadful tragedy. Some score of straining figures are endeavoring to do something with a rope, just what, it is impossible to tell by the ghastly glimmer of a lantern or two. The moon has gone under a cloud and no sound comes from the group save a

few terse words of command from one who towers above the crouching figures on the ground. At the last his suspense is relieved for all rise from the ground and gather round the one who has been holding the watch, rubbing their hands and stretching their muscles. The stranger now realizes that he has been watching a tug-of-war practice.

But all these preliminaries are over for this year. The events have been won and lost and those who have not done so well as they expected have explained in a most satisfactory way (to themselves) how badly "off" they were in condition. Thursday, Oct. 5, was the day decided upon by the Athletic Committee, and had they had the ordering of the weather also, they could scarcely have made a better selection. This year President Creelman was able to be present and all who know our President's ready adaptability to all kinds of circumstances, will readily understand that in his capacity as Hon. President of the Association, as well as in many other capacities, he added greatly to the enjoyment of the day.

The Athletic Committee deserve commendation for the order and system, which characterized the day's events. With one or two minor exceptions there was no hitch in the proceedings, and wherever there was a possibility of confusion occurring they had taken precautions to avoid it. Considerable ingenuity and originality were also displayed,



Looking toward the Championship.

especially in the Obstacle Race. One of the most mirth provoking features of this race was the ludicrous attempt of the several contestants to eat molasses soaked buns, suspended by a string. All were obliged to keep their hands behind their backs and it was hard to decide whether the outside or the inside of their anatomies received the greater part of the molasses.

In the individual contests the events were well contested and in some cases exciting. Two records were broken, that of the half mile and that of the quarter. In the former W. A. Kerr made the rounds in 2 min., 13 3-5 seconds, 4-5 seconds better than the record. In the quarter mile W. A. Munro succeeded in clipping a whole second off the time. The new record is 58 seconds.

In the Year events the Fourth Year

carried off the Tug of War honors for the third time in their history. The Third Year put up a gallant fight, and, although they lost in two straight pulls, the second pull taxed the seniors to their utmost. The line dropped dead and at the end of the three minutes had moved only about half an inch toward the Fourth Year Stalwarts. In the team race the Fourth Year also repeated their success of last year, winning handily from the Third Year, the only other team well in at the finish.

The Hose Reel contest, to the surprise of all, was won by the First Year. This is a most unusual result, as more than one year's experience is generally needed to give a year the training necessary to win this event. The time was 1.50.

After the last events, the gymnasium was crowded with spectators and students to witness the presentation of prizes. As



G. HIBBERD,  
Our new Physical Instructor.

usual, each Year had its own corner and choruses, class yells, and cheers greeted each award. H. W. Scott, President of the Association, made the announcements and Mrs. Lochhead pinned on the badges. President Creelman presented the medals, which were won as follows—

Short Runs—F. M. Savage.

Long Runs—W. A. Munro.

Jumps—W. A. Kerr.

Weight-Putting—John Bracken.

The Grand Champion and winner of Mayor Sleeman's medal is W. A. Kerr. Before the presentation of badges was completed, Kerr, at President Creelman's suggestion, was obliged to utilize the back, as well as the front of his coat to carry his many decorations. Although

only in his second year, Kerr is one of our most prominent athletes, having won the championship last year, as well as the Doherty-Dryden Cup for the five-mile run.

#### THE BANQUET.

The day closed with the annual banquet of the Association in the dining hall, which was packed to the doors. Mr. H. W. Scott presided, having on his right President Creelman, while Professors Dean and Lochhead had the vice chairs. The toast list was as follows :

The King.

The O. A. C. Athletic Association—Proposed by President Creelman. Responded to by E. J. Zavitz.

The Staff—Proposed by H. B. Smith, and responded to by Prof. Lochhead.

The Ex-Students—Proposed by G. M. Frier, and responded to by H. H. LeDrew.

The Ladies—Proposed by T. C. Nunnick, and responded to by Mr. J. B. Fairbairn.

The Press—Proposed by R. S. Hamer. Responded to by Mr. S. Dancey.

The chief theme of the evening, perhaps, was the brighter prospect opening out before the O. A. C. boys in their athletic competitions with other colleges, because of the appointment of a physical instructor, who began his duties this term. In Mr. Hibberd a good man has been procured, and several kindly references were made to his work so far, especially with the football team. The inside swimming pool has also been extended twelve feet to give greater accommodation. President Creelman, in his counsel and encouragement to the boys, touched on the successes of some previous years. Prof. Lochhead referred to his pleasant relations with the staff and the students : he expected this to be

his last official appearance with them. The work of the ex-students and the honor they had brought to the College were fittingly summarized by the speakers to that toast.

The speaking was varied by instrumental music from Mr. G. C. Goulding, solos by Miss Hunt and Mr. de Coriolis, and a duet by Miss Springer and Mr. R. W. Mills, all of which were very highly appreciated. Mrs. Fuller was the accompanist of the evening.

The following is the official report of the events of the afternoon :

Standing broad jump—M. Moore, W. Kerr, G. A. Proconier : 9 ft. 4½ in.

Half mile run—Kerr, W. A. Munro, W. J. Hartman : 2 min. 13.35 seconds. Best previous record 2.14½.

Pole Vault—J. H. Weaver, Kerr, F. T. Yeo : 8 ft. 4¾ in.

One mile walk—W. D. Breckon, H. F. Hudson, Proconier : 10 min. 52½ sec.

Putting 21-lb. shot—J. Bracken, T. Coglean, D. F. Stewart : 26 ft. 4 in.

Running, hop, step and jump—Kerr, R. T. Duncan, Yeo : 39 ft. 7½ in.

Kicking football—Stewart, Bracken, T. H. Binnie : 166 ft. 7 in.

Putting 16-lb. shot—Kerr, Duncan, C. R. Klinck : 29 ft. 3½ in.

Running broad jump—Kerr, Moore, Duncan : 18 ft. 5½ in.

Running high jump—Kerr, M. A. Campbell, W. A. Craig : 4 ft. 9 in.

One hundred yard dash—T. M. Savage, Yeo, Duncan : 11 seconds.

Three-legged race—Craig and Duncan, Sanders and Hudson, Ferguson and Nag Tany.

Quarter mile run—Munro, Kerr, P. M. Ballantyne : 58 sec. Best previous record 59 sec.

Jockey race—Coke and Angle, Hud-

son and Ballantyne, Weaver and Proconier.

Hurdle race—Craig, H. C. Duff, N. H. McConkey : 19½ sec.

Sack race—Craig, R. R. Nag Tany, Weaver.

220 yards — Savage, Yeo, H. C. Wheeler : 24⅝ sec.

Obstacle race — R. B. Cooley, J. Tcherniac, D. T. Bell : 5 min. 34 sec.

One mile run—Munro, Kerr.

Putting 10-lb. shot—Bracken, Coglean, Stewart : 29 ft. 3 in.

Team race, one mile—First, Fourth year, Bracken, M. R. Baker, Duncan, Munro. Second, Third year—Ballantyne, Hartman, Sanders, Wheeler. Third, First year—Strong, Bray, Savage, Yeo. Time, 4 min. 7 sec. The second year team were Curran, Walker, Knight, Gregory.

Hose reel contest—First year. Time, 1.50.

Tug of war—Fourth year.

The teams lined up as follows :

First year—Capt. Yeo, Culler, Moorwood, McKenzie, Sinett, Bell, Treherne, McRae, Palmer.

Second year—Capt. Nunnick, McKenzie, Treichler, Walker, Brown, Carpenter, Murray, Clancy, Knight.

Third year—Capt. P. Diaz, Coglean, Jacobs, Binnie, Ballantyne, Sanders, Barton, Hudson, Crowe.

Fourth year—Capt. M. Baker, Chisholm, Bracken, Smith, Bower, Monroe, Scott, McVannel, Stewart.

The judges in the different events were President Creelman, Prof. Reynolds, Prof. Harcourt, Prof. Day, W. P. Gamble, B.S.A., M. W. Doherty, M.S., B.S.A., V. W. Jackson, B.A., and H. S. Arkell, B.S.A., M.A. The referee was Prof. F. C. Harrison, the time-keepers,

Bursar Springer, F. Sherman and Mayor Sleeman. Dr. Reed ably discharged the responsible duties of starter, F. H. Reed and A. A. Davidson kept tab of the results, while W. Squirrel, jr., kept the audience informed of the same. The officers of the Association for 1905—

Hon. President—President G. C. Creelman, M. S., B. S. A.

Hon. Vice-President—V. W. Jackson, B. A.

President—H. W. Scott.

Vice-President—R. W. Mills.

Secy'-Treas.—J. H. Hare.

Executive Committee—J. F. Monroe, D. Weir, F. A. Clowes, D. McKenzie, W. A. Kerr, J. E. Ferguson, B. Hoy, E. J. Zavitz, Football Manager; N. Foster, Hockey Manager; G. Hibberd, Physical Instructor.

Patrons—Prof. C. A. Zavitz, Prof. H. H. Dean, Prof. H. S. Hutt, Prof. W. Lochhead, W. O. Stewart, M. D., W. R. Graham, B. S. A., W. H. Day, B. A., Capt. Clark, S. B. McCready, B. A.

All college organizations have this year made great strides, the Athletic being the leader in this respect. For several years there has been a student agitation for a trainer and coach, who should be always on hand to supplement our education by a thorough course in physical culture and who should act as coach for the Rugby team.

This year this ambition has been realized and Mr. G. Hibberd has been secured to fill the position. He is a graduate of George School, Philadelphia, who has in addition to the prominence attained in Athletics during his course, spent one year as physical instructor at his Alma Mater. His ideal in no way

coincides with that of the professional athlete, but rather he aims to make of the students all round men by encouraging them to take enough exercise to easily do themselves justice mentally. Therefore, while always playing to win, the college team will never be so devoted to the game as to neglect all else to play it, and will never feel that the benefits are lost if the championship is not carried off.

On Saturday, October 7th, the Intermediate Series of the O. R. U. was opened by a game in Hamilton between the Tigers II and the College Team.

The score which was 22-11 in favor of our opponents, the erstwhile champions, is no cause for discouragement on the part of the college supporters. It is only an indication of the need of practice, for the Hamilton team, while not showing any better material, have had such long practice and hard training that all are well acquainted with one another and the game, whereas the college boys, meeting as they did for the first time together, were as strange to one another as to the game and could only prove to themselves the need of practice.

The schedule for the remainder of the season is:

- Oct. 21. Dundas-O. A. C. at O. A. C.
- Oct. 26. Dundas-O. A. C. at Dundas.
- Oct. 28. Dundas-Hamilton at Dundas.
- Nov. 4. Hamilton-O.A.C. at O. A. C.

Owing to some re-arrangement of the rules governing the competition for the Mulock Cup, the O. A. C. has been struck from the list of eligible teams and we are effectually debarred from Inter-collegiate Rugby in Toronto.

## Book Reviews.

**T**HE greatest trouble with forestry on this continent has been that the forests of the country have not been long enough under experienced observation and management to allow of any person having accumulated enough purely native data to be reliable. Consequently nearly all statements are to a greater or less degree based upon foreign experience, and are therefore less valuable than would be those from home sources.

But this drawback is being gradually overcome, and one of the best records of American forest experience which has yet appeared is the "Proceedings of the American Forestry Congress," which appeared this summer. This Congress united the forest, mineral, stock and mercantile industries, and here their brainiest representatives gave, in the strongest terms, the results of their life-long experience and investigation concerning the relation between the forest and the manifold interests of the nation. As a result we have crystalized the efforts of a score of different specialists, each of whom is an authority, and from whose speeches, as reported, this volume, a text-book of American Forestry, might be compiled. This volume is a reliable index to the scope of forestry, and should be in the possession of everyone interested.

H. M. Seeter Publishing Co., Washington, \$1.25.

"How to Teach the Nature Study Course," is the title of a very appropriate book by John Dearness, M. A., Principal of London Normal School.

There have been many works written by people artistically interested in Nature Study, where source of information has been as obscure as the information, and very few have been produced by authors with experience in teaching Nature study, a thorough insight into the child nature and possibilities of the subject. The book under discussion is one of the latter.

Mr. Dearness' system has been to select some common object occurring in the daily life of every pupil, and by a system of direct questions and illustrations, to indelibly impress upon the student mind all the peculiar characteristics, relation and significance of the object in question. In this way, almost unconsciously, an elementary and secure knowledge of botany, entomology, physics, and all the kindred sciences are gained by the class, and a broad foundation is laid and taste is created for a higher education which will not be so likely to lead away from the farm.

Copp, Clark Co., Toronto, 60 cents.

A book which is destined to follow the above as a more detailed and scientific explanation, adapted to the more mature mind, is "Agriculture Through the Laboratory and School Garden," by C. R. Jackson and Mrs. L. S. Dougherty, both of the State Normal School, Missouri. Here is a publication on the finest book plate, with excellent cuts, and so arranged as to thoroughly cover the elementary botany and entomology of agriculture in a manner admirably suited to the system of Macdonald Schools, or ordinary schools, where a system of nature teaching is practiced. The author's aim has been to present actual experimental work in every phase of the subject possible, and to state the directions for such work, so that the student can perform it independently of the Teacher.

Morang & Co. Toronto. \$1.50.

## Locals.

Many of the students were much interested in the demonstration of scientific fruit packing by one of Ontario's experts. Those who like to follow it up by lessons in "bagging" apples might apply to a certain year, which shall be nameless. The membership fee is only ten cents, and it is but fair to say that up to date the enterprises of this society have not been altogether "fruitless."

"What we have we hold" may well be one of our mottos. In seeing that we all turn out to chapel, the authorities are seeing to it that we even "keep the Sabbath."

As Nunnick and Craig went down the street,

A pretty girl they chanced to meet;  
The girl, she was a wee bit small,  
Which made the boys seem very tall,  
As one on either side they strode,  
Escorting her to her abode.

May Fortune smile and grant that we  
May each one walk as cheerfully.

Macdonald Maid—"And is life really worth the living?"

Mr. Munroe—"It all depends on the liver."

Prof. Hutt—"The purple raspberry is red when it is green."

Dr. Reed thinks the Freshmen are just as sleepy as the Sophomores.

Lost—On Sept. 29th, a moustache. Finder please return to Lang.

G. G. White (mistaking our youthful Prof. of Hort. for a Freshman)—"Hi Uncle, have a peach?"

Although Sanders gets Fitz every time he goes, he still persists in visiting the Macdonald.

Another by Clowes, "How to attach fire hose to empty hydrants."

We are pleased to see Mr. Kerr back again prepared to continue his studies in "Dairying."

Since the night of the initiation, the members of the second year have adopted the familiar Western greeting of "Hello, Old Sox!" As a tribute to their dexterity in the use and manipulation of the stocking in the night, we would suggest that they be henceforth dubbed Knights of the Garter.

Goulding was recently much excited over Professor Harcourt's statement that there were 80,000 different kinds of alcohol known. It does sound pretty "rum," doesn't it?

Some visitors on Sports Day commented on the large black patch on the campus immediately in front of the cannon. They had heard of lamp black having been used in the initiation and the rumour was circulated that the cannon had been loaded with that commodity and discharged at the unsuspecting Freshmen. For the sake of our college reputation we must characterize this as a "false report."



Who ever thought of a "hug" as a "round-about way of showing affection?" Such, however, was the idea expressed by the First Year man in the English class the other day.

Some of us thought there would be a pretty wide gap in the President's office without a "Pickett" there. All fears were dispelled, however, when we heard that Fairbairn had the "post" nailed.

Don't take "wide chances" on your chemistry even if it does seem easy to Gamble.

Jacobs (after an evening spent in conversation with friends at Macdonald Hall)—"Well, I'm kind of half glad I came."

It seems to be adding insult to injury to bring a professional fruit packer to demonstrate to the students after discouraging them so openly from private ventures in the art.

It is a very easy matter to go tripping down the sidewalk at present existing between the College and the city.

Things looked black for the Freshmen the night of the initiation.

Strange to say, the initiation went all the smoother for the absence of the old-time lubricant, water.

A breeze from Sports day brings a re-echo of this quaint piece of poetry, invented to celebrate different victories: Micrococcus, streptococcus, microbes all. Sterilize and fumigate, see them crawl. Big girls, little girls, short and tall, Fat girls, thin girls, we love them all. Domestic Science, that's our call, We're the hottest bunch of all.

After referring in scathing terms to the archaeological records searched by his opponents to find a foundation for their statements, Klinck startled the audience by going still further and making the dead to speak, as when he referred to the tour taken by President McKinley a month or so ago.

After hours spent in fruitless and eyestraining microscopy, and hours of patient focussing, the biologists are unanimous in the opinion that every mite is not right.

A careful freshman was observed the other day, upon his return from a trip to town. Stealthily he crept up the hall, paused and glanced furtively around before entering his room, and, assuring himself that the coast was clear, he swiftly entered and immediately locked the door. Then he tip-toed across to the window, peered cautiously up and down the eave-trough, closed and locked the window, retreated to the corner furthest from any approach, and, taking a small parcel from his pocket, removed the wrappings, exposing to view a bottle of ink. After a moment of thought he secured an empty bottle, poured into it nearly all the ink, placed it in the bottom of his trunk, under his heavy underwear and mitts, and having locked it in, proceeded to breathe easier, now that he was safe against robbery and poverty-stricken neighbors.

It was a strange misunderstanding which prompted the different reporters of the city dailies to substitute Miss Pippin in one paper where Miss Greening appeared in another.

The Freshmen showed a greater interest in their hoard of apples after purchasing them than before. A Senior,

passing a room where there had been apples freely exposed, felt entitled to some in return for his share of the investment, and walking in, requested some.

"Got any apples?"

"Nope. All gone."

"Sure?"

"Yes. Only had a few."

"This fellow in next door says you have lots."

Consternation ensues, and bewildered room-mates exchange eloquent glances.

"Well"—

"Oh, you'd better fork up,"

After another moment's anxious silence the more progressive Freshie closes the door and unlocks his trunks, digs to the bottom, producing an abundance of apples, with the warning adjunct, "But say, you won't tell anybody."

For the benefit of the Freshmen we produce here a few of the rules enforced by the student body of Cornell University.

I. No freshman shall smoke at all on

the campus, nor shall he smoke a pipe in the streets of Ithaca.

II. No freshman shall be allowed to enter "Zincks" or the Dutch Kitchen, at any time; nor shall one be allowed to enter Jay's, the Senate, or Fred's Annex after 7 p.m. These prohibitions shall not apply to a freshman accompanied by an upper-class man, except that no freshman shall be allowed downstairs in Zinck's at any time.

IV. Each and every freshman shall wear, at all times, except Sundays, a cap of the following description: a grey cap, with a small peak and a black button. He shall not at any time while in college wear a pin representing his "Prep." school in any manner, nor shall he wear any emblem nor insignia of that institution.

V. No freshman shall be allowed to go without a coat or a cap on the campus.

VI. No freshman shall be allowed to sit in the first three rows of the orchestra circle nor in the boxes at the Lyceum unless accompanied by an upper-class man.

*Continued on page x., advertising.*

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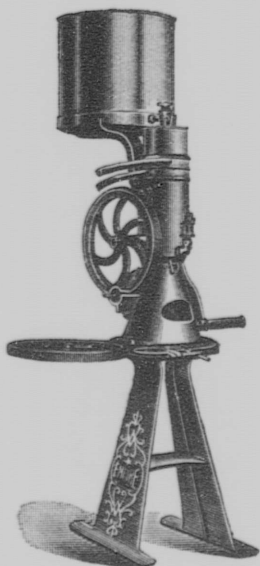
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Please mention the O. A. C. REVIEW when answering advertisements.

Continued from page 48.

J. Hugo Reed—"As I mentioned before, this disease, according to Finley Dunn—" Mr. Curran—"What is Finley Dunn?"

There is to appear shortly a book by the "Duke," which will supply a long felt need; it is entitled "Professional High Diving," and is based on the author's own experience as practiced from the street car while crossing the bridge.

The following Teachers' Conventions were held at the O. A. C. and Macdonald Institute during the summer: County of Brant and City of Brantford, May 19th and 20th.

Halton, May 23rd.  
North and South York, May 26th.  
Wellington, May 26th and 27th.  
Hamilton Teachers, June 2nd.  
Perth, June 9th.

A conundrum.—If Jerry had 57 rotten eggs and gave 43 of them to the Sophomores, what would the Freshmen have? Ans.—Some castaway clothing.

Prof. Harcourt—"So, you see, we have in this series a great number of compounds of alcohol."

Mr. Goulding—"Will each one make a fellow drunk?"

Mr. Coglan—"Say! What's the matter with that man Cooper?"

Mr. Coke—"Why, they say he has something wrong with his lungs, appendicitis I believe they call it."

Prof. Hutt—"The next that we will speak about is Propagation of Plants."

Mr. Frier—"How do you spell provocation?"

Continued on page xx., advertising.

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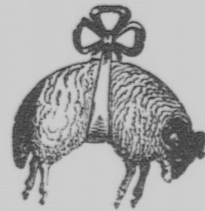
90 Wellington St., W. • TORONTO

# Keleher & Hendley's

Tailor Store.



The Charm of



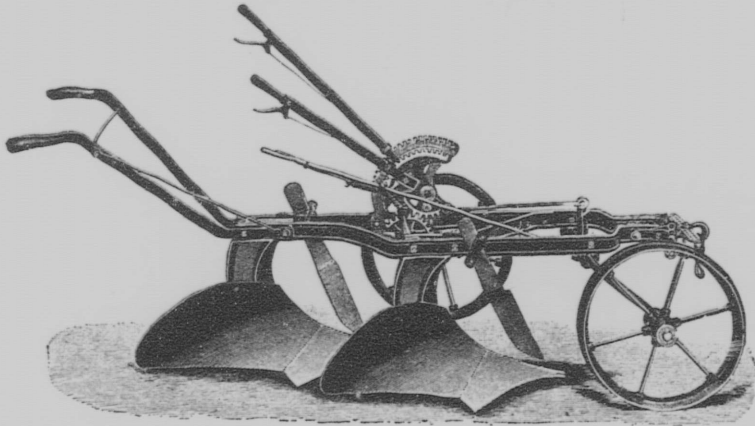
Refinement



TO THE discriminating people the elegance and charm of good clothes is always apparent. Our handsome suits and overcoats are distinctive in design and finish, giving to the wearer that quiet air of refinement.

## GOLDEN FLEECE

# "CROWN" GANG PLOW



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WITH EITHER  
SOD OR  
STUBBLE  
BOTTOMS.

By its use, **one man and three horses** can do more work in a day, and do it better, than **two men and four horses** can do in the same length of time with two ordinary walking plows.

Stop and consider what this means to you. The **CROWN** has **F. & W. Quality** in its every detail; it is a good plow and we want you to know it.

Let us send you our **Illustrated Plow Folder**. It's Free.

## THE FROST & WOOD CO., LIMITED

Head Office and Works,

SMITH'S FALLS, ONT.

### HON. JOHN DRYDEN SAYS

"We have been permitted to use at Maple Shade during the last year, your disinfectant known as ZENOLEUM. I am glad to say that we found it all that you represent. It is an admirable mixture for the purpose for which it is intended, and may be put to so many uses on a stock farm that no advanced stockman should undertake to carry on his business without keeping a supply constantly on hand. As a destroyer of vermin on cattle and as a general disinfectant, I cannot recommend it too strongly."

### Zenoleum for all Stock Raisers

**ZENOLEUM** is the stockman's standard remedy. It prevents cholera, destroys all disease germs, kills lice, cures mange, purges the stomach and removes intestinal worms. It gives a clear healthy skin and a wholesome, vigorous body.

Zenoleum is absolutely non-poisonous, non-irritating, non-inflammatory and non-explosive. It is perfectly safe for use. It is absolutely certain in results.

**Don't wait for trouble. Head it off. Use Zenoleum. Order to-day and take no chances.**

|                               |   |                                            |      |
|-------------------------------|---|--------------------------------------------|------|
| <b>Prices of<br/>ZENOLEUM</b> | { | 8 ounce tin, making 6 gallons of fluid, \$ | 25   |
|                               |   | 1 quart tin, " "                           | 50   |
|                               |   | ½ gallon tin, " "                          | 90   |
|                               |   | 1 " " " "                                  | 1 50 |
|                               |   | 2 " " " "                                  | 3 00 |
| <b>Duty Paid</b>              | { | 3 " " " "                                  | 4 50 |
|                               |   | 5 " " " "                                  | 6 25 |
|                               |   |                                            |      |

Special rates on larger quantities. Freight paid on orders of one gallon or more. Send for free famous **Zenoleum Booklets**, "**Piggies' Troubles**," "**Veterinary Adviser**" and "**Chicken Chat**."

**ZENNER DISINFECTANT CO.,**

Brampton, Ont.  
Detroit, Mich.

Please mention the O. A. C. REVIEW when answering advertisements.



# The Great International Route

Reaches through its Western Connections  
via the following Gateways

Detroit, Port Huron and Chicago.

ALL POINTS IN

**Missouri**

**Kansas**

**Nebraska**

**Colorado**

**Arkansas**

**Texas**

**Arizona**

**California**



Tickets, Folders and all Information from Agents of the Grand Trunk  
Railway System, or

**G. E. WALKER, C. P. & T. A., Guelph.**

J. D. McDONALD, District Passenger Agent, Toronto.

Please mention the O. A. C. REVIEW when answering advertisements.



## Craigieburn Stock Farm

CLYDESDALES, SHORTHORNS,  
and SHROPSHIREs,

Imported and Canadian Bred.

Young Stock Always For Sale.

For particulars apply to

**G. A. BRODIE.**  
BETHESDA, ONT.

Stations—

Stouffville, G. T. R.; Claremont, C. P. R.  
Telephone service from stations to residence.

## CLYDESDALES

**SMITH & RICHARDSON**  
COLUMBUS, ONT.

Importers of Clydesdale Horses.

Now on hand a great number  
of Stallions and Mares, among  
them the Toronto Show winners

R. R. Stations—G. T. R.—Oshawa.

Brooklin.

C. P. R.—Myrtle.

Long Distance Phone at Residence.

Shorthorn Bulls

Shropshire Sheep

Yorkshire Swine

of the highest standard  
of their respective breeds

**Richard Gibson**

DELAWARE, ONT.

## Pine Grove Stock Farm

Rockland, Ontario, Canada

BREEDERS OF CHOICE

**SCOTCH SHORTHORNS**  
and **SHROPSHIREs**

**W. C. Edwards & Co. Limited**

PROPRIETORS

**JOSEPH W. BARNET, Manager**

## Dentonia Park Farm

COLEMAN P. O., ONT.

BREEDERS OF

**Jersey and Guernsey**  
CATTLE

Stock of Both Sexes For Sale.

Photographs and Descriptions Sent on  
Application.

## Alva Farm Guernseys

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:

**SYDNEY FISHER, Knowlton, Que.**

## J. DRYDEN & SON

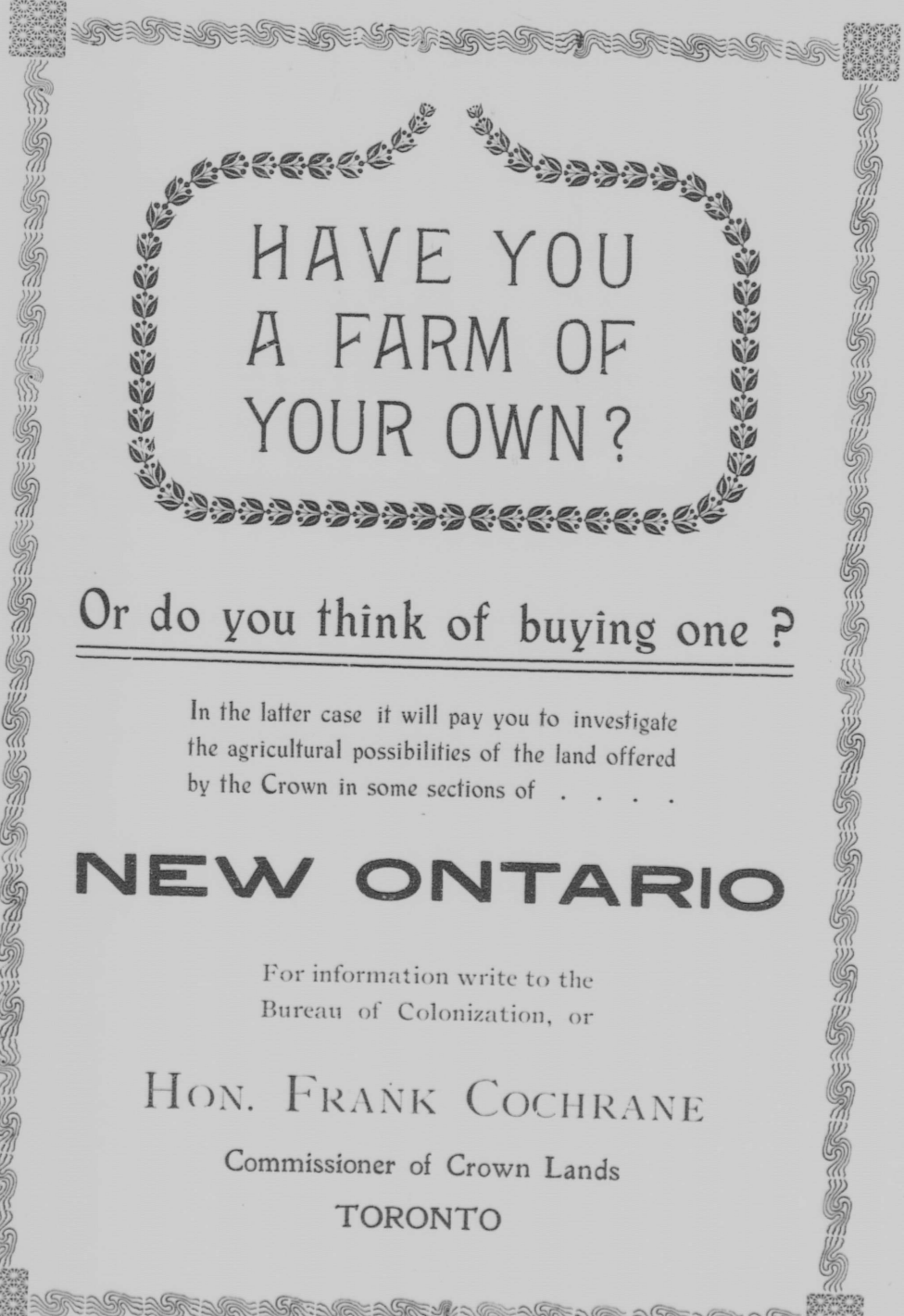
Maple Shade Farm, Brooklyn, Ont.

Home of the oldest and largest herd  
of Cruickshank Shorthorns in America.  
Shropshire flock founded 1871.

Stations—C. P. R., Myrtle, 3 miles.

G. T. R., Brooklyn, 1½ miles.

Please mention the O. A. C. REVIEW when answering advertisements.



HAVE YOU  
A FARM OF  
YOUR OWN?

Or do you think of buying one ?

In the latter case it will pay you to investigate  
the agricultural possibilities of the land offered  
by the Crown in some sections of . . . . .

## NEW ONTARIO

For information write to the  
Bureau of Colonization, or

HON. FRANK COCHRANE

Commissioner of Crown Lands

TORONTO

Please mention the O. A. C. REVIEW when answering advertisements.



**Windsor Cheese Salt**

- will salt more curd at less cost
- will salt the curd thoroughly and evenly
- will insure the cheese being firm and smooth

**Windsor SALT**

-will "keep" the cheese better, and preserve its rich flavor.  
 It pays to use WINDSOR SALT for cheesemaking, as you will find out after your first trial.  
 Your dealer has it, or will get it for you.

**CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED**  
**PRESTON, ONT**



**OFFICE, SCHOOL, CHURCH, & LODGE FURNITURE**



FINE BANK, OFFICE, COURT HOUSE AND DRUG STORE FITTINGS A SPECIALTY

SEND FOR CATALOGUE

**DOMINION BANK**  
 — GUELPH —

Capital Paid Up - - - - \$3,000,000  
 Reserve Fund and Undivided Profits - \$3,565,000

A General Banking Business transacted.

Savings Bank Department in connection with all offices of the Bank.

Deposits of \$1.00 and upwards received.

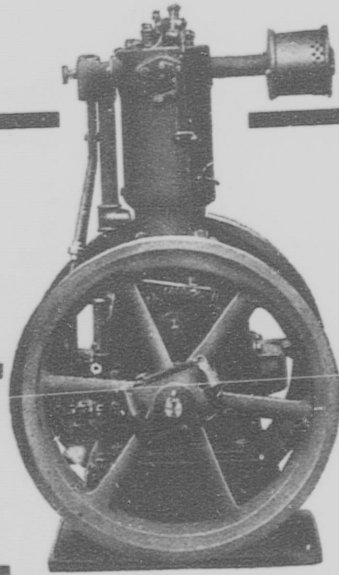


MANAGER GUELPH BRANCH,  
**H. C. SCHOLFIELD.**

Please mention the O. A. C. REVIEW when answering advertisements.

Save  
Yourself  
Drudgery.

Have a  
Power House  
on Your Farm.



**INTERNATIONAL  
HARVESTER COMPANY  
GASOLINE ENGINES**

WILL FURNISH POWER FOR

**Farm - Dairy - Mill - Shop**

It will be to your advantage to investigate I. H. C. gasoline engines.  
The cost of power is the vital point.

Economical power can be produced only by an engine possessing every good feature of gasoline engine construction—simplicity, durability and economical fuel consumption.  
I. H. C. gasoline engines consume less fuel per horse power per hour than any other Gasoline Engine on the market of the same rated capacity.

I. H. C. gasoline engines are so simple, and so durable that they never balk and consume profits in the form of repairs and your time.

Every I. H. C. engine is tested to produce more than its rated horse power.

Call on your Local Agent, or Write for Illustrated Catalogue.

General Offices :

**International Harvester Company of America**

(INCORPORATED)

7 MONROE STREET, CHICAGO, U. S. A.

Please mention the O. A. C. REVIEW when answering advertisements.

## SAVE MONEY



Young men wanting to save for the future can do it best by an Endowment Policy in the Manufacturers Life.

Besides laying by for the future and getting good returns on your investment, your life is insured during the period of the investment for the full amount you set out to save.

Write for Rates.

### The Manufacturers Life Insurance Company

TORONTO, CANADA

ESTABLISHED 1817

## BANK OF MONTREAL

HEAD OFFICE, MONTREAL

Incorporated by Act of Parliament. Capital, all Paid-up, \$14,000,000. Rest, \$10,000,000.00  
Undivided Profits, \$665,000.00.

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R. G. Reid, Esq.

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### BRANCHES IN CANADA

*Province of Ontario*—Almonte, Belleville, Brantford, Brockville, Chatham, Collingwood, Cornwall, Deseronto, Ft. William, Goderich, Guelph, Hamilton, Hamilton, Sherman Ave., Kingston, Lindsay, London, Ottawa, Paris, Perth, Peterboro, Picton, Sarnia, Stratford, St. Marys, Toronto, Toronto, Yonge St. Branch, Wallaceburg.

*Province of Quebec*—Montreal. Hochelaga branch, Papineau Ave. branch, Point St. Charles branch, Seigneurs St. branch, Westmount branch, West End branch, Quebec, Sawyerville, St. Raymond, Warwick.

*Province of New Brunswick*—Amherst, Bathurst, Baie-Lancette, Chatham, Edmundston, Fredericton, Grand Falls, Hartland, Moncton, Shediac, St. John, Woodstock.

*Province of Nova Scotia*—Amherst, Bridgewater, Canso, Glace Bay, Halifax—Duke St. branch, North End branch, Lunenburg, Mahon, Mahone Bay, Port Hood, Sydney, Wolfville, Yarmouth.

*Province of Manitoba*—Altona, Brandon, Gretna, Oakville, Portage la Prairie, Winnipeg.

*North-West Territory*—Calgary, Alta., Edmonton, Alta., Indian Head, Assa., Lethbridge, Alta., Raymond, Alta., Regina, Assa.

*Province of British Columbia*—Armstrong, Enderby, Greenwood, Kelowna, Nelson, New Denver, New Westminster, Nicola Lake, Rossland, Vancouver, Vernon, Victoria.

*In Newfoundland*—St. John's, Nfld.—Bank of Montreal, Bichy Cove, (Bay of Islands).

*In Great Britain*—London—Bank of Montreal, 22 Abchurch Lane, E. C. Alexander Lang, Manager.

*In the United States*—New York—R. Y. Heiden and J. M. Greata, Agents, 59 Wall Street. Chicago—Bank of Montreal—J. W. De C. O. Grady, Manager. Spokane, Wash.—Bank of Montreal.

*Bankers in Great Britain*—London—The Bank of England. The Union of London and Smith's Bank Limited. The London and Westminster Bank. The National Prov. Bank of England. Liverpool—The Bank of Liverpool Limited. Scotland—The British Linen Company Bank and branches.

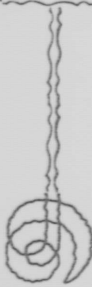
*Bankers in the United States*—New York—The National City Bank. The Bank of New York, N. B. A. National Bank of Commerce in New York. Boston—The Merchants' National Bank. J. B. Moors & Co., Buffalo—The Marine Bank, Buffalo. San Francisco—The First National Bank. The Anglo-Californian Bank.

General Banking Business Transacted. Farmers' Notes Discounted. Interest at Best Current Rates Allowed on Deposits in Savings Department.

H. LOCKWOOD, Manager at Guelph.

Please mention the O. A. C. REVIEW when answering advertisements.

# SAVE MONEY



Young men wanting to save for the future can do it best by an Endowment Policy in the Manufacturers Life.

Besides laying by for the future and getting good returns on your investment, your life is insured during the period of the investment for the full amount you set out to save.

Write for Rates.

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James Ross, Esq.

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E. S. CLOUSTON, General Manager. A. MACNEIL, Chief Inspector and Superintendent of Branches. H. V. MEREDITH, Assistant General Manager and Manager at Montreal. F. W. TAYLOR, Assistant Inspector, Montreal. F. J. HUNTER, Assistant Inspector, Winnipeg. MONTREAL. C. W. DEAN, Assistant Manager.

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*Province of Ontario*—Almonte, Belleville, Brantford, Brockville, Chatham, Collingwood, Cornwall, Deseronto, Ft. William, Goderich, Guelph, Hamilton, Hamilton, Sherman Ave., Kingston, Lindsay, London, Ottawa, Paris, Perth, Peterboro, Picton, Sarnia, Stratford, St. Marys, Toronto, Toronto, Yonge St. Branch, Wallaceburg.

*Province of Quebec*—Montreal—Hochelega branch, Papineau Ave. branch, Point St. Charles branch, Seigneurs St. branch, Westmount branch, West End branch, Quebec, Sawyerville, St. Raymond, Warwick.

*Province of New Brunswick*—Andover, Bathurst, Buctouche, Chatham, Edmundston, Fredericton, Grand Falls, Hartland, Moncton, Shediac, St. John, Woodstock.

*Province of Nova Scotia*—Amherst, Bridgewater, Canso, Glace Bay, Halifax—Duke St. branch, North End branch, Lunenburg, Mahon, Mahone Bay, Port Hood, Sydney, Wolfville, Yarmouth.

*Province of Manitoba*—Altona, Brandon, Gretna, Oakville, Portage la Prairie, Winnipeg.

*North-West Territory*—Calgary, Alta., Edmonton, Alta., Indian Head, Assa., Lethbridge, Alta., Raymond, Alta., Regina, Assa.

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*Bankers in Great Britain*—London—The Bank of England. The Union of London and Smith's Bank Limited. The London and Westminster Bank. The National Prov. Bank of England. Liverpool—The Bank of Liverpool Limited. Scotland—The British Linen Company Bank and branches.

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General Banking Business Transacted. Farmers' Notes Discounted. Interest at Best Current Rates Allowed on Deposits in Savings Department.

H. LOCKWOOD, Manager at Guelph.

Please mention the O. A. C. REVIEW when answering advertisements.

Established 1834.

Incorporated 1876.

# J. B. ARMSTRONG MFG. CO. LIMITED

(THE GUELPH CARRIAGE GOODS CO.)

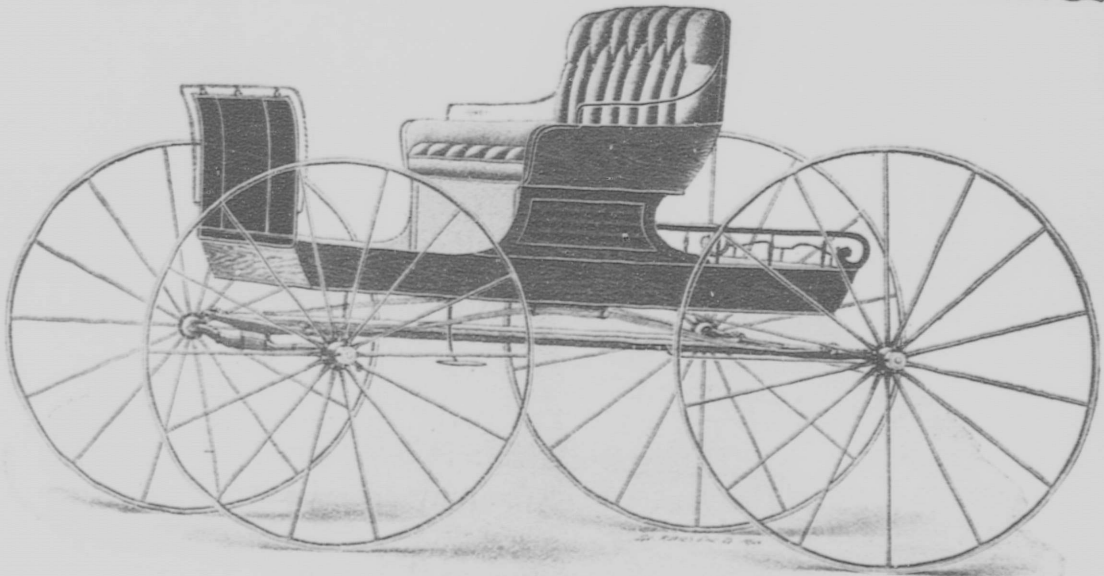
GUELPH,

CANADA.

Manufacturers since 1834 at Guelph of

THE ARMSTRONG LINE OF

FINE FINISHED CARRIAGES.



## No. 130 Road Wagon

This illustrates one of our seventy-four assortment. We design and build Up-to-date Styles in Road Wagons, Bike Wagons, Concords, Standard Top Buggies, Jump Seats, Mikados, Phaetons, Surreys, Traps, Runabout Wagons, Democrats and Carts.

Catalogue Free on Application. For Sale by Live Dealers in all Sections in Canada and Abroad.

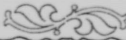
Pleased to Answer Enquiries from O. A. C. ex-Students.

WAREHOUSES - At Calgary, Regina, Brandon, Portage la Prairie, Winnipeg, Ottawa, Three Rivers.

**COCKSHUTT PLOW CO., Winnipeg, Man.**

AGENTS FOR MANITOBA, N. W. T. and B. C.

Please mention the O. A. C. REVIEW when answering advertisements.



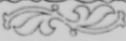
For Ten Years the most  
Satisfactory, Reliable and Up-  
to-date Laundryman has been

SAM LEE HING

The College Boys patronize  
him because he does **GOOD  
WORK**, and always aims to  
please.

He calls on Mondays,  
Wednesdays,  
and Saturdays.

WORKSHOP AND OFFICE ON  
ST. GEORGE'S SQUARE



**ALL O. A. C. GRADUATES**

Should Subscribe for  
Guelph's Leading Paper,

**The Weekly Mercury**

It will keep them in touch with important matters pertaining to their Alma Mater; will furnish them with full information concerning the Ontario Winter Fair; will give them the news of the Royal City, and the Farm and Live Stock News of the District.

Daily, \$4.00; Weekly, \$1.00, in advance.

**McIntosh & Galbraith.**

THE GUELPH  
HERALD

**Job Department**

FOR FINE  
PRINTING

The Daily Herald delivered to all parts  
of the city for 35 cents per month.

H. GUMMER, - - - Proprietor.

Please mention the O. A. C. REVIEW when answering advertisements.

With the approval of the Minister of Agriculture, the Department of Physics has made an important announcement in the matter of drainage of farm lands. There are many sections of land in Ontario, as elsewhere, that, while they stand badly in need of underdraining, have not been drained because their owners do not know how to go about it. The difficulties belonging to the drainage of low, flat pieces of land, such difficulties as determining the direction of the greatest fall, the amount of fall available, the depth of a drain throughout its course, are primarily engineering questions, and can best be solved by the intelligent use of a good levelling instrument. But, for some reason, the civil engineer, to whom this preliminary work in difficult drainage undertakings properly belongs, has not succeeded in getting next to the farmer. Consequently, much valuable land has been allowed to

go waste, or if cultivated, has been cultivated with difficulty and with poor returns, when a proper system of underdrainage has been the one thing needed to put it right. This announcement was made, then, to meet just such cases: if any farmer in Ontario had land that needed drainage, and of such character as to require the use of a drainage level, the Department of Physics would take the necessary levels and furnish a working plan for draining the area, provided the owner would pay the travelling expenses of one person sent out to do the work, and furnish whatever assistance was needed for the work of levelling. At the same time it was thought some, at least, of these occasions might furnish opportunities for field meetings, at which the question of drainage would be discussed, and illustrated from the particular example at hand. In this way, be-

*Continued on page xxiv., advertising.*

**Men's  
Goods**

## E. R. Bollert & Co.

**Ladies'  
Goods**

THE Faculty, Students of the O. A. C. and Macdonald Institute will find this store ready to serve their wants to the best advantage. We are pre-eminently a Ladies' and Gentlemen's Outfitting and Furnishing Store. No matter what your needs this store is ready to supply them with good goods at moderate cost. We have always been favored with a large business from the personnel of the College. We shall pay special attention for its continuance and increase.

### Men's Section

Fine Ordered Clothing at Moderate Prices.  
Fit-the-form Ready-to-wear Clothing, very good and very cheap.  
Best Styles of Hats and Caps at closest prices.  
Up-to-date Shirts, Collars, Ties, Gloves, and Fancy Furnishings, not at fancy prices.  
Underwear, Hosiery, Etc., grand values.

### Ladies' Section

Dressmaking at very reasonable rates.  
Ready-to-wear Coats, Skirts, Blouses, Etc., in great variety of new things.  
**MILLINERY**—All the Novelties of a first-class Millinery Business constantly received.  
The Underwear and Furnishing Stocks are crowded with good goods at low prices.  
Belts, Collars, Gloves, Hosiery, Handkerchiefs, Etc., Etc.

**25 and 27  
Wyndham St.**

**E. R. Bollert & Co.**

**25 and 27  
Wyndham St.**

Please mention the O. A. C. REVIEW when answering advertisements.





# KANDY

THAT WINKS AT YOU  
AS YOU GO BY.

ICE CREAMS AND SODAS  
OF EVERY FLAVOR AND NAME.

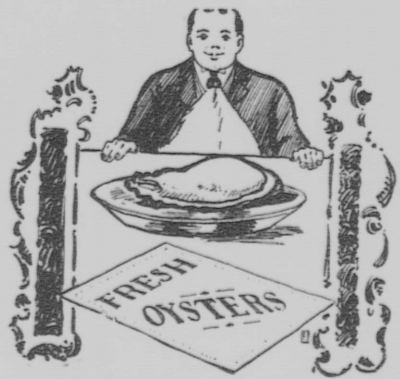
Bon Bons and Chocolates in Endless Assortment

## Oyster Stews

— AND —

### BOUILLON

TO PLEASE THE MOST  
FASTIDIOUS TASTES.



College Boys and Girls Need Never Return Hungry from the City.

Special Attention Given to Students at the

## *Kandy Kitchen*

LOWER WYNDHAM STREET,

GUELPH, ONT.

Please mention the O. A. C. REVIEW when answering advertisements.

## MEN'S FURNISHINGS

### Just to Remind You

That I carry one of the Largest and Most Select Stocks of  
**HATS, SHIRTS, TIES, SOX, COLLARS, UNDER-WEAR** and **MEN'S FURNISHING GOODS IN THE CITY.**

### Ordered Clothing

I have a select stock of **SUITINGS, OVERCOATINGS AND TROUSERINGS** to select from. Styles, Trimmings, Fit and Workmanship the very best, and prices as low as any in the trade. Our motto is: "The best possible value for the least money." All goods marked in *plain* figures and *one* price to all. Be sure you come to **73 WYNDHAM STREET** for your Furnishings and Clothing.

## R. E. NELSON

Next Traders' Bank.

Men's Furnisher, Hatter and Fine Tailoring.

## The King Washing Machine

Wholesale and Retail

Dealers in

**LUMBER**

**LATH**

**SHINGLES**

All kinds of

**BILL STUFF, Etc.**



Manufacturers of

**DOORS**

**SASH**

**FRAMES**

All kinds of

**BUILDING**

**MATERIAL.**

## The H. A. CLEMENS Co. LIMITED

Manufacturers of

**WASHING MACHINES, STAIR BUILDING and INTERIOR FITTINGS A SPECIALTY**

**GUELPH, CANADA**

Phone 50

Please mention the O. A. C. REVIEW when answering advertisements.

**"A Square Deal for Every Man."**

**MR. O. A. C. MAN**

We want you to know this new store. Next time you are down town come in and see us. Feel free to look around. No one will importune you to buy.

**SPEAKING OF MEN'S CLOTHES**

We have lifted the ready-to-wear idea away up out of the common and made it the ideal for men who like to dress in good taste and still be spared from the bothersome try-ons, the annoying delays, the uncertainty of unsatisfactory results after all, and the long prices,—all of which custom tailors have educated them to think must be to get good style, quality and character.

We have the clothes to back up this proclamation—splendidly tailored, perfect-fitting garments; garments that have a gentlemanly bearing in every detail of the making.

Handsome Tweed Suits, \$8.50 to \$20  
 Blue or Black Serge Suits, \$8.50 to \$19  
 Overcoats, \$6.50 to \$25  
 Sweaters, 75c to \$2.00; Tweed Caps, 25c to 75c.

**G. B. RYAN & CO.**

UPPER WYNDHAM STREET

**The Canadian Bank  
 of Commerce**

Established 1867. Head Office, Toronto  
**B. E. WALKER, General Manager**

**Capital (Paid Up) \$8,700,000**  
**Rest, - - - 3,000,000**

**GUELPH BRANCH**

A general banking business is transacted.  
 Bankers for the Dominion Live Stock Association.  
 Farmers' notes discounted.  
 Drafts issued payable at all points in Canada and the principal cities in the United States, Great Britain, France, Bermuda, etc.

**SAVINGS BANK DEPARTMENT**

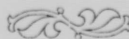
Deposits of \$1.00 and upwards received and current rate of interest allowed.  
 Interest added to the principal at the end of May and November in each year.  
 Special attention given to Collection of Commercial Papers and Farmers' sales notes.

**J. M. DUFF, - Manager**

**R. B. Kennedy**



**PHOTOGRAPHER**

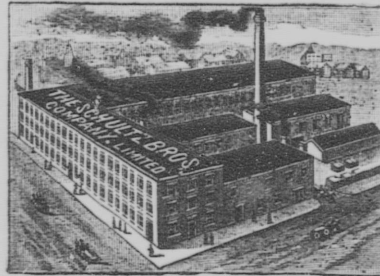


The best place to get a good Group Photograph or a Portrait of yourself.

Please mention the O. A. C. REVIEW when answering advertisements.

sides affording private assistance, the Department would be performing public service.

The announcement was first made by Professor Reynolds, in his address at the National Exhibition, on September 1st. Reports of the address were published in several of the agricultural journals and newspapers, and farmers were invited to correspond on the proposition. Already several letters have been received asking for the assistance offered, and gladly accepting the terms. Of the sections represented, three at least offer good chances for field meetings, and it is likely that during the annual meetings in June, something will be done to give the work a start. Ex-students and others who may read this are invited to take part in the new movement.



ESTABLISHED OVER 30 YEARS.

**BUILDERS & CONTRACTORS**

Manufacturers of Builder's Supplies, Packing Boxes and Novelties.

WE SOLICIT YOUR PATRONAGE.

Contractors of the Massey Hall and Library, Macdonald Institute, Macdonald Residence and Consolidated School Buildings, all of Guelph.

**The SCHULTZ BROS. Co.**  
LIMITED.

BRANTFORD, - CANADA

**The Traders Bank of Canada**

ASSETS TWENTY MILLIONS (\$20,000,000)



It is the

**Farmers' Bank**



Next door to

**the Post Office**



WYNDHAM STREET.

**SPECIAL ATTENTION Paid to FARMERS' BUSINESS**

Loans Made. Deposits Received

The Most Favorable Rates and Terms Given.

**A. F. H. JONES - - - - - MANAGER**

Please mention the O. A. C. REVIEW when answering advertisements.

—GO TO—

# PETRIE'S DRUG STORE

FOR MEDICINES AND  
TOILET ARTICLES,  
SEED BOTTLES, Etc.

Headquarters in Guelph  
for all kinds of

## PHOTOGRAPHIC SUPPLIES

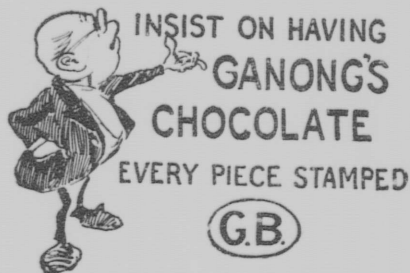
FILMS DEVELOPED AND  
PRINTS MADE.

Latest designs in Comic and Picture  
Post Cards.

Remember the place,

## Petrie's Drug Store

Lower Wyndham Street.



G. B.

Chocolates

ARE THE FINEST MADE.

They are so Delicious that you always want  
more.

The Largest Assortment. Neatest Put Up.  
If you are making a Present be sure and give  
"GANONG'S"

SOLE AGENT IN GUELPH—

# A. B. PETRIE

Drug Store - Lower Wyndham St.



Interior View of Stewart's 20th Century Pharmacy  
"The Store with a Good Record"

The Students  
OF THE  
**O. A. C.**  
AND  
Macdonald  
Institute

Are invited to make  
this store their buy-  
ing centre for every-  
thing in

Drugs,  
Toilet Articles,  
FINE  
Perfumes,  
College Supplies  
Etc. Etc.

2 Doors Below  
the Post Office

## ALEX STEWART, CHEMIST

Please mention the O. A. C. REVIEW when answering advertisements.

## The Little Tailor Store

### COLLEGE MEN

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.

### ABOUT OUR PRICES

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 Blue and Black Serges  
 \$15 to \$25 \$18 to 27  
 Overcoats \$16 to \$25 Trousers \$4 to \$7.50

## R. J. STEWART

Opposite Knox Church, Quebec Street.

## McKee's Drug Store

### Macdonald Institute Text Books.

|                            |        |
|----------------------------|--------|
| McLellan's Psychology..... | \$1 00 |
| Food and Dietetics.....    | 3 00   |
| Cook Book—Farmer.....      | 2 00   |
| Elementary Chemistry ..... | 1 00   |

### Nature Study Department.

|                         |        |
|-------------------------|--------|
| Sylvan Ontario .....    | \$0 40 |
| H. S. Botany.....       | 1 00   |
| Science Note Book ..... | 35     |
| Plants—Coulter .....    | 1 80   |

### 1st Year Books.

|                            |        |
|----------------------------|--------|
| West's Grammar .....       | \$0 50 |
| Alexander's Anthology..... | 50     |
| Carpenter's Rhetoric.....  | 60     |
| Soil—King.....             | 75     |
| Elementary Chemistry ..... | 1 00   |
| H. S. Botany.....          | 1 00   |
| Poultry Craft .....        | 1 50   |
| Canadian Dairying .....    | 1 00   |
| Soils and Crops .....      | 1 00   |
| Testing Milk .....         | 1 00   |
| H. S. Book-keeping .....   | 60     |

A complete stock of 2nd, 3rd and 4th Year Text Books always on hand.

Fountain Pens, Note Books, Scribblers, etc. Try our \$1.00 Fountain Pens.

## McKee's Book Store

## Central Bookstore

Opposite where the Street Cars stop.

Text Books. Exercise Books.  
 Foolscap. Writing Pads. Up-to-date Note Papers and Envelopes, Papetries, Etc., Etc.  
 Bibles. Hymn Books. Books by Standard Authors. Poets.  
 Prayer Books. :- :- :- :-

In fact, everything that is kept in a well-ordered Bookstore.

## G. ANDERSON & CO.

Please mention the O. A. C. REVIEW when answering advertisements.

**ONLY  
ARTISTIC  
CLOTHING**

IN OUR READY-TO-  
WEAR CLOTHING  
AND FURNISHING  
DEPARTMENT

**The Dowler Co.**

**Burr &  
Ainsworth**

**FURNITURE**

**DEALERS**

**Guelph, - Ont.**

**We are Showing**

The Finest Range of  
Cloths we have ever  
handled, and the work  
we are turning out is  
better than ever.

**It is Really  
High Class**

Call and see it for  
yourself.

**J. A. SCOTT**  
Maker of Men's Clothes

**Grant & Armstrong**

**Furniture Dealers  
and Upholsterers**

We Make a Specialty of

**Repairing  
Upholstered  
Goods . .**

COSY CORNERS AND SKIRT  
BOXES MADE TO ORDER.

**Try  
Us**

Quebec Street.

Phone 488.

**BELL** **HIGH CLASS**  
**Pianos**  
**Piano-Players, Organs**  
 MANUFACTURED BY  
**Bell Piano & Organ Co. Limited**  
 CATALOGUE FREE. GUELPH, ONTARIO

**MEN'S CLOTHING**  
**PAR EXCELLENCE**

There is no reason in the world why you should not wear the best clothing made—we sell it, and at a price no greater than some inferior kinds are sold at. There is style to our clothing—there's wear and there's value—what more can you ask? You cannot get more than we give for the money—anywhere.

Do you realize that we also sell the best lines of furnishings you have access to? This is news to scores of men in this vicinity—good news, and if they will, they can profit by it. Just come and see.

**D. E. Macdonald & Bros.**

5 and 7 Lower Wyndham. 56 McDonnell St.  
 3 Entrances.

**J. A. McCrea**

**Invites You**

To inspect his beautiful display of China, Fancy Art Ware, and Cut Glass on the second floor. It is one of the sights of Guelph and as such should not be missed. We consider it a pleasure to show our goods and do not ask you to buy. We supply the O. A. C. and Macdonald Hall with groceries and can deliver anything you might require. Fresh Oysters, Oranges and Chocolates are our specialties.

**Noted Tea Store**  
**and China Palace**

**J. A. McCrea**

PHONE 48

Lower Wyndham St. - GUELPH

STALL No. 3, GUELPH MARKET

**ALFRED HALES**

Wholesale and Retail Dealer in

**Fresh Meats, Pickled Beef and Tongues,**  
**Poultry for the Students a Specialty,**  
**Fresh Pork, Hams, Bacon, Lard,**  
**Sausages and Bologna**

Shop—Telephone 191

Residence—Telephone 405

Please mention the O. A. C. REVIEW when answering advertisements.



## FOSTER & FOSTER

**DENTISTS**

Office and Surgery :  
 Corner Wyndham and Macdonnell Sts.  
 (over Dominion Bank).  
 Residence—"Sunset," Paisley Street.  
 Telephone 14

W. J. STEVENSON Phone 143      ANDREW MALCOLM

## Stevenson & Malcolm Co.

Late Members of  
 THE BENNETT & WRIGHT CO. LIMITED, TORONTO  
**CONTRACTORS**

For Steam and Hot Water Heating,  
 Ventilation and Hydraulic Engineering,  
 Plumbing and Gas Fitting,  
 Specialties in Sanitary Appliances.

Upper Wyndham Street, Guelph, Ont.

## THE TYSONS

Wholesale and Retail

**Butchers and Cattle Dealers**

J. & A. TYSON,  
 No. 1 Stall, Guelph Market,  
 Phone 78.

TYSON BROS.  
 Shop cor. Green and Norfolk Sts.,  
 Phone 152.

## JACKSON & SON

**Grocers**

FIRST-CLASS FANCY GROCERIES  
 IN ALL LINES.

17 Lowe, Wyndham Street.

Telephone 112.      Established 40 Years.

THE  
 RED  
 CROSS

**Pharmacy**  
**J. B. Broadfoot**

St. George's  
 Square

GUELPH

## THE Leading Drug Store

See our lines of—  
 PERFUMES, TOILET SOAPS,  
 TOOTH BRUSHES,  
 SPONGES, COMBS, ETC.  
 They are sure to please the students of  
 the O. A. C. and Macdonald Institute.

J. L. LUCKHAM, Druggist,  
 Successor to Chas. Law.

## NEILL THE... SHOE MAN

Sole Agent for

**THE  
 SLATER  
 SHOE**

GUELPH, - ONTARIO

## O. A. C. STUDENTS

LIKE SMART SHOE STYLES,  
 SO DO THE MACDONALD GIRLS.  
 WE LEAD in the NEWEST FOOTWEAR

## W. McLaren & Co.

Phone 370

South-west Corner from the Post Office

Please mention the O. A. C. REVIEW when answering advertisements.

# PHOTOS OAK HALL

## BOOTH

**150** Views of College Buildings and  
Grounds and Guelph Scenes on  
**Post Cards**

Real Photos, good enough to frame.

**75 Cents Per Dozen**

Duplicates of last year's classes always  
on hand.

## The Guelph Radial Railway Co. TIME TABLE

Cars leave College Landing for City as  
follows:

**A. M.**—6.25, 6.45, 7.05, 7.30, 7.50, 8.10,  
8.35, 8.55, 9.20, 9.40, 10.00, 10.25, 10.45,  
11.05, 11.30, 11.50.

**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 13 minutes later.  
\* Saturday Night Only.

*The*

## ELECTRIC BOILER COMPOUND CO., Ltd

PHONE 396, BOX 45, GUELPH, ONT.

Walker's Electric  
Boiler Compound

High-Grade Lubricating Oils, Greases, Pack-  
ings, Belt Lacings, Flue Scrapers, Etc.

**Crystal Cream Separator Oil**  
A Specialty.

FOR  
DRUGS and TOILET ARTICLES  
GO TO  
**BEATTIE'S DRUG STORE**  
LOWER WYNDHAM.

**WALTER E. BUCKINGHAM, B.A., LL.B.**  
BARRISTER.

Solicitor, Notary, Conveyancer, Etc.

Douglas Street, Guelph.

Office Phone, 175.

House Phone, 404.

Please mention the O. A. C. REVIEW when answering advertisements.

# OAK HALL

FOR ALL THAT IS

**NEW AND NOBBY IN  
FURNISHINGS & CLOTHING**

Try

**Cumming (Oak Hall) Store**

28 Lower Wyndham St. Satisfaction Guaranteed

## Guelph's Leading House

FOR STOVES OF EVERY DES-  
SCRIPTION. SHEET METAL  
WORKERS. KITCHEN AND  
DAIRY SUPPLIES. EXPERT  
HEATING CONTRACTORS.

**H. OCCOMORE & CO.**

86 Upper Wyndham St., Guelph

## The Authorized College Pin



Adopted March 30th,  
1903, by Joint Committee  
of Students and Faculty  
elected by O. A. C. A. A.  
Design Registered at De-  
partment of Agriculture,  
Sept. 17th, 1903.

For sale at

**Pringle's Jewelry Store**

Sterling Gilt, Price 50c

IF YOU WANT



**School Apparatus  
and Supplies,**

Write

**The Steinberger Hendry Co.,**

37 Richmond St. West,

**TORONTO - - ONTARIO**

## Thornton & Douglas

LIMITED

Makers and Importers of Wearing Apparel  
for Men and Boys.

Dairy Suits  
a Specialty

Stratford, Chatham,  
Guelph.

**KIEL** GIVES STUDENTS THE  
BEST SATISFACTION IN  
BOOTS AND SHOES OF  
ANY **SHOE STORE** IN TOWN.

**W. L. KIEL**

Cor. of Wyndham St. and Market Square.

GUELPH AND ONTARIO INVESTMENT AND  
SAVINGS SOCIETY

Savings Bank Department

Deposits of \$1.00 and upwards taken.  
Highest current rates allowed.

J. E. McELDERRY, Secy.-Treas.

**EYES TESTED**

BY AN EXPERT OPTICIAN  
(No Charge)

**Savage & Co.**  
OPTICIANS

**JAMES LAW**

UPPER WYNDHAM STREET

Manufacturer of all kinds of

UNDERWEAR, JERSEYS, HOSE, ETC.

NEAR GEMMELL'S DYE WORKS

FOOTBALL and HOCKEY GOODS

Made to Order in College Colors

Bicycle Stockings

**STUDENTS**

When You Want Material to Smoke  
or Chew Call at the

**Senate Cigar Store**

You find everything you want there.

McHUGH BROS., 26 Lower Wyndham

FOR THE MOST DELICIOUS

Confectionery, Ice Creams, Oysters,  
Pastry, Fancy Cakes, Wedding Cakes,  
and Plain Goods.

Catering Promptly attended to.

**GEO. WILLIAMS.**

**T. H. GEMMELL & CO.**

Steam Dyers and Cleaners

No. 70 Wyndham St. West Side

Suits Cleaned, Dyed and Pressed.

Pressing Done on Shortest Notice.

Also Agents for Parisian Laundry

— TRY —

**BURGESS**

FOR

**GROUPS**

There is as much difference in Barbers  
as in any other Tradesmen.

The Royal Opera House Barber Shop

Is the place to get the finest work in Guelph,  
and when the best can be had at the same price  
as inferior, **Why not have the best?**

**DR. COGHLAN**

**.. Dentist ..**

Cor. Cardigan and Woolwich Streets

Telephone 223

A CHOICE STOCK OF

**FOOTWEAR**

FOR LADIES AND GENTLEMEN

And a RELIABLE

Repair Department

**W. C. GOETZ,** UPPER WYNDHAM STREET,  
Opposite G. B. Ryan & Co's.

**W. A. CLARK**

WATCHMAKER

JEWELLER AND OPTICIAN

79 Upper Wyndham St., Guelph

Issuer of Marriage Licenses.

**WATERS BROS.**

Wyndham Street

**O. A. C.  
SUPPLIES**

Please mention the O. A. C. REVIEW when answering advertisements.

# Ontario Provincial Winter Fair

A Combination Exhibition of both

Live and Dressed Cattle, Sheep, Swine and Poultry.

Also a Seed Show, will be held at

**GUELPH, ONT., DECEMBER 11 to 15, 1905.**

Entries should be received by the following dates:

|                                        |             |
|----------------------------------------|-------------|
| Live Stock .....                       | November 25 |
| Live Poultry .....                     | November 27 |
| Dressed Poultry, Seed and Judging..... | December 2  |

**Over \$8,500 Offered in Prizes.**

The attention of Students is called to the Judging Competition. Instructive Lectures by Practical Experts will be given each day of the Fair.

**Railway Rates—Single Fare from All Points in Ontario.**

For Prize List, Entry Form, Programme of Lectures, or other information, apply to the Secretary.

**ARTHUR JOHNSTON,**  
President.

**A. P. WESTERVELT, Sec'y**  
Parliament Buildings, Toronto.

## Books For All Readers

|                                                               |                             |        |
|---------------------------------------------------------------|-----------------------------|--------|
| What a Young Boy Ought to Know                                | Stall                       | \$1.00 |
| What a Young Man Ought to Know                                | Stall                       | 1.00   |
| What a Young Husband Ought to Know                            | Stall                       | 1.00   |
| What a Man of Forty-five Ought to Know                        | Stall                       | 1.00   |
| What a Young Girl Ought to Know                               | Mary Wood Allen, M.D.       | 1.00   |
| What a Young Woman Ought to Know                              | Mary Wood-Allen, M.D.       | 1.00   |
| What a Young Wife Ought to Know, Mrs. Emma F. A. Drake, M.D.  | Mrs. Emma F. A. Drake, M.D. | 1.00   |
| What a Woman of 45 Ought to Know, Mrs. Emma F. A. Drake, M.D. | Mrs. Emma F. A. Drake, M.D. | 1.00   |
| The Social Peril                                              | Stall                       | 1.00   |
| Husband, Wife and Home                                        | Chas F. Goss                | 1.00   |
| The Social Evil in University Life                            | R. N. Willson, M.D.         | .50    |
| Manhood's Morning                                             | J. A. Conwell               | 1.00   |

Postpaid upon Receipt of Price.

Descriptive Circulars Free Upon Application.

### WILLIAM BRIGGS

29-33 Richmond St. West

TORONTO

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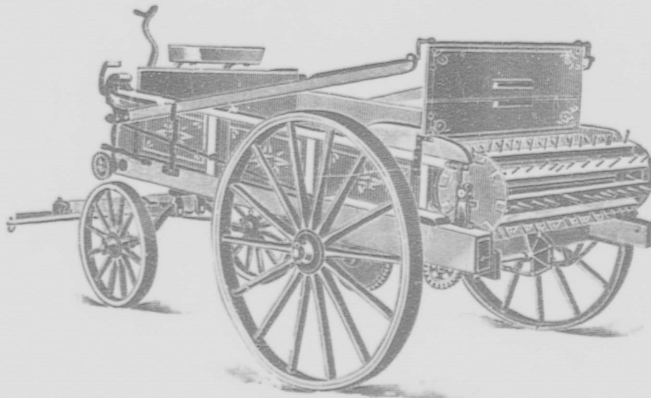


## It Doubles Your Dollars

The Massey-Harris 20th Century Manure Spreader will Double your Dollars because it doubles the productiveness of your land, thereby doubling your profits.

The Massey-Harris Manure Spreader also does away with one of the most disagreeable and hardest jobs on the farm, and by its use makes it one of the simplest. A smart boy can work it successfully. It is operated entirely from the driver's seat. The driver sets his gauge and goes ahead; the manure is spread so evenly and systematically that it is immediately available as plant food—the first rain reducing it to a liquid state and carrying it into the soil.

See the Massey-Harris Agent in your town. It will be interesting to you.



MASSEY-HARRIS 20th CENTURY MANURE SPREADER

**The MASSEY-HARRIS CO**  
LIMITED.

Please mention the O. A. C. REVIEW when answering advertisements.

## An Increase in Profits

**\$ 52.52**

Received the month  
he used the U. S.

**\$ 25.00**

Received the month  
he **didn't**.

**\$ 27.52**

Gained in one month.  
At this rate

**\$330.25**

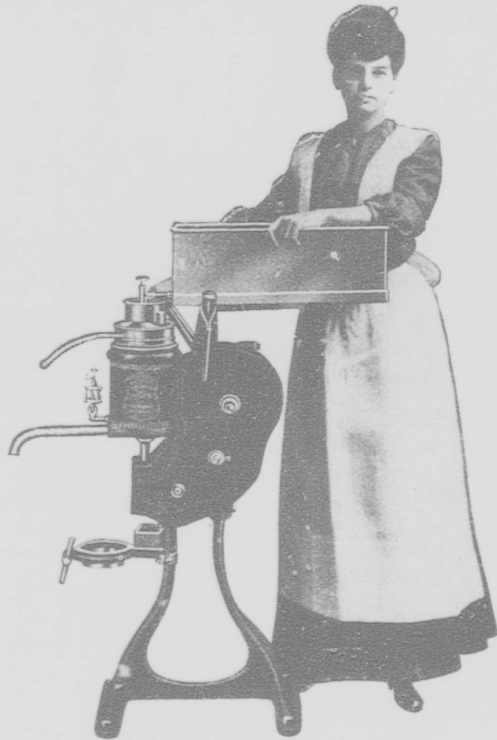
Is the total gained  
for the first year,  
and

**\$100.00**

Deducted for his  
machine, leaves him

**\$230.24**

Net gain, with his  
machine paid for.



### Read the Signed Statement Below :

DELHIE, MINN., June 6, 1905.

"I purchased a No. 6 U. S. Separator Feb. 1, 1905, and sold cream the first month to the amount of \$52.52, the product of 8 cows. The month previous to getting the Separator, the 8 cows produced me about \$25. This herd of cows is about the average herd, three of them being heifers. I can heartily recommend the U. S. to all who want a first-class Separator.

H. A. DRYER."

Pretty profitable investment, wasn't it? Isn't it worth investigating? That costs you nothing. Send for illustrated Catalogue No. 550-B, which will tell you ALL about it and show you how and why the Improved

## U. S. Cream Separators

**MAKE THE LARGEST PROFITS**

VERMONT FARM MACHINE CO., BELLOWS FALLS, VT.

18 Distributing Warehouses Throughout the United States and Canada.

Please mention the O. A. C. REVIEW when answering advertisements.

# Libby's



**PORK AND BEANS**



When you desire absolute satisfaction, buy  
**Libby's** Natural Flavor **Food Products**

Cooked and ready to serve.

Boneless Chicken  
 Ox Tongues  
 Veal Loaf

Corned Beef Hash  
 Melrose Paté  
 Ham Loaf

Lunch Tongues  
 Vienna Sausage  
 Soups, etc.

The quality is the best you can buy. Your grocer has them.  
 Our booklet "Good Things to Eat" sent free upon request. Send five 2c stamps for Libby's Big Atlas of the World.

**Libby, McNeill & Libby,**  
 Chicago.



ONE

OF

THESE

SHOES

MAY

FIT



If you are one of the more conservative Dairymen, who have clung to the crocks and pans and attendant labor and loss overlooking the fact that in these days of fractional profits, it is essential that only the best equipment be used, there is just one way out, and that is the

DELAVAL  
CREAM  
SEPARATOR

Perhaps through the urgent importunities of the dealer, or mistaken friendly advice, you are the owner of an inferior Cream Separator— which though an improvement over crocks and pans, still enforces a constant loss in skimming and churning, or through mechanical imperfection. There is the remedy,

*The* DELAVAL

THE DELAVAL SEPARATOR CO.

77 York Street

TORONTO