

PAGES

MISSING

THE O. A. C. REVIEW

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

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The Sectional Hive

BY W. F. GEDDES, '18

THE sectional hive is not the particular invention of any one man, but is a growth, or, as the scientists say, an evolution from the hives in use, particularly the standard hive of to-day the Langstroth. Shallow or "eke" hives are nothing new, as they date back to the 18th century at least. In the evolution of the hive the eke followed the box type. Some beekeepers having noticed that bees place their honey at the highest part of the hive added an upper story. Later the hives were divided into several horizontal sections called "ekes." The eke, of course had not movable top-bars, and the first ekes were made of straw, but in 1821 Radouan, a beekeeper, introduced ekes of wooden structure. In 1845, Chas Soria, invented a straw eke, in which he used triangular bars at the top and bottom of each story, placed a bee-space apart so that the sections could be removed, exchanged, or reversed without crushing the bees or damaging the cells. Just as the eke has developed from the box-hive so has the sectional hive of today developed from the Langstroth.

While it is very important to have good well-made hives for the bees, their importance must not be over-estimated. A good swarm of bees will store as much honey in a nail keg as in the most elaborate hive made, other things being equal. Beekeeping consists in understanding bee nature, and the hives are only our tools.

The question of the selection of a hive must be left with the individual himself. He or she must study the conditions prevailing in the locality, and adopt a hive suitable to their requisites. For the average man, or the farmer beekeeper, the standard Langstroth is probably the best; but if one has had considerable experience with bees and wishes to manage a series of outyards for the production of either comb or extracted honey, with a minimum of labor, he would possibly do well to look into the merits of the sectional or divisible brood-chamber hive.

There are many types of sectional or divisible brood chamber hives. These hives are shallower than the Langstroth, but the frames are generally close-ended and standing. In the sectional hive introduced by James Heddon in 1885, each section consists of eight closed-end, close-fitting frames $5\frac{3}{8}$ inches deep by $18\frac{1}{2}$ inches long supported at the bottom by strips of tin on the ends of each section. The whole set of eight are squeezed firmly together by means of thumb-screws. The bottom-board will be seen to have a raised rim on two sides and an end to allow for a bee-space under the brood-chamber.

In another type known as the Danzenbaker hive, the frames are $7\frac{1}{2}$ by 17 inches; the hive holds ten frames, and they are crowded together by a follower. On the inside of the ends of the hive a cleat is nailed, and on

this support the closed-end frames hang being pivoted at the center of the end-bars by means of a rivet. This allows the frames to be reversed,

The sectional hive used by J. E. Hand is similar to the Heddon in principle. The frame is $4\frac{7}{8}$ inches deep by $17\frac{5}{8}$ inches long. Instead of thumbscrews one side of the section is made with a removable follower board which is held in place with Van Deusen hive clamps, but this follower board is only three fourths the depth of the section. The remaining space is taken up by a permanent wooden strip which holds the ends and sides in position.

The type of divisible brood-chamber hive which is used by Louis H Scholl consists of the ordinary shallow extracting supers $5\frac{3}{8}$ inches deep. It is fitted with Hoffman frames $5\frac{5}{8}$ inches deep with $\frac{1}{2}$ -inch top-bars $\frac{7}{8}$ inches wide. All the sections whether for brood-chambers, extracted honey or comb supers are alike.

The principal claim made for the sectional hive is that nearly all the necessary manipulations are performed by handling the sections of the hive instead of the frames individually. This necessarily entails a different system of management from that followed with single brood-chambers. Unless this is understood and taken advantage of it would be folly to use divisible hives because it would require more work to obtain the same results that could be obtained with single brood-chambers. Perhaps one may say that this principal of hive manipulation may be applied to other hives. That is true, but at the same time not so easily or so well. There is quite a difference between handling shallow chambers all day and deep ones. The ease of handling the sectional hive makes it particularly adapted to lady beekeepers

This hive is also claimed to possess

the particular advantage of being a large or small hive at the option of the owner. It can be enlarged for the strongest colony or reduced in size for the weakest. It also permits of a more gradual expansion to keep pace with the increasing size of the colony. Sectional hive beekeepers claim that bees do more and better work if less room is given at a time, and given oftener; also, the room given is in the most accessible form for use, shallow and spread out wide, as near to the brood-chamber as it is possible to get it.

Louis Scholl says: "A satisfactory hive must be so constructed that it can be enlarged or contracted at will, and this can hardly be done with the Langstroth." The force of this claim comes home during the early breeding season when a large hive is often necessary to give room for the rearing of a large number of workers; and, again, there may be a colony, in early spring, not even able to occupy one section of the brood-nest. This also applies to strong colonies in short flows and bad years. Some beekeepers state that when the ordinary shallow extracting super is used there will be just as much honey obtained under such conditions as with the sectional hive. The disadvantages of this method, however, are that all parts are not interchangeable and a comb of honey cannot be taken out of the brood-chamber and placed in the extracting super; also, there are two sizes of supers two different sizes of frames, and different sized sheets of foundation to buy. In the sectional hive every part is interchangeable.

The interchangeable feature of the super and brood-chamber on sectional hives is said to enable colonies to build up faster in the spring and to render the stimulation of brood-rearing much easier. Usually a colony is wintered in two sections (which have a capacity

about equal to a ten-frame Langstroth). These two sections are usually large enough for the early part of the breeding season; the upper section is filled with brood first, then the sections are transposed. The devotees of this hive claim that it is surprising to see how soon the queen will now fill the transposed combs with eggs.

Many sectional hive beekeepers first adopted this style of hive because they found that the bees, in deep hives, very often store a rim of honey above the brood in the brood-chamber. Once this has been done the bees are loth to go up and work in the supers. With the brood-nest in two shallow stories the sections are transposed and the rim of honey thus kept away from above the brood. Beekeepers who use the divisible brood-chamber hive say that the expansion of the brood-nest upwards is in keeping with the nature of the bees, and produces better results, as the same amount of heat generated by the bees will warm a much larger area above than at the side of the brood-nest. As to the stimulating feature, the transposing of the shallow stories before the honey season begins is claimed to be one of the very best ways of stimulating the queen to greater egg laying.

With the deep frame hives this manipulation is also possible, but it involves more labor, and the prevention of the swarming fever (it is claimed) cannot be so well accomplished. There are several objections offered to this transposing feature of the hive by beekeepers who have tried it. In the first place they claim that they have no trouble with a rim of honey along the top of the frames in this brood-chamber. They also claim that this storage of honey is due to the stretching of the cells along the top-bar caused by improper wiring, which results in

the foundation sagging and stretching the cells. These stretched cells are only suitable for the storage of honey. They also found that exchanging the two brood sections does not always result in forcing the honey along the top-bars into the surplus boxes. It works reasonably well, they say, providing the change is made before the honey is sealed; if it is sealed the bees will remove very little except in two or three central combs. It was also stated that the queen, in spring, is slow in crossing over from one section to another to lay and start a brood-nest there.

E. Eggman says: "Scores of times I have seen enough surplus bees to cover and nurse a Langstroth frame of brood, clustering in bee-way spaces and empty combs for a week or more waiting until they get strong enough in numbers for the queen to start a patch of brood in that part. After steady warm weather I could see but little difference between the Langstroth and the sectional hive as to the amount of brood cared for."

Beekeeping with sectional hives produces better combs. In the transposing of the sections in the shallow hive, the combs are generally built out better and more uniformly attached to the wood than in the standard Langstroth.

It is seen that the bees have built their comb to within half an inch of the bottom-bar of the Langstroth frame, while the shallow frame is attached on all sides. Comb space is thus wasted and a hiding place is provided for the queen. Lack of attachment renders a new comb liable to fall out through handling and extracting.

Probably the greatest advantages of the sectional hive are those which apply to the production of comb honey, and these hives, in one form or an-

other, are used very largely by comb-honey producers. Leo. E. Gately says: "Contraction of the brood-nest is a necessary essential to insure satisfactory work in the surplus boxes, and in this respect all brood-chambers consisting of a single tier of deep frames are enormously deficient. By removing one of the sections in a horizontally divisible brood-chamber the shallowness of the remaining division immediately throws the whole working force of bees into the surplus receptacle." There is no need of "baits" because the bees have formed the habit of going into the upper story to work.

Beekeepers using the divisible hive claim that there need be no "left overs" because all partially filled sections may be converted into good salable ones by "feeding back" extracted honey. It is true that this feeding back process can be performed on a deep-frame hive, but the bees will deposit so much of the honey in the brood-nest that the practice may be unprofitable. The objection raised by other comb-honey producers that the sectional hive produced too many sections containing pollen is a valid one, but it is largely overcome by using a queen excluder and no baits, or by having a comb containing some pollen placed on one side of the brood-nest. The theory explaining the latter method is that the presence of this pollen below will induce the storage of more pollen at the same place, keeping the sections clear and for the storage of honey only.

Some beekeepers hold that the sectional hive is almost indispensable for migratory beekeeping, as it is certainly a trying experience to transport bees over the average country road. The large hives are cumbersome to handle, and there is always a fear lingering in one's mind that the big combs will

break down en route, even when well wired.

The sectional hive may also be of particular advantage in the control of swarming. In this hive swarming is controlled by simply adding to the brood-chamber from above or below as the circumstances warrant. The presence of a large unfilled space so near the brood-chamber seems to effectually check the swarming impulse. W. K. Morrison in his booklet on the "Divisible Brood-Chamber Hive," states "the fundamental point in preventing swarms is to convince the bees that their brood-nest is incomplete. Just as soon as the brood-nest seems full (to them) they make preparations for swarming. If the brood-nest is complete the beekeeper makes it incomplete, and again checks the swarming fever." However, many other factors which enter into swarm control, such as the age and strain of the queen, the question of hive ventilation, etc., must be considered.

The adaptability of the sectional hive for wintering is a much debated point. Many claim that this hive has proven to be poor for wintering while others strenuously insist that it is the best wintering hive ever devised. Defenders of the divisible hive claim that when one brood-chamber is put on top of another, the bees can form a perfect sphere when clustering; and the space between the upper and lower set of frames makes a passage through which the cluster can move and hence be within easy reach of stores without going clear around the combs. This principle is given support by Doolittle and Danzenbaker when they advocate an opening through deep combs for winter passage.

In extracted honey production the sectional hive beekeeper finds it possible to remove all finished honey earlier

than it can be removed with deep combs, as it takes longer to cap or ripen the deep ones entirely. This feature shows a particular advantage when the honey flow slackens up suddenly, as it reduces the amount of ripe honey on the hive. Of course, using shallow supers would accomplish the same purpose on the regular standard depth brood-chamber, but special super accommodation would have to be provided. The narrow combs of the sectional hive may be uncapped with one stroke of the knife. The same is true, however, of the regular Langstroth frames, where they are properly bulged and a long knife is used. However, the firm attachment of the combs in the shallow frames permits less careful handling than is required with deeper frames. Many sectional hive beekeepers state that there is no need of wiring the frames and that thinner foundation can be used. Nevertheless, it is a common practice in Ontario to wire the shallow frames even more because of the thinness of the top-bar.

The difficulty of finding the queen in a divisible hive may be objected to, but the queen need only be seen once in the season, generally in the spring, to note her age and see if she is clipped. The general condition of the colony will tell the experienced beekeeper how the queen is doing. An easy method of finding the queen, which is very effective, is to take a bottom-board, tack a piece of cloth or canvas on same and paint the canvas with crude carbolic acid. Substitute this bottom-board for the bottom board of the hive in question and place a queen excluder

over the brood-chamber. In about 30 seconds the queen will be found on the underside of the queen excluder, having been driven up by the carbolic fumes.

The aim of the divisible hive advocate is to cut every unnecessary manipulation, and it should not be necessary to handle frames if the proper system of management is followed. In a locality where foul brood exists the divisible brood-chamber proposition is not one that will permit economical handling of all its frames.

The cost of the divisible hive owing to the accuracy necessary in the construction of its various parts is an objection often put forward against its use. Especially in those types where closed end frames are used the workmanship needs to be much more exact than that required by other hives. It is due to lack of care in this respect that some beekeepers have been troubled with bur-combs. With ordinary care hives last a life time, and the extra trouble and expense involved at the offset may be amply repaid by the other advantages.

The reader will see for himself that the value of the sectional hive depends, firstly, upon the man who is going to handle it and, secondly, upon the district in which he is going to keep his bees. No hive can claim perfection, and what is suitable for one set of conditions is very often unsuitable for another. In every case it is essential to know the system of management which is the most practicable in the individual case, and then choose the hive which is adapted to the system.

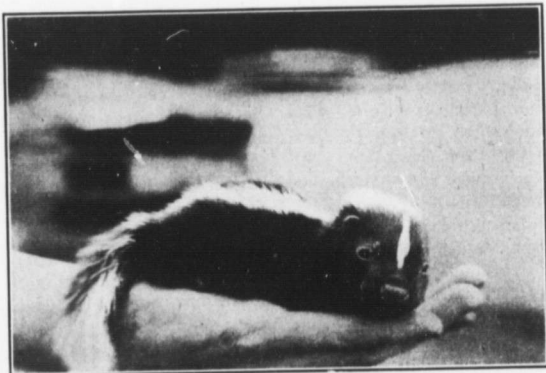
O=Me-O=Mi

By E. V. LAWSON, '17.

THOUGH claiming no special intelligence either of fur or of four footed creatures in general, the writer can in the case of this particular animal demand a hearing on the ground of an intimate personal acquaintance. Therefore the following biography is advanced with a certain degree of confidence.

stripes were placed upon their backs so that the young will be able to follow their parents by sense of sight in case all other senses fail them.

In the course of about two weeks O-Me-O-Mi's eyes opened and a coat of fine silky fur covered his body. In size and unattractiveness at birth he was not unlike a quid of tobacco,



About Half Life Size, at Six Weeks.

Smut and Taffy were pet skunks and so it happened that O-Me-O-Mi was born in captivity in a soap box. He had every right to claim he had royal blood of the great weasel family running in his veins. He was born blind as were his seven other cradle companions. His coat even then was nicely striped in black and white and without fur. He had a long tail not unlike a fish worm, capable of arching into the shape of an upright letter "S". He got these stripes from Smut and Taffy and they got them through adjustment to their environment. Possibly these

now he was almost three inches long.

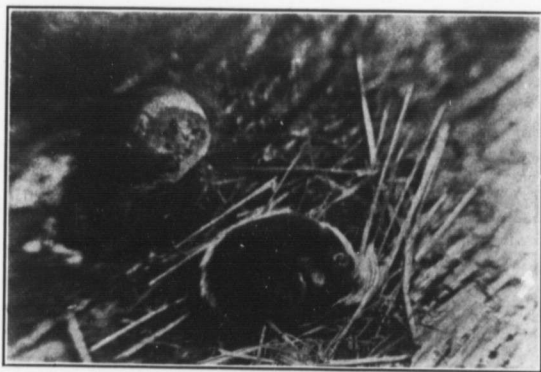
There were seven other babies in the cradle with O-Me-O-Mi and as Taffy bended over her cradle, she lulled them to sleep with a wild sweet musical purring.

When O-Me-O-Mi curled up to sleep he always left one round little ear exposed. As he grew he learned much regarding courage, natural cunning, and weapons of offence and defence given to his kind. He was bright and cheerful in disposition and because of his fitness to survive was the only one of the litter of eight to ever get

into print with capital letters. When Taffy brought in a mouse, sparrow, chicken head, or a sweet corn cob, he always beat his little brothers and sisters to it. In this way he rapidly increased in size and in the course of his first summer he achieved a length of over twenty-four inches and a girth, of over six inches around his greatest common denominator.

He gained his liberty in early September. For many days he returned regularly each evening for his dish of

giant elm, he spied an inviting hole. His attitude now, was that of one not lightly to be daunted. Carefully extending his whiskers to their extreme range he pushed his head back and forth to see if his whiskers tickled. He sniffed and it smelled "woodchucky." He entered unannounced. Suddenly there was a riot, odor, dust and woodchuck were ejected from the burrow and without so much as casting one longing, lingering look behind, the woodchuck set out at a blind stag-



About One-Seventh Life Size, at Four Months.

bran-bread-and-milk. It was in a cedar swamp that he began his first acquaintance with life in the wild. This for the most part was one grand sweet song. There is no tragedy in life when you have all the rest of the world buffaloed, and O-Me-O-Mi was not a year old before he discovered that his most hated enemy side-tracked when he came down the way. It was in this old swamp he learned to hunt hares, mice, grouse, and large insects.

After a lengthy journey one evening, he found himself far from his accustomed haunts. Under the roots of a

gering delirious pace. O-Me-O-Mi re-entered, explored it, and there and then pre-empted it as his homestead. Then he came out, groomed his coat, yawned, stretched, and feeling intensely the loneliness and mystery of life stood up on his hind legs and gnawed a small bit of bark out of the giant elm. After erecting that sign no other member of his tribe could take possession.

He now had a home of his own; and, for the sake of proving that animals have far better reasoning than human beings, it may be pointed out that he secured his home before he

fell in love. The reverse is usually the case in our so called higher civilization.

Later, on a bright morning early in March, O-Me-O-Mi waddled from his new home across the adjoining pasture field and seating himself under a low sumack he emitted a long piercing scream or cry. It was the lone call of the skunk. There must have been an alluring quality in the voice. At any rate Squee Week (as she was later called), strolled very casually from her home, in the creek bank, never again to return to her former residence.

In due time the happy pair settled down to a peaceful existence beneath the giant elm. Sometimes dangers threatened, but the bold front of O-Me-O-Mi brought all such matters to a like result. The offender always fled. The foe that sought him once sought him no more. Little by little he became a seasoned warrior. In all the cedar swamp, there were none who could successfully oppose him.

In July eight little strangers accompanied by Squee-Week stepped out for a stroll in the swamp,—small, striped little creatures, who walked flat-footed and with tails over their backs. If any one saw them, none molested them, and none intruded on their promenade.

One by one, they disappeared. Traps guns, owls and large hawks were too much for them, finally O-Me-O-Mi was left alone, so he decided to leave the swamp.

At this point an old trapper came on the scene and seeing O-Me-O-Mi escape into a hole he cut a stout stick, spilt one end and poked it in the hole till he felt it touch something soft, then, he twisted and twisted till poor O-Me-O-Mi was caught by the skin. The old trapper drew out his prize, but he got not the Alaska Sable, but the essence. It drew tears to his hard old eyes and a plug of tobacco from his pocket to help get rid of the unwholesome taste, and smell, and our plumed unsavory friend made his escape.

Literature and Rural Life

By J. A. FLOCK, '18

WITHIN the past few years there has arisen an important problem, that Agricultural Colleges and rural leaders everywhere, have had to face. This problem is looming up so gigantically upon the horizon of our agricultural world, that men are perplexed as to the best method of grappling with it; yet it must be dealt with. It is vital to the interest of all our rural men and women and all unborn generations to follow.

This problem may be called by various names; intellectual, moral, spir-

itual. But no matter how we may name it, it has to do with the mind and spirit of our rural inhabitants. While the intellectual life of our cities is forging ahead, the mental state of the country is falling behind, because our farmers, both men and women, fail to recognize the vital necessity of developing their brainpower. There is a fearful dearth of reading in country homes. And it is not because books are too expensive; and I cannot think it is because our rural people have not enough intelligence to appreciate fine

literature, and it is foolish to think farmers do not need mental training in order to be successful agriculturists. The very fact that so many farms are badly cultivated and have such a delapidated appearance is because of the ignorance of their owners, who are content seemingly, to plod along in the same rut their forefathers trod before them.

Now unless a way is found, whereby the country people will take hold of the vast store of mental and spiritual wealth books have to offer, their case is hopeless. They will never be able to cope with the reading public of the cities, but will continue to fall behind in mental and moral decay.

However, the question may arise concerning the public libraries. The public libraries have not met the situation. They have failed, because first, the books they supply can almost all be summed up under the name of "junk;" secondly, how many farmers will hitch up and drive to the library for books during the evening? And how many will gather there and read during the idle hours, supposing a reading room were available? I know of several public libraries that cost considerable, and today their doors are locked and the key is lost.

Farmers must have books in their own homes—books they can take down for half an hour, if they so desire, and put back again for six weeks, if necessary. But books they must have always at hand.

Again, someone may answer, "A farmer is too rushed with manual labour to read." There may be times when a farmer is too busy or too tired to appreciate a book. But there are times when he is not. He surely has hours of leisure, during the long autumn and winter evenings. Besides, there must be some one in his

home, who has time to read, and who would be benefitted by the library. If there is no member of his household, who has time to read, or no desire to take time to read, or no desire to read, what is the outlook? The progressive people of our cities recognize that their very salvation so far as this business is concerned depends upon mental training. Then, if the farmers cannot see the supreme importance of books, they will continue to be ground under the heel of their reading competitors.

How is the problem going to be met? What method shall be adopted to gain the attention and interest of rural people to the necessity of reading?

I have formulated a plan, whereby a solution might be arrived at. It is this. That a head of one of the departments in this college shall, by himself, or with the advise of those who understand rural needs, draft a list of the titles of one hundred books suitable and needful for farmers. Enough copies of this list should be issued to provide one for every farm home, and a copy, with a circular letter explaining the purpose of the movement should be mailed to every home. Farmers are not expected to purchase all the copies named in the list; they are to choose those volumes that they think are suitable to their own particular needs. The school teachers should be organized and impressed with the idea. But, especially, should children and young men and women be interested. It is next to impossible to change the mental outlook of elderly men and women, but, if the younger generations are influenced, the mental tenets of our rural communities will be raised during this generation.

I am convinced that if some such

method were adopted, the great majority of our farmers would respond nobly to the suggestions. I am assuming that our English Bible would head the list. Then books on biography. Men cannot afford to be ignorant of the lives of those men and women who founded our great Dominion. A volume or two on history, travel and description is necessary. Few farmers have the leisure for travel; however, a good book on description gives a man a clear idea of countries vital to his interests. Books on housekeeping and dietetics are important, also one on sanitation. Agricultural books on farm management, or on the properties of soils, should find an important place. Then a goodly number of volumes of poetry and fiction should be intermingled with those scientific works. Such poets as Tennyson, Browning, Burns, Longfellow, Whittier, Lampman and others; and such authors as Dickens, Scott, Thackeray, George Eliot, and George MacDonald. Juvenile books are important—nature stories by Fraser and G. D. Roberts; and last but not least, books on humor. Our rural life is glistening with quaint, rustic humor, which needs enriching and preserving, for it is the saving grace of our nation, and sends mirth and laughter thru many a lonely hamlet. Besides, every farmer should subscribe to at least one daily paper, one agricultural paper, a standard magazine, and a magazine dealing with woman's sphere.

Why is this problem the most important of all rural problems today? Because we have learned by the bitterest lessons, that the vital things in this world are not lands nor abundant crops, though these are necessary. Ideas, high thoughts, the awakening of the minds of men to the vital and ideal, are of paramount importance in

rural as well as national life. To think high, to see straight, and to make the life or the spirit count for more than any material life is the supreme duty of every man, private as well as public. Our soldiers in France are dying today for an idea. They would not fight one moment for broad acres; but they will lay down their lives for an idea, if that idea is big enough, and we believe it is. Now if these intangible things we call freedom, liberty, justice, patriotism, truth, honor, which can all be summed up under the name Ideals, are worth dying for, they are supremely worth propagating among our rural inhabitants.

Allow me to illustrate how fine literature will develop the mind and spirit of our rural people. The most priceless gift of all literature to men today is our English Bible. How wonderful, how supreme is the Bible as an utterance of life in literature. With what convincing candour are the hopes and fears, the longings and disappointments of men portrayed in its pages. The Bible teaches men to see with the imagination. It teaches men to see as Luther says, "God in every blade of grass, in every creature. To discern in every material a hidden spiritual, in every temporal an aspect of the eternal. This is the truest wisdom, its philosopher's stone that turns all it touches into gold."

However, there are other books, secular in form, that teach the deepest truths in life. For instance Hamlet teaches me the fatalness of indecision. *Les Miserables*, Victor Hugo's masterpiece, teaches me the sacredness of childhood, and how God never despairs of making bad men good. Browning teaches me the courage of faith and the supremacy of love. George Eliot's *Romola* reveals to me the nemesis of hypocrisy. Silas Marner

by the same author reveals the redemptive power of a great affection. Hawthorne's *Scarlet Letter* shows me the reality of my inner life and the ugliness of sin. Tennyson sings to me in his *Idylls*, that if error ruins a soul, there is a Divine Friend, who toils unceasingly for its recovery, while Longfellow sings to me sweet music of tranquil hope and quiet endeavour.

These are a few lessons rural life needs to-day.

I read once of a highland shepherd, who climbed every morning before sunrise to the top of one of his native peaks. There he stood with his bonnet off till the sun had risen. When questioned by a friend why he offered up his morning devotions on the mountain top, he replied "I never pray there, I only doff my bonnet to the beauty of the morning."

The effect of that Scottish sunrise upon the mind of that shepherd is the function of a great literature. And

that is why we wish to send that literature to our rural populations; we wish to give them a new vision that will lift them away from the sordid and untrue. For a man's mind that is circumscribed by the boundary of his own farm is going down daily into physical and mental and moral decay.

Therefore let us give them knowledge, for:

"What is more large than knowledge
and more sweet,

Knowledge of thoughts and deeds,
of rights and wrongs,

Of passions and of beauties and of
songs,

Knowledge of life, to feel its great
heart beat.

Though all our souls upon its crystal
seat;

To see, to feel, and evermore to
know,

To till the old world's wisdom
till it grow

A garden for the wandering of our feet."

Dusting Fruit Trees

By W. ROBINSON, '18.

TO dust the orchard instead of to spray it with liquid is a new method now being tried out. In Ontario the first experiments with the dust spray were made last year on various kinds of fruit trees and grapes, and reports received showed considerable variation in results obtained.

The outfit consists of a metal hopper to hold one hundred pounds of the dust material, and to it is connected a blast fan driven by a gasoline engine. The dust is forced out on to the trees through a four-inch pipe with flexible joint, and the amount is under the direct control of the oper-

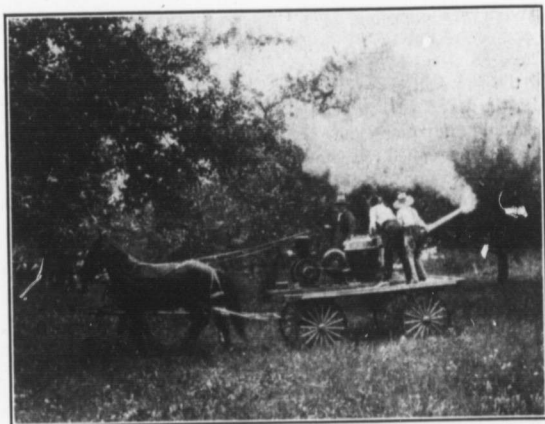
ator. The apparatus is light in weight compared to the ordinary power sprayer.

Last year satisfactory results were not obtained in the control of San Jose Scale and other sucking insects by the dust treatment, but this year further experiments will be conducted using a new dust mixture. However, for the second and third sprayings, the materials used are 85% finely ground sulphur and 15% arsenate of lead powder, and for the later treatment where there are no biting insects present the arsenate of lead may be omitted, thus lowering the cost. The

sulphur should be very finely ground. For large apple trees, three pounds each should be used, while for smaller trees such as cherries, plums and peach, the amount will vary from one-quarter to two pounds each, according to the size.

Best results are obtained by dusting on a calm day so that the dust as it is blown into the tree will float slowly through all the branches and cover every part. However, if a slight

od over that of the liquid spray are: (1) The trees can be treated with much greater speed. According to the size of the trees, the work can be done from four to eight times more quickly; the larger the trees the more time can be saved. (2) As the outfit is light, it can be used when the ground is too wet and soft for the usual heavy power sprayer. (3) The dust does not stain fruit and render it unfit for market, such as cherries,



breeze is blowing, good results may be had by driving up and down the rows in the direction parallel to the wind and by shooting a blast of dust across the wind into the trees. Thus, in going down one side of the row and up the other side the whole orchard can be dusted at one operation.

A short or long pipe is used according to the height of the trees, and the operator applies the dust by an up-and-down movement so as to reach every part of tree as he passes it.

The advantages of the dusting meth-

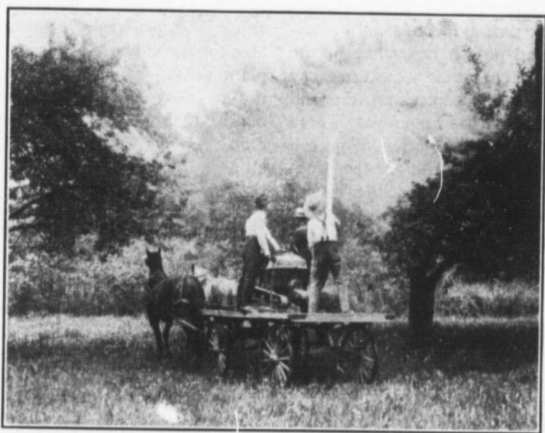
which sometimes require spraying near the time of picking. (4) Owing to the speed with which the dust can be applied and to the fact that the whole orchard can be treated at one operation, the fruit grower is enabled to spray his trees promptly at the best time to control any particular pest. (5) It is a cleaner process and does not wet nor burn the operator. The use of goggles is recommended to keep any dust which may be blowing around out of the eyes..

This method has some defects, how-

ever, which are: (1) The dust does not adhere to the parts of the tree so well as the liquid spray, and is more likely to be washed off by rains, thus extra applications are necessary to keep the fruit clean, which increases the cost. (2) While large trees can be treated more economically with the dust than with liquid spray, yet for smaller size trees the cost is much greater. So it may be said that for the ordinary size tree of the orchard

this, and a new mixture will be tried this year.

Experiments with the dusting method have not been carried far enough yet to give any definite information as to its merits. In some cases results were nearly equal to those obtained from liquid spray, while others again did not show up half so well. Much still remains to be done to perfect this system, and continued experiments will probably bring about improve-



the cost of dusting is greater than of spraying. (3) At present there is no satisfactory dust mixture which can be recommended to control scale insects, aphids and other sucking insects, although steps are being taken to remedy

ments in outfit, materials and method of application. However, at this stage fruit growers are not advised to purchase a dusting outfit. It is much better to wait a year or two until more is known about the merits of the system.

How the Clover Crop may be Increased by Ground Limestone

To Increase the Clover Increases the available Potash Supply.

By W. S. BLAIR, Superintendent of Experimental Stations for Annapolis
and Cornwallis Valleys, Kentville, N. S.

WITH the continuation of the war the matter of potash supply becomes more and more a vital question. Without a doubt there is in the soil a certain reserve upon which crops draw for a few years but this reserve of available potash is assuredly becoming less, and potash being one of the essential elements it is well to use every means possible to keep up the soil potash requirements for crops. There is little danger of depletion of potash if the stable manures have been properly conserved with as small a loss of the liquids as possible. However, with many crops the drain upon the potash supply in the surface soil is great and it is highly desirable to use some of the deep feeding crops to make use of the potash that may be available in the subsoil. For this purpose the Red Clover is better than any other plant, and an examination of the analysis of this crop show it to be a great potash consuming plant; one ton containing 44 pounds of this element. By a more general growth of clover many pounds of potash could be extracted from the subsoils and in turn returned in the manures for the more shallow feeding crops.

In Nova Scotia clover has not been a satisfactory crop in very many cases evidently owing to the soil being acid which condition we know does not favour the growth of this crop. Experiments conducted at the Experimental Station, Kentville, N. S., illustrate to what extent soils unsuitable

to clover may be made favourable by using ground limestone.

It is possible that limestone will assist some in rendering available certain potash compounds in the soils, but it would seem that its greatest value is in producing conditions suitable for the clover plant, and that this plant will under such conditions make use of the soil potash to a greater depth than any other agricultural crop. It might be urged that such crops are objectionable because of their great consumption of potash. This might be a reasonable objection only that we plan to conserve and return the potash through the manure, and also through the many decaying clover roots in the soil which will give up their potash supply for the use of the crops which follow.

Not only does clover itself require much lime during growth but the bacteria responsible for the fixing of atmospheric nitrogen and passing it into the plant do not thrive well on soil deficient in lime. It would appear that two tons of ground limestone per acre is a decidedly profitable investment as is shown by the tests given below. The fertilizer used in duplicate plots was a 4-8-10- (4% nitrogen, 8% phosphoric acid, 10% potash) mixture applied at the rate of 500 pounds per acre in 1914, the first year of the test. One series of plots were limed once during the period at the rate of 2,000 pounds per acre in 1914 and the others were not, the object

being to find out the value of lime for subsequent crops.

1914 Crop	Yield per acre.	
	Bush	Lbs.
Oats		
Unlimed, fertilized.....	57	8.2
Limed, fertilized.....	66	6
Unfertilized, unlimed.....	45	12

1915 Crop	Yield per acre.	
	Bush	Lbs.
CLOVER		
Unlimed, fertilized.....	4567.5	
Limed, fertilized.....	6760	
Unfertilized, unlimed.....	2405	

1916 Crop.	Yield per acre.	
	Bush	Lbs.
WHEAT		
Unlimed, fertilized.....	9.5	
Limed, fertilized.....	17.0	
Unfertilized, unlimed.....	8.0	

In the spring of 1916, in order to determine the effect of additional fertilizing on the limed and unlimed plots, the duplicate plots were fertilized at seeding time with 500 pounds per acre of 4-8 fertilizer (4% nitrogen, 8% phosphoric acid). The results in 1916 from these plots were as follows:

	Bushels per Acre.
Unlimed, Fertilized 1914 and 1916..	15.
Limed, Fertilized 1914 and 1916..	23.75

Another experiment on a newly broken piece of land in a potato, grain, and clover rotation gave equally striking results. The only application of fertilizer in the rotation was made in the spring of 1914, it being a very light one consisting of 140 pounds nitrate of soda, 300 pounds acid phosphate and 100 pounds muriate of potash per acre. On one series of plots ground limestone at the rate of 4000 pounds

per acre was applied in the spring of 1914. It was not to be expected that there would be much hay crop in 1916 as the plant food had been all used up by the potato and the grain crop previously.

1914	Yield per Acre	
	Bush.	Lbs.
POTATOES		
Unlimed, fertilized.....	76	13
Limed, fertilized.....	86	45

1915	Yield per Acre	
	Bush.	Lbs.
OATS		
Unlimed, fertilized.....	31	24
Limed, fertilized.....	38	14

1916	Yield per Acre	
	Bush.	Lbs.
CLOVER		
Unlimed, fertilized.....		675
Limed, fertilized.....		1483

On the field of ten acres put down to clover in 1915 which was in corn in 1914 having been manured at the rate of 15 tons manure per acre for the corn, the gain from 1½ tons of ground limestone per acre indicated an increase of fifteen tons on the ten acres over check plots left on the area unlimed. The limed areas yielded 5410 pounds per acre.

The unlimed areas yielded 2400 pounds per acre.

A difference of 3010 pounds per acre in favour of liming, or 15 tons clover hay at \$10.00 per ton, \$150.00. The 15 tons of ground limestone cost approximately \$6.00 per acre, or \$60.00 leaving \$90.00 or \$9.00 per acre in favour of the liming, and in addition a much better soil resulting from the increased clover growth.

Nitro-Cultures for Legume Seed Inoculation

With Alfalfa, Red Clover, Alsike Clover, Peas, Etc., Give Increased Crop Returns and Enrich the Soil.

A legume is the term applied to any plant that is able during its growth to make use of the free nitrogen of the air. The three most common food materials of the plant are potash, phosphoric acid and nitrogen. These three food constituents are not made use of in the free state by the plant but are taken up by the roots in conjunction with other substances. The only exception to this rule is the leguminous plant which is able to make use of the free nitrogen in the air and hence we have the common expression that legumes such as clovers, peas, beans, etc. leave the land where they are grown in a richer condition than before the crop.

HOW LEGUMES DO THIS.

There are certain conditions necessary before legumes may be successfully grown. First, the soil should be well drained and in good tilth because low wet soils are usually sour and this sour or acid condition is not favorable for legume growth. Second, there should be in the soil certain species of bacteria known as legume bacteria. These are small living organisms which can be seen only with the aid of the microscope, but nevertheless live just as much as do we. There are many kinds of bacteria, some produce disease, some are beneficial, and many are neutral in their effect so far as we are concerned. For the proper growth of leguminous plants certain bacteria are absolutely necessary because these bacteria penetrate the roots of the plant causing little swellings or nodules,

which are sometimes small in size and numerous in number and other times quite large in size and comparatively few in number. In return for the home which the plant gives them, they take the free nitrogen from the air which is found between the soil particles and fix it so that the plant can use it as food. Without the aid of the bacteria the plants cannot do this and no plant other than the legume can do it, even with millions of bacteria present in the soil

ALL SOILS HAVE NOT THE NECESSARY BACTERIA

On old soils, or where clovers and other legumes have been grown successfully, the bacteria are usually present. In new soils, or in old soils where a new legume such as alfalfa is to be grown, the proper bacteria may not be present. It must be remembered that nearly every legume needs its own bacteria, for example, the bacteria that grow on the roots of the red clover will grow no more on the roots of the alfalfa than will a hog louse live on a human being.

HOW TO GET SUITABLE BACTERIA INTO THE SOIL.

This is done by inoculating the seed with artificially grown cultures of the bacteria, which originally came from the same species of plant as that which is to be grown. This inoculation should be done just before the seed is sown. The bacteria then cling to the seed and the latter upon germination has its tiny roots invaded by these bacteria, which cling to the seed coat

and are looking for a suitable home in the roots of the plant.

WHERE TO GET THESE CULTURES.

The Bacteriological Department of the Ontario Agricultural College, each year prepares hundreds of these cultures for distribution among the farmers of the province. You may by

communicating with Professor D. H. Jones of the O. A. C., Guelph, obtain cultures for your alfalfa, red clover, alsike clover or peas. The method of application is very simple and 70 per cent. of the Reports received show that its use on red clover gives an increased yield and over 80 per cent. of the reports show increased yields in the case of alfalfa.

Why is Macdonald Hall

By R. W. OLIVER, '19

Ed. Note—Speech delivered to the members of Year '19, but which we publish for the benefit of all concerned.

During the past few weeks I have heard a great deal about choosing a popular, humorous, and easy subject. I know for a fact that my subject is popular, I know that it could be made humorous but I also know that it is a difficult one to speak on, if the old friendships are to be retained.

I am not going to prejudice you with my own opinion on the subject but I will give you the opinions of a few classes of people and let you form your own.

People who have had absolutely nothing to do with the Hall will respond in answer to this question, "Oh! That's the place they teach domestic science," probably not more than 33 per cent of them know exactly what is meant by Domestic Science; the rest of them know by the word "domestic" that it means something pertaining to the home.

The staff's opinion of the Hall—at least their outward opinion—is that it makes efficient Housekeepers, Homemakers and Teachers of Domestic Science out of freshettes who come there with a mere working know-

ledge of the subject and no knowledge of work.

The girls themselves are rather divided on the question and can be put approximately into four classes. First: Those who come there for a rest and a change—The Guelph Street Railway gets the change and Mr. Budd the rest—yes Sir, I know that one is very old but I couldn't resist it. One girl even admitted to me that she was having a perfectly wonderful rest staying in bed as late as 7 a. m. Secondly: There are those girls who don't mind admitting that they go there for the good times they have "slipping one over on the teachers" and going out with those fascinating O. A. C. students to Literary meetings, concerts, and other exciting forms of entertainments. Third: and closely allied to these, are those—gentlemen let me say it quietly—who come there to find a man. Sir, I know many cases where this has been deliberately done, and, instead of being crushed out by the staff, has been immensely applauded and approved of by them. Last but not least is the

class which goes there for the purpose for which the Hall was endowed' that is, to make themselves really efficient and able to go out into the world's mad rush and come up smiling.

But in spite of knowing all these peoples' opinions I am not satisfied and so I am going to give you a brief description of some of their subjects—not mentioning any course in particular—and let you come to your own conclusions, as to why MacDonald Hall is being raised to such a high pinnacle by the mothers of Ontario. I believe that some of the subjects taken up across the campus are: Laundry, cooking, sanitation, dietetics sewing and chemistry of foods.

The question as to whether new methods are better than old in laundry work is doubtful. The Chinamen undoubtedly get the majority of laundry sent out from the homes of Canada but do they use the most approved methods of modern science? Well do I remember one Saturday morning last year, when carrying a bushel of turnips into Mac. Hall cellar, I chanced to open the wrong door and gazed fascinated at the scene before me. Perhaps you know what the interior of a well appointed Chinese laundry looks like; this was entirely different. Instead of an immense cloud of starchy smelling steam the atmosphere was clear and cool. The usual Chinamen with shuffling feet, almond eyes and flapping shirttails were altogether lacking but in their place stood a row of neatly attired girls, all intent on their work, with backs moving rhythmically up and down to the tune of buttons being torn off on the washboard which made me think of the little rhyme—
How doth the gentle laundress,
Seek out the weakest joints;
And always tear the buttons off,
At the most strategic points?

Sanitation in its way is a good subject; it teaches what we can expect if we are not sanitary and prepares us for the inevitable future. I say inevitable, because it is impossible to be absolutely sanitary. Therefore, the future must be full of pestilence and disease. By our experiments in bacteriology we found that bacteria infest everything; and from the same experiments it could be noticed that the dirty places were more highly infested, therefore, we associate bacteria with filth and so everything must be filthy if we wish to live, because bacteria are necessary to life. So why teach sanitation?

Their sewing also is rather misleading as from the term "Homemaker" we would expect the girls to darn our socks, patch out clothes, and sew on our buttons, and many a freshman has wondered why his turn to have his clothes mended never came.

But the girls here show a very selfish streak and make garments for themselves. I have never been able to find out exactly what they do make, but while plying questions when gathering material, I received such shocked looks of maidenly innocence that I judge they were making sufficiently intricate articles as to be capable of darning our socks later in life.

We all agree that cooking is a decided advantage to a girl in these times of scarce help. The old adage that "the surest way to a man's heart is through his stomach" is a very good one, and I only know one better, that is—"Through his pocket book." Any of you who knew Dick Raymond well, were impressed very well with some of his friends cooking. I remember in particular one lemon pie a New York girl sent over and it took a week before Dick was around with us again.

But what does it matter if the bis-

cuits are heavy and not like those that mother used to make. You forget that mother never went to cooking school to learn new methods; she used old fashioned ones, and therefore we will have to abandon them even if it does cause us a little indigestion at times.

My dictionary tells me that "dietics" is the art of putting people on a proper diet and also that "diet" is to eat by rules, therefore, I would imagine that dietetics is the art of making people eat by rules and a dietitian would then appear to be a teacher of etiquette. This I am told is entirely wrong; a dietitian is a person who sits in an office working out a sort of balanced ration for the human animal decreeing whether we shall have pork and apple-sauce or fish and canned tomatoes. Do you think this person necessary? Could we not work out a very good ration for ourselves to fit us as individuals and not as a body of beings? For instance I know that without an occasional beef-steak life for me is impossible while it is equally impossible if I ever touch hash. However, if the finished Mac-

Hall girl can receive a position I wish her success.

One of the most delightful subjects, I believe, is chemistry of foods. Cannot you picture yourself ten years hence carving a beautiful roast of beef and having Mrs—— lean tenderly across the table and tell you that the roast has as much protein in it as five dozen Leghorn eggs, or that the starch granules in the potatoes broke down very easily today, making the potatoes delightfully mealy, thus, saving .002% of the fuel bill and also that your glass of milk is full of ash?

You will probably grumble back that its a tough roast and filled with cellulose and tell her you don't care how much ash there is in the milk as long as it's not hash more than twice a week.

Now gentlemen, I fear I have bored you terribly but before I close I would like to say concerning my friends across the campus that although I don't know why they are there yet I am very glad they are and I am sure there is not one of you but will agree with me, "If any, speak, for him have I offended"!

Improvements in the Country Home

By GEO. J. ARNOLD, '18.

HOME-TIES with us Canadians are very strong, and a discussion of this subject conjures up in our minds bright pictures of those happy days which have gone into the past, and inspires many of us with great hopes for the future.

I intend to confine my remarks to Improvements in our Country Home.

I have been greatly impressed of late, when comparing the progress in our farm homes, with the progress made in other branches of agriculture.

It was long ago that men began to realize that they could do their work much more efficiently by improving their implements and methods and from the time when everything was done by the muscle, from the sewing of the seed to the threshing of the grain by the flail, those improvements have brought us to the stage where one man by machinery and scientific methods can farm the land that fifty could not farm before. In years gone by it took a man a week by the sweat

of his brow to make a plow, to-day it is the work of a few hours.

Has this progress been seen in our country homes? Has the Mother's task become correspondingly simple and light? Alas it has not! Many women even now-a-days are hewers of wood and drawers of water. Many and many a mother has still to toil from morning to night ever the same old hum drum routine, finding little time for recreation, and to fall asleep weary and worn and sad. Little has been done to lighten her burden; her household equipment is often little better than her great-grandmother's, and not only she but also the farmer himself, and the whole family foregoes much comfort and happiness simply because our country homes lack efficiency.

There is not a farm house in the whole of Ontario that should not have a good water system, yet how many have one? The women should be no longer required, as they are in so many cases, to go out to that old squeaking, grunting pump and expend their energy in pumping water from its reluctant spring. All that they should be expected to do, is simply to turn on a tap in the house, and let the water run. To install such a God-send would not be an unsurmountable difficulty. The fixing of a big storage tank in the attic of the house, or in the barn if it be nearby, the help of an engine, a good well and sufficient piping is all that is necessary. Even the installation of a pneumatic tank and gasoline engine which would also be so invaluable in case of fire would not cost more than \$200., and how many farmers to-day are not giving from \$500. to \$1000 for their Fords and Overlands.

Such an improvement would lead us to still more improvements. A

hot water system might next be tried, and would prove to be one of the greatest boons to a country house—a bathroom. It is a grand thing after a hard dusty days' work at harrowing or threshing, to be able to come home and have a fine refreshing bath. It makes you feel like a new man, and you are not cranky and irritable, for the rest of the evening.

Another great thing that our country homes lack, is an efficient lighting system. Just think if through some occurrence the electric light of this Gym were cut off, and we had to carry on this evening's proceedings under the sole illumination of a dozen dingy, dismal, ill-burning oil-lamps. We would think that we had been transported back to the dark ages, and would not feel at all pleased. Why then should the farmer be condemned to spend every evening by the light of these antiquated burners, and his wife to be everlasting cleaning those sooty globes and trimming those offensive smelling wicks, and always haunted by the fear that the children will overturn the lamps and set themselves afire?

Yet there are scores of places even where the hydro runs by the farmer's homes, that the owners cannot enjoy the benefits of electric light.

Not only do I maintain that electric light should be installed in every farmer's house, but I also look forward to the time when it will not be the daily recurrence—"John, please get me some wood before you go out this morning" to be answered by ingracious mutterings under the breath, but our country homes will be fitted with electric heaters.

I remember the case of a retired farmer working on our Experimental Department last summer. As this man was always bemoaning the fact that he

was not back on that fine little farm he once had, I ventured to ask how many years it was since he sold it. To my surprise he said that it was seven years. On asking him why ever he did not go back to it if he were so heavy of heart after seven years, he said, "Eh, eh, its the women, they won't go back"! and can you wonder at it? They are now so thoroughly used to the improvements of the modern city home, that he of course had been unable to coax them back to the scene of their former labors.

Yet I am sure that if the farmer of to-day went to work, and for a few dollars, constructed a little cement sidewalk around the house and to the barn; arranged a simple device whereby his wife could hang out the clothes on a washing-day and not catch cold; refrained from commandeering his wife's pots and pans for the calf and from littering the kitchen with his milk cans and strainers: and did not so provoke his wife to anger by coming in at all times for his meals, her life would be that much the sweeter and in all possibility there would be no desire on her part even to leave the country in the first place.

Not only do our country homes lack from the standpoint of housework efficiency, but in a large majority sanitary conditions are disgraceful; waste from the kitchen is often thrown just outside the door, chickens are allowed to roam around the house, and even the pigs and cows are not always forbidden and the sewerage is very ineffectively disposed of.

Yet how simple are the improvements that could overcome these curses in the country home. A sanitary system costing about \$75. as outlined by the Physics Department would make the house as healthful from a sanitary viewpoint as the new Physics Building

itself. A few dollars expended in enclosing the garden with a stout fence would work wonders.

I would now like to say a few words about improving the appearance of our country homes.

It is often heart breaking to see how little our homes blend with the exquisite scenery of our province. Time and time over again, we see homes defaced by the cutting down of the beautiful trees that once surrounded them. Branches broken down by the wind are allowed to cumber the ground from one year's end to the other; and tumble down fences and chicken coops seem to have some ancestral right in their tenure of the home surroundings. In some cases not a single tree is near the house to shelter its inmates from the bitter winter winds or ward off the heat of the fierce summer's sun.

What ever would our college residence look like, if Mr. Squirrell came along and cut down that lovely avenue of Spruce Trees, if Prof. Graham paraded some of his hen houses out in the flower beds, and if some of the farm teamsters took it into their heads to unhitch and leave their waggons and implements in front of the main entrance.

Consider then, if our farmers became more interested in their homes, and spent an occasional afternoon in cleaning up the rubbish which had accumulated during the past few years, or in planting some good trees around the house, what a change would be made. Supposing they adopted some of my previous suggestions to allow their wives a little more recreations, and to plant a few flowers around the house and take precautions to see that every domestic creature did not scratch them up. Ontario would soon be changed into a veritable Garden of Eden.

Now it is unfortunate that so little is done in interesting the country people, and helping them to make improvements in their homes.

The Agricultural press might well do more in helping in this direction.

The government should aid by giving becoming assistance as they do to the farmers for better drained land. Another thing that would be of great value would be a model yet thoroughly

practical farm house erected on the college farm so that June Excursionists and all our other rural visitors could see for themselves and could make practical use of the valuable information that they could be able to obtain.

Is this asking too much? No. If anything should be brought to a state of perfection, it is the farm home and we should stop at nothing till this is accomplished.

My Impressions of O.A.C. Life at Guelph, 1917

By D. ALEXANDER, St. Catharines, Ontario.

SATURDAY afternoon of the second week of the Farmer's Short Course at the Ontario Agricultural College, Guelph, came all too soon and found me in the higgledy, piggledy, jumble domain of uncertainty as to whether I was on land or at sea. Alive or dead, entirely well or mostly sick; so to get the sorely tangled reins of my normally well ordered farmer's consciousness gathered together, I sink into the inviting arms of a certain study chair and fall fast asleep.

Strange figures flit across the stage of my disordered slumbering memory. Visions of rushing figures tumbling over each other in wild tumult, the cackle of concerted laughter, rhythmic as the beat of a drum—to which is pitched in unison the pad, pad, pad, pad, of a pacing horse in the soft snow—the whirl of an electric street car as if a covey of partridges had passed suddenly overhead—the rapturous applause of myriads of phantom hands—the imperceptible blending of these and a thousand more eternal sensations

to form a symphony that rose and fell and receded in sweet cadence till it died away amongst the distant blue mountains like the strains of the Scottish bagpipes in "Lachaber, no more". —And then oblivion!—

A mysterious something must have tugged at the sleeve of my sense of duty, for I woke with a start as if caught in a fault, to find the bright winter day had merged into the grey dusk of evening. Soon the increasing darkness would be punctuated with commas, semi-colons, and periods of light and my promise to record my impressions of O. A. C. life as I had seen it, felt it, breathed, tasted and handled it, was yet unfulfilled.

A fitting prelude to the business of the session was the programme of the 38th Annual Meeting of the Experimental Union which occupied the forenoon of the first day and consisted of Dr. Creelman's Welcome to Visitors: The Secretary's Report, The President's Address and Professor Zavitz's Report on Co-operative Experiments

in Agriculture for 1916, which latter also included tests of Grain, Potatoes, Roots, Hay Crops, etc.

The Stock judging section of the programme was in the able and experienced hands of Prof. G. E. Day, whose fatherly care and wise instruction, his masterly handling of both animals and men (the latter often the more difficult) left nothing to be desired. But his ability is so well known it needs no more than passing acknowledgement.

If economy in living be one of the first obligations of the men and women of today, then here was ample opportunity given for every attentive student to learn how best to shoulder those obligations and responsibilities of life so as to fit himself to become the vehicle by which the knowledge thus easily and cheaply acquired, might be distributed to his fellowmen. The Student thus constituting himself the middleman, so to speak, in this department of the Social Economy of today.

From the meek and homely sheep of various breeds, whose different points, characteristics, advantages and qualities were scientifically explained and compared, right on through the different grades and breeds of Dairy and Beef Cattle, both alive and dead—to those of the ubiquitous and necessary, if less romantic, swine, and more noble and intelligent Horse. Each and all came in for close scrutiny, enthusiastic, if not always wise, safe, or orthodox handling and criticism on the part of the students, whose judgments had often to be elaborated and corrected by that of the Professor and his able assistants, of whom there was always available a pleasing and most profitable relay, each better than 'tother' and all deserving of the highest praise.

The general impression, as far as I could gather, left on the mind of the average student when summed up at finish being clearly that of astonishment, not only at the vast field of knowledge the all too short course had opened up to his now more perfect vision, but also, his own dense ignorance of the subjects taken up, his great difficulty often in arriving at a decision and his inability to logically state his reasons for that decision come to in such phraseology as would clearly convey his meaning. In short, he found himself up against a new 'trade language' whose rules were as arbitrary as that of the English grammar itself. And not infrequently the recklessly bold man struck a rock, much to the amusement of his fellows who waited.

But such was the tact and good humor of the teachers and such general camaraderie of the learners, that the concensus of opinion could not be better expressed than by using the popular expression, "We've had a good time."

And if the foregoing can be said of the Live Stock department, it can in equal, be said of the Seed judging department conducted under Prof. C. A. Zavitz, of the Field Husbandry section and his genial assistants.

Now to those of us who took time to give the matter more than a passing thought the fact that this subject could be vested with such great interest as to compel the regular attendance and attention necessary, of the average Ontario farmer or his son for a whole hour and a half each day during nearly two weeks without any appreciable falling off in the numbers or in the enthusiasm of the almost two hundred students who sat down to the work—is nothing short of a miracle.

The programme announced—"Tuesday, January 9th, and each day fol-

lowing until Saturday, January 20th, the class will assemble at 8.30 sharp for work in seed judging." That was all! It looked prosaic, and if I might presume to offer a suggestion it would be that the professor, cast about for a suitable quotation or even text such as Matthew 13th and 3rd—"Behold a sower went forth to sow."—with which to adorn his future announcements. But with apologies for this unwarrantable digression it is only right to say, if the announcement did appear somewhat prosaic the professor did not!

One glance at that alert figure, bending eagerly forward—precisely on time—waiting smilingly, indulgently, yet questioningly, till the tumultuous wave of humanity has spent its belated force striking against the rock of his discipline and has fallen into a seething foam of at least semi-attention—One glance tells the student of physiognomy that—here is a man!

A sharp rat, tat, of the professor's pencil on the hard glossy surface of the long pea green table on which he leans, accompanied by a remark uttered in that incisive tone of voice which commands immediate attention and silence such as would magnify the crisp crackle of a new Bank of England note into a noise, the professor dips his oar and we are off up-stream as hard as we can pull, no breathing space now till "Ten o'clock Landing" is reached.

Potatoes, more potatoes and yet still more potatoes! "is the order of the day."—Extra Early Eurekas, Irish Cobbler, Davis Warrior, Delaware and Old Early Rose each in its turn has its private history made public property, its age, health, habits of life and fecundity freely talked about, and other liberties taken with it which any self-respecting potato might well be expected to resent, such as the threat to cut its eyes out and other name-

less Kultiured frightfulnesses unknown since the days of Shakespeare's King John to that of Kaiser Wilhelm, II.

Wheat, Oats, Barley, Rye, Peas, Beans, and Tares or Vetches next came in for attention and the relative merits of the leading varieties are duly noted and compared with an eye to business and the farmer's profits—Such are the Marquis and Dawson's Golden Chaff, wheats, O. A. C. No. 72, Daubeney, Banner and other varieties of Oats—Dent, Flint, and Sweet Corns, Sorghum and Sugar Canes, Canadian Beauty and Early Briton Pea, Pearses Improved Tree and Common Pea Bean, The Yellow eye, and the Japanese Bean—Hairy or Sand Vetch and the Common Tare or Vetch. The results of an endless variety of tests, of those most important crops are given and their value explained by the professor in an attractive and most instructive way and may be had in bulletin form.

The Experimental Work at the Farm too for the past year in the growing of Oats and other cereals of many varieties including the now famous O. A. C. No. 72 Oats so successfully grown by an ever increasing number of Ontario and other farmers, was duly explained and was very instructive.

Emmer and its characteristics, The Marquis and Red Type Wheats, Wildgoose, Spring Rye, the different varieties of Maize and countless other grains were very exhaustively treated and also will be found in bulletin form.

Then followed the most interesting bit of the programme—The Clovers, the Grasses and last (and perhaps the least in size) but certainly not the least in numbers—The Weed Seeds which all over the length and breadth of Canada spread themselves like "an army with banner" continually wag-

ing warfare against the sorely tried farmer, whose skill and ingenuity, they put continually to the test, and, whose patience they so often exhaust. But woe to that man who 'throws up the sponge!' Noting but the dour thrawnness of the Scotchman, the bulldog tenacity of the Englishman and the businesslike method of the Canadian, mixed and administered in strong killing doses, will ever prove an effectual antidote for the noxious weed malady.

Imagine then, if you please, one hundred and eighty or so of Eastern Canada's stalwart and fair "Sons of the Soil" sitting down to an after breakfast game of separating, by means of his finger tips, pencil point, and tripod lens, some dozen varieties of weed seeds each morning; classifying and naming them correctly in accordance with a deftly executed chalk outline on the blackboard.

Without such training how many Canadian farmers are there, I wonder, who, seeing a fairly good representation of the ordinary head of a plumber's soldering bolt amongst his seed grain, would unhesitatingly exclaim, "There goes the Canadian Thistle seed, beware!"

Indeed how many so called farmers are there who would ever look for it? I confess I never did.

And so on day after day till nearly half a hundred of the vilest thieves of the long suffering Canadian farmer's time have been trailed, caught, identified, earmarked, and bound over to keep the peace—that is to say a minute description is made and kept of each malefactor as he is caught—a sketch, corresponding to a prisoner's photograph, is made of his appearance, his name ascertained and his family name, his color, his shape, his size, the appearance of the surface of his face is all recorded, for in weed seed society there are individuals who are rough, uncouth, unshaven and wear beards. And also there are those who keep clean, smooth, shiny face and wear a smile buttered o'er on purpose to deceive. Then his social habits have to be examined and ascertained, for the Weed Seed is like his human prototype, continually poking his nose into better class society than that to which his antecedents and his own character entitle him, polluting and contaminating the good and the virtuous wherever he goes, and wheresoever he is found, there also will be found "labour and sorrow."

Kenora District at the Eastern Seed Fairs

By L. H. HANLAN, District Representative.

NO doubt many people in Eastern Canada would wonder at the idea of farmers eleven hundred to fourteen hundred miles away from the Guelph, Ottawa and Quebec Seed Exhibitions, being particularly interested in these fairs; however, we find

that many of the Seed growers, even at this remote distance, are more intimately acquainted with these exhibitions than thousands of the farmers within a comparatively short distance to the actual place of the holding of the Fairs. To a person who has spent

any time in the District of Kenora, particularly in the vicinity of Dryden and Oxdrift, the reason would be very obvious. In short, the farmers are specializing, or in other words, are growing clover seed as a specialty. In order to become widely known throughout the Dominion of Canada as one of the greatest seed producing centres in the Dominion, it dawned upon the seed growers of the District that it was up to them to place their seed in competition with seed produced in other Districts. This they did, and following are the results.

GUELPH—OPEN CLASSES

ALFALFA—1st. prize.

RED CLOVER—1st., 2nd., 3rd., 4th., besides the Championship cup donated by Geo. Keith and Sons.

ALSIKE—1st., 5th.

OTTAWA—OPEN CLASSES.

RED CLOVER—1st., 2nd., 3rd., 4th., 5th.

ALSIKE—2nd., 3rd., 4th., 5th.

FIELD CROP.

CLOVER—1st., 2nd., 3rd., 4th.

POTATOES—3rd.

QUEBEC—OPEN CLASSES.

RED CLOVER—1st.

ALSIKE—1st.

It is interesting to note in passing, that at the Ottawa Fair, thirteen entries were made in clover seed and every one carried off a prize, as was also the case at the the Quebec Fair, there being only two entries made and each one was given first place

against a large number of entries. Is this not a good object lesson of what it is possible to accomplish by a little specializing on the part of the farmers themselves, and also of the possibilities of New Ontario? While many may have tried and failed, the fault must have been with themselves, and not with the country, as those that have set about their task with a firm resolve to succeed are now congratulating themselves on their accomplishments and are quite contented and happy.

While the growing of clover and other seeds is somewhat of a specialty, it is not, by any means, the only line of farming undertaken by the farmers of the North country. Sheep raising is at present receiving considerable attention as is also the bee keeping, both of which work in very well with clover seed production. The sheep to keep down any weeds that might appear, and the bees assist in the pollenization of the blossoms. In the clover plant cross-fertilization is obligatory, hence the necessity of the bee to carry the pollen from plant to plant.

In conclusion we might add that out of ten prizes, given in the clover seed classes at the Guelph Fair, Kenora District claimed six of them; in the Alfalfa class on account of having only one entry, one prize was all that could be won, that being first, At Ottawa, out of fifteen prizes given in clover seed, Kenora District claimed thirteen of them, this being all the entries in this class that were made from the District. At Quebec two entries were made both taking first place. What better showing than this could we ask for, or what greater evidence of the high quality of seed produced be had?

THE O.A.C. REVIEW

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E. V. LAWSON, '17, *Agriculture*

B. P. GANDIER, '18, *Athletics*

A. W. GUILD, '17, *Experimental*

G. R. WILSON, '18, *College Life*

H. NEFF, '17, *Horticulture*

J. B. MUNRO, '19, *Locals*

R. J. ZAVITZ, '17, *Poultry*

F. C. ODELL, '19, *Artist*

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MARY BIRKETT, '17, *Macdonald*

W. F. GEDDES, '18, *Alumni*

MILDRED RUTTAN, '18, *Macdonald*

EDITORIAL

THE FARMER AND THE PACKER.

Often have we heard the remark, "The Middlemen get too much profit from farm produce." There must be a reason for such a statement; there are only two solutions,—there are either too many middlemen, each taking a small profit or, a few middlemen, each taking a large profit. No matter which be true the fact remains that conditions must be such as to allow the middlemen a chance to operate and so long as these conditions exist so will the middlemen find profitable employment in what now seems to be a necessary occupation. If the middleman's profits are too great then a solution must be found in making conditions such that this service can either in whole or in part be dispensed with.

There is a quite prevalent opinion that the farmer is at the mercy of the

packer, when it comes to the selling of his livestock, butter and eggs. This is not a desirable condition and what is needed is a better understanding between the farmer and packer.

The farmers of Ontario are progressive; they are, in many cases, raising pure bred livestock, and are developing this part of the farming industry very rapidly. Such being the case and with opportunity which is now presented to Canada in securing the British trade in food products such as: — meats, eggs, butter and cheese, every effort should be made in having the farmer understand the needs of the packer in order to command this trade in the Motherland.

Denmark, our chief competitor on the British market in bacon, butter and eggs, is now finding a very profitable market for her produce in Germany, where the price of food,

stuffs has risen abnormally high. As a result her exports, along with those of other neutral countries, to Gt. Britain are falling off considerably as will be noticed in the table below, taken from the English paper "Grocer," July 4, 1916. This table gives the amount of butter imported into Great Britain from these countries during the first five months of the year noted:

	1914	1915	1916
	cwts.	cwts.	cwts.
Denmark.....	736,402	674,674	488,341
Sweden.....	149,337	64,102	877
Holland.....	42,223	23,741	1,981

Since the opportunity of gaining the British market for Canadian products is ours let us organize, co-operate, and standardize our products in such a way that when the war is over we may not fear the competition which will inevitably come.

The following is a copy of a letter received by the Editor from a graduate of the O. A. C. We are very glad to receive from any of our subscribers, criticisms either favorable or unfavorable of anything which appears in our magazine. It is not our wish that controversies be established but it is our aim to present to our readers both sides of any question so far as it is possible and the reader may then form his own opinion. Since we are taking the liberty of replying to Mr. Golding's letter and wish to comment on it, it appears in the editorial section.

Dear Editor,—

In the Christmas number of the O. A. C. Review, I have read an article by Prof. H. H. Dean on "Imitation Butter." This article, I consider is on the whole in the wrong direction, and is trying to frustrate an inevitable change.

Let us look at the matter closely. There is a slogan—"Imitation Butter shall not be made or sold in Canada" yet the Canadian troops in England and France receive only imitation butter (margarine) at the rate of 2 ozs. per man per day.

From a standpoint of health we hear of no cases where margarine has caused disease of any kind, either, among the hundreds of thousands of Canadians or the millions of British troops.

It is an admitted fact that margarine contains as much energy and is as digestible as butter though I fully agree with Prof. Dean, that there are points that make butter the superior food product.

Under war conditions we must consider two great factors, food and money, which many of the greatest authorities say will be the winning points in the World War.

Let us consider the difference in cost of a 2 oz. daily ration of butter at 50c. per lb or margarine at 20c. per lb., when used by 1,000,000 people.

	People	Lbs used	Cost
		per day	
Butter,			
50c...	1,000,000	125,000	\$62,500 00
Margarine....			
20c.	1,000,000	125,000	\$25,000 00
Saving per day.....			\$37,500 00
Saving per year.....			\$13,687,500 00
Saving per head per year.....			\$13.68

Owing to the present hard times and the hard times that must inevitably come after the war, cheaper foods in general must take the place of dearer ones. As it has been in France and England, so it will be in Canada, margarine will to a large extent sooner or later take the place of butter.

I agree with Prof. Dean this is a very hard hit for the Dairy Industry of Canada, but by no means fatal.

Though it is admitted that the United States' most carefully drawn legislation has been unable to prevent the sale of imitation butter for pure butter, this is not an infallible proof that legislation can not be made to prevent it.

What can be done to meet this great change in the Dairy Industry of Canada, which at first appears to threaten its very foundation?

1. Laws should be made for government inspection of all oleofactories, the standard making of all brands of margarine and the prevention of the importation of butter and margarine into Canada without government analysis. In my mind it would be safer to have no margarine or butter shipped into Canada for its origin could never be satisfactorily checked.

2. Every possible means should be given to use milk in other ways, than in the production of butter. The demand for pure milk is of great importance and there is vast room for improvement in production, distribution and sale of market milk. More propaganda work among the consuming public could be carried out, for few people in the cities know the value of the milk they buy, while almost all talk of its high price. The manufacture of condensed milk, powdered milk, and various varieties of cheese give a great scope for the Dairy Industry. The varieties and quality of cheese made in Canada leave much to be desired. The practice of selling off poor cheese in Canada and exporting the good, is responsible for the small demand for cheese by Canadian people.

3. The sacrifice of butter making plants in general, will be a hard hit, felt by the separator manufacturers as much as any. Here a great deal might be done in the way of providing capital by forming co-operative so-

cieties and government loans. It will be far better to make one good scrap heap and reorganize the creamery into an up-to-date condensery, powdered milk factory, or wholesale milk plant, than to run the creamery till the dairy farmers in the district die out, and the creamery, making poorer and poorer butter gradually closes. The creamery manager must remember how small the capital in his creamery is in proportion to the farmer's stock, which may be anything from 10 to 50 times as valuable.

Again the dairy districts are not built up in a day and their decline must be gradual so that a marked fall in supply to a creamery may not be felt for years. A fall in price of butter will by no means be likely for this war is steadily reducing the value of money but the prices of foodstuffs may be rising so fast that it becomes no longer possible for the farmer to produce butter fat at a profit though the price of butter may actually be higher.

It will need men of up-to-date ideas, clear business knowledge and thorough insight into dairy work to know just how, when and what into which to change the creamery.

In concluding let us bear no bitterness to the oleo manufacturers, for providing he is honest he has just as much right in Canada as the creamery manufacturer.

Under the trying conditions to which dairymen are likely to be subjected in the near future let us remember: "Necessity is the mother of Invention."

N. S. Golding, (Capt.)

R.A. M. C. (T.)

66th E. Lincs. Division
Sanitary Section,
Colchester, England.

The arguments used by Mr. Golding, in favor of the oleo manufacturer are

largely those used by "oleo" people of the U. S.

We also notice that he agrees with Professor Dean in many of his statements such as:—that butter is the superior article of food and that it would be a hard hit for the dairy industry of Canada should oleo be allowed to appear on the Canadian market. He also states that the most carefully drawn legislation in the United States has been unable to prevent the sale of imitation butter for pure butter and also goes further to say that it would be safer to have no "oleo" shipped into Canada, because its origin could never be satisfactorily determined. These points to us seem sufficient to warrant the opinion held by Professor Dean.

Abnormal conditions exist at present. Up till the outbreak of the war the creamery industry was gradually gaining ground. The demand for large quantities of cheese as food for the soldiers with the resulting high price

has given a stimulus to the cheese making industry with the result that the creamery business has fallen off considerably, but is by no means dying out as hinted in Mr. Golding's letter. Furthermore, Mr. Golding suggests that co-operative societies and government loans be started to aid the farmer. With him we agree because only in this way can the farmer remain independent of large factories and trusts. Until such time as we may know when sitting down to a meal in a restaurant or hotel, whether we are being served with butter or margarine imitation butter should not be allowed. The dairy industry has nothing to fear in competition with "oleo" so long as the latter is sold and served as what it is, but the chances of fraud are so great and the greatest demand for the entrance and manufacture of "oleo" in Canada is coming mostly from large manufacturers, not from the people, that we cannot yet advise its admission to this country.



APRIL NIGHT

How deep the April night is in its noon,
 The hopeful, solemn, many-murmured night!
 The earth lies hushed with expectation; bright
 Above the world's dark border burns the moon,
 Yellow and large; from forest floorways, strewn
 With flowers, and fields that tingle with new birth,
 The moist smell of the unimprisoned earth
 Come up, a sigh, a haunting promise. Soon,
 Ah soon, the seeming triumph! At my feet
 The river with its stately sweep and wheel
 Moves on slow-motioned, luminous, gray like steel.
 From fields far off whose watery hollows gleam,
 Aye with blown throats that make the long hours sweet,
 The sleepless toads are murmuring in their dreams.

—Archibald Lampman.



HONOUR ROLL.

It is with regret that we have to report the death of two year '17 men, namely: C. W. Stokes and A. C. Lone.

C. W. Stokes enlisted in the Imperial Service leaving the college for his course of instruction in England last March. Lieutenant Stokes before his enlistment played a prominent part in the work of the C. O. T. C. and was an exceptionally good student.

Private A. C. Lone enlisted with the 71st Battalion. Allan was a good student, and was well known in the city where he was liked by all who knew him.

Among the names of the wounded which appeared on March 19th, we noticed N. Curtis, '15. No particulars have yet been received.

NEWS ITEMS.

B. J. Bourke, Karookom, Bierfontein, O. R. C., South Africa has been heard from. He was captain of the football team at the College and was a very fine Irish African. Since leaving College, Bourke has had no real holiday, as he has been working on his farm ever since. He has no neighbors within ten miles and the life is lonely and hard. Bourke says in part, "Owing to the rebellion and the war the work is far harder, as for two years now, I have been doing two men's work besides my own. I am operating three

large farms. Our principal crop is maize and I also have a fine herd of South Devon cattle and fifty grade horses. Unti last year I had the record crop for maize in this district, getting 5030 bags (each of 203 lbs. weight), besides my small crops. I also have an orchard of 2,000 trees, some 1200 of which are now bearing. This year we had no early rains, so can only get in a short ploughing season, but I hope to put in over 2,000 acres of maize besides beans, potatoes and turnips. There are over 600 head of cattle on the farm, 100 of which are hired stock for ploughing purposes."

"I am now taking quite a place in farming circles out here, as I have been placed on the Standing Committee for "Implements and Methods of Cultivation" of the "South African Maize Breeders, Growers, and Judges Association."

I have often had a 16 to 18 hour day here in the summer and cannot find time to study but, being frequently confronted with problems, my notes from lectures at the College and text books are invaluable as references. As I am fifty miles from a veterinary surgeon, I have to do all my own doctoring and keep a well stocked medicine chest."

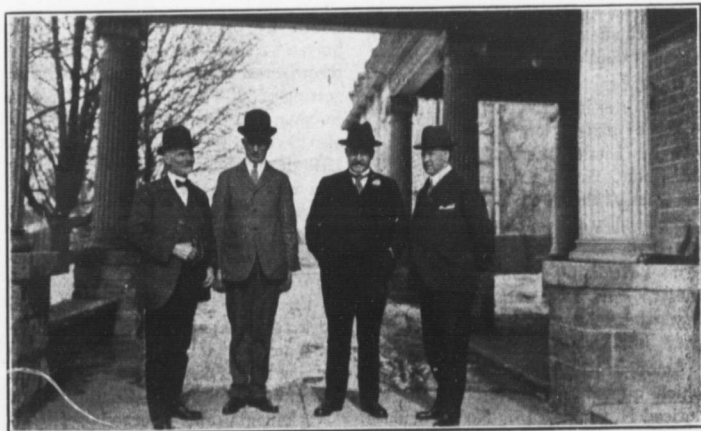
Pte Fred Alton '15 of the 27 Batt. has arrived from France, where he spent over twelve months in the trench-

es. He is on leave from Toronto Hospital and is returning in a few days to receive an artificial arm, having had the misfortune of losing his right arm.

A. R. Dan '15 commonly known as Rustie is in Bramshott, England, with A Company, 1280. B. C. E. F.

Benjamin H. C. Blanchard '14, is now a military policeman at Toronto, bearing marks which class him as one who thought more of his country than of

Particulars have been received regarding the death of Murray T. Smith. Murray was severely wounded during a heavy bombardment of the Canadian lines at Le Sars. At first he was too ill to be removed from the Casualty Clearing Station, but after one week he was removed to the second Stationary Hospital, Abbeville. His right arm had to be amputated at the shoulder and he also had very severe wounds in the right thigh and left shoulder. For a short time he rallied,



Members of Class of '88—Dr. C. A. Zavitz, J. J. Fee, B. E. Patterson, Dr. G. C. Croelman.

his own welfare. Soon after the outbreak of war Ben enlisted. A premature explosion of an imperfect bomb which he was about to throw into the enemy's trenches wounded him severely, and many months were spent in hospitals, and for some time his recovery was doubtful.

Ben's numerous friends at the College will remember his jovial good-natured manner, his musical ability, and his upright manly character.

and hopes for his recovery were bright, but the shock was too great and death came after two weeks suffering.

W. R. Reek, recently secretary to Dr. C. C. James, is now Assistant Commissioner of Agriculture for Ontario.

R. D. Colquette, recently editor of the "Farm and Dairy" Peterboro, has left to take the editorship of the Grain Grower's Guide, Winnipeg.

ENLISTMENTS.

The following students and ex-students of the college are now with the 64th battery stationed at Guelph:—

Lt. T. Sanderson '15; J. M. Creelman '15; R. J. Skelton '15; W. J. Tawse '15; C. E. Meek '17; C. Hotson '14; A. H. White '17; O. McConkey '17; I. B. Martin '17; G. E. Lavis '18; C. F. Luckham '18; J. A. MacDonald '20; C. Hoard '18.

J. M. Creelman has returned from Kingston where he succeeded in passing examinations qualifying him for the rank of Lieutenant.

O. McConkey and D. B. Martin are now in Kingston taking the sergeant's course.

NUPTIAL KNOTS.

A very pretty wedding was recently solemnized at the Oriental Home School, Victoria, B. C., when Miss Yae Mochidzuki was united in marriage to Mr. Junkichi Iwanami, B.S. A '09.

Mr. Iwanami took his first two years with '09' and finished his course in '12, having the distinction of being the first Japanese student to obtain the B. S. A. degree.

While at the College he was a general favorite, especially distinguishing himself in gymnastic work. At present Mr. Iwanami is engaged in the Dairy Business, 1721 Cook St., Victoria B. C.



O. A. C. vs. BRAMPTON.

The first game of the season for the O. A. C. hockey team to participate in was played in Brampton, against the Brampton Intermediates, March 2nd. So much attention was given during the winter season to inter-class hockey, baseball and other sports, that very little thought was paid to the development of a fast hockey team. Consequently when the seven players were chosen to represent the college they found themselves somewhat at a disadvantage in regard to playing combination and working together since only one practice could be arranged for before journeying to Brampton, to meet the opposing O. H. A. players. However, the results of the game exceeded all expectations of the hockey

enthusiasts at O. A. C. for every one felt that the team would return completely "white-washed."

The final score of the game was 4-2, in favor of Brampton. The Brampton players exhibited speed, fine stick-handling, considerable team work, and in every way showed themselves to be true veterans. The close score indicated on the other hand that the "Aggies" played the game in not altogether too amateur a style. Their fast and snappy checking back, their flashes of combination at critical times and their many shots at the Brampton net showed clearly that it was only with effort that the O. H. A. players came through the game as victors.

The first period ended with a score

2-0 in favor of Brampton. Throughout the whole twenty minutes, the game was exceptionally fast. In-goldsby of the Brampton team made some splendid end to end rushes, only to be checked by either Michael at defense or have a shot nicely warded off by Smallfield in goal. Several times Newton and Higgins went up the ice on a combination for the college team, but their efforts at scoring were defeated by the fine work of Murray in goal.

The second period was somewhat similar to the first. Probably more shots were delivered to Smallfield during this period than during the first but he handled them in a true professional style. This period ended 4-0 in favor of Brampton.

The thought of returning to Guelph 'white washed' must have had some psychological effect upon the College team since from the very first face-off of the third period to the end of the game, they played with determination—if not to win the game then evidently to keep the Brampton score at a respectable mark. The forward line blocked and checked back in a very effective manner. The defence cleared well and time and again carried the puck to the Brampton goal but failed to score. When about half the period was over, Newton secured the puck from centre ice and he nicely stick handled to within a few yards of the enemy's goal and netted the puck for the first score for O. A. C. Shortly afterwards Allan was seen zigzagging up the ice,—passed the forward line,—passed the defence and neatly placed the rubber in Brampton's net for the second goal. After three more minutes of play the game ended with the score remaining 4-2.

It is difficult to select any particular player of the O. A. C. septette as

playing a superior game to the rest, however, Newton and Allan of the forward line were on the job at all times and probably were the chief players in holding the opposing seven in check. Michael, on the defence got the puck away in good form from the danger zone on many occasions and as for Smallfield in goal, one wonders how it was he happened to be in so many places at the same time. His skate, knees, hands and stick so completely blocked the whole of the net that it was only with extreme difficulty Brampton was able to get a shot past him.

PLAYGROUNDS VS. O. A. C.

As the group in which the college had entered a basketball team did not develop, they were declared winners by default. This put our team in the semi-finals with Western University and Toronto Playgrounds.

The first game in the semi-final series was played in Toronto between the Playgrounds and O. A. C. The game was hard and fast. Our boys were handicapped with the small floor, but became used to their positions as the game advanced.

In the first half both teams were very evenly matched, the score at the end of the first period standing 19-15 in favor of Playgrounds.

The game became more strenuous in the last half. Zeigler for the college did very efficient shooting, while Michael on guard, played his usual strong game. During the last five minutes of play, "Muckle" Maclean, forward for the Playgrounds, began his spectacular shooting and managed to pile up ten points in that time, so that at the close of the game the score stood 45-30 in favor of the Playgrounds.

The line-up:

Playgrounds, Kelly, Maclean, Smith, Mackie and Cole.

O. A. C., Wallace, Ziegler, White, Evans and Michael.

Spares, Odell, Musgrave.

PLAYGROUNDS VS. O. A. C.

The O. A. C. boys knew from their previous game with the Toronto's, that they would have to play exceptionally fast ball to win, and would have succeeded but for some of the hard luck which was prevalent in the last few minutes play.

The game was a splendid exhibition of basket-ball, the combination of the Toronto boys was especially good, while Michael and Evans did some excellent work for the college. Toronto got a lead at the start of the game, and at half-time the score stood in their favor, 16-11. In the second period O. A. C. played the best ball of the season, and succeeded in getting a lead of one point. With only a minute to play the college fouled twice on which the Toronto's scored two points, giving a lead of one point, when time was called. Score 24-23.

O. A. C. —Zeigler (4), Wallace (8), White (11), Evans, Michael.

Playgrounds—Kelly (2), Crilly (6), Smith (4), Cole (6), Mackie (6).

BASKET-BALL IN GALT.

On Wednesday, February 28th, the basket-ball management decided that the college team should journey to Galt to play the Y. M. C. A. the return game to which they were entitled for having played a practice game in the O. A. C. gym, earlier in the season. Several of the regulars were unable to go, so Ziegler, Odell, Matheson and Musgrave were taken by coach Forman, who also played.

Though somewhat late in arriving, the college men found their opponents

awaiting them and the two teams were soon on the floor. The Galt gym is much smaller than the College floor, and at first the O. A. C. forwards had difficulty in locating the basket. The Y. M. C. A. men, on the contrary, seemed to have the ball mesmerized and they soon had a nine-point margin. Then the college team woke up, and in the last five minutes of the first half, bombarded the Galt basket fiercely, Odell netting the ball three times. Half time score was 16-15 in favor of Galt.

The first part of the second half was fairly even, but condition, or lack of it, began to make itself felt, and the college team forged ahead, outplaying the Y. M. C. A. men completely. Carley again starred for Galt, shooting several clever baskets and guarding hard all the time. Matheson was a tower of strength on the college defense. Ziegler played his usual strenuous game, and Forman had the Galt men absolutely mystified. The game ended with the score 44-31 in favor of O. A. C.

O. A. C. Lineup—Centre, Ziegler (12); Right Forward, Odell (8); Left Forward, Forman (20); Right Guard, Matheson; Left Guard, Musgrave (4).
—A. H. M.

BRAMITON VS. O. A. C.

Brampton Intermediate O. H. A. team came to Guelph on Friday, March 9th, for the return game, in which College were the winners by a 7-2 score. The College team secured a lead which they continued to increase throughout.

The first period started with the College on the offensive and after four minutes play Allan scored on a lone rush. After fifteen minutes, Gandier scored through combination with Newton and the period ended 2-0 for the

College. In the second period play was more even, but the lead was increased to 3-0 by Shales, who took a long pass from Newton. Although the College had an advantage in scoring during the second period they did not have any advantage in play except in the work of the defence. Smallfield in goal gave a good exhibition throughout. He had some hot shots to handle, but his clever use of the stick in stopping and clearing at one stroke seldom leaves a chance to score on the rebound. In the final period, Brampton rallied, and scored two goals but College continued their good playing by adding four goals during the twenty minutes. The first was from left wing and was labelled a goal from the time it left Newton's stick. Then Brampton's defence got through and tallied their first. Brampton continued to work hard and as a two man combination they got through the defence and beat Smallfield for their second and final score. College scored their fifth on a lone rush by Michael. Their sixth, by Murray, Brampton's goaler, blocking Gandier's shot, but allowing the puck to fall into the goal instead of clearing. MacDonald, was responsible for the seventh, when the puck went almost directly from the draw in centre ice to the net.

The game was a good one to watch. There was plenty of snap, without any attempt at heavy checking, which always produces slower play. Brampton are individually fast skaters and good stick handlers and in this respect had the edge on O. A. C. but they did not work together sufficiently. On the other hand the combination work of the College team on the line and the rushing by the defence in which they co-operated with the line made the team strong on the offensive, while the forwards helped their defence by

checking back consistently. With all the team figuring in the scoring it is shown how well every man played his position. The game was clean through out with only a few penalties for careless use of the stick in checking. In this both teams were offenders. In the final period the Brampton goalkeeper was penalized, for kneeling, but their defence guarded the net successfully.

Mr. Wilkinson, of Brampton handled the game to the perfect satisfaction of players and spectators. After the game the Brampton boys were entertained by the College team with whom they spent the night.

The annual Boxing, Wrestling and Aquatic Meet was held March 3rd. The boxing and wrestling bouts were keenly contested.

In the boxing, Delamore '19, out-pointed Slack '17, for the feather-weight class. Slack showed very much the lack of training, which gave Delaware a decided advantage. Maxwell '18 won the light weight from Scouten '19, following this by a win from Hamilton '20 for the welter-weight. This was an excellent exhibition of boxing. Hamilton had some advantage in reach, but Maxwell's foot-work kept him safe.

Musgrave '19 did some fine work during the afternoon by winning the middle and heavy weight events. "Muzzy" doesn't appear big, but he is all there; his hardest opponent was Maxwell, who although being nearly 25 pounds lighter gave him a fast bout and caused some discussion between the officials before a winner was declared.

The wrestling which followed was also exciting. Slack '17 won the feather-weight from Goudie '19 in a very fast bout. At times it seemed they

preferred the bare floor rather than the mat. Scouten '19 won over Slack '19, in the welter-weight, while Hamilton '20 took the middle from Frey '20, each got a fall but Hamilton's aggressive style won the bout.

This meet was the means of bringing out some first class material in both boxing and wrestling.

In the aquatic events, Allan '19 took the long plunge going 37 ft. 11 inches with Levens second, 33 ft. 8 inches. The Beginners 35 yd. was won by Barber and the 52 yd. Back Swim by Grant '20. Allan won the fancy dive with Odell '18 second. The lack of entries caused this branch of sport to be less interesting than it has been in former years..

INDOOR MEET.

The annual Indoor Meet was held March 8th. The fact that there are few students at the College does not seem to mean we have few athletes. Two records were broken, that of the Inter-year Relay, by year '18 and the 60 yard Potatoe Race, by Levens, year '20.

The Sophomores won the meet and are certainly to be congratulated on their excellent work. On individual work "Husky" Evans forged to the front, once more being grand champion with 26 points. "Husky" will be greatly missed in the College athletics next season as he graduates with year '17.

The following are the results:—

15 yard Dash—	
Kimball '19, Allan '19 Gunn '19	.....2 1-5 sec.
60 yard Potatoe Race—	
Kimball '19, Levens '20, Wallace '18	.....14 3-5 sec.
440 yard Potatoe Race—	
Peters '19, White '17, Levens '20	.....2 min. 11 4-5 sec.

Hitch and Kick—	
Evans '17, Pachett '20, Toole '19	.....7 ft. 11 inches
Fence Vault—	
Toole '19, Kimball '19, Musgrave '19	.....6 ft. 2 1-4 inches
Rope Climb—	
Steckle '19, Scouten '19, Musgrave '19	.....12 sec.
Chinning Bar—	
Musgrave '19, Gardiner '17, Frey '20	.....19 times
Broad Jump—	
Evans '17, Kimball '19, Misener '20	.....9 ft. 5 inches
Running High Dive—	
White '17, Toole '19, Allan '19	.....5 ft. 3½ inches
Standing High jump—	
Wallace '18, Toole '19, Way '19	.....4 ft. 2¾ inches
Three Standing Jumps—	
Evans '17, Gunn '19, Wallace '18	.....27 ft. 9 1-8 inches
Hop -Step-Jump—	
Evans '17, Wallace '18, Misener '20	.....27 ft. 5½ inches
Running High Jump—	
Wallace '18, Way '19, Patchett '20	.....4 ft. 11 inches
Putting Shot—	
Wallace '18, Allan '19, Steckle '19	.....32 ft. 10¼ inches
Pole Vault—	
Evans '19, Misener '20, Toole '19	.....9 ft.
Rope Vault—	
Wallace '18, Way '19, Evans '17	.....12 ft. ¾ inch
Relay Race—	
Year '18.....	1 min. 11 2-5 sec
Total points :	
2nd year.....	81
4th year.....	38
3rd year.....	31
1st year.....	14
Grand champion, O. C. Evans '17,	26 points.

JUNIORS WIN HOCKEY CHAMPIONSHIP.

Year '18 won the Inter-year Hockey Championship in the College arena on the evening of March 19th, when they defeated the Sophomores by a score of 3 to 2. A large number of class-mates enthused with year spirit and a goodly number of interested members from the other years and the "Mac" were present to witness the fast but clean and clever exhibition of hockey.

During the first and second periods the losers seemed to have the better of it showing better team work than their rivals—Stillwell and Higgins being their stars. The Juniors played an excellent defence game and Richards in goal saved the day for them. However, just before the close of the second period by a clever rush Newton scored and left the score 2 to 1 in favor of the Sophs. The third period turned the tide. The Juniors were able to hold out the better and excelled their

rivals at every turn. The score was tied and in less than two minutes by two shots from MacDonald was turned in favor of the champions. The game then was a fight to the end, but the Sophs were only able to prevent a higher score by resorting to a strictly defence game.

This leaves the Hockey Championship with Eighteen, and it is a source of pride to that class to know that it has held it ever since its entrance to the College.

The line up:

Juniors:—Goal, Richards; Defence, Michael and Wilson; Rover, MacDonald; Forwards, Newton, Gandier, (centre), De Long, Graham, (spare).

Sophomores:—Goal, Frost; Defence, Allan and Rutter; Rover, Musgrave; Forwards, Shales, Higgins, (centre) Stillwell, Kimball (spare).

Referee:— Capewell.

College Life

THE PUBLIC SPEAKING CONTEST.

The annual public speaking contest, took place on Friday, March 2nd.

The programme opened with a March, the "Ben Hur Chariot Race," played by the College Orchestra, which gained an enthusiastic reception.

Dr. Creelman, who presided at the meeting, then gave a short address. He mentioned that the judges were all graduates of '88; that he had found that they could do full justice to the provision made for the wants of the inner man, and he was sure they would show the same well directed capacity in judging speeches. He then outlined the rules under which the speakers would be judged, and called for the

first competitor, Mr. G. J. Arnold. Mr. Arnold's subject was "Improvements in the Country Home."

This was a very practical subject, and the speaker outlined some most feasible and inexpensive improvements, which would greatly add to the comfort and beauty of the farm home. He strongly urged the lightening of the farm housewife's burden on the plea that her happiness would inevitably be reflected in the happiness of the household; the tap of a modern water system should replace for her the all too common "reluctant spout of a squeaking, grunting pump." For her sake a more suitable place should be found for hog pails than the kitchen, and on her account the beautifying of



the home with flowers and trees demanded attention.

This speech was followed by a very much appreciated solo by Miss Grace Martin, L.T.C.M.

Mr. R. A. Brink, was the next competitor; his subject was "Agriculture and the Empire." This speaker dwelt strongly upon the immense importance of the welfare and work of the farmer. Two years of war had shown the true significance of the wheat crop; the welfare of the tiller of the soil was vital to the State, agriculture was the root, trade, finance, and science in reality only the leaves of the tree of civilization. He said that now had come a grand economic agricultural opportunity; with her peculiar advantages of soil and climate, Canada should seize this opportunity, the finance and railway policies must assist the agricultural interests, and agricultural competition must be organized upon a national basis.

The next item was a reading entitled, "Kentucky Belle" by Mrs C. F. MacKenzie.

Mr. P. L. Fancher was the next speaker. His subject was "The standing Field Crop Competition," a subject in which he was evidently deeply interested and with which he was personally familiar. He spoke first of the rapid growth of the popularity of the competition, then he outlined the rules and defined its aims, and he concluded his address by emphasizing its great educational value.

Mr. Fancher's speech met with a most appreciative reception; his clear and emphatic style and his easy eloquence exactly suited his practical and interesting subject.

The next musical item was a second selection by the college orchestra.

The speech of the fourth competitor, Mr. J. A. Flock, came next on the

programme. Mr. Flock's subject was "Literature and Rural Life," and appears elsewhere in this issue. He introduced his theme by saying that it was a great problem of vital interest in rural communities, intellectually, mentally, morally and spiritually. He outlined a plan by means of which such an institution as the College could be instrumental in supplying the farmer with every kind of book, from agricultural works to light fiction, from humor of Mark Twain to the poetry of Tennyson and the life interest of Dickens and Thackeray.

Broad lands and bountiful crops were not everything; to think high and to see straight was also gain; and he concluded by telling the story of a highland shepherd, who watching all the beauty of a radiant Scottish sunrise, took off his bonnet not so much in devotion as in keen appreciation of the gold and crimson beauty of the morning. This beauty of the morning said the speaker, was the function of literature.

The applause with which Mr. Flocks' speech was received showed clearly that his mastery of language, his persuasive power, and his fluent force of expression had been most fully appreciated.

This speech was followed by a duet entitled, "The Sweet Wi'd Rose", by Miss Edith O'Flynn and Miss Alice Jackson.

The last speech on the programme was then given by Mr. O. McConkey.

Mr. McConkey's subject was "The Agricultural Possibilities of the Peace River Country." He described the advantages of this district, the crop-yields that could be harvested and the excellent results which had been obtained. He finished his address with a short summary of the country's many natural advantages, its peculiar adapta-

tion to agriculture, and its abundant natural resources. His forceful description and his own evident conviction left no doubt as to what was the answer in the minds of the audience to his concluding question, "Have we not a wonderful agricultural country to offer the immigrant?"

Mr. McConkey's speech was followed by a vocal solo entitled, "Canada", given by Mr. P. L. Fancher.

The judges of the contest were Professor C. A. Zavitz, Mr. B. E. Patterson and Mr. J. J. Fee. Mr. Patterson in giving the decision commented upon the high order of the speeches; he then gave the results of the contest:

1. Mr. J. A. Flock.
2. Mr. P. L. Fancher
3. Mr. G. J. Arnold
4. Mr. R. A. Brink
5. Mr. O. M. Conkey

Mr. Flock was presented with a dictionary, which, if size be any criterion, must be truly fabulous in its wealth of wisdom.

The meeting closed with an overture by the College orchestra, immediately after which was played the National Anthem. —J. H.

ATHLETIC CONCERT.

We have heard time and time again that the Manhood of the British nation is falling to decay through the lack of attention to physical development. The same lead to the fall of the Roman Empire. Are we as a nation, in the midst of this commercial struggle for supremacy, in the midst of this race for the "almighty dollar" and while we are indulging in this Armageddon, this ruthless struggle for freedom and civilization, going to pursue the course of the Romans? Those of us who attended the athletic concert on the evening of February 23rd, would not hesitate for one moment

to argue in the negative. For real enjoyment and an exhibition of efficient and well trained athletes, the athletic concert this year was second to none in the history of the College. The College gymnasium was filled to the doors with an audience who received ample remuneration for having lived in expectation the week previous to the concert.

Our athletic instructor, Mr. K. W. Forman, and his gym team are to be congratulated upon the way in which the various events were executed. Athletics varying from the exhibition of the brawny muscle of Sampson to the light tread and quick maneuver of the acrobatic fly were all staged with the greatest agility. High bar, mat work, flying rings, parallel bars, boxing and pyramid work were all exhibited with the greatest degree of accuracy and efficiency. Indeed the enthusiasm upon the stage ran so high that even Mutt and Jeff, who were very much in evidence all through the evening, indulged quite agonistically in the gymnastic stunts. Mutt in the person of "Slim" Bouis, with his "nose tip tilted like the petal of a flower," and his boots running at an angle of forty five degrees with the horizontal plane, surprised the audience by the ease with which he performed. Fleming who, appeared as Jeff, although he seemed to be Mutt's slave, hopped around the stage and performed his bar work with just about five times the adroitness of his lord and master. Even "Charlie Chaplin" was unable to keep away from the fun and undertook to vie with Mutt and Jeff in a step dance.

But the entertainment was not without its music. Mr. H. R. Hollinshead, the noted baritone singer from Toronto, rendered a number of solos and was encored time and again. "The Drum Major" and "A Sailor's Song" to-

gether with a musical monologue were his best contributions. In his monologue, he portrayed to us a vivid picture of a sweetheart in his early days, but alas! when his story would be interesting his memory failed—oh! mem-o-y.

The college quartette contributed several selections, which were without doubt superior to their former efforts and that is indeed saying much. Their rendition of "The Rosary" and "Kentucky Babe" was an entertainment itself.

Ontario women have received the franchise and the Macdonald girls lost no time in bringing that to our attention. In a sketch entitled, "The Tables Turned" we were able to get a glimpse of the future and see the Mac girls at the O. A. C. and the O. A. C. boys at Mac. Hall in nineteen hundred and twenty-one. It would seem that the O. A. C. boys would be greatly grieved should such a thing come to pass, because it surely would not be to their taste to have to skate alone, while the Mac girls were down town enjoying themselves. Yet from the ladies' view-point it must come to pass in order to have a complete turn of the tables.

It isn't a good policy to shave on Sunday morning. This was conclusively shown in a "stunt" by the Junior year entitled "Sunday Morning". During the course of procedure a victrola which had heretofore been used "for educational purposes only" was broken. Bible class was called off in order that certain members might have their annual bath, and Craig Street was the scene of much hustle and bustle in order to get ready for church.

The orchestra, brought the evening's enjoyment to a close by playing the National Anthem and the

athletic concert became an item of the past.

PHILHARMONIC CONCERT.

The production of "Pauline" by the Philharmonic Society, on the evening of March 6th and 7th, met with decided success. In spite of the fact that the weatherman heaped "showers of blessings" (?) on the heads of those who attended the second night, the audiences were large and appreciative, and the entire play went off without a hitch. The play took the form of an "Operetta". This being the first attempt of the society to stage a musical drama the executive are to congratulate upon the able manner in which the entertainment was given.

The play pictured life in a little village with its lovmakings and jealousies. The course of events was somewhat interrupted by the arrival of a very enterprising journalist from the city, who by his forwardness and display of knowledge aroused the ill-will of the inhabitants, especially the young people. The musical numbers, in the form of choruses, quartettes, trios, duets and solos, woven cleverly into the play, were decidedly pleasing. Indeed it is a common opinion that the choruses were the best produced at O. A. C. in many year.

Bountiful praise must needs be in store for those who took the leading parts. Miss E. O Flynn, as "Pauline" won the audience by her rendition of "Shadow Land" and "Flowers Sweet". Miss E. Aitken as "Servant Maid" deserves special credit for her clever acting and singing. Her winning manner and sweet voice charmed everyone. Mr. P. L. Fancher, as the "Journalist" played his part very capably. He made a decided hit with the audience even if he did fail in winning "Pauline." The three bums, Sorrow, Borrow and

Morrow, were real fun-makers and created fine harmony in their singing. Miss A Gow as the "Widow" with her little boy in her arms, evoked the sympathy of the audience by the singing of a sweet "Lullaby". All the participants in the play acquitted themselves nobly and great credit is due Mr. Heatley and Mr. Heimpel who were largely responsible for the success of the play.

The cast of characters in the play was as follows:—

Pauline.....	Daughter of Cassady
	Miss E. O'Flynn
Cullie.....	Servant Maid
	Miss E. Aitken
Chickie.....	A Sister of Cassady
	Miss M. Steele
Naine.....	A Village Belle
	Miss Betty Jackson
Kiomi.....	An Indian Fortune Teller
	Miss Margaret Cockshutt
Mother.....	A Widow Lady and her
	Miss A Gow
Child.....	A Boy
	Master Jack MacLaren
Cassady.....	Landlord of Dallas Inn
	L. G. Heimpel
Faber.....	Journalist
	P. L. Fancher
Professor.....	
	A Middle Aged School Teacher
	W. L. Iveson
Chilkoot Ike.....	
	An Eccentric Village Character
	F. L. Ferguson
Ruben.....	A Farmer Boy
	W. C. Hopper
The Village Physician.....	
	J. R. Higgins

Uncle Joe.....	
	Former Slave of Widowed Lady
	P. D. Vahey
Shady.....	Faber's Valet
	H. J. Sullivan
Sorrow	} Enemy Spies, as Tramps.....
Borrow	
Morrow	
	B. Maxwell, E. C. Stilwell, G. R. Sibbick.

Chorus of Picnickers, Chorus of Villagers, Squad of Grenadiers.
J. W. W.

OVERHEARD ON THE PHONE.

Mr. N.—May I speak to Miss A. Maid—Just a moment.

Miss A.—Hello! Mr. N., I'm very glad you rang up because I wanted to tell you I can't come out tobogganing with you tomorrow.

Mr. N.—Well may I have the pleasure of your company at the Lit. tomorrow evening?

Miss A.—I'm very sorry, Mr. N, but I have to study for a supplemental exam. which I have.

One day later—

Miss A. calling Mr. H.—Er—Mr. N.—er—I'm going to the Lit. with a girl friend after all. Er—So you know I thought I would ring you up to tell you, you know, that the excuse I gave you was—er—imaginary but it was—the best I could think of."

As a cure for "Mac Hall itis" this is instantaneous and complete, but housekeepers with home experience will hesitate before they adopt any substitution of vinegar for the milk of human kindness, recommended by their more scientific sisters as a panacea for man's mental ills.



TELEPHONE CONVERSATION ACROSS
THE CAMPUS.

Maid, (at Mac Hall)'Phone Miss A.

Miss A.—Hello!

Mr. X.—Is that you Miss A?

Miss A.—Yes, who's speaking?

Mr. X.—This is Mr. X speaking. May I have the pleasure of taking you to Lit to-morrow night?

Miss A.—I'm sorry Mr. X. but I have already made arrangements for to-morrow night.

Mr. X.—Oh that is disappointing. By the way there's a chap here who wants to speak to Miss B.

Do you know if she is in?

Miss A.—Yes, I think so; I'll send her to the 'phone. Good-bye.

Miss B.—Hello!

Mr. X. (still at phone)—This is Mr. X speaking. Will you come to Lit with me to-morrow evening, Miss B.?

Miss B.—I'd simply love to, but, (in a weary tone) I have to make up time. You see, I went home last week end.

Mr. X.—That's too bad. There's a chap here who wants to speak to Miss C. Do you think you could find her?

Miss B.—I'll try. Good night.

Miss C.—Hello!

Mr. X.—Good evening, Miss C. How are you? This is Mr. X. speaking. Are you going to Lit to-morrow night?

Miss C.—Yes, I am. Mr. Y. called me up last night, and I promised to go with him.

Mr. X.—I'm so sorry. for I was hoping to take you myself.

Miss C.—Oh! that's too bad, but perhaps some other time.

Mr. X.—Miss C. there's a chap here who wants to speak to Miss D. Could you send her to the phone for him?

Miss C.—She's right here, now. Good night.

Miss D.—Hello! who's there?

Mr. X.—This is Mr. X speaking. Miss D. will you come to Lit with me to-morrow night?

Miss D.—Why, I'm going to Toronto for the week end, otherwise I'd be delighted to go. I'm sorry.

Mr. X.—So am I. There's a chap here who wants to speak to Miss E. Would you mind asking her to come to the 'phone?

Miss E.—Hello!

Mr. X.—Hello Miss E. I've been trying to get you several times. This is Mr. X. May I call to take you to Lit tomorrow night?

Miss E.—O, thank you! I do want to go to Lit, I think they're great.

Mr. X. (much relieved)—Thank you so much, Miss E. I'll call at the usual time. Good night.

Mr. X (after hanging up the receiver) A fellow needs is patience.

LOCALS

LECTURE IN ENGLISH.

Dr. S.—I don't see why you girls should complain about restrictions at the Hall. I was informed the other day that you were allowed to have gentlemen callers every evening until eight o'clock.

Class—That is not so! We aren't! I didn't know that! They never come!
Dr. S.—Well Dr. R. told me that yesterday.

Ella Y.—Dr. R. is specially privileged, Dr. S.

Helen W. (in chemistry class)—What does c c stand for? I never can remember! It might be anything. It might be cucumber.

Homemaker (In cooking class)!—My dear, what part of the chicken is the fricassee?

Mrs. D. (In cooking class, after cutting up suet)—Shall I put the eggs through the meat grinder now, Miss Roddick?



Why does the Dean invariably look pleased when he sees Goudie?

A COMMON OCCURRENCE.

Sophomore.—Could an artificial member of an animal's body possibly be a heritable characteristic?

Mr. K—g.—Yes and No! For example, A wooden leg might not be reproduced but it is possible that "Wooden heads" are.

Was it by chance that the faculty table and table No. 8 alone had white flowers on them on a recent Sunday evening?

A PRODIGY.

M. Th—son.—It didn't take me long to go through public school: started in first book at 9 a.m.; went into second at 1 p.m. and by 4 p.m. I was in the third.

Bill Bailey.—Where were you at half-past five?

M—th—son.—Oh I was down at the book-store buying a fourth reader for next day.

Sh—pp—d.—Say, how many "supps" can a fellow get and still have second year standing?

S—bb—k.—Two, Why? Are you thinking of having a few?

Openings for future employment look good to some of our students, Bob Al-y is expecting a favorable reply from a "farmer" while Sm—llf—d has a "baker" in view.

D—nn.—They say a married man lives longer than a single one; I wonder if it's so.

M—d.—Don't you believe it: it only seems longer.

"TABLES TURNED" -



BOUIS AS DIETITIAN-1921.

MacM,—(In dairy class)—Has your butter broken yet?

S-l-r,—Haven't heard it, Sir!

K. Forman (Referecing game of Indoor Baseball),—"Safe on first"!

Quirie,—He's out! He's out!

K. F.—"You're chewing too much there!"

Q—"Yes I'm chewing Spear-mint."

K. F.—Well you don't need to get "Wrigley" about it."

Red McK— is quite a proficient palmist, and at the Dairy School dance had considerable practice. He always gets quite a hold on his subject.

Storms have raged around Shepard's room since he moved "west" the other night. The storm center may not change till April 13th.

NEWS ITEM.

W. C. C.— and J. B. M.— were visitors at Guelph General Hospital last Sunday.

Why does Frank M—tt start home from church alone on Sunday mornings?

"Wady, the Philosopher" says, "No one should be envious of the hoarded piles of the rich—They never bring contentment or ease."

McP—l has been looking up the railway time-table already to find the quickest way to get to Galt, when exams are over. We are not surprised,—every day away means an extra letter to post

Arnold will miss his student labor cheques when vacation comes, and, needless to say, the Bursar will miss Arnold.

McP—,— "What's this about your telling around that I had a big head?"
N-x-n,—Gwan, there's nothing in it."

Once upon a time, at a certain baseball game, a player, after he had been fanned out four times, was heard to remark "Some pitcher."

Bill H-l-y was quite a feature at the basketball game between Galt and O. A. C. As a family man Bill distinguished himself by holding an infant on his knee for one hour and ten minutes—and he looked pleasant to the end. He'll make a great politician, if he keeps it up.

It is rumoured that the librarian has kindly consented to have a paper-rack installed in the dining hall for the benefit of those who find it necessary to peruse the daily papers at dinner.

P-t-t,—Did you fellows go to see "Pauline" last night?

C—,—No, Jeff and I went to the rehearsal the night before.

C—k (on being given a sleeping garment at the hospital) Me wear that! No thanks, I'd rather go to bed raw!

A considerable amount of moving of goods and chattels has been done lately. The chief figures in the action are Reg. W—t, and A. P. C—k who have had occasion to move their belongings home from where they had strayed on recent evenings.

Tommy Atkins objects to the type of baseball indulged in by the faculty. He says there's too much kicking done.

Mr. A. H. T.—n, (Showing lantern slide of ornamental shrubs, three ladies standing in background)— You see gentlemen, that there are ladies in this picture, but I am interested only in that fern.

Dink Stover.—Please sir, which one is "Fern"?

Quotations from famous men.

"A man sat on a box car,
His feet were on the ground."

—Longfellow.

LIFE OF A PLUGGER.

Of course you'll think I'm fooling,
When I tell you that I'm dead;
And the undertaker's trying
To turn my hard old head.

I died of too much study,
A blood clot on the brain
'Twas Mr. Graham's lecture
On, "Cause and Effects of Rain."

You see my brain is like a sponge,—
No, it's still more like a bubble.
And when a bubble gets so big,
Then look out for trouble.

My brain was just a paralie,
Crammed full of dry, stale dope,
Until the blood vessels got tired
And one jumped up and broke.

The funeral is at five they say,
They'll bury me down deep,
The boys 'll get a holiday,
And I shall get Some Sleep.

H.J.S. '18

COMPETITION.

To whom are the following applicable:—

1. "Would that I were a bird."—
2. "A nut for me."—
3. "Within us shines a purer light."
4. "Westward, ho!"—

5. A Loud Noise.

6. Iodine.

7. "Gentlemen,"—

8. "I am very sorry, but"—

9. Aching all the time.

10. "Now Boys."—

11. "What are you going to do about it?"

12. "Now let me repeat that again."

13. "Dinner is now served."

14. "Oh, I'm so nervous."

15. "Now, Dear."

16. "So you want to get off this afternoon."

17. "This is monohydroxytricarballic acid."

18. "To Bee or not to Bee."

19. "The pliant, plastic, proverbial pancake."

20. "You want to pay for the term?"

Sportsman (wishing for fresh fields to conquer)—"I should like to try my hand at big game."

Fair Ignoramus—"Yes, I suppose you find it very hard to hit these little birds?"—"Tit-Bits."

Oh, merchant, in thine hour of cccc.
If on this paper you should ccc,
Take our advice, and now be yyy.
Go straightway out and advertiiii;
You'll find the project of some uuu;
Neglect can offer no exqqq
Be wise at once—prolong your daaa.
A silent business soon dkkk.

—London "Saturday Journal".

Uncle Silas (visiting city relatives who use electrical appliances for cooking at the table)—"Well, I swan! You make fun of us for eatin' in the kitchen. I don't see as it makes much difference whether you eat in the kitchen or cook in the dining room'.—'Life.'

ONE ON HIS HONOR.

A police magistrate in Cleveland was disposing of cases at the rate of about two a minute, with great exactness and dignity, being judge, jury and attorney, all in one.

"Then you are sure you recognize this linen coat as the one stolen from you?" he said to a complainant.

"Yes, Your Honor."

"How do you know it is yours?"

"You can see that it is of a peculiar make, Your Honor," replied the witness. "That is the way I know it."

"Are you aware, sir," shouted the justice, turning to a closet back of him and producing a similar coat, "that there are others like it?"

"Indeed I am," replied the witness, still more placidly. "I had two stolen."

—"Case and Comment."

Two ladies on the other side of the Border were holding a stairhead confab one morning on the troubles of life, and husbands in particular.

"I dinna wonder at some puir wives having to help themselves out of their husbands' trouser-pockets," remarked the one

"I canna say I like them underhand ways myself," reponded the second matron. "I jist turn ma man's breeches doonside up and help masel' off the carpet."—"Tit-Bits."

A SAFE REFUGE

The mining stock promoter dashed into his office and locked the door.

"Where can I hide?" he cried, "the police are coming."

"Get into the simplified card index case," said the head clerk. "I defy any one to find anything there."—New York Times.

INCOMPREHENSIBLE.

"Maggie, how was it that I saw a

young man talking with you in the kitchen last night?" asked the mistress of her cook.

The girl pondered for a few moments and then answered, "Faith, an' I can't make it out mesilf; you must have looked through the keyhole."

—"Harpers".

"Is she reliable?" "Absolutely. You can always depend upon her being just about thirty minutes late."—"Life."

A proofreader on an English newspaper contributes some compositors' 'howlers.' They are garnered from first proofs and are mainly the result of the compositor's struggles with bad writing. 'Suppression of the spread of pernicious publicans' is a fairly obvious misprint for 'publications.' 'Swimburne courted the nurse in the garden in the early morning, and thus set a good example to the other poets,' is bewildering until one remembers the likeness of 'nurse' and 'muse' in some handwriting 'French mermaids 4½d a yard' should have been 'merinos.'—Brooklyn 'Eagle.'

AS IT IS NOWADAYS.

Teacher,—'If a man gets four dollars for working eight hours a day, what would he get if he worked ten hours a day?'

Johnny,—'Ten hours a day? He'd get a call-down from de union.'—"Century."

Canon Ainger was very fond of children and set out one night to attend a party given "by children for children."

"Don't announce me," he said to the servant.

Leaving his coat and hat downstairs, he quietly opened the drawing-room door, where the buzz of voices announced the presence of

company. Dropping on his hands and knees he entered, making strange noises distinctly resembling the neighing of a horse. Aware of a dead silence, he looked up, and found the guests assembled for an eight o'clock dinner regarding him with disgust not unmingled with alarm.

The children's party was next door.

The proprietors of two rival livery stables, situated alongside each other in a busy street, have been having a lively advertising duel lately.

The other week one of them stuck up on his office window a long strip of paper, bearing the words:

"Our horses need no whip to make them go."

This bit of sarcasm naturally caused some amusement at the expense of the rival proprietor, but in less than an hour he neatly turned the tables by putting the following retort on his own window:

"True. The wind blows them a-long!"

HIS PLAN.

An Irishman who was rather too fond of strong drink was asked by the parish priest:

"My son, how do you expect to get into Heaven?"

The Irishman replied:

"Shure, and that's aisy! When I get to the gates of Heaven I'll open the door and shut the door, and open the door and shut the door, an' keep on doing that till St. Peter gets impatient and says, 'For goodness' sake, Mike, either come in or stay out!'—'Tit-Bits.'"

'What on earth did that fellow mean when he said he was a peregrinating pedestrian, castigating his itinerary from the classic Athens of America?

'He meant he was a tramp beating his way from Boston.'—Baltimore 'American.'

Chief of Police—'If you were ordered to disperse a mob, what would you do?'

Applicant—'I'd pass around the hat.'

BIRD TREATY RATIFIED.

Ratifications of the treaty between Great Britain and the United States for the protection of insectivorous birds on both sides of the Canadian boundary, which was signed August 16, were exchanged at the State Department at Washington on Dec. 7th by Ambassador Spring-Rice and Secretary of State Lansing. So far as is known, it is the first treaty of the kind ever negotiated.

IRISH WIT TRIUMPHANT.

An Irish waiter named Kenny was noted for his wit and ready answers. A party of gentlemen who were staying at the hotel heard of Kenny's wit and one of them made a bet that he would say something that Kenny couldn't answer at once.

A bottle of champagne was ordered, and the one who had made the bet took hold of the bottle and commenced to open it. The cork came out with a bang and flew into Kenny's mouth.

"Ah," he said, "that is not the way to Cork!"

Kenny took the cork out of his mouth and replied:

"No; but it's the way to Kill-Kenny."—Baltimore Sun.

Professor, to Old Cook: "Regina, you have been with me now twenty-five years. In reward for your faithful service I have decided to name this new beetle, which I have discovered, after you."