

THE O.A.G. REVIEW

FEBRUARY, 1911





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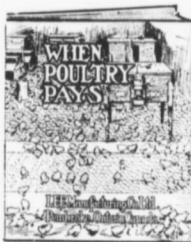
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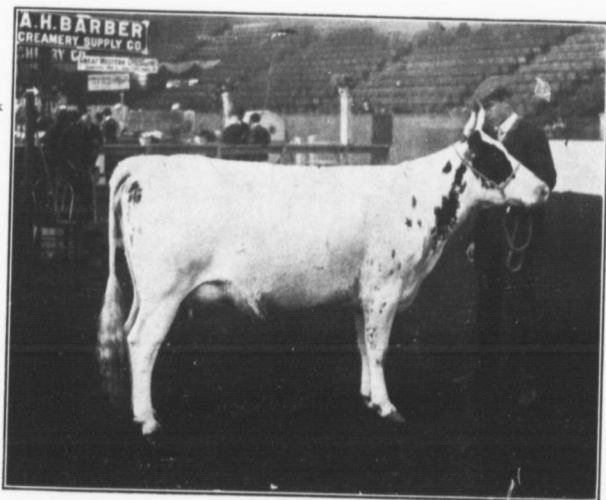
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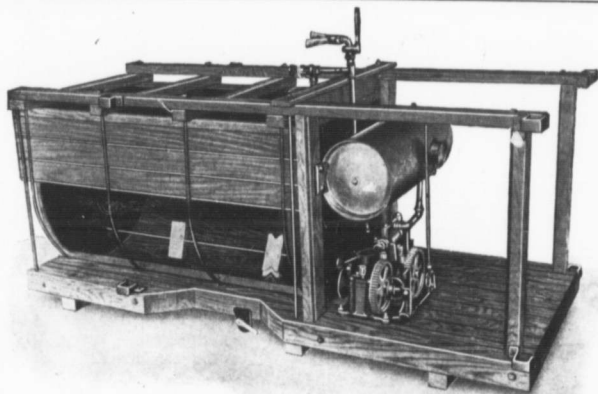
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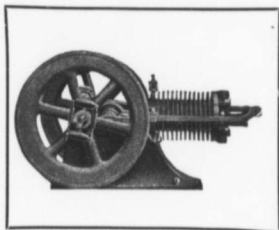
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THE O. A. C. REVIEW

THE DIGNITY OF A CALLING IS ITS UTILITY

VOL. XXIII.

FEBRUARY, 1911.

No. 5.

Canadian Pacific Farm, Springfield, Manitoba

T. W. TWELTRIDGE.

OWING to the inferiority and a corresponding high price of a great deal of the vegetable products now placed upon the Western markets, several Western railroads have decided to establish farms of their own and produce high class vegetables at a minimum expense for use in their hotels and on dining cars.

Probably that enterprising railroad magnate, J. J. Hill, was the first man in Western America to launch on this proposition; for, as I now understand, the Great Northern Railway do not only supply their system with fresh vegetables, but have gone so far as to produce splendid chicken of superior quality for their own service.

Realizing the advantages to be gained by home production, some two

years ago the Canadian Pacific set aside 480 acres of land, situated twelve miles northeast of Winnipeg, for the purpose of establishing a demonstration and produce farm for their own

system. The first year's operations consisted mostly in straightening up the place, with the exception of growing a crop of potatoes to cover running expenses.

Not being customary to operate any department at a loss, this year's operations were begun with an economic point in view. Ideal seed beds and seed, seed selection being the basic features of the future harvest combined with a system of untiring cultivation resulted—in

spite of an adverse season—in what may be termed a bountiful harvest.

Scientific cultivation proved itself king; everything, possibly with the ex



BREAKING THE PRAIRIE.

ception of cabbage and field-sown onions, yielded enormous quantities, blended with a superior flavor conspicuous by its absence among the average trucker's produce.

To meet the requirements of storage for fifty acres of potatoes and ten acres of truck crop it was found necessary to construct three huge under-ground pits, with a capacity of twenty-five thousand cubic feet, which, with the exception of a few cedar posts, have been built with lumber cut from the wood-lot and have cost very little more than the price of labor for construction. Although cheaply constructed, scientific principles in the way of drainage—insured against spring frosts by an efficient trap—and thorough ventilation are the principle features, and should prove a most valuable asset in keeping the produce in good condition through out the winter.

Recognizing the value of winter vegetables the director, Mr. R. D. Prettie, an old O. A. College student, has advised the building of two green houses with an area of 3,500 feet for

this purpose as well as growing many thousands of annual flowers for station decoration in the West. Those are already under construction and will be in operation before this article reaches the press. Vegetable growing alone will not comprise the work done at this station, for already preparations have been made for the establishment of a nursery department which will undertake to grow deciduous trees for shelter belts along the main line and perennials for the decoration of station gardens of the West.

Another important feature about the farm is its poultry department, the object of which is to supply the hotel and dining cars with fresh eggs and poultry as fast as possible; to this end a flock of 100 pure-bred Plymouth Rock pullets have been purchased and may be seen parading the spacious pens provided for this purpose.

Extensive experiments with packing and subsoil ploughing are well under way and some valuable data is hoped to be obtained in the future.

THE CANADIAN WEST.

Upon the vast, illimitable plain,
Which long had kept the silence of the years,
The sturdy pioneer his temple rears
In home new-built, and, fields of golden grain,
An ancient miracle has come again;
For who could paint, though wisest of the seers,
In the lean past the West as it appears,
Bearing the wealth of Indus in its train?
Through all the aeons since the old world's birth,
There stillness sat enthroned, with none to urge,
Swinging her magic censer o'er the earth,
To bless the toiler of a late sent age.
For those who garner under Western skies,
Has earth reserved her last and richest prize.

—R. S. Somerville.

Driving

F. C. GRENSIDE, V.S.

JUDGING from what one can glean, from casual observation, very little attention is paid in rural districts, to the manner in which horses are driven. In fact the subject is treated as one upon which no instruction is necessary, or one about which there is little, if anything, to learn.

Young people of the farm just take to it, as they take to many other every day things, that must necessarily be done, with practically no instruction from anybody. That they get along in some sort of a way, there is no doubt, as they manage to do their work and get about.

This would lead one to inquire if there is anything much in driving, or whether it is a subject worth studying and cultivating a knowledge of.

As a matter of fact there is a good deal to learn about it, and the difference between a slipshod driver and an expert one is immeasurable.

One only has to take an opportunity of observing the difference in the performance of the same horse when driven by an uncultivated driver and then by an expert one, to realize that there is much to learn about driving.

This is pretty generally recognized when the object is to bring out the speed of a horse, but when style and action are aimed at, the expert driver can cause a perfect transformation of an animal, when compared with a performance given by an unskilled one.

There is undoubtedly such a thing as an aptitude for driving. Some persons could never become really skilful drivers, no matter how much cul-

tivate it, as they are temperamentally unfitted for high class work of this kind. They might become fairly good drivers, but never experts. There is something about the nervous organization of some individuals that gives them a delicacy of touch, or what is called "good hands," as applied to drivers, that confer upon them a special aptitude for expertness in driving.

It can be explained in the same way that some people are light on their feet and can readily become easy and graceful dancers. They may be heavily built, and show no evidence from their make-up of the likelihood of there being light-footed, but they are, and such an attribute can only be explained by referring it to the nervous organization of the individual.

Analogies of this sort could be still further given, but we are not so much concerned in explaining the causes of certain aptitudes as we are in endeavoring to point out some of the common faults in driving.

The differences between good and bad driving are not so apparent in the handling of work horses as in those used for faster work, but even in them faulty handling shows itself.

The slipshod driver is very much in evidence behind work horses. You see him driving a pair with one horse ahead of the other; he is simply holding the reins, not driving at all. He makes no attempt to keep the draft of both horses even; he does not feel their mouths, keep them collected and balanced.

Whether a horse is pulling a load or going beyond a "foolspace" he should

be kept "collected," as he does his work more comfortably, and does not fatigue so easily.

A horse is collected when his head is kept in position, and all the muscles of his body are in a state of contraction. When a man is running or walking fast he closes his hands by contracting the muscles of the arms and hands, in order to keep himself collected. If he did not do so propulsion would cause him greater effort. So with the horse, if he is exerting himself either in travelling or in pulling a heavy load, light, but steady pressure of the bit assists him in keeping collected and balanced.

Loose rein drivers never improve a horse's mouth; they encourage bad carriage of the head and neck, and are apt to spoil his gait by getting him into the habit of "hitching."

By keeping a horse collected and balanced the fore legs are not so apt to suffer from the ill-effects of concussion and strain.

If the head is kept up and nose in, in travelling, the forelegs are relieved to some extent, as more weight is then thrown on the hind extremities. Heavy handed drivers also inflict much injury on a horse and cause him much discomfort. They are apt to make his mouth sore, get him into bad habits in connection with that organ, such as side-lining, pulling tongue, lolling, etc., and cause him to mix his gaits.

The driver's aim should be to manipulate the reins with a light but firm and steady hand.

It is usually necessary to exert more force in manipulating the reins in speeding a horse, in order to steady him, but injury to the mouth can usually be avoided by using an easy and comfortable bit.

The skilful driver is always careful

to observe if the bit is in the proper position in the mouth of the horse he is driving. If it is too low he will not force it firmly, and he is apt to get his tongue over it. If it is too high, he will not readily respond to the pressure of it, and consequently he is apt to pull cross his jaws, open his mouth, and project his tongue.

Placing a bit too high in the mouth is a very fertile cause of getting a horse into bad habits in connection with the mouth, and is apt to spoil the carriage of his head and neck.

The manner of holding the reins and whip and the posture of the driver are of much moment in skilful driving.

It has been found out by experience and study of the art of driving that the reins should be held in a certain way in order to contribute to the ease, grace, safety and dexterity of the driver.

Some drivers who have not been taught this way of driving in their youth find it hard to adopt it, in late life, and scoff at the idea of their being a "best way," "as they get along very well in the way they picked up themselves," but they never make finished drivers. There is a great deal of difference between the manner of holding the reins when driving trotters and ordinary driving, especially when curb bits are used, and style is sought for.

In the former case the driver assumes an attitude and holds the reins in a manner, so that he can exert all his force in controlling and steadying. He braces himself with legs stretched forward and arms extended, with a rein running over the palm of either hand, and grasped firmly with the fingers, with the straight whip carried in the right hand.

In ordinary driving, especially when a curb-bit is used, the reins should be separated with the first two fingers of

the left hand, the ends passing out of the lower part of it. The thumb should be held with the point upwards, not pressing down firmly upon the reins. The wrist should be bent, so that the knuckles are turned towards the waist, and the elbow is bent at the left side. The hand should be held at a height approximately opposite the waistband.

The right hand holds the whip, at about ten inches from the end, the lash end of it is directed upwards, forwards and towards the left. Nothing looks more unworkmanlike than grasping the whip at or near the extreme end.

The left hand should always be kept in the same position, but the right one besides holding the whip, should be used to assist the left.

The lower part of the right hand may rest upon the off-rein, in front of the left, to assist in steadying the ten

sion of the reins, also in turning or guiding it may be used on either. If the left hand requires aid in exerting traction, the right placed in front and dividing the reins by the two middle fingers may assist it, and also in shortening the reins, the right hand pushes them back, between the fingers of the left.

The near rein is always held uppermost, passing over the index finger of the left hand, while the off-rein passes between the second and third fingers.

The position of the driver should be easy and unconstrained, but approximately erect, with arms dropping along the sides, and elbows squared at the waist. The legs, from the knees downwards, should slant slightly backwards, and the driver should not sit too far back in his seat.



TRANSPORTATION IN THE NORTH.

Drainage

W. R. REEK, B. S. A.

NEVER has the interest in land drainage throughout Ontario been so general nor has it ever before produced such practical results. It is not necessary to investigate the work carried on at the Physics Department of this College to prove the above statement; the increase in the manufacture of clay tile, inquiries re ditching machines, tile machines, and drainage in general prove that there is an awakening to the idea that in few ways and probably in none can our farmers invest money whereby they may receive greater returns upon the capital invested. It is worthy of note that those men who are practicing intensive or special agriculture are most interested, followed by those upon heavy flat lands.

The following figures will give some idea as to the amount of tile sold in Ontario last year and in previous years:

Year—	Number of Tile Manufactured.
1905	15,000,000
1906	17,700,000
1907	15,578,000
1908	24,800,000
1909	27,418,000
1910	35,000,000

The last figures show an increase of 28 per cent. over 1909. There are also a great many who would have drained had it been possible to have obtained clay tile at reasonable prices. These men are considering the making of cement tile. Such cases are found only in counties where it is difficult to obtain suitable material for the making of clay tile.

Labour is one of the great problems

confronting the farmer in respect to drainage—skilled labour is necessary. To counteract this difficulty, ditching machines are rapidly gaining the confidence of the farmers, and will, in a few years, be the only method for installing drainage systems.

Many reasons can be advanced for such a movement in Ontario; adverse seasons and education are probably the two most important. A great deal of the educational movement is due to the work of the Ontario Agricultural College, through the Physical Department. In 1906 they commenced making surveys, though on a very small scale. The work grew and for 1908 the Government made a special grant of \$1,000, and two men were engaged during the summer. In 1909 similar plans were followed. The demands became so numerous that some advanced step was necessary. Again the Ontario Government stepped in and made the special grant \$4,000 instead of \$1,000. This enabled Prof. Day to engage fourteen men and two stenographers for the campaign. The plan was to make a survey in a neighborhood and then hold a demonstration for the purpose of discussing ways, means and benefits of farm drainage. These were advertised through the medium of newspapers, bills and post cards sent to men whose names had been previously sent in to the office. The idea underlying this work is to first help those who are anxious to drain but are under difficulties in deciding their size of tile, grades, etc., and then to interest those men round-about who have never given any serious thought to the subject.

The following table shows the extent of the survey work:

Year	Applications	Surveys	Demonstrations	Average Attendance	Surveyed Acres
1906..	15	15	500
1907..	126	70	3,500
1908..	166	100	43	..	5,000
1909..	302	179	48	18	5,157
1910..	492	388	132	23.6	14,672

From this we see that there was more work done in 1910 than in the five previous years. More demonstra-

the District Representatives throughout Ontario. These men have been working in a similar manner; some find that they have not nearly the time nor assistance necessary to handle the work. If this was added to the College figures the number of surveys would be materially increased.

Reports from the tile men all over are similar. The great demand is causing additions to be made to old plants and many new ones are being built. Often we hear of farmers leaving the yards disappointed because the supply



THE O. A. C. DRAINAGE STAFF, 1910.

tions were held with a larger attendance—the largest for the summer was 55. We only expected an average of 20 at these meetings; it is another indication of the widespread interest. The work was carried on in 31 counties which included 6 where we had never before surveyed. It is gratifying to note that the very great increase in the output of the tile yards should be in the same year as the increase in the number of surveys.

Besides the work done by the College we must consider that done by

is not equal to the demand. No doubt the great increase in the output in 1910 is partly due to men buying their tile months, and in some cases, a year or two before they expect to use them.

The value of underdrainage is very difficult to calculate, but I believe it is more often underestimated than otherwise. We value the increased returns from the crops produced and find that it amounts to \$10, \$15, \$20 per acre per year, and in rare cases more. Such a calculation allows nothing for the

lenger seasons, in which to do the work, ease of tillage, wear and tear on machinery, men and horses. There is the satisfaction which large returns bring, and we find the contented replacing the discontented farmer. Drainage must be one of the channels

through which we are going to be made realize the great possibilities of Ontario, but when we stop to consider the number of acres drained and the number that are yet to be drained we must conclude that as yet this work is in its infancy.

Our First Judging Team in Poultry

AS most of us already know, the Judging Team sent from this College to the Boston Poultry Show, where they came in competition with similar teams from other Agricultural Colleges, has made good by taking first and second places on Dressed Poultry, first place on Utility Stock, second place on Fancy or Exhibition Stock, and second place in the Plucking Competition.

Everyone interested in the Ontario Agricultural College, its Poultry Department, or the men on the team, are highly pleased with such a fine start for Student Judging in Poultry, and our concern in it.

Several things are significant. First, and foremost, is the evidence of the skill and experience that Professor W. R. Graham shows as trainer of the team. This little success is his, and demonstrates anew to our American friends, that we have here one of the most skillful poultry experts in the world.

Next we are proud of Messrs. Hermer and Marcellus, whose coolness and good judgment have won for them and the O. A. College this distinction. We knew the sort of stuff they were made of, and are glad they have "shown the other fellows."

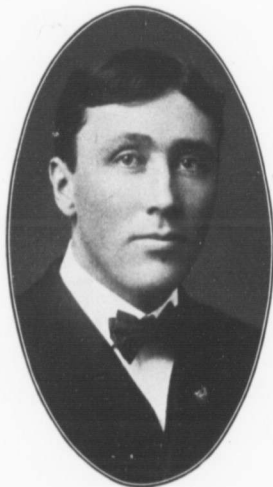
Furthermore we are proud of our College, its departments and what they stand for. It is things like these that fasten the eyes of the world upon us. O. A. College has attained a wide reputation through her judging teams in Live Stock, her District Representative movement, her Experimental Union, and her men who have gone all over the world with the gospel of Agriculture. Now a new asset has been secured. Her reputation for poultry lore is becoming established. The bitter disappointment at the International Live Stock Show is somewhat mitigated by the performance of our Poultry men.

However, if we want to repeat this success, it means application and hard work. There is no reason why we should not go on winning a fair share of these competitions, if we give time and application to the training.

It has been stated that one cause of our poor showing at Chicago was due to the lack of training in the big show rings. This may be true to a certain extent. The men on the teams from most colleges do not have to put up the cash for their expenses in connection with the visiting of large shows, and in seeing and handling the best stock the country affords. The inability



F. N. MARCELLUS, '11.



M. C. HERNER, '11.

FIRST TEAM TO REPRESENT THE O. A. C. IN INTERNATIONAL POULTRY JUDGING.

ty of a poor man to personally meet the expenses of such real necessary training, is a severe handicap, and excludes many a man who might otherwise be come one of the best. This is as true of Poultrymen as of Stock men.

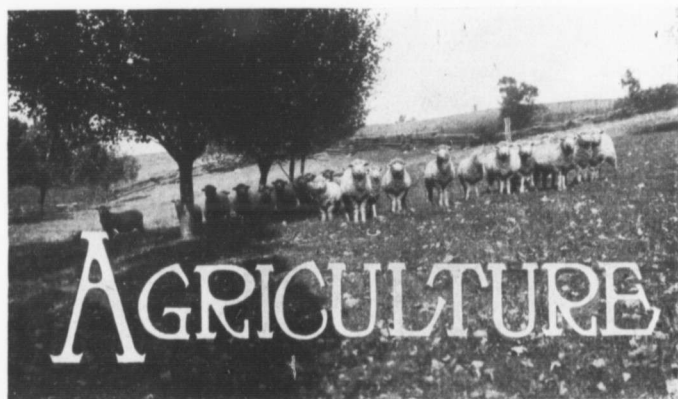
To be sure, the man making the team may gain an enviable reputation, but the College from which he is sent,

and the staff stand to receive the most advertising. Therefore it seems to me that the College, or the Government, perhaps, should be especially liberal with the men she is training for this sort of work if she wants to be on the winning side.

Let us not be too sure of the future. What is worth while, is worth working for.

J. H. F.





Fresh Air in the Stable

PROFESSOR G. E. DAY.

PERHAPS there is no matter of greater importance in connection with the cattle business than that of maintaining the health of the herd. No person wishes to be an alarmist, and probably some have gone to extremes in trying to awaken an interest in this question; but the question is of such vital importance that one may be excused for earnestness in dealing with it. One of the dreaded foes of the cattle breeder is tuberculosis, a disease which may exist in a herd for years and possibly give very little sign of its presence, so that the owner of the herd is off his guard and does not realize the extent to which the disease has spread until it is almost too late to provide an effective remedy. In the case of tuberculosis, as in the case of most other diseases, prevention is better than cure, and the stockman must always be on his guard trying to keep conditions

such that it will be difficult for any disease to establish itself within his herd.

It seems peculiar to human nature to go to extremes, and it is difficult to find men who will look upon problems of this nature from every standpoint, and map out a safe, conservative course in connection with them. We find some men treating their stock in such a way that it is impossible to get satisfactory returns. The cattle are turned out of doors in the coldest weather and allowed to stay there practically all day with very little shelter. This method gives the cattle plenty of fresh air and exercise, but it is not conducive to getting the best returns in milk or beef, and hence a general crusade has been conducted against this somewhat cruel method of handling stock. But in changing our methods, we have in many cases gone directly to the opposite extreme. We have provided

warm buildings in which the animals never suffer from cold, and in which they are kept tied practically from the time they go into the stable until they are let out to pasture in the spring. Further than this, in our efforts to keep the stable warm, we have taken such pains to shut out the fresh air and to keep in the foul air, that many of our so-called improved stables are first class incubators for disease germs. It is true that very few of the better class of stables are not provided with some form of ventilation, but it may be open

One of the serious troubles in connection with ventilating stables is the fact that many of our good stables are equipped with automatic watering devices, and if the temperature of the stables is allowed to fall below freezing point, there is danger of damage to the watering system through frozen pipes. If some system could be adopted whereby this danger could be eliminated, the problem of ventilation would be much simpler, because rather than take chances on having the water



WHERE THOROUGH VENTILATION HAS BEEN DULY CONSIDERED.

to question whether the ventilation is adequate. It is very doubtful whether any stable can be maintained at a temperature between 45° and 60° with out artificial heat, and possess sufficient ventilation. After all, it might be asked whether it is necessary to keep even heavy milking dairy cows in such a high temperature. There is good reason to believe that a cow will suffer more inconvenience in a close, warm stable where there is insufficient fresh air than she will in a stable which admits plenty of fresh air, but in which a much lower temperature prevails

pipes frozen, the herdsman is apt to block up ventilators on a cold night to such an extent that the ventilation is very imperfect.

The writer has had some experience with keeping cattle in cool stables, so cool, in fact, that on many cold days in winter ice would form on the water troughs, and in no case has it been noted that any animal—from newly born calves up to cows in full milk—seemed to suffer the least inconvenience from the low temperature. Possibly these cows did not give quite so much milk as they would have given

had the temperature been higher, but it is a dangerous practice to take chances on ruining the constitution of our animals for the sake of getting a few more pounds of milk. It would be better far to sacrifice something in quantity of milk to gain in constitutional vigor.

A complicated, expensive system of ventilation is not necessary. In fact, the simpler the device, provided it gives a means of exit for foul air and provides for an abundant supply of fresh air without exposing animals to draughts, the more effective it generally is. Cold, damp air is dangerous. Warm, damp air is debilitating and renders an animal liable to disease. Cool, fresh air is invigorating, and it is wonderful how comfortable cattle appear in a fairly low temperature, provided the air is dry and that draughts are rendered impossible. A great many of so-called sanitary devices in stables might be dispensed with, provided the stable is so constructed as to admit plenty of light, plenty of fresh air, and gives free exit to foul air. These, after all, are the main considera-

tions affecting the health of animals, and the man who overlooks these is surely laying up trouble for himself in the not far distant future. The man who takes the trouble to think this question out carefully will be almost forced to come to the conclusion that extremes of any kind are bad, and that any method of stabling cattle which does not provide for an abundance of fresh air is bound to have an injurious effect upon the health of his herd.

It must be borne in mind that cold air is not necessarily pure air, and in order that animals may not suffer in a low temperature provision must be made for such a circulation of air that the air of the stable is kept comparatively dry. If this precaution is observed, there is very little danger of any of the animals experiencing inconvenience from a somewhat low temperature. As time goes on and we become more and more familiar with the habits and requirements of animals, and also with the necessity of guarding against disease, there is no doubt that the close, stuffy, partially ventilated stable will disappear.

Factors Pertaining to Successful Dairy Farming

THE man who can build up and manage a herd of cows that will give him large profits on the feed consumed, is making a success of dairying. The dairyman supplies a necessity of life, and the demand for the product, which he has to sell, as butter, cheese or milk, is bound to increase with the increase of population.

Although the export of butter from Canada has not been as large the past

year or two, it is no indication that the industry is on the decline, far from it. The home market is growing faster than the manufacturing end of the business.

Although more and better cows are being kept on our farms than there were ten years ago, many farmers still seem to prefer the boarder cow that does not pay for the feed she consumes and is continually lowering the profits

for the herd. The excuse is made by many that they cannot afford to keep pure bred cows, and therefore they do not expect to make much profit. This is a false idea. If we follow our agricultural papers we read of many who are making large profits from cows of mixed breeding.

In the past and at the present, individual cows are making excellent records both in the flow and richness of their milk. But as the majority of our cows do not give much profit for feed consumed, there is room for improvement in most of our farm herds, and money to be made if business methods are used.

In order to make a success we must endeavor to have good cows, then give them proper care and sufficient food.

The herd need not be large nor need it be pure bred. Whether a man de sires to keep Jerseys, Holsteins, Ayrshires or the dual purpose cow, he should secure the best possible in his chosen breed, and breed with an aim to improvement. There has been too much promiscuous breeding in the past with no aim in view. Mate the best females we have with a sire having a record behind him, for the offspring inherits the characteristics of its ancestors to a large extent. Although at times we do not meet with much success, it is the man who stays with it that reaches the goal in the end. By careful breeding, feeding and weeding a man may soon work up a profitable herd. It is only by the use of scales and the Babcock test that the paying cows are picked out. It may seem a good deal of trouble at first to weigh each cow's milk morning and night, but once started, the dairyman will never go back to the old method of guessing what his cows are doing.

Having started on the right road to

securing the most profitable individual or herd, we must give them the best of care. No matter what the cow's record may have been, or how good you feed her, if you do not give her the best of care, the returns will fall short of your expectations. The cow is a sensitive creature and the flow of milk is soon affected if she is roughly handled. In order to make the most out of the cows, the herdsman must practice gentleness at all times.

There are many seemingly little ways in which we may add to the comfort of her ladyship the cow, as giving her free access to water and shade during the hot summer days, using some thing to keep the flies from tormenting her, stabling on cool nights in the fall, and when the cold weather comes giving her a comfortable stall in a stable where the sunlight enters freely, with abundance of fresh air and avoiding drafts. By so doing the owner will be paid large dividends on time and money invested.

Then feeding is a very important factor. It may seem strange that the individual and her care are mentioned before the feeding. But without giving care and attention the feed is to a certain extent wasted, or at most, little profit is derived from it. Good feed of excellent quality is necessary if best results are to be obtained. We must commence to feed for results when the calf is born, in fact during gestation, for it is not reasonable to expect a poorly-fed cow to give birth to a strong calf. Then it is claimed, if the cow is fed to produce milk to her limit during the early part of the foetal development that the calf, if a heifer, will have more of a tendency to inherit the producing qualities of the dam than if only fed ordinarily. The calf of either sex, especially the heifer, must be kept grow

ing from time of birth to maturity. What is lost in calthood can never be regained in the mature animal. The calf should have new milk for at least a month, then be gradually weaned to skim milk. If the calf is in a box stall with an older calf so much the better, for it will then soon learn to eat a little clover hay and pick at the other feed, as rolled oats, pulped roots, etc., which should be kept before the growing calf. A bright clean stall is also necessary for the best success in raising calves.

The heifer should be bred to drop her first calf at about two and one half years of age, then the problem of feeding the cow to accomplish the best results confronts the herdsman. It is the man who can regularly put the feed before the cow in the most digestible and most palatable form that reaps the most remunerative results. We have a number of rough and concentrated feeds which make a good nutritive ratio for a dairy cow. Instead of feeding the same things day after day, we must vary a little from time to time and thus see what combination of feeds gives the best results. Here again the scales should be used in weighing the milk and then fed the concentrates according to the milk produced.

The cow is compared to a machine which turns out the manufactured pro-

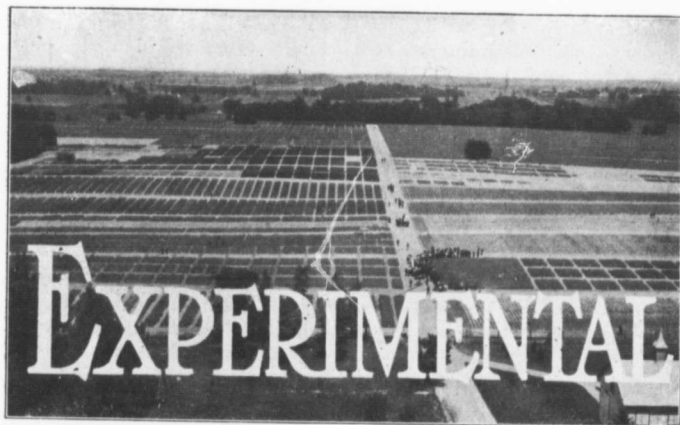
ducts from the raw materials. It is useless to expect to receive a large flow of milk from feeding straw and roots alone. Only in proportion that you give this living machine raw material, rich in the same substances as milk, can you expect returns. Therefore the more you cater to the tastes of the cow the more raw material she will consume and the greater the milk flow.

As milk contains about 87 per cent. of water, this substance plays an important factor in dairying. Without good water convenient to the cows production of a large flow of milk becomes a difficult problem, as the cow will not drink sufficient water if it is stagnant or dirty.

Dairy farming is a safe investment and the prospects for the future are bright. No other branch of farming gives as sure and as quick returns. With the steer you must feed him six months in order to fatten him for market and run the risk of loss of animal or slump in prices. With the hogs you must invest your money in feed and be at the mercy of the markets when your hogs are fat. But with the dairy cow you feed her and fifteen minutes after go around to the producing end of the cow and draw your pay twice a day.

I. B. Whale, '11.





Farm Weeds, Their Introduction and Distribution

GEORGE H. CLARK, B.S.A.

"WHERE do all these new weeds come from and how do we get them?" is a question frequently asked by Ontario farmers.

Formerly the seedsman was blamed, but the fodder crop weeds, although more widely distributed, are as a rule somewhat less abundant in the hay crop than ten years ago. The grain crop weeds are, however, more in evidence and the seedsmen can scarcely be blamed for this in the Province of Ontario, because relatively few farmers buy their seed grain from seedsmen.

Weed Seeds in Feeding Stuffs.

Most farmers buy and use some mill feeds, as bran, shorts and ground or crushed feed. The purchaser usually takes to his farm a mixture contaminated with vital seeds of many species of noxious weeds, a proportion of which will ultimately be distributed with the farmyard manure, and with their vitality unimpaired.

During the spring of the current year our official seed inspectors collected 79 samples of feeding stuffs from lots offered in the retail market in the different provinces. The following table shows the summary results of their analyses in respect to vital weed seeds:

	No. Samples Analyzed	Weed Max.	Seed Min.	Per lb. Average
Bran, shorts and Middlings,	47	4,704	0	246
Crushed grains,	12	2,248	8	677
Meals of various sorts,	15	18,768	16	1,802
Feed Oats (unground),	5	8,888	908	4,022

The weed seeds found in the samples analysed include more than fifty species that are commonly known as troublesome weeds in Ontario. Most of the samples contain seeds of weeds which up to five years ago were scarcely known in the province but which are exceedingly prevalent in the

Prairie Provinces, such as Hare's-ear Mustard, Ball Mustard, Stinkweed, Cow Cockle and Russian Pigweed.

There are numerous flour mills in Ontario which grind western grown wheat. The cleanings are usually crushed and piped into the bran bin. This process of crushing the screenings is sufficient to crack grains of wheat, the larger and plumper grains of wild oats and even wild buckwheat, but the finer mustard seeds escape uninjured. Occasional samples of bran have been procured which contained the screenings whole.

Farmers, as a rule, prefer their feeding stuffs not too finely ground. We seldom find coarsely ground feed offered in the trade which is entirely free from whole weed seeds. Ground feeding stuffs manufactured from coarse grains which have been thoroughly cleaned before grinding can scarcely be sold in competition with the cheaper though good appearing meals now available in the trade.

Elevator Screenings and Feed Oats.

More than a million bushels of screenings and refuse were last year cleaned out of western grown wheat and barley at the terminal elevators at Fort William and Port Arthur. Feed oats are forwarded uncleaned, whether their destination be Guelph or Great Britain. The shrinkage plus the cost of cleaning feed oats is greater than the increase in the export price obtained for them when recleaned. Feed oats from most exporting countries are marketed in an uncleaned condition.

The great bulk of the wheat and barley screenings are marketed in Duluth and Buffalo. They are blended with by-products in the manufacture of sugar and vegetable oils and sold as stock foods. One cleaning elevator at

Port Arthur grades its screenings according to size of weed seeds and then grinds them to destroy the vitality of the seeds. The product is blended with crushed oats and other coarse grain or flax and marketed wholesale in sewed sacks. The meal from the standpoint of the chemist is highly nutritious and is usually liked by most kinds of stock.

A limited quantity of the screenings and large quantities of the cheaper grades of oats are distributed in an unground condition throughout the live stock districts as far east as Montreal. These oats are the cheapest horse feed available and are largely used in Ontario towns and cities. The wheat screenings are available in most towns for chicken feed. The farmer who is careful about the quality of his grass and clover seed but who has to buy a few hundredweight of ground hog feed, manufactured from such screenings and feed grain, will find it scarcely possible to escape a liberal supply of weed seeds. Even the man who operates the chopper stoutly maintains and firmly believes the weed seeds have all been destroyed in stock feeds although they have been found by analysis to contain large quantities of them.

Commercial Seeds.

The commerce in agricultural seeds is perhaps the most fruitful medium for the introduction of foreign weeds. Within the last few years several new species of weeds have been introduced into Ontario with alfalfa seed. We have yet to learn to what extent they will prove noxious in Canada. During 1907 and 1908 large quantities of red clover seed from South America and Europe were imported and generally distributed in the seed trade. Fortunately our inland climate is not suitable

for the vigorous growth of most of the new weeds thus introduced. Quite large quantities of seeds of the finer grasses are annually imported, but they bring with them the usual impurities that were introduced many years ago. Importations of seed grain are comparatively small as a rule, but with them we have introduced most of our weeds that give trouble in cereal crops.

Canadian seedsmen, properly so called, seldom find it expedient or necessary to offer seed grain that contains more than a trace of weed seeds. Yet large quantities of commercial oats and other grains that were never intended for seed continue to be sold by grain and feed merchants to farmers throughout eastern Canada and many farmers use them for seeding. They are as a rule obtainable at from ten to twenty cents per bushel cheaper than the seedsmen's supplies. The seed Control Act offers no protection to the farmer who deliberately buys for seeding, grains that are held for sale primarily for the purpose of feeding and are not represented as seed grain. A farmer who is thus careless about the introduction and distribution of weeds on his own land main

tains a breeding ground for weeds in the locality where he lives.

Distribution by Natural Agencies.

Wind, water and other natural agencies are the prime factors in the spread of weeds within a locality. The prevalence of weed growth is commonly said to be evidence of indifferent cultivation and a want of a good system of crop rotation. Twenty years ago, however, good men to hoe and cut weeds were available at \$17 per month and board. It is not to be expected that farmers will take kindly to paying men \$40 per month to fight weeds. They know that the provincial weed law is not enforced and even complain because it is a dead letter. Few farmers seem to know that the law expects them to take the initiative—that their municipal governing body is not required or really expected under that law to appoint a weed inspector except on receipt of a petition signed by fifty ratepayers. The members of any farmers' club have the privilege of putting into operation this Ontario weed law, which adheres to the principle that "any community of people who want to govern their own affairs be given the right to do so."



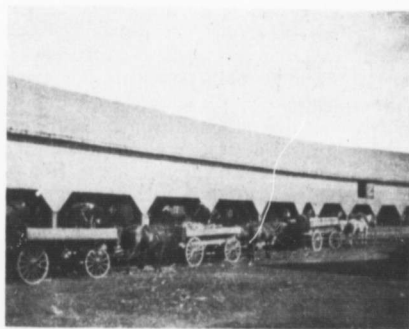


Peas and Tomatoes for the Factory

W. H. ROBERTSON, '11.

THE production of peas and tomatoes for the factory is gradually becoming very wide spread in Ontario. The Lake counties, that is the counties bordering on Lakes Erie and Ontario, claim the greater portion

have been producing this class of goods simply because they believed that the cash returns were such that it left them a reasonable profit. But of late years the production has fallen off somewhat as the grower gradually



UNLOADING AT THE FACTORY.

but still a considerable portion, of it, especially peas is produced inland.

It was my privilege this summer to make a study of the industry in Prince Edward County, one of the heaviest producing counties in the Province. The farmers there in the past

realizes that all cash returns are not profit.

For peas the grower receives \$30 per ton. The production per acre varies greatly, depending entirely on the previous cultivation, the richness of the soil and the season. But the

average yield for the seasons 1908 and 1909 has not been more than one ton per acre, thus giving the farmers a gross return of but (\$30.00) thirty dollars per acre.

The seed peas are for the most part supplied to the growers by the Canning factory people. The usual price is about (\$2.50) two dollars and fifty cents per bushel. It requires three or four bushels to sow an acre, thus bringing the first cost up to from (\$7.50) seven dollars and fifty cents to (\$10) ten dollars per acre. The cost of plowing, cultivating, harvesting and hauling to the factory must also be

The peas in most cases are harvested by means of a home-made horse-rake. They are raked into piles and loaded directly on to the waggons and drawn to the factory. Here they are threshed by means of a machine called the viner. The grower unloads directly on to the carriers of the machine and in the busy season it is no uncommon occurrence to have to wait from eight to ten hours in order to get sufficiently close to unload. Is this time worth money?

Another method of selling is for a fixed price per acre. This year it was (\$25.00) twenty-five dollars, the fac



TOMATOES AFFECTED BY BLIGHT.

considered, and it amounts to no small sum. Coupled with this we have the fact that the peas must be harvested at the proper maturity or softness for canning. This varies from the first of July to the twenty-first which means that haying and harvest must necessarily give way to the urgent demands of the pea crop. If the peas become too hard before pulling the factory refuses to accept them.

tory supplying the seed and taking the products from that acre. This would appear to favor the grower, as it eliminates all risks, but it has the disadvantage, that it encourages careless cultivation, which destroys what seems to be the only real gain from growing factory peas. If the spring cultivation is thorough, weeds will be few, and, the pea being a leguminous plant, the soil will have gained

something. The cash returns are inadequate and unless the soil is cleaned from weeds or made looser and richer, the crop is grown at a loss.

And why is the production per acre so low? There are several reasons for this, the principal of which are:

1. Poor soil.
2. Lack of preparation of the soil before sowing.
3. Poor seed.
4. Dry weather conditions at blossoming time.
5. No encouragement from the factory.

Of the two above-mentioned crops grown for the factory, the tomato is without doubt the most profitable; and even this in many cases does not give satisfactory returns for money and labor invested.

The production per acre varies greatly, but it is on the whole low. Two to three hundred bushels per acre is a high average yield, and many do not get as high as this. In such cases the crop should be considered a failure. On the other hand there are a few growers who obtain six hundred and seven hundred bushels per acre. The principal causes for low production are:

1. Poor plants.
2. Poorly prepared ground.
3. Cut worms and blight.
4. Lack of cultivation after setting.
5. Lack of fertilizers.
6. Frost, spring and fall.

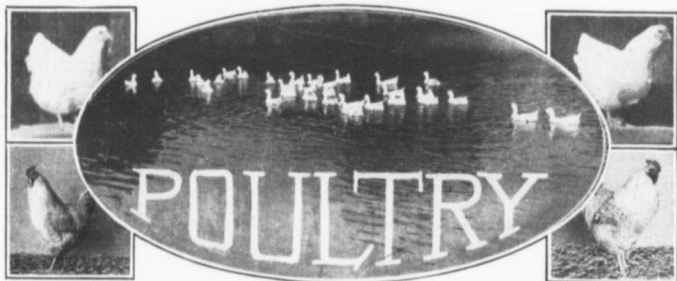
The seed for planting is either obtained from the factory at a varying price, depending on the variety, or is grown by the farmer. In many cases the plants are bought directly from the greenhouse people or from growers

who make a business of raising tomato plants. The plants are usually set out into the field anywhere between the 24th of May and the 10th of June, depending on the weather. It is at this time that the grower has to fight one of his worst enemies, namely, the cut worm. After having set the plants, hoeing is necessary at least twice; this is followed by careful cultivation at least once a week until the growth of the plants prevents.

Harvesting time varies, depending altogether upon the season, but is usually from the middle or last of August until frost comes, and spoils the remainder of the crop. Here it is that we see the value of a variety of tomatoes that matures early and yet meets the needs of the factory with regard to size, color and meatiness, and the needs of the grower from the standpoint of productiveness and its power to withstand blight. It is largely because of blight that successive plantings on the same ground are not recommended.

The price received at the present time is 25 cents per bushel delivered at the factory.

Many, however, are beginning to see this and the tendency is to drop the factory crops and go into dairying, which is proving very profitable. More attention is also being paid to fruit growing. Young orchards are being planted and the older orchards are receiving better care than formerly. On the whole it would appear that unless the price paid for factory crops is raised, there will be a marked falling off in production, and the farmer will turn his attention to something more profitable.



The Boston Poultry Show

DURING the second week of January the Boston Poultry Show was the great centre of interest for poultry fanciers from the east and west and from the north and south. Held in Mechanics' Building, which is one of the largest of its kind in the country, and cooped by the Spratts Patent Company, with elaborate decorations on every hand, the show was one of the finest ever held in the city of Boston.

There were four thousand seven hundred single entries, including turkeys and waterfowl, besides a large number of breeding pens consisting of four females and one male, and also quite a few display pens.

Among the largest classes exhibited were the White Wyandottes with one hundred and fifty-six entries; the Barred and White Rocks with over eighty entries each. All the other classes in fancy and utility breeds were well represented. The display of pigeons and pet stock was the largest in the history of the show. The display of pheasants and the large display pen of ornamental waterfowl, and a few pens containing new breeds of chickens

originated by American breeders, attracted considerable attention.

The leading manufacturers of incubators and poultry appliances were exhibiting their goods in a very attractive and convincing manner in various parts of the building. Incubators, containing eggs in all stages of incubation, could be seen on every hand, while there were hundreds of chicks running around in small yards enjoying life under the care of their foster mothers. Judging by the large number of people who visited these exhibits and the interest taken in them a considerable amount of business must have been transacted.

Another feature of the show was the poultry exhibit and information bureau shown and conducted by the University of Maine, with Prof. W. A. Brown in charge. From a practical standpoint, this method of distributing information regarding poultry culture is probably doing more for poultry education, outside of the regular college courses, towards the further development of the industry, than any other method yet adopted.

The entire show was cooped in a

neat and attractive manner, having the coops only one tier high and ample space between the rows to enable exhibitors to show their birds to the best advantage.

As usual our foremost Canadian fanciers showed again this year and succeeded in capturing a large bulk of the prizes in classes where the competition was decidedly keen.

If other shows could follow the example set by the Boston Show and bring in new features, such as information bureaus, and demonstrations in killing, dressing and packing for the market, the poultry shows would gain a prestige which has been heretofore

unknown, and the industry itself would be done a double service through the medium of the shows. For a good many years the shows have been the life pulse of the industry, but if they want to continue in performing their function, they must branch out and touch those parts which have a direct bearing on the practical side of poultry keeping. Their influence must not cease when the fancy end is developed to a high standard, but must continue to go out towards the utility end and seek to combine the two and instead of having only a fancy strain we may secure a combination of fancy and utility.

M. C. H.

The Incubator

J. H. LEE, PEMBROKE, ONT.

PRACTICALLY the incubator marks the boundary between the conditions under which poultry-growing may be made profitable and those under which it cannot be made to pay actual expenses, normally at all events. Of course it must not be asserted on the strength of this that at all times and under all circumstances it is impossible to make a profit out of poultry raising without the help of the incubator. One man may have a particular strain of birds for which he can be sure of ready sale at fancy prices. Another may be located in a place where poultry products are sure to bring extravagant figures; while still another may have such a low cost of living, such a total lack of other employment and such an overflow of help in his own family that he can make money out of his hens by the old-fashioned methods of poultry production.

The incubator is to the poultry raiser what the horse-rake or the self-binder is to the hay and grain grower, and all who have given it anything like a fair trial will willingly bear testimony to this. One good sized incubator will do the hatching, which, if done by hens, would take up the time that would represent the laying of over nineteen dozen eggs worth, in round figures from three and a half to four dollars at moderate market rates for good fresh eggs for table purposes, while if produced by high class pure bred fowls, they would be worth double or treble that sum at a low computation.

In considering the incubator and its bearing on poultry production, however, one must take into consideration that the use of the incubator and the brooder is the inevitable outcome of thought and system in poultry raising, and this must of necessity count for much. The poultry raiser who even

takes a serious view of the proposition cannot fail to be impressed at once with the folly of permitting the hens to do the hatching and brooding. This is the beginning of the introduction into poultry raising, and it takes into its wake regulations and restrictions which mark the difference between profitable and unprofitable poultry production.

The farmer who uses an incubator will not permit his hens to run all over the place and get beyond his observation and control. He cannot permit them to do so if he wants them to spend their time in laying eggs for the incubator instead of hatching whenever they feel like it. To keep them under observation they should be held with in a walk or yard where they will be fed and watered regularly, and where they will lay eggs in clean sanitary nests which have been carefully prepared for them with several important purposes in view.

First, they must be kept free from vermin, dirt and disease germs of all sorts and they must be so arranged that the eggs will come out of them absolutely clean and free from soilure. The nests are so arranged that the poultryman knows not only the age of his eggs, but the identity. This is an important matter for various reasons. It enables the poultryman to know just which of his hens are good producers and which are not, and at the same time it enables him to have the eggs gathered as fast as they are laid, thus insuring their freshness. Every farmer who has paid any attention to poultry raising knows that whether eggs are intended for hatching or for the table, it is undesirable that they should be subjected to the animal heat from the body of the hen any longer than is

necessary, and that they should invariably be removed before another egg is laid in the same nest. All these precautions contribute to the market value of the eggs, whether they be intended for hatching or the table. True, their observance costs a little attention, but everyone knows that the advantages gained more than make for the extra labor.

The use of the incubator reduces the poultry business to something more closely resembling an exact science than usually characterizes farming operations, no matter how carefully they happen to be conducted. It enables the farmer to work out experiments in breeding and mating his fowls and thus encourages and facilitates the material improvement of flock generation after generation, by the reservation of the best producing individuals and their offspring for breeding purposes. The poultryman is enabled with accuracy to trace the breeding of his fowls, and thus insure straight line breeding, while making desirable family crosses of individuals within the tribal lines. It also enables him to protect his flock from the very undesirable effects of close and continued inbreeding, and this would be nearly if not quite impossible without the incubator.

It is not pretended that none have failed to use the incubator with satisfactory results right from the beginning, as they have made mistakes, as all human beings are liable to do, at times; but if every allowance be made for these failures, and for many other failures which never have been made, the balance of profit would be found overwhelmingly in favor of the incubator, as one of the most important and even essential appliances of any profit-producing poultry plant.

THE O. A. C. REVIEW

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W. TOOLE, Agriculture.

I. B. HENDERSON, Experimental.

F. M. CLEMENT, Horticulture.

M. C. HERNER, Poultry.

G. R. GREEN, College Life.

G. P. McROSTIE, Alumni.

F. C. McRAE, Athletics.

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Editorial

The Public Speaking Contest this year was in every way most successful.

The Public Speaking Contest

The subjects for the most part were wisely chosen, and the speeches, which in every instance, had been well prepared, were well delivered. To the winner, we extend our heartiest congratulations, but none the less so, do we congratulate the other speakers on their splendid efforts. It is not our intention to enumerate here, the benefits derived from the participation in such a contest. The rule of the contest is that all the speeches must bear on agricultural work and be suitable for a Farmers' Institute meeting. Thus, a splendid opportunity is given for the preparation of an address which after graduation, may be used in the furthering of agriculture through the Institute. The demand for Institute speakers is ever increasing, and in the years

to come O. A. College graduates must and will come to the front in all lines of agricultural work. Therefore in our Public Speaking Contests and Courses, the aim of each and every student should be, the preparation of a good speech on an agricultural subject, which can be taken away after graduation and then, if called upon to speak before a representative gathering, be it at an Institute or Farmers' Club, the answer will never be that of the unprepared.

Elsewhere in this issue appears a brief account of the "Inauguration Dinner of the Cosmopolitan Club," a club but recently organized with in our midst. It has been truly said that there are three great movements in the world to-day, namely, "Internationalism," "Socialism," and "Cosmopolitan

ism" or the spread of good-will among individuals. Those of us who were present at the inauguration dinner could not help but feel that the Cosmopolitan Club of the O. A. College would in very truth promote good-will and fellowship among individuals. Not only is this true of our College associations, the movement is world-wide, for it has as its motto "Above all nations is humanity," thus this fellowship and good will which it seeks to promote, extends beyond the limits of our "Alma Mater" and reaches out to other institutions in other lands. Thus, we feel that there is a place for this club, and that it is worthy of the support of the whole student body. Now, in its early days, in its struggle for life, is the time when help and support are needed. There is a work, for it, as well as a place, which time alone can prove. Give it then your support, become a member and above all remember its motto: "That above all nations is humanity."

The organization of a College Alumni Association has been suggested previously in the columns of **The Alumni Association**, and has also been discussed privately by many of the students from time to time, but up to the present no move has been made to bring the matter to a head. We had hopes at the beginning of this College year that something definite would be accomplished before we leave College halls in April. Unless some scheme is at once put on foot nothing can be done for another year at least.

It would avail nothing for us to set forth all the arguments in favor of such an institution. Every person who knows anything whatever of College

life knows full well the advantages and privileges afforded by the Alumni Association, both to the ex-student and to his Alma Mater. Every University, College, and even the Collegiate Institute and High School (if it is alive to its opportunities), has its alumni to stand behind it in its various undertakings, and to aid in development and extension. Without an alumni we are **behind the times**. Without an alumni we are sacrificing enormous possibilities. What a mighty influence our two thousand ex-students in Ontario alone could exert if only that influence were united and organized.

Why has an Alumni Association of O. A. College ex-students never been organized? Simply because it has not been made the special business of any individual or individuals to agitate the movement and to awaken the interest of those eligible for membership. This surely would not be a difficult thing to accomplish. A man does not readily forget college days and college associations. Every true college man will lend willingly his support to promote the interests of his Alma Mater. What is needed then, is that the matter be placed in the hands of a definite executive whose business it shall be to devise and undertake certain plans for the promotion of an O. A. College Alumni Association. Once the movement were begun, it would in all probability, gather impetus of itself.

We invite ex-students to openly discuss this matter with us. Is not an alumni desirable from the standpoint of the ex-student? Opinions from you will be published in these columns from time to time. In this way we shall arouse an interest in the movement which we hope will not die out before definite steps are taken towards organization.

To those interested in Horticulture, the March Review will be especially interesting and attractive.

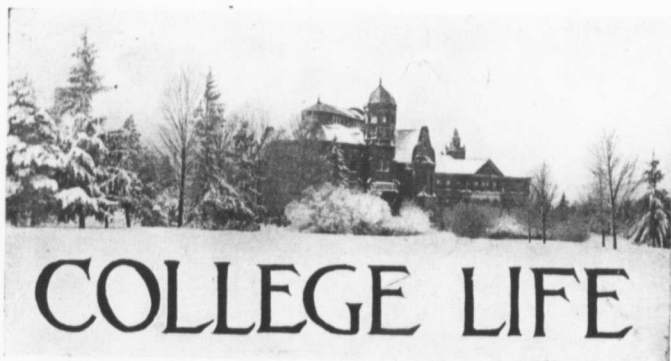
The March Issue. We plan to publish several articles upon the three kindred subjects:

Fruit, Flowers and Honey, written by persons engaged in this special line of

agriculture. The ever-increasing interest, which is being taken in fruit-growing and the care of bees, especially in their relation to successful orcharding and flower culture cannot be over-estimated, and so at this time of the year, we feel sure that such an issue will prove of great value.



—By courtesy of H. Austin, Lynn Valley.
"THE BROOK."



COLLEGE LIFE

Welcome Guests.

FOR various reasons the annual Experimental Union banquet had to be cancelled this year, but in its stead on Tuesday, January 10th, a public meeting was held in the College gymnasium, and a large and enthusiastic audience listened attentively to two excellent addresses given by the Deputy Minister of Agriculture, Mr. C. C. James, and the Hon. Sydney Fisher, Dominion Minister of Agriculture.

After congratulating the officers and members of the Union upon the splendid work they were doing and the progress being made in agriculture through this medium, and after giving a brief review of the history of the Union, Mr. James discussed the new era that is now developing in this line of work. The day has come when agricultural communities and agricultural opinion cannot be overlooked. The farmer is no longer considered "a hay seed." He must rise to the occasion necessitated by existing conditions, and this he is doing slowly but surely. But this progress is altogether too slow when compared with Canada's develop-

ment. Our acreage is too great and help too scarce to produce a first class article for which there is always a good market. But rather, our markets have been overstocked with inferior products, a condition which adds little credit to the agricultural industry in Canada.

Herein is found the basis of agricultural college work, of research and investigation. Present conditions call for it; necessity demands it. Not every farmer's son is allowed the privilege of a college education. Therefore it is the duty of those who have such a privilege to make the best of the opportunities afforded them, that they take away with them such a knowledge of this, our favorite industry that they will be a credit to their Alma Mater, their country and the community in which they live.

Hon. Sydney Fisher, on rising to reply to that question, "What has the Dominion Government done for Agriculture?" said that in past years it appeared that farmers had never received as great a pecuniary reward for their labors as people otherwise engaged. But now conditions were rapidly chang-

ing, as shown by the steady movements of many city people to the country. Farmers are now making themselves heard and the government must do its utmost to minister to the needs of these people or lose the support of the entire agricultural population.

Our annual export trade calls forth assistance from the Dominion Government. Inspectors are necessary to keep our exports and imports up to the proper standard. The weed problem, too, in Canada needs careful attention. The work of developing agriculture

the great things they have already accomplished in their various departments at Ottawa.

A New Year Resolution.

Sometimes great things from little causes spring. For some time past the boys have been in the habit of "tripping the light fantastic" in the college parlor after study hour to the woeful strains of the "Merry Widow Waltz." This became monotonous, and the young ladies at Macdonald Hall, sympathizing with them in their trouble, lent a helping hand by unanimously



THE BIOLOGISTS OF CLASS '11.

in Canada is not only provincial, but extends far and wide over our great Dominion, and although we are now entering, as it were, upon a new era, we as yet know absolutely nothing about extensive farming as practised by those far across the seas. We think fifty-three bushels of barley or ninety-one bushels of oats per acre as grown in our Canadian west an excellent crop, but what is this compared with some crops grown in the far east, where intensive farming is practised. And so the Dominion Government is doing its utmost in every way to increase Canada's production, and we have but to thank the Hon. Sydney Fisher and his capable staff for

signing a petition addressed to the Honorable the Minister of Agriculture, J. C. Duff, to the effect that mixed dancing be allowed at the College.

Rumors of these proceedings arrived at headquarters at Toronto before the petition had reached its destination; and Mr. Duff believing that the grievance was hardly worth the dignity of a petition, at once gave his consent.

To say that the students are indeed grateful to Mr. Duff for what he has done would be saying all too little. Words can hardly express our appreciation of his kindness and we shall always cherish happy memories of the Honorable member's New Year Resolution made in 1911.

Public Speaking Contest

The Tenth Annual Public Speaking Contest under the auspices of the Union Literary Society was held in the College Gymnasium on the evening of January 11th. The audience filled the hall to overflowing and everyone was



S. H. HOPKINS, '13.
Winner of Public Speaking Contest.

enthusiastic over the success of the evening's entertainment.

The six contestants and the subjects of their speeches were as follows:

Mr. S. H. Hopkins, '13—"How I would manage a 50-acre farm."

Mr. G. P. McRostie, '12—"Sanitary Water Supply."

Mr. R. C. Packard—"Tuberculosis in Relation to Agriculture."

Mr. A. McMillan, '12—"Bean Culture and its Relation to Modern Farming."

Mr. G. J. Jenkins, '13—"Farm Power."

Mr. P. A. Fisher, '11—"Factors in Successful Apple Growing."

The prizes were awarded to the first four speakers and in the order in which they spoke. Mr. Hopkins was exceptionally well versed on the "Management of his fifty acre farm and delivered his address in an interesting and concise manner.

Mr. McRostie, who won second place handled his subject well, speaking with the assurance of "one who knows;" and the addresses given by the other four gentlemen were all carefully and well prepared, and delivered in a manner that did credit to themselves and to the Literary Society. The speeches were judged by Messrs. G. A. Putnam, G. S. Henry, B.A., LL.B., and Professor G. E. Day.

The musical part of the programme added largely to the enjoyment of the evening. The artists were Mr. Hartwell de Mille, and Mr. Eddie Pigott, both of Toronto. Mr. Hartwell de Mille rendered delightful solos and Mr. Pigott kept the audience in roars of laughter with his humorous song and jokes.

Inauguration Dinner of the Cosmopolitan Club.

Seldom, if ever, has a social event in connection with our College Life, brought together a more representative and enthusiastic gathering, than the 120 members and guests of the Cosmopolitan Club who sat down to dinner on Saturday night, 14th January, in the Royal Canadian Cafe. The banquet room was beautifully decorated with the multicolored flags of many nations, and speech and song and goodfellowship all tended to make the official birthday of the Cosmopolitan Club a very memorable occasion.

Mr. E. W. Heurtley, the President,

acted as toastmaster, and in an interesting introductory address outlined the conception and growth of the Cosmopolitan Club idea at the College. He pointed out that the Faculty had cooperated with the students who had started the movement, and that the efforts of the organizers had been crowned with greater success than the most sanguine had expected. We now had a comfortable club house at 21 Forbes Avenue, and the membership roll showed the names of more than 60 students, with some 15 nationalities represented and a large number of the Faculty and Staff. He remarked with pride that the original membership of our club was greatly above the average of like clubs in America. In conclusion he emphasized the motto of the club in the words of the late Dr. Goldwin Smith: "Above all nations is humanity." Amongst the other speakers of the evening, Professor Reynolds responding to the toast of "Canada," enlarged upon the necessity of men of wide ideas, broad views and cosmopolitan spirit to develop our Canadian resources and assimilate the various peoples who are coming to our shores. Canada must of necessity be a cosmopolitan country. Mr. J. Eaton Howitt, M.S.A., set forth the aims and objects of the institution and its great influence in widening the views of mankind and dispelling rabid national prejudices.

Mr. H. H. LeDrew certified that the constitution adopted by the club was one which all broad-minded men must emphatically endorse, and prophesied that this club was but the forerunner of a chain of such societies which would embrace the whole of Canada in time. Mr. J. Ransom Howitt, M.P. P., Rev. G. F. Davidson, and W. P. Gamble, B.S.A., also spoke congratulating the club upon its success, expressing the pride they felt that the O. A. C. College students were the pioneers in this movement in Canada, and pledging their support and goodwill to the club. Others who took part in the toast list were: Messrs. A. McTaggart (New Zealand), H. S. Ryrie (Canada), H. W. Newhall (U. S. A.), R. Diaz (Argentine Republic), A. Hutchinson (Canada), R. Macdonald (Scotland), S. H. Gandier (Canada), R. C. Packard (U. S. A.)

During the evening a musical programme was rendered and thoroughly appreciated by the enthusiastic company, and all left that hall feeling that the day was nearer when—

"That sense and worth, o'er a' the earth

May bear the grace an' a' that.

For a' that an' a' that

It's coming yet, for a' that.

That man to man the world o'er,

Shall brothers be for a' that.



Alumni

C. G. McKillican was an associate of class '11. After taking two years at the O. A. College, "Gordon" went home to put into practice, on his father's farm at Vankleek Hill, what he had learned while at College. There not being much to do during the coming winter months on his father's farm "Gordon" has gone to Peterborough for the winter to act as Assistant to H. C. Duff, Agricultural Representative for that County.



O. C. WHITE, '10.

O. C. White graduated from the O. A. College in '10, taking the Agricultural option. While at College White was one of our "all-round" men making good in both sports and studies. After graduating "White" went to Otawa, where he received an appoint-

ment on the Agricultural and Live Stock Division, as Assistant to J. H. Gridale, Dominion Agriculturist. Here he finds work enough to keep even his active brain busy and incidentally enough also, to keep him out of mischief.

Fred. J. Boyd, one of our old O. A. College boys, writes from Merrickville and wishes to be remembered to the boys of '01 and '02. He is still in the same place and enjoying single blessedness. We are all glad to hear from "Ted," but are sorry that he seems to be taking so long in choosing a life partner. "Hurry up, 'Ted,' and get into the game."

A. L. Dunkin came to the Ontario Agricultural College from near Norwich, Ont., in the year '04, obtaining his associate diploma the following year. On the 14th of last December he forsook forever his state of single blessedness, being married on that date to a Miss Grace Pollock of Norwich. He is going to reside on his farm near the above mentioned town. The Review wishes Mr. and Mrs. Dunkin success and happiness in their future life.

Charles I. Bray, a graduate of '04, more commonly known to members of his year as "Colonel," has left the Mississippi A. and M. College to accept the position of Assistant Professor of Animal Husbandry at the Oklahoma A. and M. College. The head of his department is Professor W. A. Link later, another O. A. College graduate. Prof. Linklater has done wonders in

building up a creditable Animal Husbandry Department at that college. A new dairy barn was built there last summer, which is one of the most modern and well equipped in that country. A herd of twenty-five pure-bred Jer-

were sorry when he left. The Review wishes joy and good luck.

The following is an extract from a letter received from Roy Fraser, a graduate of '10: "I am an assistant on the staff of the State Entomologist and am at the same time doing research work in the Graduate College for the degree of Master of Arts, so that my time is pretty fully occupied. Kansas University has a splendid faculty and is considered to be the most highly equipped university in the West as regards technical courses. There are over three thousand regular students and many "specials" in attendance. Kansas is a good country, rich in agricultural resources, and peopled with a pretty good class of people; and K. V. is a grand university, but there is no country like Canada and no college like the old O. A. College."



C. I. BRAY.

seys were put in for a start. These Jerseys are under the special supervision of the "Colonel," and we are sure that under his care they will prove a credit to the Animal Husbandry Department of that college.

Professor L. A. Moorhouse, '02, was married lately at Okarcha, Okla., to a Miss Coburn, of that city. Prof. Moorhouse was Professor of Agronomy at Oklahoma College until last year when he resigned to accept a position in the Federal Agricultural Investigation work. He was especially well liked by the people of Stillwater, all of whom

G. H. Hutton writes from Lacombe, Alta., and sends tidings of some more of our "Old Boys":

R. E. Everest has been foreman on the Experimental Farm there for almost two years. Through the scarcity of fair maidens and the rapidity with which they are captured on the Western Plains he has not yet succeeded in his search for a mate.

P. M. Balentine is running a large farm near Lacombe, specializing in pure-bred Hereford cattle. He has been quite successful at the shows, carrying off a large number of prizes at the leading exhibitions this summer.

Fred. Sesons is also farming quite extensively in Pleasant Valley, east of Lacombe. He is growing grain in the summer, and feeding cattle in the winter, and making a success of both.

Mr. Hutton, himself, has been in charge of the Experimental Farm at Lacombe since it was established, three and one-half years ago. The work is being rapidly extended under his able

tion at harvest time, and of encouraging the fall growth of weeds.

George Elliott, who took the first year with class '12, has recently mar



HARVESTING THE WHEAT CROP ON THE EXPERIMENTAL FARM,
LACOMBE, ALTA.

management, and is meeting with the general approval of the people. The accompanying cut shows the wheat crop on the Experimental Farm, and also their method of checking evapora

ried a Miss Minnie Scott, of Tillsonburg, Ont. They are going to live on his farm, near Tilsonburg. The year '12 all join in wishing him and his wife every success.





The Art of Swimming

G. H. UNWIN, B.S.A.

SWIMMING has furnished a theme for many writers, ancient and modern. The oft-told tale of Hero and Leander, from the Greek of Musaeus, has been retold by Ovid, commented on by Virgil and immortalized by Marlowe. Lord Byron went so far as to emulate Leander's feat by swimming the Hellespont, a piece of bravado fully as absurd as the modern craze for "Marathons." But then it was Byron who did it. Again we have constant references to the custom prevailing among the Romans, of swimming the Tiber in flood. Most readers of Shakespeare are familiar with the passage from Julius Caesar, where Cassius vaunts his strength.

"For once, upon a raw and gusty day,
The troubled Tiber chafing with her
shores,

Caesar said to me, 'Dar'st thou, Cas-
sius, now

Leap in with me into this angry flood
And swim to yonder point?' Upon the
word

Accoutred as I was, I plunged in
And bade him follow: So indeed he did.

The torrent roared: and we did buffet
it

With lusty sinews, throwing it aside
And stemming it with hearts of con-
troversy."

Modern writers have taken up the subject in detail. Text-books on swimming are numerous. Articles in magazines, life-saving societies, aquatic clubs, all these are tending towards a greater general enthusiasm for this sport.

What saner or more rational form could the athletic mania assume? In deed it is doubtful whether any one sport contains so much physical benefit, enjoyment, and practical value. Swimming, as an exercise, has the advantage in that it develops all muscles equally and none abnormally. The runner develops his legs, the gymnast his arms and shoulders, the fencer and tennis-player each develop one fore arm far in excess of the other. Football, hockey and lacrosse are games in which most parts of the body are brought into play; but they can only be played for a short period during life

and they frequently leave a man disabled or disfigured. Rowing, again, is a fine exercise, but the effort of a race is enormous, and many leave this sport with weak hearts or other symptoms of overstrain. The swimmer, however, can pursue his pastime for many years, moderating it to his physical condition; he requires no elaborate equipment, no expensive apparatus—enough water to keep him off the ground, *voilà tout*. As an exercise swimming is one of the best; it develops a man uniformly, gives him strong lungs and renders him hardy and indifferent to exposure.

Then as to the pleasure of swimming. It is grafted in the race of men. How many times have we braved the maternal wrath to slip down to the swimming pool? What hours of anguish have we spent waiting in vain for our hair to grow smooth and our eye less bloodshot before we returned to the parental roof? The boy who knows not the joys of a stolen dip is to be pitied. The man who has never swum "down the path of the rising sun," on a crisp, clear morning, has missed one of the joys of living which Browning is so fond of talking about: "Oh, the wild joys of living! the leap
ing from rock up to rock,

The strong rending of boughs from the
fir-tree, the cool, silver shock
Of the plunge in a pool's living
water—"

To those unable to swim these rhapsodies may seem absurd. To them, water is always extremely wet and often unpleasantly cold. Their first attempts to swim seem to consist of much taking in cold water, by nose and mouth, of stopped-up ears, of hair that will not be comforted, of eyes that smart. However, nothing is worth having that comes without effort, and the reward is certainly worth while.

When we come to think of it the very sensation of floating in any surrounding medium, of hanging suspended above the earth, is fascinating. The same impulse makes it one of the chief ambitions of man to fly. The same feeling has caused men in all ages to break their necks trying to emulate the birds. Think of it. We can get a part of the pleasures of aerial navigation without any of the risk!

As to the utility of swimming, it is obvious to the smallest intellect. Drowning claims a large percentage of the roll of accidental deaths and many of these accidents would be prevented by even a slight knowledge of swimming. Many a man has gone down to death within a few feet of safety, struggling and gasping, impotent for lack of the knowledge to make a few simple movements. This is a practical age, an age in which we are constantly making provision against possible happenings. We insure ourselves against accidents by land and sea, from fire and water, earth-quake or train-wreck. Yet we neglect the simplest, cheapest and most satisfactory insurance against death by one at least of these dangers. Truly this seems the very acme of human inconsistency. Should not this be part of every child's training? The aim of education is surely to fit a man for all emergencies, to make him prepared on all points, to arm him for the struggle of life. Swimming should certainly be a part of every man's physical training. As an exercise it is inferior to none, as an amusement it is equal to any, as an useful accomplishment it is superior to all branches of athletics.

There is neither time nor space to discuss here the various technicalities of swimming, the different strokes, their merits and defects. Besides such

a discussion would be excessively uninteresting to all except the few who are experts. It may be of interest, however, to mention a few names connected with the history of aquatics, a few of the feats which stand out as wonders of strength and pluck. Roughly we may divide swimmers into two classes, speed-swimmers, and deep-sea swimmers.

By speed-swimmers I mean men who swim distances from a hundred yards to one mile in smooth water. Strictly speaking a mile is a long distance race, but the man who swims a mile in calm water at a good pace, is not necessarily the type of swimmer who can go out when the big combers are coming in ten, fifteen, twenty feet in height in regular succession, swim a mile out and back for fun and make good time into the bargain. This latter art can only be possessed in perfection by men born and brought up on the coast, men wedded to the ocean by generations of ancestors, to whom navigation is a sixth sense, and the sea a kindly mother.

It is evident that in the branch of speed-swimming we can do a great deal better than our fathers. This of course is only natural, in view of the increasing popularity of swimming as a sport, and in consideration of the systematic way in which that sport is now taken up. The performances of C. M. Daniels, of New York, champion speed swimmer of the world, would make our grandfathers "sit up and take notice." Many other names have become famous in recent years, Kieran, Beaurepaire, Healy, of Australia, and Taylor, of Chadderton, England, world's champion for distances between a quarter of a mile and one mile. The following table shows the marked improvement in speed-swimming, made between 1887 and 1908:

Distance	Old Record.	Record in 1908.	Name.
100	1 5¾	55 2-5	Daniels
202	2 5¼	2 34	Malmay
440	6 21½	4 39 2-5	Beaurepaire
500	7 58	6 14	Taylor
880	14 17½	11 25	Taylor
Mile			
1	28 19¾	25 43-5	Taylor

In 1907, Taylor also held the 440 yard championship with a record of 4 minutes 43 seconds. The following year Beaurepaire, of Australia, lowered this mark by 3 3-5 seconds. Compared with the old record of 6 minutes 21½ seconds, this is a wonderful performance. Since '908, I believe, several of these records have been broken.

The art of deep-sea swimming is one which is not within the reach of all. To those who have opportunities it affords a delightful pastime and is also a most useful accomplishment. To those readers who have access to back numbers of periodicals I would mention an excellent article which appeared in "Country Life in America," July, 1910. In this article the author, himself a member of the U. S. V. Life Saving Society, gives some first-hand information on the subject of swimming in rough water. Anyone who has lived much near the sea or on the shores of the great lakes, will know the pleasure of rising over the crest of the oncoming wave, or slipping through and gliding down the opposite slope of a big comb er. It is a pleasure which must be experienced to be appreciated, and one almost impossible to describe in so many words.

In this connection it is not out of place to refer to Captain Webb's historic channel swim. Webb did not, as some have stated, use a belt, nor any kind of appliance. A curious incident occurred in the early part of his swim.

A number of porpoises, evidently attracted by the smell of the porpoise grease with which the Captain had covered himself, surrounded Webb and solemnly accompanied him several miles on his journey. The swim itself is thus briefly described by a biographer:

"A few seconds before one o'clock, in the afternoon, Webb dived from the Admiralty Pier at Dover, and swimming on through the night by a three quarter moon, reached Calais at 10:40 a.m. next morning (25 August), having been immersed for nearly twenty four hours and having swum a distance of about forty miles, without having touched a boat or artificial support of any kind."

Of sixty attempts made to swim the Channel, Webb's is the only successful

one, though some have come very near accomplishment. On September 14, 1908, Wolfe actually succeeded in getting inside Calais Pier, when he rolled over, exhausted. Holbein, Meaous and Burgess have made plucky attempts. On one occasion Burgess was in the water $22\frac{3}{4}$ hours, during which, with swim and drift, he covered sixty miles.

There are innumerable stories of heroism and endurance connected with the sea. Their name is legion. But I have written enough, yea, and more than enough, on a subject of but small interest to the majority of readers of this journal. If these disconnected scribbblings have interested anyone to the extent of making him learn to swim, then they have accomplished much.

A Few Facts About Ourselves

H. S. RINGLAND, JR., PHYSICAL DIRECTOR.

We, the people of the present day, owe to the coming generation a sound and wholesome body, consequently we should pay considerable attention to our physical development. The pleasure which we receive in physical exercise more than pays for the time spent in that beneficial work. In the days of our forefathers there were no telephones or street cars, consequently when the men of those days wanted to communicate with others they walked, thus getting a sufficient amount of exercise and fresh air to keep them in good health. To-day we have telephones, street cars and conveniences of many kinds, these making us a more delicate people. So time spent in physical training is by no means wasted

In order to do ourselves justice mentally we should be well-developed physically, and to keep in this condition it is necessary to keep up a source of training. Regularity is the best system to adopt, a little time devoted to this work each day is most beneficial in keeping the body in a healthy state. Muscles which have been developed are easy to keep in good condition by what may be considered a light exercise, it is not necessary to handle dumbbells, weighing from five to a hundred pounds, in fact, this kind of exercise has a tendency to make a knotty muscle, in place of the elastic muscle of a trained athlete.

Swimming is without question the best exercise to bring all the muscles of

the body into play. While swimming is a valuable exercise it is by no means the one and only exercise at which an athlete should spend all his time. The general gymnasium apparatus work is of great value for the development here is unlimited. Boxing has its strong hold, it quickens the eye, trains the muscles to move with quickness and decision. Wrestling has its strong hold, for it develops alertness and elastic muscles.

While I have touched lightly on a few of the best exercises, we must not forget the value of out-door exercise, breathing in the fresh air and opening the small cells in the lungs, keeping them in a healthy condition and throwing off the poisonous germs and gases. It is hardly necessary for me to mention the value of keeping sleeping rooms well ventilated with fresh air.

The value of a bath after exercise can not be over-estimated. During exercise, regardless of its nature, the pores of the skin are being opened gradually and the system is throwing off its waste matter through the pores, when a person who has been perspiring and does not take a bath, what happens? The waste matter which is thrown off, stops the pores and leaves the victim with rough and harsh skin, and in excellent condition to catch disease.

A few words in regard to the coming indoor meet which will be held in the College gymnasium March 15th, 1911. No man knows his own metal until he tests it, therefore each and every student should take part in this contest and see what he can do. A person can not expect to go into a contest of this nature and come out a winner without considerable previous training. Training should start from a month to six months before the date set for the meet, and should gradually lead up to

the more strenuous feats by degrees.

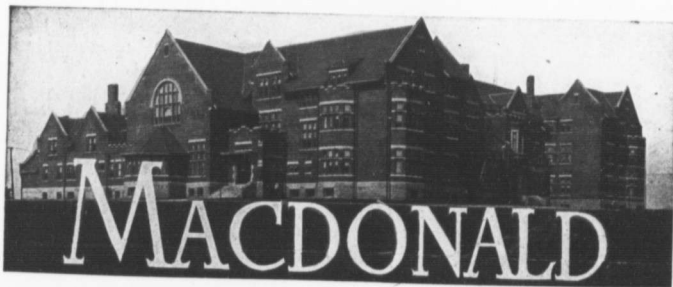
March 4th is the date set for the Athletic concert, and we need the support of the entire student body. We hope to make this concert a great success with original and new feats throughout. Those who are interested in gymnasium work will please come out and compete for a place on the gymnasium team.

Hockey.

This year College decided to withdraw from the ranks of the O. H. A. and enter the Junior Inter-Collegiate. This step was decided at an Executive meeting, they believing that our chances of winning were greater in the latter than in the former. The Executive of the Inter-Collegiate, however, would not allow us to enter a team in the Junior League so we were forced to re-enter the O. H. A.

However, as our chances of winning here were considered poor, it was thought advisable to amalgamate with the Guelph Lyons. This was done and the team is now playing under the name of Lyons-O. A. C., neither team being allowed to supply more than four men. So far this season two games have been played; the first at Waterloo, resulting in a win for Guelph, score 7 to 6. College was represented in this game by Clarke, McDonald and Kedey. The second game was at Preston, and resulted in a win for the home team, score 10 to 3. College was represented by McDonald, French and Kedey.

This year also a town league has been formed in the city, composed of six teams. Mr. Savage has presented a very handsome trophy to be played for and held for one year by the team winning the league. So far College has played but one game, and were defeated by Page-Hersey, score 11 to 3.



The Educated Woman—A Macdonald Conception

THE educated woman does not impress you with any outstanding characteristics, merely with her general charm, and it requires a thoughtful analysis to discern wherein this charm lies, that it grows out of the fact that she has learned to recognize, to know, to feel and to love, all that is beautiful, all that is good, all that is true, and to reflect it in her life.

This learning has not been a purely intellectual process, but an harmonious development of her whole nature, physical, mental, moral, emotional and aesthetic.

She has learned the wonder of her own body and sees it as a living machine of marvellous and intricate mechanism brought to its present state of extraordinary adaptability by a long process of selection continued through the ages. Appreciating this, she can never neglect, abuse or distort it, but will strive always to conserve its soundness and effectiveness and bring it to its highest perfection of beauty and power. The old phrase "mens sana in corpore sano" is full of meaning to her, for she realizes that the mens sana is in its ultimate reduction the

outcome of and co-relative to the corpus sanum, that without a healthy body a healthy mind is almost an impossibility. Consequently she regards the principles of our modern sciences of Sanitation and Hygiene and practices the gospel of cleanliness, exercise, pure food, pure water and fresh air. She realizes that physical and mental development must proceed together in order that either may be effective, and that as every physical faculty is developed the brain also expands. Her freedom of motion, with every muscle under control is co-ordinate with a freedom and power of thought. The alert discriminating eye and the trained ear are the outward accompaniments of a proportionate mental vision. By her voice which is clear and sweet, you know that she has penetrated the true meaning of music, and in her unconscious grace you discern her conception of harmony and proportion. There has been an equal growth in capacity of brain and hand, and both are kept in such active service that neither can lose its cunning.

Her power of seeing both physically and mentally has brought to her rich

emotional and aesthetic experiences. It has revealed the whole universe to her and her own relation to it. She has seen the beauty of nature so vividly that it has entered into her very being, so art has taken on a new value and she is able to enjoy, to judge and to discriminate independently and is not

goods or gifts in selfish idleness. She acknowledges the human relationship which knits mankind together and studies how best she may comport herself in the great family. She displays an unflinching courtesy to all and will not offend by word or deed. Her altitude toward her elders and her superiors



TRESPASSERS.

swayed by the popular fancy of the hour. She feels beauty too deeply to profane it. Her eyes are not blinded to unloveness, and it is her constant endeavor to diminish the sum of it. The joy of the sunshine and the singing of the birds have taught her happiness, and the calm stars shining over head, the changeless, fathomless ocean and the everlasting hills have preached to her a large philosophy which reduces to insignificance the petty worries of everyday life. She has a whole some sense of humor, akin to that of the laughing rivulet and is able to appreciate the ludicrous in small troubles and misfortunes. She sees that all things are subservient to natural laws and she perceives the inter-dependence which makes mutual service essential to mutual happiness, so there is born in her a governing sense of duty which forbids her to dissipate her

shows a noble humility and the realization of her own fallibility makes her patient and pitiful toward the weaknesses of others. There grows up in her a sympathy deep and wide and a comprehending love which is the spirit of true motherhood. She feels an intelligent interest in all those problems which deal with public safety and well being, the care of little children, the virtue of the young and the comfort of the old, and this carries her far into the realms of Politics and Sociology.

She gladly avails herself of the treasures stored up by other minds and finds in books a fund of ever-increasing pleasure, profit and inspiration. She is alive to the especial blessings of her own land and age and it is her aim to conserve and increase these blessings for those who are to come.

It is impossible that she can come thus far without gaining a glimpse of

the great supreme First Cause which dominates the material, the Divine mystery which is at the heart of all things, and she is filled with reverence and awe coupled with a deep and trusting faith.

What her attainments and achievements are to be are matters not wholly within her control for these must always be, in a measure at least, governed by heredity and circumstances, but, with symmetrical development there

goes a courage, capacity, and self-control which can adapt the possessor to any condition and enables one to do well whatever one is called upon to do, and, whether she is required to direct or to be directed, whether it be allotted to her to exert an influence that is far-reaching and profound or to diffuse her quiet light in some obscure sphere there will be more happiness, more truth and more love in this old world of ours because she has lived.

R. M.



FAIR DEFENDERS.

Among Ourselves

Never did a class enter Macdonald under more unpropitious circumstances than those which shadowed the incoming short-course of January, 1911. All the old girls went about with an abstracted air, heads buried in forbidding volumes and dog-eared note-books. No one had time to be sociable, the courtesies were suspended and polite table talk was superseded by fervid discussions on the circulation of the blood, the nitrogenous constituent of cheese, the psychological value of sensation, etc., etc. The poor strangers in the land! They dared not venture a remark in this heated jargon of pectoses and peptones, the stiffening qualities of gelatine, Shakespeare's relation to the modern drama and the recipes for suet puddings. But once the first tense week of exams was over a different spirit prevailed. The old girls remembered the claims of hospitality and spared no effort to make the new-comers welcome. The reaction from the abnormal strain took the form of hilarious festivity, there was a whirl of skating, tobogganing, snow shoeing, initiation, corridor banquets and the first prom. then before any of the bewildered short-courses could take a breath, they were thrust into the overwhelming brilliancy of the dazzling conversat. Since then there has been no interval to afford leisure for homesickness and it seems improbable that any student of the winter term will remember it as a season of neglect, depression or gloom. —R. M.

The Initiation.

Once more the gymnasium at Mac

donald was en fete. On Saturday evening, January the 14th, the husky Home-makers initiated the trembling new girls into the mysteries of the Hall.

The Black Hand commanded all the new ones to assemble in the sitting room. Here two masked members of that dread society seized upon each in turn and dragged her gagged and bound to the scene of torture, the school gym. At the door her captors ruthlessly thrust the unhappy victim into the "Black Maria," in other words a mammoth Saratoga trunk in which she was conducted to the platform. Here the worthy class president stepped forward and released her from her bonds.

Dazzled by the sudden blaze of light and confused by the sea of satirical faces confronting her, she was urged behind the foot-lights, where sentence was meted out to her by a grizzly skeleton.

The short-course were no cowards, for it was a pleasure to see the sporty way in which they complied with the decrees of their superiors, even to pushing coins around the platform at the expense of their noses, and performing the extremely ungainly "Chicken Dance." But they were amply rewarded by the vociferous applause of their audience, the charming souvenirs that they received and the dainty repast afforded them by the Home-makers.

Officers of the "Committee of the Black Hand" — President, "Tiny" Walker; Vice-President, "Bea" Snelling.

Judges — "Neeny" Herrington and "Nanny" Bell.

Drivers of the Black Maria—"Fleu Fic" Cober and "Darn" MacKay.

Officers of the Guard—"Weary" Martin, "Slivah" Gregory, "Slats" Beard, and "Squirt" Scott.

Refreshment Committee—"Salome" Jackson, "Grinns" Proctor.

Endower of the Crups—"Bust" Douglas.

Authors—D. W. and E. V. M.

The Prom.

The first prom. of the term was later than usual this time, owing to the superior entertainment provided by the examinations, but these finished, we had to fall back on proms.

The new girls bore the suspense manfully, and the men curbed their impatience as best they could. The prom. finally occurred on January 16th.

The time honored decorations of trunks were supplanted on this occasion by tastefully arranged brown chairs set in twos along the halls.

The young ladies were charmingly arrayed in their second best dresses, their best ones being saved for the conversat. Not being a boy the writer cannot say whether the boys wore their second best suits or not, but they looked very nice at any rate.

The evening was spent in promenading, and "mixed dancing," everyone considering this a decided improvement on the "prom. only" affairs. The dancing took place in the gym as did also the four very enjoyable musical numbers, i.e.,

Quartette, by Messrs. Woltz, Cogle and Gandier and Boyd.

Reading, by Miss Greig.

Piano solo, by Miss Farmer.

Vocal solo, by Miss A. Jackson.

Refreshments were served in the lower hall, the table being tastefully decorated with cups and saucers and a few spoons.

Habit was strong, so the lights went out at 10:30, and the boys with them. This last, we may state is not customary, but we hope it will continue nevertheless.

The P. S.—The lights came on again in ten minutes, but as the men had all wended their several ways across the campus, merely an "unmixed" dance followed, till the lights again blinked out at 11.

Prophecy — Judging from appearances on Monday evening, we foresee that the new girls will be doing the marathon next Sunday after chapel.

M. M. M.



Much Ado About Nothing

Much Ado About Nothing. Jokes (?)

M. D.—Man, but you're looking seedy, are you following my prescription, to eat animal foods?

Student—Well, I managed the peas and beans, but I can't go the hay and oats.

~ ~

A student, in reading her daily portion of the dictionary, came across the definition of the word "mixed" as "confounded." Hum, I wonder if that's why it was applied to dancing.

~ ~

Little girl (taking back a half-full medicine bottle to the druggist—Grand father's dead, so father thought you might like the rest of the medicine for some one else.

Miss F. (looking at her brown skating shoes)—These boots are getting rather disreputable.

Miss J. L.—Yes, they match your furs, don't they.

Note—The furs were brown too, but had that anything to do with it?

~ ~

Miss B.—Goodness, if lack of memory is a sign that you're not all there, I might as well order my padded cell at Homewood right away, for I can't remember a thing. For instance, I like Bleak House better than any of Scott's works, but I can't remember what it's about.

~ ~

Miss L. (our artist, trying to depict animal life)—Say has a cow got a mane?

~ ~

Ye Englishman (after buying an extensive outfit of guns, pickaxes, fur coats, etc., at Montreal, before venturing into Ontario—And now, will you please tell me which are the warmer, snow shoes, or moccasins?



Schools' and Teachers' Department

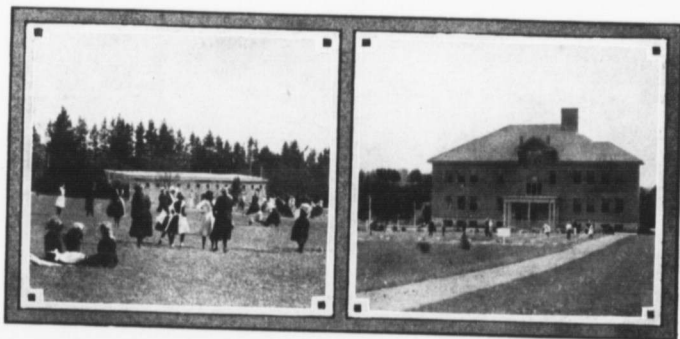
Devoted to those interests of the Ontario Agricultural College which pertain particularly to the training of teachers for giving instruction in the schools of the Province along vocational lines—in Home Economics, Industrial Arts, Elementary Agriculture and Horticulture.

THE CONSOLIDATION OF SCHOOLS.

In a recent bulletin published by the United States Department of Agriculture "**Consolidated Rural Schools and Organization of a Country System,**" by Geo. W. Knorr, Esq., one learns that in 32 States, there are about 1,800 typical and graded consolidated schools, i.e. schools giving instruction in High School subjects, and 2,000 other consolidations which cover the work of the Public School courses only. The large growth of the movement in recent years points to a new order of things in the American Rural School System.

A brief survey of the status of consolidation in Canada may be of hopeful interest to those who look for great good from it as well as to those who may have considered it an impracticable and unsuccessful experiment.

THE CONSOLIDATION OF SCHOOLS IN CANADA.



MACDONALD CONSOLIDATED SCHOOL, GUELPH.—SHOWING CHILDREN IN THEIR GARDENS AND GAMES.

In the Macdonald-Robertson scheme for the improvement of Canadian Rural Schools, Consolidated Schools, after the type of some of those organized in Ohio and Indiana, were established in each of the five eastern provinces with the exception of Quebec. After six years' experience with these schools it must be acknowledged, that, while the principle of consolidation has been confirmed in undoubted pedagogical successes, these two educational reformers have been in advance of their times. None of these provinces was ready to incorporate into its body educational the highly organized Rural

Graded School that had met with a large and favorable acceptance in another country. All the schools continue in operation, but on a reduced scale. The times were not ready for such large Rural Schools or for such extensive additions of vocational subjects.

The explanation is not far to seek. There was no keenly-felt need for reform. The condition of the schools was not felt to be so bad as to require any large change in organization. In school matters, the disposition is to conservatism. People were getting for their children as good an education as they wanted for them. They had always had the one-teacher, ungraded Rural School; it was still giving satisfactory account of itself. They were still giving the children a sufficient grounding in reading, writing and arithmetic; other things were not considered requisite. So there was not a sufficient force of enlightened public sentiment generated with the introduction of the reform to sustain and expand it. There was perhaps need for more missionary work preliminary to the establishment of the schools that were to serve as object lessons. Some of the criticism should have exhausted itself through propaganda and discussion.

The small should have preceded the big. It is now known that it would have been better to have commenced the schools on a smaller scale, taking in fewer school districts. Although it would have prevented, possibly, the most satisfactory introduction of Domestic Science and Manual Training teaching it would have greatly lessened the costliness of the experiment and saved the hardest criticism of it—the increased expense.

ONTARIO.

The Macdonald Consolidated School, at Guelph, commenced in 1904 with five schools joined. At the present time two districts comprise the consolidation with about forty additional pupils from the surrounding districts in attendance. That the school has won the approval of parents is evidenced in the fact that at the close of the three-year trial period, when the vote to decide whether or not to continue in consolidation was taken, only one ratepayer, with children at school, in the three retiring districts voted for withdrawal. In every case there was only a small majority against continuing even with the necessity for increased taxation before the ratepayers.

The special education which the school was established to exemplify still continues. The pupils receive special instruction in Manual Training, Domestic Science and Elementary Agriculture. With the approval of the Department of Education the continuation classes have adapted their studies this year to specially fit the needs of the home and the farm, breaking away from the more literary studies prescribed in our High School courses. The work of the school has the hearty endorsement of parents and inspectors and visitors.

A Consolidated School in New Ontario.—Ontario's second Consolidated School was opened in January, 1910, at Hillview, in Nipissing District, seven miles from New Liskeard. Two conveyances are provided to carry the children to and from school. The site comprises two acres of land. The building is two-roomed, built of bricks, well lighted, heated and ventilated. At present one teacher—Miss M. M. Stewart, of the Normal Teachers' O. A. C. College class of 1910—takes all the work with the 35 pupils attending, but with the growth of the settlement it is expected that a second teacher will be required in the course of a few years. The school has been built to permit of easy enlargement.

PRINCE EDWARD ISLAND.

The Macdonald Consolidated School at Hillsboro continues in operation with three of the original six districts sending pupils to it. There are two or three other consolidations besides in the province, but it may be expected that this number will be largely increased if the Legislation acts in accordance with the report of the Special Commission on Education that investigated the matter last year.

This Commission consisting of Messrs. McLeod, Buote and Robertson, amongst several other proposals that must prove beneficial if adopted, prepared two very comprehensive schemes of consolidation. So impressed were they by its merits and the need for its introduction that they drew up plans for extending it to practically all the rural schools of the province. Each school district was considered in regard to its best centre, its physical condition and its road system. Then consolidated districts were mapped out on the principle that the children might be conveyed to school when the distance exceeded one and a half or in exceptional cases two miles.

The first scheme divides the province, apart from Charlottetown and Summerside, into 212 school districts with 30 schools of one department, 140 with two departments, 29 with three, 6 with four, 4 with five, and 1 with seven. This scheme calls for 240 vans with an average route of 3.68 miles.

The second scheme makes 276 districts and permits of 153 of these continuing as schools of one department, 89 consolidating into schools of two departments, 25 into schools with three departments and 7 into schools with four, five or six departments. This scheme would require only 90 vans with an average route of 3.72 miles.

While the Commissioners recognize that the cost of the first scheme may put it out of court they earnestly advocate the adoption of the second scheme or some similar reorganization that would eliminate the many small districts now existing. The attempt at this solution of the school problem in Prince Edward Island will be watched with interest by educationists at large throughout Canada.

The case for and against consolidation is very concisely and admirably set forth in the Commissioners' report as follows:

The benefits to be derived from the principle of centralization or consolidation, experience has shown to be:

- (a) Increase in the number of pupils in a school, giving them contact with larger numbers and so widening their experience and developing them socially, which is one of the chief functions of the school;
- (b) Increase in the number of pupils, rendering a close classification possible, and so forming classes the members of which can advance as a unit;
- (c) Better work, inasmuch as class work is more beneficial than work with the individual pupil as in the small school;
- (d) Greater progress in work, resulting from the companionship and emulation of the class members, and from the fact that the class is longer in contact with the teacher in the recitations, by reason of the smaller number of classes in the graded school;
- (e) Increased percentage in average daily attendance, as a result of the increase of life, interest and activity in the school;
- (f) Better school buildings and school equipment, possible by reason of the greater property valuation of the district; and so, a greater public interest in the school: "Make the school worth seeing and the people will come to see it."
- (g) Better inspection and supervision, as the inspector's time is not wastefully occupied in inspecting a large number of small schools. For rural schools full and frequent inspection is of paramount importance;

(h) *Enlarged opportunity for doing work in new branches that are practically impossible in the small school; with the poor equipment; e. g., music, drawing, manual training, household science, school-gardening.*

The chief arguments against centralization are:

(a) *Closing of Schools.* *The loss to the district of the school that has been closed;*

(b) *Distance.* *The difficulties and exposure in the work of transportation;*

(c) *Cost.* *The increased cost, chiefly attributable to transportation;*

(d) *Depreciation of property in districts from which the schools have been removed.*

In reply one would say that education is not a matter of district control, but of general concern. It is not a matter of indifference to the community that certain districts should prefer the small poor local schools. This would at once lead to a classification of the districts as progressive and backward. The province should maintain uniformity among the people and prevent division into classes. Again, in a Consolidated School, it is difficult to say whether the central or the outlying districts derive the greater benefit. The children of the one get to school as best they may; the children of the other are conveyed dry-shod without exposure. Again, the cost of transportation is often less than the amount saved in the salaries of the teachers, as frequently in the Consolidated School fewer teachers are required than previously in the several separate schools. Oftentimes, consolidation can be effected at but small increase of cost. The property of the closed-school district is really enhanced in value by the added opportunities for getting to a good school.

The cost of consolidation is the weighty argument against it. The expense is made up of several items: (a) School building; (b) School upkeep; (c) School equipment; (d) Transportation; (e) Teachers' salaries.

(a) *As consolidation is a matter primarily concerning small schools, it naturally reduces the number of school buildings and school departments. So that there should be a saving in respect to cost of buildings and of school grounds; fewer are required.*

(b) *The fewer departments, the smaller the cost of janitor work, of heating, of repairing, etc.; another economy.*

(c) *The school furniture, the seats and desks, maps, black-boards, etc., needed for the lesser number of school departments would allow a saving in expenditure, which money could be devoted to larger equipment at no increase of cost to the consolidated district ratepayers.*

(d) *Transportation in vans that would ensure the comfort of the child against wet clothing, etc., and exposure to inclemency of weather would cost more money, it is true, but would prevent the loss of much time and money arising from ill-health. But this added cost in dollars and cents is oftentimes counter-balanced by the saving in teachers' salaries, consequent on the reduction in the number of teachers required.*

(e) *Consolidation does not necessarily increase the amount of school grant that may be voted to the teacher.*



O. A. C. Departmental Ditties.

No. III.—Botanical Department.

Butter-cups and daisies,
And such pretty flowers
Keep the wretched freshie
Keying them for hours.

Pretty little weed seeds
Mixed up in a heap,
Make the idle sophomore
Tear his hair and weep.

Spermatophytes and algae
And structures of the cell,
Make the worthy junior
Think the course is—swell.

Of this the lordly senior
Thinks he knows a lot,
But when it comes to finals,
What he writes is rot.



How to Kill a College Paper.

Do not subscribe, borrow your class
mates' paper.
Be a moocher.

Look up the ads and patronize the
other fellow.

Be a chump.

Never hand in locals, and be sure to
criticise everything in the paper.

Be a coxcomb.

Tell your neighbors you can get
more news for less money.

Be a tightwad.

If you can't hustle and make the
paper go.

Be a corpse.

If all above fail, go to knocking.

Knock and be a snob.

—Varsity.



Pope—How do you spell trough?

Gerow—T-r-o-f.

Pope—No, it isn't. Writes down
T-r-o-p-h.



As the mumps excuse will probably
fail, it has been proposed to supply the
Professors with port wine and cigars
after the next exams, for use when
marking the papers, to induce a happy
and consequently a lenient frame of
mind.

Cosmopolitan Club Banquet.

The health of the King was proposed by Mr. E. W. Heurtley, who occupied the chair, and was cordially drunk.

Kingsmill (visiting piggery after Xmas vacation) — Happy New Year, Mr. Hanna! How are your Hampshire pigs doing?

Mr. Hanna — Pretty well, thanks. How's all your folks?

Public Speaking Class.

Critic—I would advise you, Mr. Calvert, upon taking your seat, to walk quietly and gently upon your tip-toes so as not to awaken the audience.

Dr. Reed—Give treatment for curb in the horse.

Barrett—I would paint the walls and manger with tar and, if necessary, cover the manger with sheet iron.



SORHUMORE'S DREAM AFTER
SIGNING THE
PETITION.

Murray—Say, Davies, there's a Freshman looking for you.

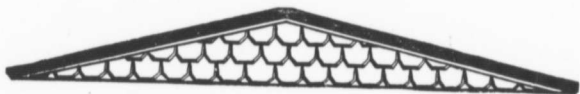
Davies—Was it Waterhouse?

Murray—I don't know; what does he look like?

Davies—Oh! He's a rum-looking bloke.

Murray—Well, that's Waterhouse alright.

Hampson (in Physics lecture)—Are we supposed to remember all that we are forgetting just now?



How "Eastlake" Steel Shingles will save you money



Talk No. 2

Durability

By

The Philosopher of
Metal Town

Durability—just the difference between a roofing that lasts only a few years and one that remains in perfect condition for a life-time.

That's the difference between "Eastlake" Steel Shingles and other roofings.

Actual service is the **only** sure test of roof quality.

"Eastlake" Steel Shingles have been proven positively superior by the test of time.

Barn and house roofs covered 25 years ago with "Eastlakes" are in perfect condition to-day.

That's your proof—your only protection, and is safer than all the highly-colored, many-worded guarantees that **really** guarantee nothing.

"Eastlake" Steel Shingles are made of the finest sheet steel, and have a patented side-lock and gutter that locks permanently—makes the roof one sheet of indestructible steel.

They are easy to lay, and remain weathertight, snow, wind, rain, lightning and rust proof as long as the building stands.

Send for our illustrated booklet, "Eastlake Metallic Shingles." It gives more reasons. Write to-day—a post-card brings the booklet.

We also manufacture Corrugated Iron, Barn and House Siding, Metallic Ceiling, Eavestrough, Conductor Pipe, Ventilators, etc.

The Metallic Roofing Co.
LIMITED

Toronto - Winnipeg

A61

"EASTLAKE"
STEEL SHINGLES





RELIANCE FENCING
2000 MILES

Think of it! Over 2,000 miles of this fencing is already in use on the farms and along the highways of Canada and in Foreign Countries, and every foot of it is giving good service. All the good points in every kind of Fence are incorporated in the manufacture of

"RELIANCE"
ALL NO. 9 WIRE FULL GAUGE

Write for your copy of our catalog of Fence, Gates, Lawn Fences.
Agents wanted in unoccupied Territory.

The Empire Fence Export Co., Ltd., Walkerville, Can.
EVERY ROLL OF RELIANCE FENCE IS BUILT TO SELL ANOTHER!

It was midnight. The Dean turned uneasily in his sleep, then awakened, and quickly arose. No, he had not been mistaken. From somewhere in the building came the unmistakable sounds of murder. He quickly ascended the stairs, and reached Lower Pan ton. A loud crash, as books, ink bottle and other incidentals fell to the floor brought him to Gerow's door. With a

shout for help he forced an entry and found — only Gerow rehearsing his speech for class, with Darling acting as critic.

It is a sad reflection upon the course in English, taught at Macdonald Institute, that the young ladies, soon after leaving find themselves totally unable to decline marriage.

Poultry Fencing that is Stronger than Seems Necessary

We make our poultry fencing close enough to turn small fowl— then we make it extra strong, so it will last for years and keep the cattle out. The heavy, hard steel top and bottom wires hold it taut and prevent it from sagging.

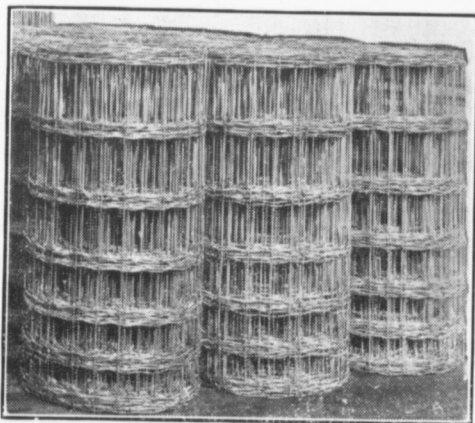
PEERLESS POULTRY FENCE SAVES EXPENSE

It is well galvanized so as to protect it from rust. It makes such a firm, upstanding fence that it requires less than half the posts needed for the ordinary poultry fence, and that means a big saving to you. Write for particulars.

We make farm and ornamental fences and gates of exceptional quality.

The Banwell Hoxie Wire Fence Co., Ltd.
Dept AH Winnipeg, Man. Hamilton, Ont.

Looks as Neat When Erected As It Does in the Bundle



Not only the Best in Looks, but Made from Better Material

The real quality of Frost Fence cannot be known until it is stretched on the posts. Neat bundles indicate that the fence is made right, that horizontals are all even in length and stays straight. It is no trick to stretch a tidy fence like this.

We build our own machines for weaving fence and our method is perfection itself. The extra provisions we make for "give and take" insure our customers that Frost Fence will never go slack or baggy between posts. It always holds that firm tidy appearance throughout all seasons and under all conditions. Frost Fence is not robbed of its real life when first stretched on the posts. It holds something in reserve for years of wear and tear.

All of the wire used in Frost Fence is drawn and galvanized in our own plant at Hamilton, exclusively for our own fence trade. You can be sure that it is always full size, true to the gauge represented, and of the right quality.

Galvanized Gates is another specialty with us. Our dealers sell them to their customers at the price charged for painted gates.

Frost goods are on sale with some reliable dealer in almost every town or township. If he is not known to you, write us. — 31

Frost Wire Fence Co. Ltd.

Hamilton, Canada

"Frost" Fence

WORDS ABOUT
INSURANCE



YOU ARE GETTING OLDER EVERY DAY

And a policy of life insurance will cost you less now than at any future time.

The policy which you "intend taking later on" is not protecting your loved ones now, and death often comes when most unexpected.

The human body does not improve with age. You may be insurable now, whereas next week or next year you may not.

The financial position of the North American Life is unexcelled, affording the best security for policyholders.

Better consult G. Powell Hamilton, 6 Douglas St., Guelph, regarding a policy suited to your requirements.

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Vice-Presidents, E. Gurney, J. Kerr Osborne,

Managing Director, L. Goldman, A.I.A., F.C.A.

Secretary, W. B.

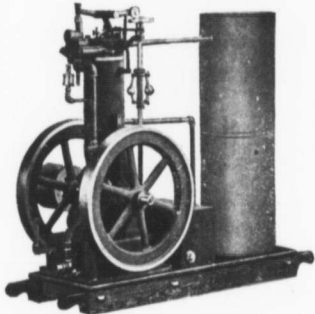
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Actuary, D. E. Kilgour, M.A., A.I.A., F.A.I.

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Particularly designed for Farm Service. We are glad to have you write, whether you buy or not.

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WODEHOUSE'S Animal Invigorator

Manufactured by

W. H. WODEHOUSE
HAMILTON, CANADA.

Is the greatest tonic known for all kinds of animals and poultry. Composed of highly concentrated foods, purely vegetable, compounded with the best known health-producing medicines, it stimulates the appetite and increases the power of digestion and assimilation, and keeps all the organs in a healthy condition.

Does anybody know where John Karl Hendrich De roo Van Alderwerelt spent his Christmas holidays?

Local Option Canvasser—Where is your father, my dear?

Child—He's upstairs, sir.

Canvasser — Getting drunk, I suppose?

Child—No, sir, getting sober, sir.

Ontario Seed Company Successors

ASK FOR CATALOGUE OF
HOME-GROWN SEEDS
FOR 1911.

Home-grown or Canadian-grown seeds are giving satisfaction. A trial will convince you. We also deal largely in all kinds of imported seeds, both vegetable and flower.

CLOVERS A SPECIALTY.

Waterloo

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Ontario

PURITY FLOUR

"MAKES MORE BREAD
AND BETTER BREAD"



"ASK FOR IT"



NORWAY SPRUCE

All sizes. A surplus of 10 to 12-inch transplanted, at \$20 per 1,000. Six to eight feet trees for wind breaks at 25c to 35c each. Extra fine apple and cherry trees. Flowering shrubs. Small fruits, etc. Large stocks of Gladioli, Paeonies, Cannas and Dahlias. Write for catalogue.

Simcoe

CAMPBELL BROS.

Ontario

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Is something entirely new—send for description and prices.

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Known everywhere to be the best.

THE GLAUS BUTTER PRINTER

In use in all the best creameries in Canada and the U. S.

MILK BOTTLING MACHINERY; BOTTLES, WASHERS

And everything for the milk depot.

CHEESE FACTORY, CREAMERY, and DAIRY MACHINERY.

We are the largest manufacturers of these lines in Canada, and carry a complete stock. Write for catalogues and prices.

C. RICHARDSON & CO.

ST. MARYS, - - - - - ONTARIO.

Branches at Winnipeg, Calgary and Vancouver.

FREE Our latest Book on Cream Separators. Send for a Copy

Don't settle the separator question finally before you have a copy of our latest book in your hands. It is much more than a separator catalog. It is, in fact, a separator guide book. And the

MOST UNBIASED BOOK

on cream separators ever published. With it as a guide you will avoid making costly mistakes when selecting a cream separator.

Ask for book No. 9. This book gives the facts about the cone and disc types of separators. We make both types. So we know all about each one.

An Empire separator will make

MORE DOLLARS FOR YOU,

cost less to run, save you more time, than any other make.

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Some day you'll own an Empire. Whether you choose the Frictionless Empire (cone method) or the Empire Disc you are bound to be satisfied. Every Empire is sold with a binding guarantee—a guarantee as good as a gold bond.

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THE EMPIRE CREAM SEPARATOR CO., OF CANADA, LIMITED,
Winnipeg, Toronto, Montreal and Sussex, New Brunswick.

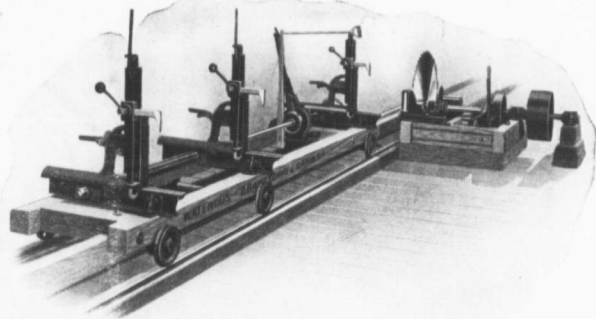
Every Empire is a close skimmer; can be quickly and thoroughly cleaned; runs smoothly and easily; will save you many hours of work; has many desirable features that our patents prevent any other make of separator using, and has

FEWER WEARING PARTS

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WATEROUS PORTABLE SAWMILLS
LIGHT, COMPACT, DURABLE.



In sizes that will cut 2,000 to 8,000 ft. per day. Let us send you Catalogue No. 100. Write for it to-day. A post card will do.

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A complete guide to the Planting, Culture, Harvesting and Marketing of Apples. Apples of Canada carefully described and illustrated from specimens of the varieties grown in the Dominion. Varieties of apples recommended for planting in the various apple districts of the Dominion.

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LARGEST FENCE AND GATE WORKS IN THE DOMINION OF CANADA
 COPY OF LARGEST FENCE CATALOGUE EVER PUBLISHED SENT FREE ON REQUEST

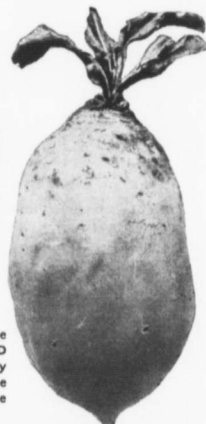
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 PLANT ...**



View of Trial Plot at O. A. C., 1911
 Keith's Prizetaker Mangel.

**Keith's
 Prizetaker
 Mangel Seed**

IT IS THE BEST !



30c. per lb., 5 lbs. or over @ 25c., postpaid.

You will now be planning out your wants in Seeds, etc., for the coming season. We would like to get some of your business. SEND for our price list, or write for samples of any SEED grain you may be in need of or for Red Alsike, Alfalfa, Clovers and Timothy. We are best known for our SEEDS FOR THE FARM, but our Vegetable and Flower Seed Trade is growing rapidly.

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Seed Merchants Since 1866

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WINDSOR^{DAIRY} SALT

Every farmer's daughter and
every farmer's wife knows



They all use it—for making delicious butter for their own table. They found out years ago that Windsor Butter Salt dissolves quicker, works in easier, and helps butter to keep better.

Windsor Salt is absolutely pure and every grain is a perfect crystal. 42

If you want to get "top" prices for your butter, use Windsor Butter Salt.

Scene—Crowded street car, Fraser sitting on Madden's lap—enter young l.d.y.

Chorus—Get up boys and give the lady a seat.

Madden (pushing Fraser off)—There, Miss, you can have this seat.

Professor Day (delivering lecture to Short Course students to the accompaniment of a quartette of healthy bull calves)—Opposition, gentlemen, is the life of trade.

31,795 ASPINWALL

Potato Planters made and sold up to August 1st, 1910, by

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112 Sabin Street, Jackson, Michigan.

Canadian Factory, Guelph, Ontario.

WORLD'S OLDEST AND LARGEST MAKERS OF POTATO MACHINERY.

Write us for our new 1911 catalog.

WE HAVE A VERY COMPLETE STOCK OF

Entomological

and

Botanical Supplies

For Students At Students' Prices

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“Lots of People” like to insure in mutual life companies because in such companies they get the best results, and because the largest, strongest and best life companies in the world are, like the

MUTUAL LIFE OF CANADA

purely mutual. The sound financial standing of this Company is beyond question, as is also its ability to write policies on every safe and desirable plan on terms favorable and just to applicants.

GEORGE CHAPMAN, District Manager,

Office 8 Douglas Street,

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a \$3,000 Stock Book Free

Contains 183 Large Engravings.

This book cost us over \$3,000 to produce. The cover is a beautiful live stock picture, lithographed in colors. The book contains 160 pages, size 6½x9½, gives history, description and illustration of the various breeds of horses, cattle, sheep, hogs and poultry. Many stockmen say they would not take five dollars for their copy if they could not get another. The finely illustrated veterinary department will save you hundreds of dollars, as it treats of all the ordinary diseases to which stock are subject and tells you how to cure them.

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Write for it at once and answer the following questions:

- 1st—Name the paper you saw this offer in.
2nd—How many head of stock do you own?

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INTERNATIONAL STOCK FOOD, 3 FEEDS FOR ONE CENT, is a purely vegetable MEDICINAL preparation composed of roots, herbs, seeds, barks, etc. It is equally good and very profitable to use with horses, colts, cattle, cows, calves, hogs, pigs, sheep or lambs, because it purifies the blood, tones up and permanently strengthens the entire system, keeps them healthy and generally aids digestion and assimilation, so that each animal obtains more nutrition from the grain eaten. In this way it will save you grain and MAKE YOU LARGE CASH PROFITS. You don't spend money when you feed International Stock Food. You save money because the GRAIN SAVED will pay much more than the cost of the International Stock Food. Refuse all substitutes and get paying results by using only the genuine International Stock Food.

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Dan Patch Mailed Free

When you write for Stock Book mentioned above ask for a picture of Dan Patch 1:55, and it will be included free of charge.

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The Canadian Route to the West

When you travel to Winnipeg, Western Canada or the Pacific Coast, be sure your ticket reads via the route that will insure you the most comfortable trip. The following reasons prove the superiority of the

Canadian Pacific Railway

1. The only through line; coaches, tourist and standard sleepers daily to Winnipeg and Vancouver.
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Commercial Cream Separator Oil

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This oil is manufactured at our works only. Beware of fraudulent imitations. This oil is free from gums and acids. Viscosity test very high. Low cold test, standing 15 degrees. There are no corrosive properties in this oil.



UNDERWOOD — the world's best typewriter — more generally used in Canada than all other makes combined.

75% of operators are trained on the Underwood.

United Typewriter Co. Ltd.

Toronto, Montreal, Winnipeg

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Official Calendar of the Department of Education for the year 1911

February:

1. Inspectors' Annual Reports to Department, due. (On or before 1st February).
First meeting of High School Boards and Union Boards of Education. (1st Wednesday in February).
Rural Boards of Trustees may appoint Truant Officer if Township Council neglects to. (Council to appoint before 1st February).
15. Public Library Board to submit estimate to Municipal Council of several sums required. (On or before 15th February).

March:

1. School Boards in unorganized Townships to appoint Assessors. (Not later than 1st March).
Financial Statements of Teachers' Associations to Department, due. (On or before 1st March).

Separate School supporters to notify Municipal Clerks. (On or before 1st March).

31. Night Schools close (Session 1910-1911). Reg. 16. (Close 31st March).

April:

1. Returns by Clerks of counties, cities, etc., of population, to Department, due. (On or before 1st April).
6. Normal School Final Examination for Grade A students begins (Subject to appointment).
12. High Schools, second term, and Normal, Public and Separate Schools close. (Thursday before Easter Sunday).
14. Good Friday.
15. Annual Examination in Applied Science begins. (Subject to appointment).

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WE SHOW MANY EXCLUSIVE MODELS
IN MEN'S AND YOUNG MEN'S
SUITS AND OVERCOATS.

that cannot be procured in this locality out-
side of this store.

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35 LOWER WYNDHAM ST.,
THE NEW CLOTHIERS.

Fowne's English Gloves,

Christy's English Hats.

Loosescarf American Collars.

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Dealers in High-Class Tobaccos,
Cigars, Cigarettes, Pipes, Pouches and
all Smokers' Articles.

Get a BARON PIPE FILLER—the
latest novelty for Smokers. Handy
and saves tobacco. 25c each. To be
had only at

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RED CROSS
PHARMACY,



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MRS E. MARRIOTT, FLORIST.

Violets, Valley, Roses, Carnations,
always in stock.

Phone 378. 61 Wyndham St., opp. P.O.

FOR FIRST-CLASS WORK TRY

Lee Wing's Hand Laundry

57 Quebec St., Opp. Chalmers Church

Latest machinery — no frayed or
cracked edges to your linen when we
do your work.

We call for and Deliver Promptly.

We Have Them Shoes for street wear.
and shoes for all occasions. See our Shoes for evening wear

Wauk-On Shoe at \$3.75

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ERNEST A. HALES,

68 St. George's Square.
Sells the Best Meats
and Poultry.

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Manufacturer of
HIGH-CLAS CARBONATED BEVERAGES

247 BROCK ROAD.

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D. M. FOSTER, L.D.S., D.D.S.
DENTIST,

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Telephone 14. Over Dominion Bank.

NOTICE

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

WM. COON, ST. GEORGE'S SQ.
Street Cars every 15 minutes. Three chairs.
No waiting.

The College Boys Always Go to The
OPERA HOUSE BARBAR SHOP

First-Class Work
Guaranteed.

James Smith,
Proprietor.

MIDNIGHT SUPPERS.

Bacon, Oysters, Fancy Biscuits,
Olives, Pickles, Chocolates, etc.

J. A. McCrea & Son.

We have noticed lately our friend Tregillus looking very pale and care worn and, on enquiry, his room-mate informs us that he became the proud possessor of a pipe during Xmas vacation. Every night, in the seclusion of his room, he wrestles with the thing, fully imbued with the determination to conquer or die. His facial contortions are something frightful and tears course down his cheeks, but nevertheless, as Tregillus says, these little inconveniences are fully compensated by the soothing effect on the nerves.

◇ ◇

Miller—I feel ill, doctor, although my stomach is alright; I have no pain anywhere, and I sleep well.

Doctor—That's good. I'll give you something that will soon change all that.

The O. A. C. Students' SHOE STORE

We carry Shoes for the Young People. Our aim is to please and to give Students Dollar for Dollar worth of Wear for every cent invested. It will pay you to give us a call.

We carry popular price goods both in Canadian and American makes.

This is the Young People's Shoe Store. You will find the latest footwear at this store.

To all Students of O. A. C. we give 10% Discount on Footwear

Evening Shoes in Pumps or Slippers, Patent Gun Metal and Poplin, all the leading styles.

Our stock is especially assorted to meet the needs of Students. When you buy shoes here they are insured by our guarantee. Money Refunded if goods are not satisfactory.

J. E. SCHMIDT

Successor to Knichtel Shoe Co.,

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Phone 589

W. J. Henry, Manager

Opposite Winter Fair Building.



Everything in Jewelry.
Repairing a Specialty.

E. F. Nicholson
OPTICIAN
Upper Wyndham St.

Useful  Gifts

CHINA is always appreciated; so is *Cut Glass* and *Pottery*. *Brassware* is especially attractive.

We have all four—they're gifts that are sure to please.

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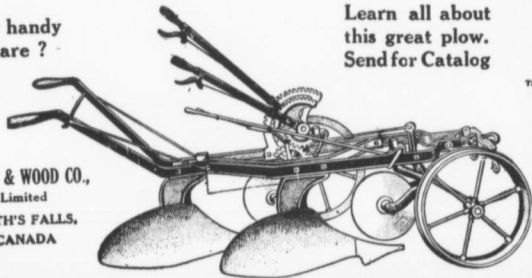
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