

PAGES

MISSING

THE O. A. C. REVIEW

"THE PROFESSION WHICH I HAVE EMBRACED REQUIRES A KNOWLEDGE OF EVERYTHING."

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The Sheep Raising Industry in Canada

By L. E. O'NEILL, '18

THE greatest needs of the nation at the present time are men, food and clothing. The sheep as a dual purpose animal serves to help supply food and clothing in no uncertain manner.

The sheep raising industry in Canada is at the present time going through a very abnormal stage which will have a great and marked influence upon the



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industry of the future. This has been caused by the importance of wool in the manufacture of clothing for the soldiers of the belligerent nations.

A SHEEP SURVEY OF THE DOMINION

We might first make a brief survey of the industry as it exists in Canada

at the present time. For some time past there has been a gradual decrease in the number of sheep in the Dominion, but it is indeed gratifying to note that this decrease has been partially checked. We find, in taking the provinces from east to west, that Prince Edward Island is practically at a standstill; Nova Scotia, New Brunswick, Quebec and Ontario have been gradually decreasing the number of sheep kept until the past year, 1917, when a slight increase over 1916 was reported. The industry is progressing more rapidly in the western provinces. Manitoba, Saskatchewan, Alberta and British Columbia have reported sheep in increased numbers since 1914, so we see the trend is in the proper direction. At the present time there are slightly over 2,000,000 sheep kept in the whole Dominion. This is almost exactly the same as the number of sheep kept in the Province of Ontario alone in 1895.

No doubt the check in the decrease in the number of sheep in Canada has been caused by the high price of wool which has risen over 100% since the outbreak of war. At the present time the production of wool is the backbone of the sheep industry.

RELATION OF THE WOOL GROWER TO THE MANUFACTURER

We, in Canada, have a rather unique relation existing between the wool grower and the manufacturer. In that period of Canadian woollen manufacturing when the custom woollen mill

was the chief means of producing cloth, this was really a native industry. The owner of the mill was in social contact with his customers and from a business standpoint one was the counterpart of the other. They prospered together and a reverse for one was a misfortune for the other.

But with the modern factory system there came a change and a kind of divorce between the wool grower and the manufacturer sprung up. Com-

greater was destined to damage the sheep breeding industry of Canada and to strangle worsted manufacturing in its birth. As a result of this we have only three worsted manufacturing concerns in the whole Dominion.

CLASSES OF WOOL AND USE IN CANADA

Wools are divided roughly into two classes—combing wools, and clothing or carding wools. The combing wools come from the long woolled breeds,



An animal which should be on every Ontario farm. It should give pride and money to the owner, food to eat and clothing to wear.

petition with imported goods started and, in order for the manufacturer to successfully carry on his business, protective tariff regulations for woollen and not for worsted fabrics were sought.

In those countries well advanced in textile manufacturing such as Great Britain, France, Germany and United States, the worsted branch has far outranked the woollen branch, and the effort of early tariff reformers to develop the smaller at the expense of the

and the carding wool from the short woolled breeds. The long wools are used mostly for worsteds and yarns, while the short wools are used in the manufacture of woollens. Since we in Canada raise mostly sheep of the long woolled breeds, because climatic conditions are especially suited for the production of long wools, the wool can not be used at home, and hence it finds a market in the United States, where worsted manufacturing is highly

developed. This was encouraged by the American Government. Although United States adopted a system of high protective tariff after the American Civil war, the Government, after explaining to and obtaining the good will of the American wool growers, admitted without duty the long wools from Canada. This they did because they realized that the climatic conditions of United States were not especially suited for the production of long woolled fleeces and the demand for these long wools exceeded the supply. Hence it is that the greater part of the wool produced in Canada finds its way to the Boston market, the greatest wool market in North America.

OUR IMPORTS VS. EXPORTS

While our own wool is being sent across the line, what do we find going on at home? We see that our importation of wool is almost five times as great as our exports.

Exports 4,545,000 pounds in 1916.

Imports 21,140,000 pounds in 1916.

This importation of wool is of such kinds as are particularly suited to use of the Canadian manufacture.

Our Canadian tariff has for many years admitted yarn, tops and noils free of duty. Tops are the first product of the worsted combing machines being the longest fibres of the long woolled sheep. The noils are shorter fibres dropped from the combing machines in the process of combing and are used for woollens and yarn. Hence it is that it is cheaper for the Canadian manufacturer to import these special products of the worsted industry because he, without protection, cannot hope to compete with worsted manufacturers in United States and Great Britain where the process is long established, well organized and the labor cheaper. Consequently we find the knitting industry in this country devel-

oping while the woollen industry stagnates, and the wool grower and manufacturer are drifting further and further apart.

THE AGITATION FOR AN EMBARGO ON CANADIAN WOOL

Only a short time ago there was a strong agitation to have an embargo placed on Canadian wool to prevent its export to United States. This was caused because the supply of wool in Australia and New Zealand had been commandeered by the Government at a fixed price. This price was 55% above pre-war prices, but, nevertheless, was lower than the price we, in Canada, received. The Australians objected to the supplying of wool to Canada when the Canadian farmer was receiving a higher price for his wool which was to be shipped to the United States. On first sight the objection seemed justified, but the placing of an embargo on Canadian wool was not the cure. If this were done, the wool grower would be left at the mercy of the manufacturer whose interests, as has already been pointed out, are not in common with those of the producer. If an embargo is placed upon Canadian wool, a price for wool will have to be set—a very difficult thing to do. A deputation of wool growers was sent to Ottawa and presented the facts to the Government and were practically assured that no embargo would be placed on wool.

PROSPECTS FOR DEVELOPMENT IN THE FUTURE

As to what the future holds in store for the sheep breeder and wool grower, we can only study some facts which will no doubt have a bearing on the question.

I. The war has obviously accentuated the shortage of wool. Demand was sudden and increased rapidly while supplies were abruptly diminished. The

demand has continued because of the great loss and waste of clothing in the war.

2. Two-thirds of the world's output of wool belongs to the nations at war, leaving out United States, which produces one-tenth of the world's total clip. Now that the United States is in the war, and her supply is not equal to the need, we may expect a ready market there. Even should the present regulations of the American War Trade Board empowering the government to take over all imported wools at a price 5% below the price on July 30, 1917, we may still expect a good price. Not only this, but we may find it much more difficult to obtain, for importation, the same quantity of wool from United States that we have been able to get in the past, and if Canada has to supply her home demand by home production, she will have to keep not

two million sheep as at present, but ten million instead.

3. With the government of the belligerent nations taking over the wool clip of their countries and Canada's wool remaining on the open market for competitive buying as in the past, there is little likelihood of any fall in prices.

4. Although the production of wool in South America, especially in the Argentine and Uruguay, is considerable, the shortage of shipping gives us a distinct advantage in supplying the American market.

5. By the formation of the Canadian Co-Operative Wool-Growers Ltd., and the grading of wool as done by the Department of Agriculture, we may expect strength in the sheep breeding industry and a great increase in the number of the sheep in the Dominion during the next few years.

The V. A. D.! Who is She?

BY LOUISE A. CREELMAN

SOMEbody said to me only the other day "What does V. A. D. mean"; and, having been one myself for many months, I promptly replied: "Very Arduous Duties." My questioner being a civilian, and therefore knowing nothing about it, was none the wiser. But, if perchance there is another one as ignorant, may I explain that the letters V. A. D. really stand for Voluntary Aid Detachment. The British Red Cross Society and the Order of St. John of Jerusalem have been amalgamated, for the duration of the war, under one head and are known as the Joint Committee, with headquarters in Devonshire House, London.

Each county has a certain number of detachments, the members of which

are doing splendid work, both at home and abroad; in France, in Egypt, in Serbia and even in Russia.

And, what pay do they receive, you ask? Nothing in a monetary sense; but surely the grateful thanks of the boys over there, and the satisfaction of feeling that one is helping them is surely enough remuneration for any girl in these eventful days.

If desirous of going abroad, (and it is of France that I speak) one must apply through Devonshire House. If accepted by the Standing Selection Board, you must sign a six months' contract, of many and varied clauses, and be willing to go anywhere and do anything they request of you. Two of the most important items which must

be carefully noted and carefully carried out are: "You are on military service and will owe obedience to the officers under whom you serve. (2) You will wear the prescribed uniform from time of mobilization until discharged."

The first thrill of that journey to "Somewhere" comes when you find yourself at Victoria Station, about to depart on that too well-known, much dreaded "Special-Leave-Train." Many a time you have watched it go, carrying those smiling lads back to that unknown place they call "the front", and perhaps, mingled with the many conflicting emotions that its departure caused, was a little bit of envy. And now you are actually starting on the great adventure yourself.

The journey to France and the arrival at the base are full of interest. From all ranks you receive the most courteous and gentlemanly treatment, and the journey is made as easy and comfortable as possible. But the moment you step on to the quay on the other side you feel a change. There is a something about that land of Pain and Sunshine, of Work and Play, that cannot be described. It is subtle and undefinable and, perhaps, unnatural, but it will not be denied by those who have been over there. There is a wonderful feeling of comradeship and confidence and optimism among the men in France that is invincible and magnificent. They say that every British soldier has a grouch, but I think that the wounded ones must leave theirs up the line, for they are always cheerful and grateful and uncomplaining when they reach the base, no matter how badly they may have been hit. Their only fear is that they may not get to Blighty this time, and that would be a calamity indeed.

I could write pages about the splen-

did, amazing spirit of the wounded and even then I could not express half enough admiration for them. I was once asked to go and visit a man who had lost his eyesight and both his hands. I fancy that he knew I would scarcely know what to say to him so, as soon as I went in, he laughed and said: "Well! It's a pretty jake war, isn't it, Sister?"—And I ask you—is there anything too good for that man? But to come back to the V. A. D.'s—on arrival in France, one reports at once to headquarters and receives instructions. The work is scattered and varied. The members are divided into three classes, namely: the Nursing Members, the General Service Members, and the Motor-drivers.

The Nursing members are sent to hospitals in every part of France and the work they have done and are doing is wonderful and splendid. 'A V. A. D. Nurse in France!' It sounds heroic and romantic and brings one visions of Florence Nightingale and the Royal Red Cross; but, after doing nothing but wash dishes and dust lockers for six weeks, the romance soon disappears, and the ever present picture of the brave smiling 'wounded' is all that keeps you plodding wearily on. One girl was heard to say that the V. A. D.'s have to do everything that the sisters won't do and the orderlies can't do! But as a rule the sisters-in-charge are very good to those under them and allow one to have as much real nursing as is possible. And so I say again, the nursing members are splendid. Their hours are long and their work is monotonous, and yet they come close enough to see all the suffering and pain.

Then there are the General Service members who do almost everything and anything. There are secretaries who do all kinds of mysterious things in the administrative departments.

(One of the chief duties is to see that no poor wretch gets more than her month's leave each year!) Before the war some of these girls were experts, earning their livelihood at this work, whereas others did not know the difference between shorthand and type-writing. Now they are all equally busy and efficient.

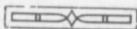
In the General Service also, there are the cooks, the housemaids and the poultry-maids. They, too, are much to be praised, for their work is indeed dull, devoid of thrills. The work is hard too, especially as many of the girls have never handled a broom before or washed a dish. Now they are at it all day long, always merry, full of energy and and only too glad to be able to serve.

There are many other things that the V. A. D.'s are doing that cannot be classified. But many a grateful Tommy will remember the hot coffee that he received at the Rest Station

when the long ambulance train was being unloaded and he lay for hours in the cold, or the splendid concert parties that the V. A. D.'s in the Recreation Huts organized to help pass the long weary hours.

Lastly, we come to the Motor-drivers. Their work is strenuous and exacting, and entails a great deal of physical strain. The men all said: "Oh! they will never stand the winter out here"; but they were wrong, and the same girls are still carrying on, driving and cleaning their cars, 'standing to' both day and night, and still as enthusiastic about their work as the day they went out.

So I have endeavored to explain to you the why and the wherefore of V. A. D.'s. Perhaps if you should ask some of the numerous returned soldiers, they could tell you some of the more interesting details which I would not dare divulge.



In Hospital

Hushed and happy whiteness
Miles on miles of cots,
The glad, contented brightness
Where sunlight falls in spots.

Sisters swift and saintly
Seem to tread on grass;
Like flowers stirring faintly,
Heads turn to watch them pass.

Beauty, blood and sorrow,
Blending in a trance—
Eternity's to-morrow
In this half-way house of France.

Sounds of whispered talking,
Labored, indrawn breath;
Then, like a young girl walking,
The dear familiar Death.

—By Coningsby Dawson, in "the Glory of the Trenches."

Better Farm Machinery

(Speech given in Massey Hall, O.A.C.)

BY GEO. J. ARNOLD, '18

THE withdrawal of over one hundred thousand men from our Canadian farms during the past three and a half years is most seriously handicapping the production of more food. Despite the tremendous efforts we are making to make up for this shortage of labour, it is a question whether we can do much more than maintain our present food production. Could it be otherwise? If we take one hundred thousand

is the tractor and then in only a very limited way.

How can we materially increase our food production in these days of scarcity of help when our seed drills will sow but little more than our forefathers could sow by hand? When we have to stook and load our grain by hand because there is no machinery to do it for us? When we have to pick our potatoes and pull our roots by hand because there is no machinery to do that for us, or if there is, it is out of reach of the ordinary farmer? How can we grow more crops to-day when our fields are overrun with weeds, as never before, because of the lack of help and the lack of machinery to make up for that help—(A man twenty-five years ago could hoe and scuffle practically as much as he can to-day.)

How can we grow more crops to-day when there is insufficient help to control the insect pests and diseases of our crops with the present-day spraying outfits? According to the Dominion Entomologist the losses on our Canadian potato crop last year through insects and diseases that could be controlled by spraying, amounted to sixteen million dollars. Now at the Front they are gassing whole regiments of soldiers; *where is the spray outfit that will enable a man to stand at the corner of a ten acre field and gas all the potato bugs on it?* It is the war then that is bringing home to us the inefficiency of our farm machinery, and can we wonder if we yet have to import Chinamen to help us out?

The reason why the improvement of our farm machinery has been so slow is because we have left it to the



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strong, sturdy men off the farms, and can only replace them by children, old people, and men physically unfit for the army, how can we produce more food?

Only by giving these people vastly superior machinery than we have to-day, can we increase the total crop yields to any marked extent. The only instance where we have been able to put better machinery onto the farm

individual farmer and to the manufacturer. The only way to get really better farm machinery is by definite organization.

Let us see what is being done for the improvement of our farm crops. Thousands of dollars are spent annually on trained crop experts to carry out extensive plant breeding and selection. We have not waited for the individual farmer to originate O.A.C. 72 Oats, O.A.C. 21 Barley, O.A.C. 104 Wheat; he has not the time or the means. We have not waited for the seedsman to do this; he is more concerned in setting his seed than improving it. No! We have gone about this in a definite and systematic way, and the increase in crop yields through the growing of these varieties of Barley and Oats and improved seed of other varieties of farm crops has repaid us over and over again the cost of this work. Remember, plant improvement is no day-dream; it has taken about thirteen years to bring out O.A.C. 104 Wheat, which is a variety still subject to rust and smut, and it is going to take us years and years before we get varieties immune to disease, but it is going to pay us to keep on.

Why should we be so topsided in our progress? Is it the height of efficiency to grow two blades of grass where only one grew before, if we cannot lessen the labour expended in doing so? Why then should we seek to improve our farm crops so thoroughly and scientifically, and completely ignore our farm machinery? *Surely a government institution for the improvement of farm machinery is not beyond reason?* It is the only logical thing to have if we want really better farm machinery.

Let us see what is being done outside of agriculture for better machinery. Look at the great technical institutions

that cost millions of dollars to maintain. Look at Edison alone, who spends over one hundred thousand dollars a year on his own laboratory. Has the perfection of machinery in the industrial world been left to sporadic evolution? No! in order to find out devices for overcoming the submarines, in order to improve our shells, our guns, our aeroplanes, our means of transportation by sea, and by land, we have organized groups of scientists, inventors, mechanics and engineers, working for us. Since the war started the Government has spent \$10,000,000 on aeroplanes alone. We have no such efforts put forth to improve our farm machinery, yet we expect to win the war on food.

It is plainly seen that if the tremendous importance of farm machinery for the production of food were only recognized, what an enormous amount of money would be spent on an institution for the development of agricultural machinery.

Let me show you in a few brief words what such an institution would have, and a few of the things it would do. In the first place, it would have a complete equipment, and specialists devoting their whole time and energy investigating and experimenting with farm machinery,—notice very particularly those points—complete equipment, and specialists devoting their whole time and energy to the improvement work. That is the really scientific and efficient way of improving and inventing. That is why such remarkable progress has been made in so many of our industries and professions.

On such a basis, we, as farmers, would stand a much greater chance of getting tractors that were wear-proof and fool-proof; of getting an efficient milking machine that it would pay a

farmer with less than fifteen cows, to buy. We would stand a greater chance of getting better seeding and harvesting machinery, better cultivators, and better spray-outfits. Not only would this institution improve farm machinery, but it would safeguard the farmer from having inferior machinery sold to him. Machinery brought out by the manufacturers would be tested and its exact merits and demerits published by the government—just as is done with farm crops. Here is another condition that could be changed with extremely beneficial results to the farmer. Probably the serious drawback of having so many different makes of the various kinds of farm machinery has never occurred to you. You have reasoned that the more we have the more we have to choose from.

I will show you what this Institution could do. It would take all the good points of the Massey-Harris, the McCormick, the Deering, the Frost & Wood and others, and put them all into one improved binder. All the manufacturers would then make just this one improved binder. Probably the Massey-Harris Co. could make knotters more economically than the International Harvester Co; probably the latter could make rollers or wheels or some other parts more economically than the Massey-Harris Co. In any case, the parts of the binder being standardized, they would be made with the greatest economy, and the price of the binder would be reduced,

beside the new improvement brought in. Then the manufacturers instead of having to advertise a number of different binders would advertise only one binder, thus the cost would be still further reduced. When a farmer wanted to get a repair for his binder he could go to the nearest agent and, whether a Massey-Harris agent or some other agent, the farmer could get just the very part he wanted.

Now supposing all our farm machinery were standardized like that, you see what a tremendous gain it would be to the farmer. It is true the manufacturers would need a little educating; we would need new legislation in patents, but the United States government has proved the value and feasibility of standardization in their new "Liberty" motor truck, and in their new "Liberty" aeroplane.

If we only had started such an institution as I have mentioned, twenty-five years ago, how much better position for the production of food might we have been in now. But it is never too late to mend; better farm machinery will do just as much for us in peace as in war. Do you realize that it is machinery that has enabled the manufacturer to turn out a hundred articles instead of one; that it is machinery that has enabled him to reduce the work hours of his employees, raise their wages and yet grow rich himself. Yes, it is machinery that has done this and it will do the very same for the farmer.

"The larder of every loyal household in the city would be absolutely wheatless within a week, if your men, and women, could realize how near famine has come to robbing the Allies of their right to victory in this war. . . . I know that if we do not send over 6,000,000 barrels of flour each month for the next nine months, we are going to lose this war."—Hon. Everett Colby.

"It's all very well to shout for suffrage, but suffrage brings its own responsibilities."—M. U. W.

"Where Are You Going, My Pretty Maid"

BY M. BARBARA SMITH.

ARE you going to learn to milk, Daisy?" I asked my friend at the close of our first dairy class.

"Certainly, I am!" was the emphatic reply.

"But what's the good? You'll never have to."

"How do you know? We can never tell what is in store for us. Suppose I were to cross the ocean and we were shipwrecked on the coast of a desert island and the only survivors were myself and a cow! Wouldn't it be a very serious thing if I didn't know how to milk her?"

"It would not matter much," I said, "for she would get nothing to eat on a desert island and she wouldn't give milk for long. According to your reasoning, you had better learn butchering, for if you could kill her and cut her up, you could maintain life until a sail hove in sight. Besides, unless there was a pail among the survivors, you couldn't catch the milk."

"How horrid you are! I'm going to learn, just the same, and so are you!"

The next afternoon we set out for the dairy barn. On the way Daisy gave her views on milking.

"You shouldn't have worn your uniform, Milly; don't you know that blue is depressing?"

"It doesn't affect my spirits, thank you!"

"I'm thinking of the cow, not of you! You have to get your cow into a happy frame of mind, or she won't give any milk. I couldn't wear my pink gingham it would be too much like red, which is irritating, so I thought white would be the safest thing."

"Which end of the cow do you intend to milk? Do you suppose she

will see what you are wearing?"

"Possibly she will hear more than she sees," said Daisy; "cows like you to sing to them."

"Why, of course!" And I burst into this cheery ditty.

"There was a piper who had a cow
But had no hay to give her,
He took his pipe and played a tune,
'Consider, old cow, consider!'

"The cow considered very well
And gave the piper a penny
That he might play the tune again
Of 'corn rigs are bonny!'"

"Milly, I wish you would take this more seriously! You don't seem to realize that it's an epoch in our lives! When we are old ladies, think how nice it will be to tell our grandchildren about the day we learned to milk!"

"So you expect to learn it all in one day?" I asked as we opened the door of the barn.

Daisy did not answer. She was gazing with wide open eyes at the two long rows of cows, which seemed to stretch away down the length of the barn to an enormous distance.

"I didn't think that there would be so many," she said, "or that they would be so big! Oh, here are some nice little ones on this side! I shall milk one of these." And as a man in white appeared, carrying stools and pails, she went towards him, saying, "Good afternoon! We have come to learn milking. I want this pretty little cow. Will you please take her out and put her where I can get at her, and show me where to sterilize my hands?"

After some explanation Daisy nerved herself to place a stool between two cows, having discovered that neither of them could reach her with its horns.

"Please hold its tail, Milly," she said; "it makes me nervous to have it whisking about like that. Now, do I squeeze or pull?"

"If I were you," said I, "I would have a pail ready before doing either! It would be a pity to waste so much milk!"

Daisy took the pail in silence and spent some minutes in trying to get it fixed between her knees. As it shot out at each attempt, she finally placed it flat on the floor and proceeded to manipulate her cow. She worked away vigorously, with a frown on her brow and her lips tightly shut, but there was no result.

Pull, squeeze—squeeze, pull! But no milk!

"Perhaps they forgot to put any milk *into* this cow!" I suggested.

"Milly! Be quiet! This must be one of those cows that have the muscle too tense. You have to use a sharp three-edged knife to relieve it you know! I should hate to do it!"

"Go on trying," I said, "its probably a perfectly normal cow."

Just then the cow lifted a hind leg

and set her hoof down fair and square on Daisy's left foot.

"Ouch!" she screamed; "take it off! take it off! *take it off*, you horrid thing!"

A man came to the rescue, and Daisy extricated herself and limped into the gangway.

"Well! Of all the ungrateful creatures! When I was doing my best for her! What did she mean, anyway?"

"Why, Daisy," I said, "you forgot to sing to her! She wasn't in a happy frame of mind. She must have heard you talking about the three edged knife"

"Oh, stop! If you knew how sore my foot is!"

"Do you think you can walk back?" I said, "or shall I go and get some-one to help me to carry you?" "No! Don't you *dare* to tell anyone about this afternoon!"

"All right," I said, "I'll leave you to do that."

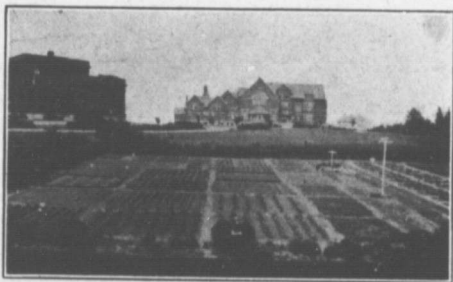
"As if I should!"

"Well, of course, when the right time comes, you are going to tell your grandchildren all about the day when you learned to milk!"

"Yes, I am, but it won't be *this* day! You bet I'll stick to it until I *do* learn!"

"Good old sport!" I murmured, as I put my arm round her and supported her to the door.

And she did.



"A CORNER OF THE SCHOOL GARDEN"

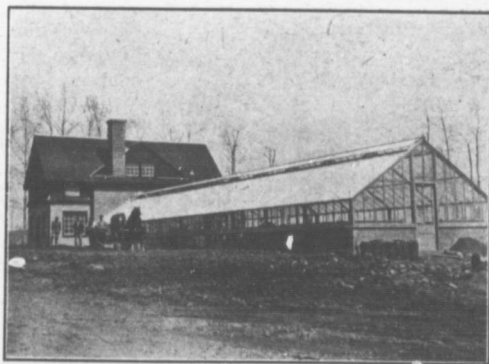
Practical Horticulture in Northern Ontario

By W. R. LESLIE, B.S.A.

A MAN from Old Ontario, finding his new setting to be on the big-ness and emptiness of the prairies, often yearns, and longs deeply, for the surroundings to which he had been accustomed. He feels keenly a lack of things that, almost unawares, meant such a great deal to his whole self and which continuously exerted over his goings and comings a soothing and elevating influence. In other words, he hungers for the horticulture of the old homestead,—the lawn and flowering shrubs, the orchard, the hedge

More than likely the site for the dwelling will be occupied by trees and shrubs. Those, which have merit sufficient to qualify, are reserved. Then, "The beginning is always a good place to begin," so the immigrant searches the neighboring district for native material.

Our landscape authorities are wont to place the American Elm at the first of the list of North American Avenue Trees. The home-maker agrees, and for his first avenue chooses the native American Elm, which grows to



"Horticulture Building—Plant Breeding Station, Fort William, Ont."

about the garden, and the flower border of numerous colors. The natural sequence is that the man endeavors to introduce plant material which shall, as far as possible, satisfy his feeling of need—the different classes of plants which will make fruitful and beautiful the precincts of his habitation.

What success in home horticulture could that man attain if his new abode were in Northern Ontario instead of on the broad prairies?

such excellence in this region, but discovers that the list of those native trees possessing suitable characteristics for avenues includes—sugar maple, red maple, silver maple, green ash, both large-berried and small-berried varieties of mountain ash, white birch, mossy-cup oak, basswood, white spruce, white pine, jack pine and American larch. For hedge purposes, the local thickets offer birches, crataegus, sumach, buckthorn, cherries, plums, am-

elanchiers, viburnums, willows, elderberry, roses, dogwoods, loniceras, spruces, white cedar, yew, etc.

For the further embellishment of the farmstead, many of these and other trees and shrubs, offered by the Northern woods, have a special appropriateness. There are native types of plants for nearly all such purposes. For arbors, lattice-covering, etc., there are a number of fine plants,—Virginia creeper, bittersweet, honeysuckle, grape moonseed, two kinds of clematis, and a number of fine leguminous climbers. In the flower borders, a number of

William Vacant Lot Association, which has resulted from their unique triumphs, is sufficient evidence to assure the settler that it is possible for him to grow vegetables in wide assortment and of fine quality. The area which is moderated by the influence of the expansive Lake Superior seems remarkably well adapted for growing cool-season crops; table beets, turnips, and other root crops and potatoes are of exhibition quality.

The most difficult of his horticultural enterprises may be thought to be that of producing his own fruit.



"A SAMPLE PIECE OF WILD LAND"

perennials indigenous to the woodlands and fields deserve a place,—some of the asters and legume flowers being especially beautiful.

To the native material may be added quite an elastic range of exotic landscape trees, shrubs, and perennials which have been proven to be quite suited for planting. Many lilacs, caraganas, honeysuckles, spiraeas, barberries, etc., seem to be about as well suited here as anywhere.

The far-spread fame of the Port

Arthur Garden Club and of the Fort Until he raises a sufficiently varied and satisfactory assortment of fruits for his own table, the tendency is apt to be that he shall consider his sojourn in the region as temporary. But, he is surprised at the fruits obtainable with small trouble. Such ubiquitous staples as rhubarb and citrons grow in his neighbor's garden. From the near-by ravines, hill, coulees and river valley are gathered strawberries, raspberries, currants, gooseberries, blue-

berries, dewberries, cranberries, saskatoon berries, cherries, plums and grapes. However, these do not remain the only source of locally-produced fruit. Many of these sorts are carried over the garden fence and placed in the tilled soil, and in the light of experiences of pioneers in other parts, the adventurer in Northern Ontario horticulture can confidently hope for considerable improvement when these have been brought under cultivation and the gardener's care. Even if marked improvement did not result, fruit gathering will be more easily done, and

lity and suitability for Northern planting. As soon as quantities can be propagated, fruit plants and vegetable seeds will be raised for distribution among the inhabitants.

People in different parts of America have for some time been convinced that the vast area of Northern Ontario possessed qualities and conditions which warrant considerable attention being paid to its horticulture. Men from government stations engaged in experimental horticulture in the Northern States are aware of the favors of bountiful Nature to Northern Ontario



In the Garden—Plant Breeding Station, Fort William, Ont.

with less competition from the bears and other creatures which at present share Ontario's Northern heritage.

Further encouragement is offered by the Provincial Government's manifestation of great faith in horticultural development. The Department of Agriculture has established the Northern Ontario Plant Breeding Station on the Industrial Farm near Fort William—where demonstration will be made with fruits, vegetables, and ornamentals, experiments carried on with these products, and plant-breeding work done with the aim of improving their qua-

and are doing considerable exploration in its thickets.

A review of American pomology shows,—that practically all the varieties of apples grown are those developed as seedlings raised in America; some of the varieties of pears have originated on this continent; the peaches are seedlings from stock brought from Europe; many of the plums are from native species; some of the cherries are native; nearly all the grapes are American, as are also the raspberries, and gooseberries, and straw-

(Continued on page xvi.)

In Summer Training

BY GEO. B. HOOD, '20

"**M**ARIAN! Marian! Do you hear this? I jest told y'u so!" Mrs. Prude champed her incubator teeth.

"Hear what?" inquired Marian, scurrying in from the kitchen.—A glance sufficed to show that Marian must be a twig from the paternal limb, or else it was a case of reversion, atavism, or perhaps mutation. But, whoa! grab the wheel!

"Who'd y'u spose but that college nephew of John Wells that's come to help his uncle and pollute the souls of all the young folks of this township?" She snatched a pint or two of ozone, dove-tailed her corn-fed hands, and screwed up her face to the proper twist.

"Yes, who else could it be," nodded Miss Paine, a true christian.

"An' did y'u say he was teachin' the boys to gamble?" re-inquired Mrs. Daniel Prude, for Marian's especial benefit.

"Just so, Mrs Johnson told me herself that she overheard the boys talkin' about it."

"And there was cards?"

"I daresay there was cards too, but the way I heard it, they played with coppers—I think they called it matchin' coppers."

"It's a burning shame. Not since the mine operated has there been the like."

"But have you seen him in that runnin' outfit of his?"

"His what?"

"I don't know what you call it, but all

he had on was a sleeveless undershirt, an almost legless pair o' white pants, and a pair o' running shoes. His legs were bare from about a foot above his knees—and bowed at that."

"I'd think he'd have the decency to keep himself covered anyway instead o' racin' about the country half-naked."

"An' they say he grumbled about there bein' no liquor around."

"What d' I tell you Marian?"

* * * *

But Jimmy Wells' ears weren't blistered as he gambolled among the hills of this forsaken Eastern Ontario township. He was scouting out a big bunch of Ayrshires, whose power of secreting babes' food his twice-daily-tired wrists could sponsor.

"And some day she's goin' to be my wife," he howled as if in derision.

"Where in all kay-hootin' are those

blamed cows?"

"He glimpsed the surrounding, upholstered landscape, but nary a munching bossy could he pounce his eyes upon.

"Must be behind that strip of bush," mentally pronouncing a black curse on reforestation. He caterpillared over towards the line-fence, the shortest route, without swimming, and followed a cow trail.

Into a pantomime of Macites there suddenly glimmered a check dress, which, Jimmy observed, as the background increased, was of Puritan model. The groan that smudged his face made

In this story Mr. Hood has given us the result of "A course in the Gentle Art of Flattery," as suggested in the Macdonald columns of the April Review.—Editor.

an unceremonious exit as he surveyed the contour of her face.

"Oh!!!"

"I'm quite tame," reassured the smiling cowherd, halting his plough-boots. Of course the inevitable self-conscious giggle quavered into his receivers; then she right-inclined.

"Say!"

She gave another convulsive quiver, half turned, but with one foot set.

"I'm not a tramp, only a lonely, harmless farm hand."

"I have to get the cows," and she tripped on.

"The first classy lass I've seen" he mumbled, "and, ding it, if I'm going to pass it up." He vaulted the top wire without being barbed.

"Wait!"

She put to scorn some of the amazon athletes of "the hill."

Jimmy's mouth was becoming more and more convex, when—glory! her first fawnlike leap had displaced a hairpin. Jimmy's brooding eyes lit up on it as a vulture's.

"Hey! you lost part of your apparel."

She pulled up and gazed back anxiously.

"Say, you're some sprinter," handing her the hair stanchion. "I'll have to get you to pace me some evening."

She surveyed him with the ability of a superannuated school marm; but his collie grin thawed her Arctic glow. "Thanks," she smiled.

"That makes worth while the race you gave me."

"I thought you were after me."

"So I was. You see—you're the first really pretty girl I've seen here since I trundled in on that C.N.R. roller-boller"—Jimmy had taken the 'course' as advised by Macdonald,—What could a nice maiden do but sideturn and color deliciously?

"Let's trade."

"What?"

"Names. I'm Jimmy Wells."

She demurred, tapping the grass nervously with a strong, heavy boot.

"May I presume so much as to enquire yours?"

"Mine is Marian Prude—and I have to get the cows."

"So've I. Good-bye."

* * * *

"Uncle, do me a favor?"—at seven-thirty that evening.

"What do you want?"

"Tote me over to Prude's."

"When?"

"Now."

Something seemed to work inside Uncle's skull. His face was suddenly lighted with a foxy smile. "Seen Marian, eh?"

Fifteen minutes later John Wells opened the garden gate, leading into the meadow-lawn upon which the Prudes were deposited, in a variety of styles and postures. Satan's courier followed.

"Good evenin' folks. Nice night. This is my nephew, Jimmy Wells."

Jimmy at once perceived the lack of enthusiasm. So did his uncle.

"After College life these young fellows feel a place like this quiet; so I thought I'd get him acquainted some."

"Yes! Yes!" jerked out Pa Prude.

"I met Miss Prude this afternoon," opened Jimmy.

"What! Marian! you never told me!" flared her almost hysterical mamma.

Another gruesome lull. . . .

"You have some very fine flowers, Mrs. Prude,"—Macdonald take note—Jimmy derricked himself from the grass where he had been self-invited, and glared delightedly at various specimens. "I like flowers. These certainly do you credit."—This latter sen-

tence was delivered with ambiguous inflection.

"You really think they are good plants?" veered his hostess, rising to point him out some extra fine ones.

"They surely are" viewing ecstatically the ragged array of hen-wooded blossoms.

"Come in and see the ones I have in the dining room", purred the bouncing matron. "Marian, run and get a lamp."

* * * *

The following days and weeks, especially the evenings and Sundays, kept the little bow stretched. Whether or not it had ever been released, will develop later.

One harvest day, relentless Sol shot his incandescent rays at Jimmy's sweltering back. His brain and chief organs scorched him internally. Jimmy was a lobster in a lobster trap, and being an honorable lobster, refrained from gazing at the opening which meant freedom. He was tempering himself to commit an act that meant captivity. And Jimmy, and only Jimmy, was to blame. For a week, he had realized what he, as a gentleman, must do. For a week, no spasmodic ranting marked his course of daily labor. The distant clinking of chains—very expensive to file—prevented him from displaying his hardening muscles in his immodest athletic garb, or matching for chocolate bars at the corner store—which unchristian acts of a higher civilization the good neighbours now accepted passively.

The trouble was that Marian bore the symptoms of being hit, and Jimmy was the accessory. Jimmy had clearly perceived this for a couple of weeks. And it was all his fault. He had pursued her in the first place; he had placated the old lady; he had acquainted her with the subtle charms of pale

Hecate; he had swamped her at first with viscid flattery, later, as he grew more adept, with inferable, ultra-microscopic, tingling compliments—but no 'left-handed' ones; with her bouncing beside him, he had broken the speed limits in his Uncle's statue of Henry Ford; the strength of his arm he had proved on several occasions when fences barred the way. How else could such a series of acts be properly classified except by one term?

"Hang it all!" he rasped, clutching two heavy sheaves of greenish oats. "I might have known. A young college chap like myself, with a touch of modernism, and a certain dash, coming in.—Then I add to it unqualified attention, and where am I? In the name of decency, I've got to propose, and Kind Fate, I know it's no use supplicating. I might as well get it over. To-night. Yes: tonight."

Diana's smile was a smile for lovers. Her lustrous beams made most susceptible young innocents who braved her charms; Jimmy's heart almost began to mellow as he delicately assisted the chattering girl at his fingertips up the hill.

Elfish shadows played about them. It was indeed an ideal night for Venus to stalk abroad—but oh, too fair an evening for the sham about to be staged.

"Let us sit here," she sighed sweetly, honoring a boulder.

Jimmy threw himself at her feet. What an opening she gave him.—Yes, and they say man proposes.

He stared at the moon, silently and heartily wishing that the universe would turn back and give him spring.

He turned his sombre eyes on Marian's face. "Marian," he blurted out, "we've been quite a lot together this summer."

(Continued on page xv.)

QUERY

FIELD HUSBANDRY Nurse Crop.

QUESTION:

I intend sowing a mixture of grasses and clovers for hay and pasture this spring. Would you sow it with or without a nurse crop?

ANSWER:

The best results are obtained where grasses and clovers are sown in the spring of the year and with a nurse crop. Barley is one of the best crops for this purpose when it is seeded at the rate of about one bushel per acre. It is harvested early in the season which gives the young plants a chance to grow up in the autumn. Barley being a poorer stooler than oats, there is less danger of it crowding out the young plants.

W. J. S.

Grain for Low Land.

QUESTION:

What is the best grain for low land?

ANSWER:

Of the cereal crops, oats are the best suited for this type of soil. The Joannette variety does especially well on low land. It is of excellent quality, having on an average about 23 per cent. of hull, and its straw while short is fairly strong. Owing to its excessive stooling habit it should not be seeded at the rate of more than one bushel per acre. Like all black oats it should be cut on the green side.

W. J. S.

Soiling Crop.

QUESTION:

I am going to be short of silage corn

this year. What is a good soiling crop?

ANSWER:

Peas and oats make a first class soiling crop. These should be sown at the rate of two bushels of oats and one bushel of peas per acre, using such varieties as the Siberian, O.A.C. No. 72 or Banner oats and Prussian Blue or Golden Vine peas. This mixture should be sown soon after the land can be prepared in the early spring and cut when the pea pods are about one-half grown, and the oats are in the milk stage. Besides being a first class soiling crop it is also an excellent annual hay crop and has been successfully used for silage.

W. J. S.

Determining Variety.

QUESTION:

I have purchased several bushels of barley for seed, said to be O.A.C. No. 21. I am doubtful if this barley is true to variety. Is there any way of definitely determining this point?

ANSWER:

Like the Mandscheuri and Common Six-rowed barley, the O.A.C. No. 21 is white in color, six-rowed and bearded but unlike these other two barleys it has a blueish tint underneath the hull.

W. J. S.

Summer Pasture.

QUESTION:

During the last few years I have been short of pasture in the summer, pastures drying up badly. What could I do to remedy this condition?

ANSWER:

Pasture mixtures can be much improved in drought resistance by including Orchard and Meadow Fescue grasses in the mixture. Sowing about three pounds of each of these grasses per acre will add much to the quantity of pasture produced during the summer. These grasses both start growth early in the spring and continue into the late autumn.

W. J. S.

Sainfoin.

QUESTION:

I see Sainfoin advertised as a specially good fodder plant. What are its advantages?

ANSWER:

Sainfoin is grown to a limited extent in Ontario and is used for the same purpose as alfalfa. It is not, however, as valuable a plant, yielding less per acre for hay, giving less pasture and having a shorter period of life. It is an especially good bee plant and gives its best results on limy soil.

W. J. S.

Alfalfa.

QUESTION:

I have tried to grow alfalfa a number of times but not with very good success. What do you think is wrong? My soil is a clay loam.

ANSWER:

There are a number of reasons why alfalfa might not prove a success. One of the chief of these reasons is that hardy enough strains are not sown to stand the severe Ontario winters. The Grimm alfalfa, Ontario Variegated, Baltic and Sand alfalfas are among the hardiest strains. Poor drainage is often a cause of failure. This is especially the case on clay soils. Like all small seeds alfalfa requires a well prepared seed bed. It is impossible to grow alfalfa where Blue Grass is well

established in the soil. To give its best results the proper bacteria should be present in the soil. In some soils these bacteria are absent and it is necessary to use nitro culture with the seed. The presence of lime is also necessary on some soils for successfully growing alfalfa. Pasturing alfalfa the first year, or too early or too late in any year very often results in failure in the growing of the crop.

W. J. S.

Cutting Alfalfa for Hay

QUESTION:

When is the best time to cut alfalfa for hay?

ANSWER:

Alfalfa should be cut just when it starts to bloom. In seasons when there is little bloom, the starting of the second growth is an indication that the first crop should be cut.

W. J. S.

Millet per Acre.

QUESTION:

How much millet would you sow per acre and when would you cut it for hay? I am sowing the Hungarian variety

ANSWER:

From two to three pecks is sown per acre of the Hungarian millet. For hay cut it when it is in full head.

W. J. S.

DAIRY

Whey Butter.

QUESTION:

Would you consider it profitable to make whey butter under present conditions; scarcity of labor, etc? We made 257 tons of cheese last year so we have a large amount of whey, which is returned in the cans. To what extent would it affect the feeding value of the whey? How does the butter compare with whole milk butter?

ANSWER:

In a large factory such as yours I certainly think it would pay to separate the whey and either make butter or sell the whey-cream for ice cream or other purposes. As the result of tests made by us we find that 1000 lbs. of whey produces on the average about three pounds of butter. At the present time this butter would be worth from forty to forty-five cents a pound. In a large factory this whey-butter will amount to a considerable sum during the year. Owing to the scarcity and high price of butter-fat we cannot afford to waste it.

While the quality of the butter is not so good as first class creamery or dairy, it is equal to, or better than, second grade butter, and certainly much superior to Oleomargarine which is now being sold largely in Canada.

The feeding value of the whey after separating is reduced from twenty-five to thirty per cent for feeding hogs, but even at the present high price of pork we can scarcely afford to feed butter-fat to pigs.

H. H. D.

Bacteria in Milk.

QUESTION:

What is a fair Bacteria count for ordinary commercial milk, Certified milk, Buttermilk, Pasteurized Milk?

What is the present value for feed of skim milk?

ANSWER:

The Bacterial count for good commercial milk is usually under 100,000 bacteria per cubic centimetre. Certified milk must not have over 100,000 in summer and 5,000 in winter per c. c. Pasteurized milk, according to Dominion statute, must not have over 100,000 per c.c. Buttermilk, according to Prof. Conn, frequently runs to 500,000,000 per c.c.

Value of skim milk for feeding purposes varies considerably, but at the present time it is probably worth from twenty-five to fifty cents per hundred pounds.

H. H. D.

Difficulties With Butter-making.

QUESTION:

We have a cow milking for over a year. Her milk is good and rich yet it refuses to make butter. We have tried every way we know and cannot solve the problem as to why this is.

ANSWER:

Sometimes when a cow has been milking for a long time it is impossible to make butter out of her milk. I would suggest having her milk as rich as possible, then churning it at a temperature of seventy-two to seventy-four degrees. If this does not overcome the difficulty then pasteurize the cream.

H. H. D.

Preventing Growth of Horns.

QUESTION:

Will you be kind enough to advise me as the best way to treat a calf's horns which are just showing signs of growth.

ANSWER:

A calf's horns may be treated to prevent their growth with what is known as Caustic Potash, which can be gotten from a drug store. This must be handled very carefully and should not be touched with the bare hands as it will burn quite severely. Wet the horn growth then rub with potash. In a few days if necessary repeat the rubbing. This should be sufficient to kill the growth of the horns.

H. H. D.

Pepsin Instead of Rennet.

QUESTION:

Would you kindly explain all about Pepsin. How much is used for 1000

lbs. of milk, and if it's differently handled as compared with rennet?

ANSWER:

The quantity of pepsin to use depends on the strength, but the manufacturers give full directions according to the strength of the Pepsin solution. In our work we find it necessary to use about four ounces per thousand pounds of milk, of the pepsin, in order to secure as good results as when three ounces of rennet are used. We have also found it advisable to develop slightly more acid in the milk before applying pepsin, as compared with rennet. For instance, if the cheese-maker were setting a vat with .17 per cent acid in the case of rennet, it is advisable to develop from .175 to .18 per cent when using pepsin. If he finds the vat coagulating rather slowly at a temperature of 86 degrees F. he may raise the temperature to 87 or 88 degrees to lessen the time required for curdling.

H. H. D.

FARM ENGINEERING

Proper Temperature and Humidity for Living Rooms.

QUESTION:

What is the proper temperature and humidity for living rooms?

ANSWER:

Best temperature is 65 degree to 70 degree F, and the best humidity 50% to 60%.

R. R. G.

Siphon for Septic Tank.

QUESTION:

Why is it necessary to install a siphon in the septic tank?

ANSWER:

The chief advantage of the siphon is that it creates more favourable conditions in the soil for bacterial action by ventilating the soil,—when the discharge enters the tile the soil air is forced out of the ground and after-

wards fresh air comes back in, the soil is kept from becoming water-logged, and much more sanitary. Also the siphonic action may assist somewhat in preventing the tile from choking up with sediment.

R. R. G.

Drive Point for Water.

QUESTION:

Have driven down a drive point 35 to 40 feet into a sandy subsoil but cannot get any water with a suction pump. What's the trouble?

ANSWER:

There may be three sources of trouble—No water at that depth, too great a lift distance, or pump is at fault. First test for height of water with a rod and if water be found within 20 or 25 ft. of ground surface then pump must be at fault or pump cylinder is too far from the water. A suction pump will not lift water more than 20 or 25 ft., so if water be lower than this distance sink the cylinder to within 20 or 25 ft. of the water.

R. R. G.

ANIMAL HUSBANDRY

Sheep Eat Wool.

QUESTION:

Would you kindly advise me what in your opinion is the matter with a sheep of mine that has been eating its wool. On examination I find that there is no trace of vermin or any disease of the skin.

ANSWER:

No doubt you are aware that sheep are frequently troubled with sheep ticks and sheep lice. The sheep tick is very easily observed in the wool, but it not unfrequently occurs that they may be affected with lice and these are so very small that it is very difficult to detect them. The symptoms that you have mentioned together with the

wool dropping out and the very straggling appearance is a pretty good indication that the trouble is sheep lice. As I mentioned before these are not easily seen unless upon a very close examination.

I would suggest using any of the coal tar dips mixed according to instructions given and pouring this through the wool and wetting it well. Dipping the sheep would possibly be more effective but at this season of the year it is safer to pour the liquid on rather than dip them.

J. P. S.

Trouble with Sheep and Lambs.

QUESTION:

Some of our ewes are lambing and the udders of all so far are badly caked and so much so we cannot get any milk. We are bathing the udders with hot water. The lambs are extra large and strong but as we have had to feed them cow's milk they weaken and we have lost some of them. The sheep feed consists principally of red clover hay and alsike with a small amount of oats. The sheep are in good condition. What should we do to soften their udders? And what would you recommend feeding the lambs.

ANSWER:

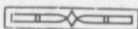
Caked udders are usually caused by either too much milk, lying on damp floors or ground, or draughts, and it is no doubt made worse by cold weather. We would suggest milking the ewes out as thoroughly as possible, then bathe the udder well with hot water and dry thoroughly. There is

nothing better than melted hog's lard applied freely and rubbed in well after bathing and drying. Keep the ewes in a comparatively warm pen, free from dampness and draught.

Considerable patience and perseverance is required in raising lambs by hand. However, it can be done if one is willing to go to the trouble necessary. Milk rich in butter fat, say from a Jersey cow, is what is required, as the ewe's milk is comparatively rich. Always use the milk from the same cow for at least three or four weeks. Feed lightly and frequently at first, two or three tablespoonfuls at each feed, and give it every three hours night and day for one week. After that gradually increase the amount and feed every five or six hours until at the end of a month or six weeks twice per day and feed them all that they will take with relish. Feed from a bottle with an ordinary rubber nipple. It is absolutely essential to keep the bottle perfectly clean and feed at temperature of 92° Fahr.

The feed you mention, clover hay and oats, are satisfactory. We would suggest that after the ewes have lamb-ed that you feed a little bran with the oats, say one part bran and two parts oats, fed at the rate of 1 lb. to 1½ lb. per day to each ewe. If you have roots available they would also improve the ration, fed at the rate of one bushel pulped roots to a flock of twenty-five sheep. Care should be exercised not to feed the ewes too heartily after lambing, but to bring them gradually up to a full feed.

J. P. S.



THE O. A. C. REVIEW

REVIEW STAFF

J. B. MUNRO, '19, *Editor-in-Chief*

G. B. HOOD, '20, *Associate Editor*

R. W. MAXWELL, '18, <i>Agriculture</i>	A. H. MUSGRAVE, '19, <i>Athletics</i>
F. L. FERGUSON, '18, <i>Experimental</i>	A. B. JACKSON, '19, <i>College Life</i>
C. F. PATTERSON, '18, <i>Horticulture</i>	WALLACE MURDOCH, '20, <i>Locals</i>
G. R. WILSON, '18, <i>Poultry</i>	G. H. SCOTT, '20, <i>Artist</i>
R. ALEX. BRINK, '19, <i>Query</i>	OLIVE LAWSON, '18, <i>Macdonald</i>
A. M. STEWART, '19, <i>Alumni</i>	M. BARBARA SMITH, '19, <i>Mac.</i>

EDITORIAL

THE BROKEN STAFF.

Now the end of another term has come, the Editor feels quite alone. The Review Staff is broken up for the present and we feel just a little weak about the knees when the "next number" is mentioned. The Staff has held together with the tenacity of Clansmen, all through the year, and even now would continue in office, but for the pressing emergencies of the time that are calling them away to other labours.

Our Agricultural Editor has enlisted and is busying himself with the King's business. Bert has proved himself a capable writer and an untiring worker for The Review. Every month his "copy" was on hand right on the minute—no waiting for a day where he was concerned. The Review extends to Bert its best wishes for success in his future work. We know that his present occupation is quite to his liking,



R. W. MAXWELL, '18

for Bert is a "pacifist" with emphasis on the "fist." We have witnessed his

bouts in the Gym. and know whereof we speak.



G. R. WILSON, '18

Both the Poultry Department and The Review suffer loss by the enlistment of G. R. Wilson, who has been on The Review Staff for the past two years. As College Life Editor in 1917 he made his pen favorably known, and as Poultry Editor, in 1918, he has boosted the interests of that Department. "G. R." has enlisted and expects to reach the firing line sometime in the near future.

Although our "Dean" was not a member of the Staff we cannot fail to recognize the help he has given us during the past two years. Each summer when the boys dispersed they looked to Mitchener to carry on The Review work they were leaving—and he "carried on." The Alumni was his special care, but College Life and General News came in for a share of his time, when the editor was overburdened with work. This year we will not have this mainstay to fall back on. Mitchener has left to take his place on the



A. V. MITCHENER, '18

Staff of the Manitoba Agricultural College, and we are sure that the Magazine of our sister college will benefit by his being on the Faculty there.

Our Athletic Editor has left us also. Arthur Musgrave is now in the R. F. C. testing both his muscles and his nerve, both of which he possesses in a large degree. Art has kept his department up well during the whole year and gave credit wherever it was due. He was director of athletics here as well, so was in a position to know the true sports and to do them justice in his reports.

In the course of another month we will know of others of our Staff who are away. At present we are too engrossed with the work of editing to get time to search the records for those who have not reported their whereabouts. And quite likely they are too much taken up with their respective duties to give us a thought, but we look forward for a word from our boys whose names are not written here. They have done good work and have earned the thanks of a grateful chief.

FARMERETTES

A visitor at the College this month would heartily agree with us that women are taking their place among the men of our country, and that they are yet to play a very considerable part in the production of food for the maintenance of our overseas forces. Here at O. A. College is a class of eager, able-bodied, aspiring women who are learning to farm, in order that they may do their best on the Ontario farms this coming summer.

The Farmerettes are here nearly forty strong, and are taking to their new work and new environment. Their three weeks course is not designed to be an outing, but is one where energy and determination are necessary. The course is of a very practical nature, most of the time being spent at work in gardens, orchards, stables and farm dairy, where actual practice in farm operations is given. The course is so arranged that a general working knowledge of the routine labors of the farm may be obtained, and each student will get ample practice in the various departments to qualify her for the place she will fill in the rural districts.

By some people this new course is looked on as a fad, and the farmerettes as sort of useful picnickers, out for a summer vacation, but this notion must be dispelled. During the past two seasons we have seen the work the girls are doing on our farms. The testimony of all who have been able to secure the help of National Service girls has been of a favorable nature. The work is urgent and help is scarce, in fact, trained help is not available now. Therefore, it has been thought wise to establish a short course in practical farm work so that the young women of our towns and cities might be given definite training

that would fit them for the duties they will undertake. We admire the pluck of these girls and also the judgment of those who have outlined the course. Both regular students and short course students of the O. A. C. have made good in the agricultural world, so why not look for great things from our Farmerettes?

GIVE US HER NAME.

In the March Number of The Review we announced that Macdonald Ex-Students would be given prominence in this month's issue. Behold the accomplished work! It is not quite as "Macish" as we had intended, owing to the fact that Alumnae notes have come in but slowly, and then after much 'nagging.' Our representatives at the Hall have worked hard to gather the threads of news together, and have given us facts of interest about our heroines and our ordinary graduates.

We hope that this beginning will be followed up by those interested in our girls. Remember that the doings of our Mac Graduates are as interesting to us as are the doings of our boys. We have many girls at the front who are experiencing as much excitement as many of the boys, and in their various capacities are "carrying on" just as bravely. We want to hear of these, and to tell of them.

It is our aim to compile a list of the Ex-Students of Macdonald Institute who are in any way connected with overseas activities. This will be published as soon as you send in the information we require. Why should our Girls not have an Honour Roll in our Alumnae columns? They deserve it! Give us her name and all the particulars you may have.



Dr. G. C. Creelman is in receipt of a letter from W. Davison '13. Sergt. Davison writes cheerfully.

The following, in part, is his letter.

"I have been Farrier Sergeant in the Battery for three years, and like the work so well that I think of taking a Veterinary course after completing my work here. I should prefer taking that course in Ontario.

I have seen Jim several times. I thought he looked pretty fit the other day when he was in to see me. I imagine that his new occupation with the agricultural officers will provide him with new interests and ward off the spirit of "fed-upness" which has such a strong tendency to prevail. He will certainly be kept busy, for there is a good deal of work being started this year in this part of the front.

I occasionally run into Harding, Geo. Wilson, J. B. Grange, Jim Brown, and Pat Keegan, among others. Pat, I believe, is now in England. He went sick when on leave, so his batman told me.

We all seem to keep pretty well on it. Personally, I have not so far suffered from anything more severe than a cold and am very thankful withal.

I got quite a fund of Guelph news from Jim when I saw him last and was a good deal interested. The old place

must be pretty quiet now with small classes, and war conditions must be pronounced. England is indeed a changed place, though for the most part the people are endowed with an abundance of fortitude and cheerfulness."

Dr. Creelman has also received a letter from E. F. Coke, '09, who is now a Staff Captain of the 168th Infantry Brigade, Imperial Army.

In Capt. Coke's letter to Dr. Creelman he says in part:—

The war, when is it going to end? It's no use asking a soldier that question. Out here we only know our immediate front. However, if confidence will win, we shall soon be all home again, because we are all very confident. The Hun may attack, but he will be sorry for it, as he will find that the old fighting spirit of the Mons, Marne and Ypres battles still exist, and he will get a worse drubbing than ever.

Major Victor J. Kent, of London, Ont., Commander of the 55th Battery, C. F. A., was killed in action on March 5. He met his death while insuring the safety of his men, shortly after artillery operations had ceased. He was a prince. He had proved a clever commander, a soldier and a man, who died like a man for others.

O. A. C. MEN AT O. A. C.

The following O.A.C. graduates are at present on the College staff here.

- 1888 G. C. Creelman, B.S.A., LL.D., President.
 H. H. Dean, B.S.A., Prof. of Dairy Husbandry.
 C. A. Zavitz, B.S.A., D.S., Prof. Field Husbandry
 1893 R. Harcourt, B.S.A., Prof. of Chemistry.
 1894 W. R. Graham, B.S.A., Prof. of Poultry Husbandry.
 1904 H. L. Fulmer, B.S.A., Lecturer in Chemistry.
 J. E. Howitt, M.S.A., Prof. of Botany.
 1905 H. H. LeDrew, B.S.A., Lecturer in Economics and English.
 A. Leitch, B.S.A., Lecturer in Farm management.
 A. W. Mason, B.S.A., Field Husbandry Dept.
 1906 C. R. Klinck, B. S.A., Field Husbandry Dept.
 1907 J. W. Crow, B.S.A., Prof. of Horticulture.
 W. J. Squirrell, B.S.A., Associate Prof. of Field Husbandry
 1908 D. H. Jones, B.S.A., Prof. of Bacteriology.
 L. Caesar, B.A., B.S.A., Associate Prof. of Entomology.
 1909 G. H. Unwin, B.S.A., Lecturer in English and French.
 A. Maclaren, B.S.A., Lecturer in Rural Sociology
 1911 A. W. Baker, B.S.A., Lecturer in Entomology.
 F. N. Marcellus, B.S.A., Lecturer in Poultry.
 S. H. Gandier, B.S.A., College Secretary.
 W. Toole, B.S.A., Prof. of Animal Husbandry.
 1912 W. H. Wright, B.S.A., Demonstrator in Botany. (Enlisted)

- A. L. Gibson, B.S.A., Lecturer in Chemistry
 R. R. Graham, B.A., B.S.A., Lecturer in Physics.
 T. H. Lund, B.S.A., Lecturer in Bacteriology.
 1913 H. M. King, B.S.A., Lecturer in Animal Husbandry.
 S. R. Curzon, B.S.A., Chemistry Department.
 1914 G. J. Spencer, B.S.A., Demonstrator in Entomology, (enlisted)
 1915 J. A. Neilson, B.S.A., Lecturer in Horticulture.
 J. P. Sackville, B.S.A., Demonstrator in Animal Husbandry.
 1916 W. H. Scott, B.S.A., Demonstrator in Physics Dept.
 R. J. Skelton, B.S.A., Demonstrator in Dairying. (Enlisted.)
 1917 E. Hearle, B.S.A., Resident Master and Instructor in English.
 R. M. Aiton, B.S.A., Botanical Department.

O. A. C. MEN IN MANITOBA

- 1903 F. W. Brodrick, B.S.A., Prof. of Horticulture at Manitoba Agr. College
 1905 W. McKillican, B.S.A., Superintendent of Exp. Farm, Brandon, Man.
 1909 Major N. D. McKenzie, Asst. Supt. of Experimental Farm at Brandon, Man.
 1911 M. C. Herner, B.S.A., Prof. of Poultry Husb., Manitoba Agr. College.
 A. J. Galbraith, B.S.A., Prof. of Chemistry, M. A. C.
 1912 W. M. Southworth, B.S.A., Agrostologist, M. A. C.
 1913 R. W. Brown, B.S.A., Prof. of Dairying, M. A. C.
 1914 J. E. Bergey, B.S.A., Poultry Specialists Dept. of Agr., Winnipeg.

1915 J. F. Francis, B.S.A., Lecturer in Poultry Husbandry. M. A. C.

J. B. Reynolds, M. A., former Prof. of English at College here, is President of Manitoba Agricultural College.

Driver G. Knowles writes from Witley Camp, England.

Witley Camp,
Surrey, Eng.
7th March, '18

Dear Scottie:

This is Wednesday afternoon and we all have a half holiday, and it is such a nice, warm sunny day that I would love to be able to go out for a stroll and see something of this place, but as it is we are still in quarantine and hear no talk of when we may be free. Just now the Sergeant-Major has come to the door and told us to fall in for parade at 1.45, it is now twenty minutes to two, so I must get busy.

I started to write this note yesterday but never got time to finish it. I thought we were going to get a half holiday yesterday but instead they took us out and gave us an hour and a half of foot drill out on the parade ground. This is the way they spring things on us here we never know what is going to happen ten minutes ahead of time; but we sure do like the life here.

It is eleven o'clock now and this morning we have been for a two-hour route march. I try to get on as many of them as possible, we go a different direction nearly every day and the scenery is fine. On first looking at Witley, I formed a wrong opinion of the place. I imagined that the country around here was all bush and sand hills, but that is not so. You can go in almost any direction from our quarters, and in half an hour you are in a good farming district. There are many beautiful residences here and the sight of freshly springing grass and budding

flowers gives one the spring fever.

I wrote a letter to "Doc" and one to Hugo, and a great many to other people. I almost forget what I said to "Doc" and I don't want to repeat the same stuff again to you. But if there is anything you want to know, ask me in your next letter and I shall be glad to tell you.

By the way, if you are coming overseas soon, be sure you keep plenty of your eats until you get on the boat. It is there you will need them most. Most of us like fools eat pretty nearly all we had while on the train. It was almost impossible to buy anything to eat on boat.

I hope you will have a more enjoyable voyage than we had, except the first and the last two days, we had an exceptionally heavy sea. Some of the crew said it was the worst trip our ship had had for several years. All the life boats on the rear part of her were either destroyed or washed overboard. Yet, strange to say, there were not many of us sick. I mean few of us fed the fishes, all, of course, were sick of the trip. The reason, I believe, was that it was a side wind and it was a rolling motion that we felt rather than a pitch. I for one was able to hold down all I got and I don't consider myself a good sailor.

I am not supposed to say how long we were crossing, nor by what steamer we came, but we tossed about several days more than I ever thought we would.

Miserable a trip as it was, there were moments when it was mighty hard to keep from laughing. I was quartered down in the steerage and about as low down as I could get. There was hardly an hour of the day that there was not some rumpus or other. Every little while the old Atlantic would show its power over all

and throw a mighty wave against our ship so that it fell over to one side so far that one would think it was going to go over all together, and then the piles of dishes rolled to the floor and smashed into hundreds of pieces, but nobody seemed to care, the only regret was that it was a heap of clean ones instead of dirty.

You will notice that I am a driver; a few days after we came to camp, all the drafts were marched out on the parade ground, and the men weighing over 150 were asked to fall out for gunners, men under 150 for drivers. I am not sorry in a way, for gunners get no instruction in riding, on the other hand drivers, I am told, get no instruction in gunnery. Gunnery, I believe is the better job in France, but I would not like to miss the riding course. I should worry, I don't think they can sicken me of that kind of stuff.

Must stop. Write soon. George.
Address:

Driver G. Knowles,
No. 335264,
64th Draft,
Witley Camp,
Surrey, Eng.

O. McConkey writes from France:
France, Feb. 1, '18

President

Cosmo.-Club,

O. A. College.

Dear Fellows:—

How I wish I could land into that old sitting room to-night. It would be "tres bon."

Have a good time while you are there boys, for believe me, those precincts are hard to equal, only to-night I heard one of the boys saying that he thought when he went back, he would go to College all the time because it was the

nearest the ideal existence he had experienced.

He is a University of Penn. man, and he has suggested that his old frat. and the "Cosmo" establish. He has written to that effect, so matters have been facilitated.

The Address is the:—

Sigma Phi. Sigma Frat.,
University of Penn.,
Philadelphia,

Penn.

I wish you could see me writing this letter. We played rugby with a sister battery to-day, so I have stretched out on a great coat on the floor. A kit-bag for a pillow, my feet against the cartridge by the stove. Every once in a while a pair of muddy boots pass over me and perilously near my stationery.

Well lads, I must hike, so bon nuit and good luck.

Sincerely,

O. McConkey,
6th Canadian Siege Battery,
B. E. F.
France.

ENLISTED

OMISSIONS FROM CHRISTMAS NUMBER

Lieut. W. W. Sharman, '09, 4th Res. Bn.

Cadet G. C. Atkinson, '16, R.F.C., Hastings.*

Corporal R. C. Moorehouse, '14, 4th Res. Bn.

Capt. C. A. Good, '14, 4th Res. Bn.

During a recent exchange of prisoners, Capt. J. E. Lattimer, '14, who had been a prisoner in Germany was exchanged. Capt. Lattimer is now in England.

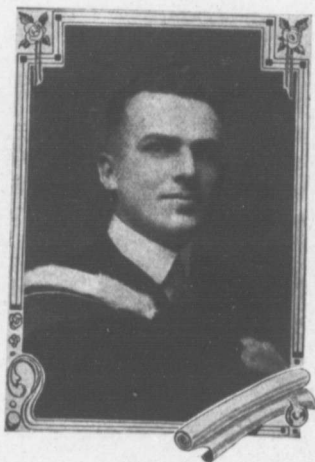
J. A. Hall, '20, has enlisted in Friends Re-construction Unit, Philadelphia, U.S.A.

Gnr.'s J. McLean and V. C. Lowell, '19, of the 64th Battery, have sailed for England. Gnr. McLean's address is:

Gnr. J. McLean,
No. 325297,
64th Battery, C.F.A., C.E.F.,
Witley Camp,
Eng.

Care of Army P.O.
London, Eng.

R. Finklestein, B.S. in Agr., has left the Bacteriological Department and has gone to his home in the States to enlist in the American Army.



W. M. HAWLEY

W. M. Hawley, '18, has enlisted at Toronto, as a driver in the Light

Horse Artillery overseas draft. His home address is 593 Jarvis Street, Toronto.

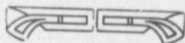
Rev. J. R. McCrimmon, '97, is now preaching at Glen Morris. He has been operating a farm near Stoney Creek for some time.

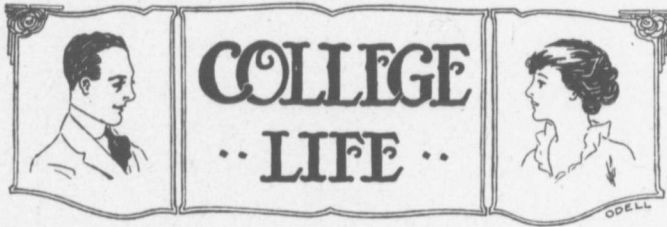
The appointment of W. A. Weir to the position of Assistant Provincial Apiarist is most satisfactory to those who know the man. "Will" is an Associate with year '18, and is a practical beekeeper. He operates two apiaries near Toronto, and is recognized as one of Ontario's leading commercial bee men.

H. Harley Selwyn, '18, is engaged in commercial beekeeping, with headquarters at Kirk's Ferry, Que., near Ottawa.

J. C. McBeath and E. S. Snyder are on the Poultry Department at the Ontario Agricultural College.

Gunner H. S. McWhinney, '18, 107 Roxborough Street east, has been awarded the military medal. Gunner McWhinney established communications from an advanced pill box under the most trying conditions, and, at times, under intense enemy shell fire. Gunner McWhinney attended the O. A. College before the war and went overseas in October, 1916, with a draft from the 67th Battery.





RESULTS OF SPRING ELECTIONS

UNION LITERARY

Hon. Pres.—G. H. Unwin, B.S.A.

Pres.—A. M. Stewart.

Treas.—W. L. Currier.

Sec.—J. McCague.

ATHLETIC SOCIETY

Basket Ball Mgr—A. W. Baker.

Baseball Mgr—W. J. Squirrell.

Aquatic Mgr—G. H. Unwin.

Hockey Mgr—R. C. Moffat.

REVIEW STAFF

Associate Editor—G. B. Hood.

Agriculture—C. F. MacKenzie.

College Life—W. C. Hopper.

Alumni—W. Murdoch.

Locals—D. O. Macdonald.

Query—J. A. Hall.

Athletic—H. A. Smallfield.

Artist—M. C. Jamieson.

Horticulture—T. H. Jones.

Experimental—R. A. Brink.

Poultry—A. B. Jackson.

ANIMAL HUSBANDRY CLUB

The final and probably the largest and most successful meeting of the Animal Husbandry Club for the year was held in Massey Hall on Tuesday evening, March 19th. It was addressed by Prof. G. E. Day on the subject of "Shorthorn Families and Pedigrees". Although examinations were drawing close, few students felt they could afford to miss a last opportunity of hearing Prof. Day speak on this sub-

ject on which he is such an authority.

Prof. Day first outlined the origin and early improvers of the breed. Shorthorns were so-called to distinguish them from the long-horn type of cattle, which were numerous in Durham, York and Northumberland. Two Colling brothers, by selection and in-breeding laid the foundation for later breeders.

Greatest among these latter was Thos. Bates. He also selected and inbred closely. His "Duchess" family became wonderfully popular and in 1876 one Duchess cow sold in New York for \$46,000—a startling price in those days. Bates' cattle were noted for beauty and milking ability, along with early maturity and straight blocky form. They lacked, however, fecundity, constitution and depth of natural fleshing. In spite of these faults Bates-bred cattle became, and still are, more favoured in England than any other strain.

Amos Cruickshank lived at Sittyton, a farm in Aberdeenshire, Scotland. He bred cattle for meat, form and vigour. His deep-fleshed, vigorous, early-maturing, low-set cattle became more favoured in America than did English bred Shorthorns. To-day "Cruickshank" on a Shorthorn pedigree marks quality as does "Rogers 1847" on silverware.

Prof. Day explained "Scotch" and "Scotch-topped" pedigrees. The form-

er are those of animals whose ancestors were bred by Cruickshank or other Scotch breeders without the later crossing with English Shorthorns. The "Scotch-topped" pedigrees, however, have this crossing, and the pure "Scotch" strains are preferred above them.

A Shorthorn family derives its name from some outstanding cow several crosses back, and heifer calves should be given the name of that family to which they belong. Among the most noted Cruickshank families are, the Roan Ladys, Misses, Lavender, Clippers, Orange Blossoms, Broadhooks, and Minas.

In closing, Prof. Day advised all those interested in Shorthorns to buy and read "Shorthorn History", recently revised by the author, Alvin P. Saunders, and on sale for a low price by "The Breeders Gazette". The History is written in splendid literary style and in many places has more action and interest than a novel.

D. J. P.

EXAMINATIONS, ARRANGED IN ORDER OF PROFICIENCY

YEAR STANDING, 1917-18

First Year Maximum, 2,500

1. Jukes.....	2,052
2. McCrimmon.....	2,051
3. Ferguson.....	1,968
4. Stock.....	1,876
5. Frith.....	1,871
6. Irvine.....	1,815
7. Eidt.....	1,812
8. Simpson.....	1,810
9. McCague.....	1,759
10. Macarthur.....	1,747
11. Clemens.....	1,702
12. Howe.....	1,697
13. Cole.....	1,696

14. Young.....	1,690
15. Deneau.....	1,684
16. Jamieson.....	1,665
16. Shoemaker.....	1,665
18. Chamberlain.....	1,627
19. Smith.....	1,611
20. Coon.....	1,572
21. Jones.....	1,570
22. Macdonald.....	1,559
23. Munro.....	1,535
24. Snyder.....	1,505
24. Stirrett.....	1,505
26. Welch.....	1,497
27. Clark.....	1,491
28. Matthews.....	1,490
29. Webster, H. F. R.....	1,483
30. Watterworth.....	1,481
31. Barber.....	1,455
32. Maunsell.....	1,445
33. Greaney.....	1,432
34. Sippel.....	1,428
35. White.....	1,426
36. Stott.....	1,422
37. Butt.....	1,383
38. Taylor, H. H.....	1,375
39. Gibbard.....	1,374
40. Katcharian.....	1,346
41. Lindala.....	1,339
42. Laing.....	1,329
43. Taylor, W. D.....	1,327
44. Christensen.....	1,322
45. Devitt.....	1,295
46. Cohen.....	1,278
47. Brown.....	1,266
48. Lowrie.....	1,265
49. Conway.....	1,263
50. Segal.....	1,257
51. Collier.....	1,254
52. Goodier.....	1,239
53. Webster, F. J.....	1,231
54. Sirrs.....	1,237
55. Ashby.....	1,180
56. Alexander.....	1,178
57. Thompson.....	1,140
58. Bernal.....	1,099
59. Lathey.....	1,079
60. Williams.....	1,074
61. Bolton.....	984

Second Year Maximum—3,100

1. Hopper.....	2,387
2. Currier.....	2,304
3. Murdoch.....	2,246
4. Mead.....	2,234
5. Maynard.....	2,224
6. Zavitz.....	2,212
7. Hood.....	2,182
8. Hansuld.....	2,179
9. Harris.....	2,147
10. Lindsay.....	2,132
11. Hall.....	2,127
12. King.....	2,083
13. McKay.....	2,069
14. Smallfield.....	2,044
15. Porter.....	2,028
16. Jamieson.....	2,013
17. Frey.....	2,004
18. Williamson.....	1,997
19. Arnold.....	1,942
20. Leavens.....	1,919
21. Pegg.....	1,909
22. Fraser.....	1,907
23. Patterson.....	1,892
24. Silcox.....	1,862
25. Wood.....	1,847
26. Scott.....	1,812
27. Whillians.....	1,754
28. White.....	1,724

Third Year Maximum—2,300

1. Delong.....	1,940
2. Campbell.....	1,827
3. Grant.....	1,803
4. Odell.....	1,796
5. Quail.....	1,705
6. Oliver.....	1,695
7. Munro.....	1,681
8. Jackson.....	1,664
9. Hunter.....	1,660
10. Brink.....	1,651
11. Musgrave.....	1,640
12. Clark.....	1,630
13. Scouten.....	1,568
14. Gunn.....	1,547
15. Sweeney.....	1,539
16. Malyon.....	1,514
17. Matheson.....	1,443

18. Aylsworth.....	1,433
19. Way.....	1,426
20. MacKenzie.....	1,409
21. Caldwell.....	1,407
22. Gowland.....	1,393
23. Jones.....	1,370
24. Tice.....	1,253
25. Allan.....	1,347
26. Stewart.....	1,337
27. Higgins.....	1,300
28. Stillwell.....	1,234
29. Anderson.....	1,233
30. Minielly.....	1,217
31. Lamont.....	1,191
32. Light.....	1,188
33. Cook.....	1,049

THE DAIRY CONFERENCE AT O. A. C.

PROF DEAN broke the sod when he called together in Massey Hall, on April 4th and 5th, the representatives of the various branches of dairying, to consider the advisability of forming a Provincial Dairy Association and to discuss matters of importance to all interested in this great industry. In the past there has not been enough unity of the branches for the good of the industry, for had they been united, oleomargarine might never have entered Canada.

The first session was devoted to milk and cream problems. Mr. E. H. Stonehouse told how conditions were for the "man behind the cow", and that they were far from satisfactory. The present price of milk is not sufficient, and many a dairy farmer would be better off financially if he disposed of his herd and marketed his grain. With the price of feed and labor there is little relief in sight for the dairymen.

Dr. C. J. Hastings of the Toronto Department of Health spoke on the milk problem of towns and cities. Milk causes high infant mortality, is a carrier of numerous diseases, should it come in contact with them, and con-

sequently the milk supply should be carefully guarded. The Doctor said, "it is the man more than the barn that causes the high bacterial count," and that careful sterilization of utensils and immediate chilling of milk would go a long way towards the production of clean milk. He advised pasteurization of all milk, for even epidemics of typhoid have been traced to Certified Milk, and by investigation it was found 25% of tuberculosis occurring in children under 16 was of the bovine type. If properly cared for milk is safe and one of the cheapest articles of diet. One quart of milk and one pound of steak are equal in nutritive value, yet milk retails at half the price of the steak.

Dr. G. L. McKay, of Chicago spoke on the oleomargarine question in Canada and after outlining its history gave some facts about "oleo". Other fats act as lubricants but lack a certain nutrient called "vitamines" which is found in butter. In experiments on rats by Dr. E. V. McCullum, it was found that with rats fed on vegetable fats their growth ceased but was resumed when fed on milk fat. 45 children who were fed on skim milk and vegetables became affected with swollen eyes and gums, but became normal again when fed milk fat. Dr. McKay said that all branches of dairying should get together and unite as one body to control the traffic of oleomargarine.

Mr. J. A. Ruddick, Dairy Commissioner gave figures showing that dairying was not on the decline but on the increase. The value of the dairy products in Canada was given as \$191,000,000.

R. J. McLean, representing the Produce Dealers' Association believed it was a splendid idea of Prof. Dean's to get the dairymen together and dis-

cuss the problems in which we are all interested.

Frank Hearn, Chief Dairy Instructor for Western Ontario, led the discussion on cheesemakers problems. Cheesemakers were finding it difficult to secure help, a remedy suggested was to make the wage more attractive for other markets were able to outbid the cheesemaker. The advisability of increasing the moisture content was doubtful, for though a cheese may be a little too dry for some trades it would not hold up for long periods of storage.

G. G. Pablow, Dairy Instructor for Eastern Ontario, continued the discussion. In Eastern Ontario the yield of cheese per 100 lbs of milk was declining. He advised more care in setting of the milk with coagulents used as substitutes for rennet.

Buttermaking in the creamery was the subject discussed by Dr. G. L. McKay, Secretary of the American Association of Creamery Butter Manufacturers, which manufacture more than $\frac{1}{2}$ of the butter made in the United States. Buttermakers are scarce and the uniformity of the product is dependent upon the ability of the makers. It was contended that one of the best methods of combating "oleo" was with butter of good quality. To make good butter the raw cream must be delivered in good condition and be pasteurized so as to control the bacteria, yeasts, and molds. Dr. McKay dwelt on the point that makers should pay more attention to the salt and moisture content, and in this way, improve the quality of their product.

Mack Robertson, President of the Canadian Creamery Association, talked on the necessity of greater care in sampling, and in testing of samples, and advocating more care in the moisture and salt content in butter. "It is

(Continued on page xviii)



TO THE GIRLS OF 1918

BY DR. ANNIE ROSS

The Girls asked me to write and I said "What shall I write?" "Something for next month," was the reply, "for next month the Macdonald Girls are to have a larger place in the O.A.C. Review!" Then to myself I said, "the world does move;" and to my mind came a picture seen last January, a picture of Father Time bringing in the new 1918 with the announcement "It's a Girl!"

Surely 1918 is a Girl's Year! Girls in our banks, girls on our farms, girls with the franchise, girls with a more exalted place in the O.A.C. Review!

Girls, the world seems yours! You will live no more in the shallows, but launch out into the deep experiences of life and faith; and the deep things in you will respond to the call of the deep things in life, and from out the great heart of the world there will come into your heart the yearnings that only new wonder and new power can satisfy.

What will you be and what will you do? No doubt if you could, you would be beautiful and witty, well dressed and a good sport, make fifty thousand a year, and be an artist, an M.P., a musician, a saint. The variety is pleasing but impossible. To attain your truest, strongest self, you will choose and suppress and select. You will always remember that you are daughters of the King, and as daughters of the King no company can be too exalted for your presence, no home

too humble for your activities. You will drink at the fountain of knowledge and you will scorn the sham learning that vaunteth itself. You will not sacrifice your simplicity for artificiality nor your sincerity for flattery.

Nothing unnatural is true; to that test you will bring all that men or women or books will ask you to believe, and you will have nothing to do with the things that do not pass that test. You will keep close to nature. Your sight is not so dim, your sense is not so dead that you cannot see the moving Hand of God in all His Works. The unspeakable glories that crowd about your lives,—the majesty of the starlit night, the beauty of the sun in the West, the living dynamo within the seed, which can make a yellow daffodil from earth and sunshine and rain; the dawn of light and understanding in the mind, the silence of the Universe in which nothing is still,—these will be to you but the reflection of the Kingdom of Heaven in the kingdom of nature.

Nothing will be dead to you. You will know everything is part of a living whole, in which you too are but a part. Knowing this you will live as if your life were not for you alone. You will not waste it nor throw it away, nor let yourself grow into the habit of frittering away your strength, or of living from day to day as if the end of life were to maintain you in luxury and ease.

Useless people have no rights, for

rights are accompanied by responsibilities. You have a right to give, you are responsible for what you take.

Long ago a wise man said,—“You may put poison into an earthen pitcher, and the pitcher be washed after it and none the worse; but you can take nothing into the soul that does not indelibly infect it for good or evil.” What Socrates taught is still true. What enters the soul becomes a part of you; the body, being frail, leaves you, the strength of the body passes into the soul, and the soul goes on alone, yet not alone, for King's daughters on their journey through the universe shall one day surely meet the King.

So 1918 is here with its problems. You will launch out to meet its changing conditions bravely and quietly. Quietly—that the noise of your multiplying activities may not cause you to miss the power of the sweet silences of faith and reverence.

“To see the beauteous world;
To breathe the fragrant air,
To hear accordant sounds,
To feel, to be,—this is not life!

There is a larger view
There is a deeper breath,
There is a finer touch,
And a diviner sound
Than sense can e'er reveal.

To see the glory in the Infinite,
To feel the truth of the Almighty,
To hear the voice of the I AM,—
This is to live!

MACDONALD AND ITS GRADUATES

BY ANNIE GOW, '18

During these times of strain and stress the name of Macdonald Institute stands well to the fore among the prominent and necessary colleges

throughout this country. About one hundred and twenty-five girls pass through these doors every year to sow the seeds of their learning in good ground. War-time has brought with it the need for economy, not only with regard to our food but even our clothing, housing and heating.

Macdonald graduates are acquitting themselves nobly and those who are soon to leave these halls should be better equipped than any other class, to take up their share of the colossal task. Surely the pages of this Alumni Edition of our college paper should convince the reader of the fact that the women who have been numbered with us, are now doing their bit in so far as it is possible.

Girls nowadays have ambitions which soar far away from those of our mothers, but their destination is none the less fixed. Every girl wants to help, and the class of '18 is no exception to the general rule. Almost every one who completes her course in June intends to follow it up shortly, and plans seem to be under constant discussion. We have heard it said before that there is no bigger change comes over a girl in all her life time than in the first six weeks after she accepts her responsibilities and becomes head of her department.

Looking back over our two years they seem to have passed so quickly, and yet on that September morning when we were first welcomed here, what an age of days stretched before us! We have learned other things in addition to Home Economics during our stay here. Many of our sisterless girls have learned what it means to live in such close relationship with other girls. Some of the more timid ones have learned self-assertion, some learned unselfishness, but every one has benefitted.

Once in a while a society butterfly floats into our midst, driven thither, perhaps, by the breezes of parental authority. What an interesting change occurs! She dons a simple dress of blue and white, adds her apron, then, as with the khaki-clad ranks, she cannot be distinguished from the others.

Just a word to the seniors of next year. The secret of success lies in well-laid plans and the faculty of carrying them out. Last fall, one of the members of our staff in addressing us on our first Sunday evening after the holidays, gave an inspiring little motto. "Remember you have only to live one day at a time. Yes! not only one day at a time, one hour at a time, even one minute at a time. Fill your minutes carefully, and the days will look after themselves." This would we hand on to next year's senior class.

MRS. K. FULLER

A Macdonald number of the O.A.C. Review would be unworthy of its title if it failed to contain an appreciation, however inadequate, of the gracious lady who has presided over the life of the students outside their actual work in the Institute, ever since its inauguration.

Mrs. Fuller is the perfect House Mother. In her person, natural gifts both physical and mental, education, experience of the world, the joys and cares of a family, the discipline of grief and strong religious convictions have united to produce the very woman who is needed to fill the position.

Her marvellous energy is one of her most valuable assets, for it has allowed

her not only to fulfil with striking ability all the responsibilities which burden the director of a large residence, but also to share the pursuits and pleasures of the inmates. She has joined in their out-of-door sports and excursions, and led their home recreations. Her musical talent, kept bright by use, has been freely devoted to the general service. She is always ready to accompany the singer or the violinist, or to play for those who dance, while her untiring work in connection with the college orchestra, the Philharmonic

society and the choir, is beyond all praise. The service in Massey Hall on Sunday afternoon owes its impressiveness in a very large degree to Mrs. Fuller's excellent taste and reverent performance.

While maintaining by her forceful character—apparently without effort—the necessary order and discipline, she has never been harsh or over strict, and has allowed the students all reasonable liberty. All

realize that Mrs. Fuller has their best interests at heart, and regards them sympathetically, and they do not hesitate to confide in her and seek her advice and comfort in difficulty or distress. One student was voicing the thought of all when she said: "Next to my own mother, I would rather go to Mrs. Fuller than anyone I know." Besides being kind, she is very just and fair, and many a conscience-stricken transgressor, being moved to confess her misdemeanors, has been relieved and helped. Her hand on the helm has again and again steered a safe course for Macdonald



MRS. K. FULLER

Hall, through cross currents and contrary winds, and her tact has saved many difficult situations.

Not the least remarkable of Mrs. Fuller's characteristics is her memory of past students: she holds them still in her affection and watches their career with keen interest, while they are always sure of a hearty welcome when visiting the home of their college days.

Mrs. Fuller has passed through deep sorrows, but has emerged with faith undimmed and courage unabated: she has won esteem and reverence from both sides of the campus, and her personality will always stand out very clearly in the most pleasant recollections of all who pass through Macdonald or the O.A.C.

FOOD CONSERVATION

The Director of Home Economics has been questioning the Macdonald students with the object of discovering the extent to which food conservation is being practised by people in the various neighborhoods where the students spent the Easter vacation.

It would appear that in many cases, the pocket-book is considered before patriotism. People are living more plainly only because food is dear, and comparatively few seem to realize the need for substitution of foods which are not required overseas, for the wheat, beef and bacon, for which the Allies are crying out, and which they must have if they are to carry the war to a successful conclusion.

Ignorance or apathy, at the worst, is usually the cause of the failure to answer to the call, but in some few cases, positive unwillingness to help is evidenced.

Here is an objection which it is not easy to meet:

"Why should Canada deny herself in order to send wheat overseas, when Britain is using large quantities of grain to brew beer and distil spirits?"

What answer should be given to those who offer this question when urged to conserve wheat?

Is there a flaw in their reasoning, and if so where does it lie?

If Macdonald students are to use their influence in this cause and act as conservation propagandists, they must be able to meet antagonism with irrefutable statements. Who will solve the problem?

MACDONALD HALL PICNICS

Hustle, bustle! what causes all this scurry? "A tramp to the Dairy Woods and supper over a fire" has been suggested by some bright student at the Hall, and her colleagues are losing no time in falling in with the happy thought. Frequent trips to the kitchen are made where in a characteristic manner, which experience alone can give, baskets are filled with mysterious parcels for future reference.

From third to first the stairs are lined with "Macdonaldites" and a pushing, pulling, chattering, seething mass excitedly throng the post office in the wild struggle to be the first to break the joyful news to the favored O.A.C. friend. Never did a 'phone carry so many eager messages! At last all is arranged satisfactorily and the moments drag, as tensely the maidens at the well await the first victims. However, the longest moment must end, and all armed against the pangs of hunger troop forth across the campus and along the well known trail with many a joke and laugh.

The goal is gained and each seeks her own amusement. The fearful but eager fans are initiated into the mysteries of baseball, which proves equally

thrilling to the on-lookers. No high fence daunts the twentieth century girl and many are mounted with a skill which suggests practise elsewhere. Ample opportunity is given for our photographers to distinguish themselves and many unconscious groups are taken in various poses.

When the most welcome hour of all draws near the number of willing volunteers is marvellous and soon a blazing fire is roaring. Branches see service in a way Nature never intended and weiners are toasted to perfection.

The merry little musician makes time fly with her ukalele as all join in the choruses of songs loved by all, in the glow of the crackling blaze. Shadows flicker over happy dreamy faces lending the scene a ghostly charm and so a perfect day draws to a close.

Seasons fail to pass without picnics of every description. In this way classes entertain each other and the more restless ones, weary of the formal dining hall, enjoy a meal "gypsy fashion."

Very few spots of the surrounding country lie unexplored by these wandering parties and when Spring comes the desire to roam is irresistible, hence the picnics! Do you wonder?

I. O. D. E.

The initial year of the organization of the O. A. C. Chapter of the Daughters of the Empire has been brought to a successful close. Since the inauguration last May, the Chapter has been carrying on different lines of activities, such as educational meetings, sewing-bees, and social functions. These have been reported from time to time, so let it suffice to say that during the year \$350 has been raised. The following sewing has been completed.

92 handkerchiefs,

50 Face-cloths.

50 Property-bags.

8 House-wives.

30 Stretcher-caps and socks.

Much credit is due our retiring regent, Miss Hodgins, for the capable manner in which she has managed the work.

March 10th, a meeting was held in the Hall Gymnasium, for the purpose of nominations and election of officers for the ensuing year. The results were as follows:—

Honorary Regent—Mrs. Fuller.

Regent—Muriel Brown.

1st Vice—Ethel Nichol.

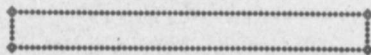
2nd Vice—Ellie Todd.

Secretary—Dorothy Falconbridge.

Asst. Sec.—Mary Clerk.

Treasurer—Jean Flatt.

Standard Bearer—Hattie English.



Macdonald Alumnae

In order that on-lookers may be able to realize what Macdonald Graduates are actually doing, and to show the comprehensiveness of the work undertaken, and in order that information may be given to the friends of the girls, we print the following notes:—



MISS LEAH MCCARTHY

Leah McCarthy has just returned to England after a short leave. She is now nursing in the wards in the Queen's Canadian Hospital, Shorncliffe.

Johann Hamilton is now Head of the Home Economics Department in connection with the Dalhousie University.

Olive Hayes has been appointed to a position in the Food Controller's Office, Vancouver. Very recently she has made a tour of the interior of the province, in the interests of Food Conservation Research.

Flora Taylor of St. Catharines, has also returned to work in England, in the same hospital.

Ruth Lampton is Industrial Secretary of the general Y.W. C.A., Utica, N.Y.

Lillian Beatty is Head Dietitian at the Convalescent Home, Guelph. Her work has been exceptionally heavy due to organization and re-arrangement.

Neta Banbrier of Hamilton, has just returned from England, where she has been for over two years, working in the Victoria League under Lady Drummond. Her experience of food conditions in England testifies to the fact that all had plenty of nourishing food, but all luxuries are entirely omitted.

Mary Kelso has been holding the position of Supervisor of Domestic Science Department, Brandon, but has now been appointed to the Head of the Home Economics Department of the Manitoba Agricultural College. Miss Kelso has also been an interested and enthusiastic worker on the Provincial Food Board.

Mrs. Jean Muldrew is working on the Canadian Food Board, Ottawa.

Roberta MacAdams stands out as one of the prominent women of Canada. Her career as known to most of us is, educated at Sarnia, graduated from Macdonald Institute, nursing-sister in Orphington Hospital, England, and finally elected as member of the Alberta Legislature, by the soldiers' vote.

Daisy Hamilton is nursing sister in the General Hospital, Maitland, South Africa. At the time of writing there were over two-thousand returned soldiers being cared for in that hospital.

Louise McKay and Marion Gowd are both doing V. A. D. work in the Brant House and Davisville Military Hospital, respectively.

Edith Young is nursing sister in Altona Hospital, Dublin. Her cheery letters show that she is intensely interested in her work.

Kathleen Dowler, Florence Irwin, Laura Black, are in charge of Domestic Science Departments in different schools in Winnipeg.

Mildred Ruttan and Margaret Hanna have completed a course of training in massage treatment, and are now practicing in Military Hospital.

ALUMNAE OF CLASS '17

As the time approaches when we, the seniors of the '18 class will have completed our course of studies at Macdonald, we naturally think of the seniors of '17 class, who one year ago were contemplating as seriously, the securing of positions which would af-

ford the 'best means of expression' of each individual. Therefore we read with interest and pleasure the account of the activities in which our seniors' are engaged.

Of the eight graduates of the Associate Class, we find that Mabel Balkwill of St Thomas, is teaching in Alma College, Doreen Bright and Dorothy Chowin are both taking pupil-dietitian work at the Whitby Military Hospital, Margaret Creelman and Edna Montgomery are completing a third year at Macdonald Institute, Elizabeth Langford is training for a nurse in the Toronto General Hospital, Marie Sheridan is assistant dietitian in the Newmarket Military Hospital, and Verna Smith is spending the time at home in Sarnia, after a pupil dietitian course in Detroit Hospital.

Next we turn to the work of the Normal Class. Betty Birkett is principal of the Olds Alberta Agricultural School, in the Household Science Department. Florence Cook is teaching Domestic Science at Halifax Ladies' College, N.S. Dorrit McCully is dietitian at the Naval Hospital at Halifax. (This hospital was partially destroyed during the explosion, but is being rebuilt, and will re-open shortly.) Mary Duff and Betty Wallace have completed pupil-dietitian work in the Toronto General Hospital. Mabel Geddes is engaged in settlement work at St. Christopher's House, Toronto. Aleda Lammiman has taken pupil-dietitian work at the Royal Victoria Hospital, Montreal, but at the present time is taking a similar course at the Guelph Convalescent Home. Christine McIntyre has secured a position on the Vancouver School Staff, where she has had the opportunity of equipping the domestic science department. Jean Grant has also been teaching domestic science.

Last but not least, we hear of the Housekeepers. Etta Birdsall is dietitian in the General Hospital, Regina. Edith Elliott is dietitian in the McKellar Hospital, Ft. William. Rona Fraser is Supervisor of House Practice at Macdonald Institute. Helen Grant is Household Supervisor of the Montreal Ladies' College. Mary Healy is completing a part of her course at Macdonald, owing to illness in the final year. Edith O'Flynn is Household Supervisor of the Y.W.C.A., Calgary. Helen Winlow is dietitian in the Queen's Military Hospital, Kingston, and Mabel Witmer holds the same position at Ogden Military Hospital, Calgary.

In connection with the list of names given above, it would be interesting to note a few remarks taken from letters, written by the different girls, in connection with their work. We can the more fully appreciate just what are the varied experiences through which each one is passing.

Mabel Geddes, who is in charge of the St. Christopher Settlement House, tells of the different phases of her work. "Had my first sewing class this afternoon. The little girls were making a dolls underskirt and consequently hemming had to be taught,—the proper sewing position. All succeeded except one little tot who will need to eat heaps of rolled oats and skimmed milk before her feet will rest on the floor.

Boys and girls of different ages organize clubs—even the little five year olds elect their officers and 'Madame President' puts motions to the house and signs the minutes."

Edith Elliott tells us that diplomacy is a necessary characteristic of a successful dietitian. An order given to the Chinese cook, "I want some pies

made today, Sam," is of no avail, but if "Will you make a nice pie for me today, Sam?" is substituted, it brings the response, "Me makee nice pie for Miss Elliott."

Florence Cook acted as dietitian for some time in the same college where, at present, she is teaching. As a result of the explosion in Halifax, the college was turned into an emergency hospital and A1 work was done to relieve the suffering.

Mabel Witmer writes regarding her work in the Military Hospital,—“We have over five hundred patients here. All are returned men—some of them very badly off, and others who will recover quickly, but all are so cheerful it makes one ashamed to grumble at the petty things we have to endure.”

Miss Agnes Robertson went to England in June 1916, hoping to find some opening in hospital work there. She was immediately accepted as a V. A. D. in the Queen's Canadian Military Hospital, Beachborough Park, Shorncliffe, where she remained for a year and a half. For the first few months her duties consisted largely of pantry work, setting trays, preparing drinks and light nourishment and washing dishes, etc. Later on she was detailed for ward work—that is the dusting, assisting with surgical dressing and the regular routine of the ward. After leaving Beachborough Park in October 1917, Miss Robertson joined the St. John Ambulance Brigade and was sent to No. 4 London General Hospital under the British Army Medical Corps, where she is spending six months, at the end of which time she has some prospect of being sent to France, Italy or Egypt. Miss Robertson is a graduate of the two year Normal Class of 1906.

FRANCES BEVEN

Frances Beven is attached to a Red Cross Hospital, Essex, England. She is ambulance motor driver for five hospitals and two internment camps. Her regular hours are from 8 a.m. to



FRANCES BEVEN

10 p.m., but a convoy coming in or an air raid, sometimes means all night as well. Meeting trains, moving patients from one hospital to another, acting as pall-bearer are among the duties she is called on to perform. Driving special surgeons or famous specialists who come to look after the boys, long distances through the country, are among the breaks in the regular routine.

Miss Beven is very happy in her work, "doing her bit," and writes,— "I would not exchange, even to have butter on my bread or cream in my

tea. It's the life in the army, and if conditions are not good in England, it's much worse for the boys in France."

Miss Beven is a graduate of the Associate class '16.

MARIE SHERIDAN, '17.

Year '17 will be glad to know that Marie Sheridan is still "screwing her courage to the sticking point" and making things go. Recently the Head Dietitian at Newmarket Military Convalescent Hospital took a notion to leave and Marie (whom the soldiers have called "The Baby Doll" since she arrived as Assistant Dietitian last Fall—had to keep things running. "Oh! girls, it was awful!" Marie told us one day in April when four of us had lunch together in Toronto, whither Marie had fled for a day's respite after the "awful five weeks." But although she disclaimed any credit we gathered from her account that things went quite as smoothly under her guidance as they had been going, and we are very proud of her.

Marie is still at Newmarket in the capacity of Assistant Dietitian

MARRIAGES

LEPPAN-HAMILTON

At Kensington, London, on Dec. 27, Captain Hubert Leppan, to Edie, fourth daughter of Mr. and Mrs. Robert Hamilton, Pretoria.

Both of the contraction parties were ex-students of the O.A.C.

MCLEAN-MOORE

On Wednesday, April 3rd, Mr. Walter McLean, of Calgary, to Miss Helen Moore.

The news of Helen's marriage came almost as a surprise to the girls at the Hall, and it was with regret that we

bade her farewell when she called to say good-bye before leaving for Calgary. Helen was a most popular member of the Junior Associate Class.

To readers of Rural Canada it is quite evident that an able manager is at the helm.

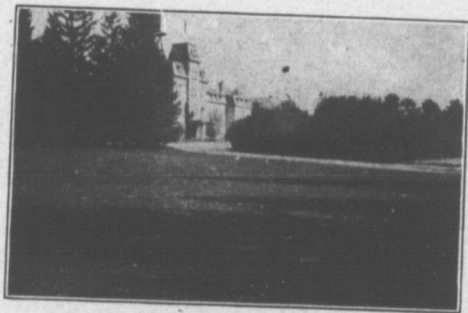
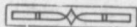
LAURA E. NIXON, '17.

When Laura Nixon refused a position as D. S. teacher, to take up the work of Managing Editor of RURAL CANADA she had visions of helping to teach some hundreds of thousands of girls and boys and men and women.

Although there were times at first when engravers and printers and manuscripts seemed all one grand jumble, and there are times yet when "pushing a pencil" seems like harder work than wielding chalk and brush, or needle and thread, she has not regretted her choice.



LAURA E. NIXON, 17



THE RESIDENCE

Macdonald Locals

A COMPARISON

SUGGESTED IMPROVEMENTS FOR MAC.

HALL

1. That prunes be served in succession for one month only. At the end of that period the diet might be varied with—say, cranberries.

2. That separate sleeping apartments be provided for the mice of Mac. Hall.

3. That escalators replace our old-fashioned stairways.

4. If fish we must have, let it be dry—not driest.

5. Now that the universal nuisance has been exterminated from the other side of the campus, that the neutralizing effect of chaperones is no longer necessary.

6. That a motor-ambulance be installed to operate between the bedrooms and breakfast room—proceeds for Red Cross purposes.

7. That young ladies be consulted before arrangements are made for the entertainment now becoming so popular for Friday evenings.

SUGGESTED IMPROVEMENTS FOR THE TRENCHES

That the bully beef be served for one month only. After that let us have real dinner for a change.

That a commodious rooming house be erected for the trench rats. We could do without them.

That we might climb out of the mud and waterholes somehow,—even by a stairway.

That if we must sleep in a dug-out, it might be dry, drier, driest.

That we could have the girl we left behind us to talk to for five minutes.

That we could go to church every Sunday, some time, any time, and hear the organ instead of the guns.

That we could have a breakfast room with breakfast in it.

That some people in Canada would come out here for a week, just to see what it's like!

An enthusiastic Mac. Girl was heard discussing the question of Food Conservation. "Why, we are using cornmeal at home until we are beginning to get silky around the ears, but if eating Johnny-cake will kill the Kaiser we will eat it until we tassel out on top."

A new discovery! How to get a Nigrican Fur Coat absolutely free! Just ask any member of the Bacteriology Class for the information.

Members of the Royal family have been suffering recently from attacks

of grippe. And yet Dr. Ross tells us that this disease is infectious not contagious.

1st Girl—"Miss Watson wants to see me in her office."

2nd Girl—"Why, whatever have you done?"

1st Girl—"It's what she has found out, that worries me."

Alex B—"Pardon me Miss S—, but do you come from Tillsonburg?"

Ruth S—"No! Why, do I resemble rolled oats?"

Lillian out walking—"Oh, look at the cute little Ayrshire pup."

"And still the wonder grew,
That one small head could carry all
she knew."

Evelyn (to Jean talking over the 'phone)—"Who are you talking to, Jean?"

From the other end of the wire came back the droll response, "Oh, tell her he is a gentleman, Jean. She'll never know the difference."

AT BREAKFAST

A—"I wish they would say grace and let us go! I want to wash something!"

B—"Your face, I suppose?"

They were strolling on the campus. Her eyes were turned heavenward and her ears were entranced by the song of a bird.

"Whatever is that?" she cried ecstatically. But his gaze was earthbound, and his nose was more sensitive than his ears.

"Only the compost heap," he murmured.

1st Mac of Mac—"I was eating some candy last night and I swallowed a tooth."

2nd Mac of Mac—"I'm surprised at you! Don't you know the difference between candy and teeth?"

1st Mac of Mac—"I think it must have been my sweet tooth!"

AFTER CHEMISTRY

"I think I met a Merrick this morning."

"Was it Polly Merrick or Isa Merrick?"

"Well, I'm not very well acquainted with them yet and I hardly know them apart."

Who is the careless young man who leaves his snaps of "Eve at the Brink" in other men's pockets?

There is no doubt about the rumor that Fergie went out after chapel and found a Nichol.



"PRIVATE CONSERVATION."

The above figure, drawn by Miss May Peebles, is quite a graphic representation of the present economic problem. The necessities of life are shown in the make-up of our character. The head is a sugar bowl, the body is a flour bag, the shoulders are of beef, the necklace is of precious jewels, called 'coal' in former times; the belt is composed of dairy and poultry products, and the pedal extremities represent electricity. The idea is quite original and is a credit to the artist.