

PAGES

MISSING

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

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System in Farm Accounts

By Paul E. Angle

I GIVE you herewith, as briefly as possible, a description of a system of farm accounting, which we have been using on the Lynndale Farms for the past four years.

The system is of my own design, and contains modified parts of different systems which I have found suitable for our work. It includes the ordinary credit accounting and gives us a ready statement of total receipts and expenditures as well as cost accounting. By cost accounting I mean the keeping of records regarding our operations, whereby I can obtain the actual cost of man and horse labor and all other items of expense including interest and depreciation charges, which have been spent upon any certain crop or other product which we offer for sale.

In keeping our accounts we use the following books:—

1 Small duplicate order book with perforated leaves, such as is used by most retail merchants in taking and delivering orders. (Fig. 1)

2 Blank forms for weekly labor records. (Fig. 2a and 2b)

3 Twenty-four Column Labor Journal, into which the labor totals are copied from No. 2. (Fig. 3)

4 Twelve column Journal for itemized record of all expenditures. (Fig. 4)

5 Twelve column Journal for itemized records of all receipts.

6 Ordinary ledger for credit accounts and the making up of all crop accounts from the column totals of books 3, 4 and 5.

LYNNDALE FARMS
SIMCOE, ONTARIO

M.....
IN ACCOUNT WITH
LYNNDALE FARMS
SIMCOE

		191
1		
2		
3		
4		
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12		

Teamster.....

Received by.....

(Fig. 1)

I wish to draw particular attention just here to the great value of book No. 1 in solving the farm book-keeping problem. One of the great difficulties encountered in keeping farm accounts is the fact that most of the transactions or operations, regarding which records are required, take place in the barn, or field, or town, or some place at more or less distance from the house, where cur desk and account books are located. The account books

are too large to be carried about and if we rely on our memory we are apt to go wrong. This I believe to be the great difficulty that cools most ardent desires to keep farm accounts.

This book No. 1 can be carried in the pocket and one can be kept in the barn and all sorts of items can be put on it at the time the transaction occurs. The transfer of grain from one branch of live stock to another, the sale of produce or the purchase of supplies can all be recorded, each on a separate sheet with duplicate, and without difficulty. Of course any small pocket book can be carried for the same purpose, but with these the leaves cannot be removed; there is no duplicate, and in copying them one has to search all through the book to collect items for the same account. With the book shown in Fig. 1, the leaves can be removed and the different ones for the same account kept together by means of an envelope or an elastic, and only the totals of all the items need be copied in making up the account.

crops printed at the top, others are left vacant to be filled in with the description of the work.

All our work is done by hired help. We pay once a week and these sheets serve as time sheets from which we pay the men as well as labor records, and for this reason I use one sheet for each man each week. The total number of sheets used each week is put into a cover and by the use of fasteners, forms a book. After the men have been paid and the figures copied, these books are put away for reference, for which I often find them useful. I have one of these books for each week for the past few years and not a few times do I refer to the books of a few weeks or months or year or two years back for information which I could not obtain otherwise.

Since the men are paid from these sheets and since the totals of the various amounts charged to the different crops represented in the different columns must agree with the total paid out, this makes an accurate charge

Time Record of JOHN JONES

Week Ending July 24, 1915

At 16½ Cts Per Hour	MONTH	DAY	APPLES									Hoing Tobacco	Hoing Beans	Picking Cherries	Drawing Hay	Expenses	Develop.	Total for Day	
			BEARING					YOUNG											
			Prun.	Spray.	Cultiv.	Thin.	Harv.	Cultiv.	Spray.	Prun.	Hrs.								Hrs.
Monday	July	19																	
Tuesday	"	20												10					10
Wednesday	"	21												10					10
Thursday	"	22																	10
Friday	"	23												7½		2½			10
Saturday	"	24												10					10
TOTAL HOURS														8	2				60
AMOUNT														1.32	4.87	3.30	41¼		\$10.90

(Fig. 2A)

Fig. 2a, shows one of the forms we use for our labor records, filled with one weeks' record for one man. I think the form is self explanatory, part of the columns have names of some of our staple

of the ordinary labor against the crop or product on which it was spent.

In order to make the charges correct, the wage must be reduced to an hourly basis, which can easily be done. We

Time Record of Horses

Week Ending July 24, 1915

AtCts. Per Hour	MONTH	DAY	APPLES												Cultivate Cabbage	Develop.	Total for Day			
			BEARING					YOUNG												
			Prun.	Spray.	Cultiv.	Thin.	Harv.	Cultiv.	Spray.	Prun.										
			Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.				Hrs.	Hrs.	Hrs.
Monday	July	19						120		40	40					10	10	40	20	260
Tuesday	"	20						120			40							20	20	280
Wednesday	"	21						50						96	84			20	20	270
Thursday	"	22						10		60			40	102	70					282
Friday	"	23						30		10			30	40	168			20		298
Saturday	"	24								30			32	20	100	8	40	10		240
TOTAL HOURS								330		140	80	62	100	466	222	50	10	110	60	1630
AMOUNT																				

(Fig. 2b)

actually hire our own men by the hour, working ten hours per day in Summer and eight to nine hours per day in Winter. If men actually work more than ten hours per day as is often the case where choring is done night and morning, then the daily wage should be spread over the exact number of hours worked, at a uniform rate per hour. In this way an accurate record of the cost of caring for the different classes of animals in chores may be obtained if desired.

The labor record for horses is kept on the same style of sheet as the mens' labor.

Fig. 2b, shows one of these sheets filled in with one week's time of horses. In the case of horses, the labor of all horses, working on the same crop, is

lumped together. This gives us the total number of hours which all the horses worked on each crop, and the total number of hours all the horses worked on all crops each week. By adding all these totals for the year we get the total number of hours all the horses worked on all crops during the year.

The labor totals for the year for both men and horses are obtained by copying the weekly totals from the record sheets (Figs. 2a and 2b) each week into a twenty-four column Journal. A sheet of this Journal is shown in Fig. 3.

The man labor and horse labor are kept on separate pages of this book. In the case of man labor, we have a record of the hours of labor and

LABOR

1915 Week Ending		Hoing Beans		Hoing Tobacco		Picking Cherries		Drawing Hay	
		Hrs.		Hrs.		Hrs.		Hrs.	
July 24	John Jones.....	29½	\$4.87	8	\$1.32	20	\$3.30	2½	.41¼
July 24	S. Brown, etc.....								
July 24	S. Green, etc.....								
July 31	John Jones, etc.....								

(Fig. 3)

the cost of the same. In the case of horse labor we have a record of the hours of labor only. The cost per hour is obtained at the end of the year and this rate is charged for the total number of horse hours spent on the different crops.

The total cost of horse labor for the year is determined by adding

ing the total number of hours the horses worked into the total cost of horse labor as determined above; eg. suppose the horses worked 45,000 hours during the year and their cost for the year was \$5,000.00 then $5,000.00 \div 45,000 = 11.11c$ per hr. This is about what the cost per hour works out with us.

1915 Weeks Ending		Hoeing Beans		Hoeing Tobacco		Picking Cherries		Drawing Hay	
		Hrs.	\$ c.	Hrs.	\$ c.	Hrs.	\$ c.	Hrs.	\$ c.
July 24	John Jones.....	20½	4.86¾	8	1.32	20	3.30	2½	.41¼
	L. Brown.....	etc.							
	Sam Green.....	etc.							
July 31	Etc.....								

Fig. 4

together the following items for the year:

Cost of horse feed of all kinds.

Cost of bedding.

Cost of veterinary service.

Cost of horse shoeing and harness repairs.

Cost of labor of feeder and foreman.

Cost of depreciation on horses and harness.

Interest on money invested in horses and harness as shown by annual inventory.

To be just, there should be deducted from the total of the above items a credit for the estimated value of the manure produced by the horses.

These items are obtained from our records in the same way as the items of any produce account as shown later in Fig. 6.

The cost of horse labor per hour, during the year, is obtained by divid-

Fig. 4, shows a sheet of our 12 column Journal in which we record all expenditures, and wherever possible the expenditure is charged directly against the crop or product for which it is made, by the use of the columns for the different crops or products. In this way all costs outside of labor are tabulated. With some expenditures for such things as spray material, binder twine, etc., where the articles purchased are for different crops, the amount is lumped into one account as "Spray Material Account," "Twine Account," etc., and a record made when the material is used showing what it is used for, and charged against crops accordingly, directly into the ledger, when the account is made up. Book No. 1, mentioned previously is used for keeping this information.

Fertilizer, if purchased, is charged at cost in the above manner. If pro-

duced at home it is estimated and credited to the stock producing it, and charged against the crop on which it was used, at the price it would cost if bought on the market. Only one half the value is charged to the first crop on land where it is used and one quarter to each of the two succeeding crops

Depreciation on Machinery is obtained from an annual inventory and can only be charged against crops approximately, by making an estimate of the depreciation on machinery used on the one crop only, such as haying and potato machinery, plus a fair percentage of depreciation on the cultivation and other machinery used in the cultivation of the crop, but which is also used in the cultivation of other crops.

Interest on money invested in the land is charged at an equal rate per acre for all crops, and interest on other extra capital necessary in handling the crop is added.

The way an account is made up from the information given in our records is shown in sample account, (Fig. 6)

Where a crop is not sold for cash but is kept for stock feed, the crop account is closed as shown in Fig. 6, as soon as harvest is complete, by crediting the crop with the total yield at a fair market price. This shows us our profit or loss on this crop and ends our interest in it for the present.

Live Stock accounts are made up from the records in the same way as the account shown in Fig. 6, and include the following items:

Expenditure—

Cost of feed consumed and bedding.

Cost of labor of caring for the stock.

Interest on money invested in the stock.

RECEIPTS

1915		Total Rec'pts	Bank Deposit	Cabbage	Potatoes	Apples	Strawberries	Cherries	Corn
Dec. 14	J. Jones.....	\$5.50			5.50\$				
Dec. 14	T. Brown.....	21.90			9.60	2.00	8.95	1.35	
Dec. 15	Watts & Co.....	752.72							
Dec. 16	Bank.....		780.12						

(Fig. 5)

Fig. 5, shows a sheet of our twelve column journal used for an itemized record of receipts. All receipts are recorded in this book and credited to crops from which they come, as shown in the illustration.

When all receipts from any crop or product are in, we can close out the account and determine our profit or loss thereon.

Receipts—

(a) Cash Receipts.

(b) Estimated value of manure produced.

I think perhaps there should be added to the expenditures the depreciation on stables and equipment and interest on money invested in the same, although this complicates the problem.

STRAWBERRIES		Expenditure	Receipts
1915			
Dec. 31—	Man Labor (Item taken from Book No. 3)—		
	Planting.....	\$ 50.30	
	Cleaning Plants.....	42.70	
	Digging Plants.....	50.00	
	Harvesting.....	72.00	
	Drawing and Spreading Straw.....	37.50	
	Hoing and other work.....	332.17	
	Horse Labor (Item taken from Book No. 3)—		
	Ploughing, 117½ hrs. at 11.64c.....	13.67	
	Disking and harrowing, 220 hrs. at 11.64c.....	23.28	
	Drawing and Sowing Fertilizer, 40 hrs. at 11.64c.....	4.66	
	Cultivating and harvesting, 746½ hrs. at 11.64c.....	86.90	
	Drawing straw, 200 hrs. at 11.64c.....	23.28	
	(Obtained from Book No. 4)—		
	Straw.....	75.00	
	Extra labor, picking by quart.....	350.76	
	Baskets.....	25.26	
	(Obtained from Book No. 1)—		
	Fertilizer.....	61.26	
	Interest on \$1,000 invested in land.....	60.00	
	Depreciation on baskets, crates and equipment.....	10.00	
	Receipts (Obtained from Book No. 5)—		
	Strawberries.....		1,860.00
	Plants.....		261.50
	Net Profit.....	802.76	
		\$2,121.50	\$2,121.50

(Fig. 6)

Feed produced at home and fed to stock on the farm is weighed or measured out, if possible, and charged against the stock at the price with which the crop was credited, as mentioned previously. In the case of hay and straw and perhaps silage and roots, usually fed to different classes of stock from the same mow or bin, the amount to be charged to each class must be estimated. By weighing occasionally however we can estimate quite accurately.

Feed and other items, which are purchased, are charged directly against the stock which consumes it, at cost.

If the stock account shows a profit we have received more than market price for our crop by feeding it. If the account shows a loss, then we have received less than market price for our crop.

When anything is sold on credit, records of sales are kept on the sheets of book No. 1, and copied directly into an ordinary ledger account monthly or as often as desired. When payment is made, the receipt is entered

directly into book No. 5 and also entered on the credit side of the ledger account affected, which transaction closes this account. This is the only case where a double entry of an item is necessary.

As our products consist of beef, grain, fruit, and vegetable crops only, the above includes all the records we require. When more classes of stock are kept other record blanks would be required for such items as; breeding records, egg records, and milk records.

A very simple form for breeding records can be made by ruling three or more vertical columns in any ordinary journal book or by using the columns of the twelve column journal for such headings as; name of animal bred, age, date bred, date due, other columns can be added for further information if desired. One horizontal line is used for each animal bred. One page will hold the record for thirty animals.

The simplest form of egg record I know of, is made on a sheet of card-

board large enough to hold a year's record for a flock. Thirty-one vertical columns for the days of the month and twelve horizontal lines for the months of the year, or vice versa, are required. The number of eggs gathered each day is tabulated in the square representing the day. This card can be tacked up with a pencil attached in the house or where the eggs are stored. Receipts from eggs sold would be recorded the same as other receipts and the difference between eggs gathered and eggs sold would represent eggs used in the house, except those used for hatching which would be recorded when used.

The kind of blanks used for milk records will depend on how complete a record is wanted. The Live Stock Branch of the Department of Agriculture at Ottawa furnishes very complete forms for this purpose which can be copied by anyone.

It will be evident from a perusal of this article that cost accounting is not an exact science. Some of the items, and in fact the largest items of expense, can be accurately ascertained and apportioned, but some of them must be estimated.

Cost accounting does not consist of striking accurate balances but is a sort of commission of investigation

(very common today). It is the farmer's detective force and its value to the one who practices it will depend upon the care with which he keeps the records and the judgment used in discerning the results. Very wrong impressions may be gained from cost accounts if they are not carefully and intelligently studied.

It will be evident also that the keeping of the records will take some time and work. No apologies are offered. In working out the system I have endeavored to make it as simple as possible and still obtain the results desired. Books cannot be kept, however, without work, and a system which can be kept with little attention will very likely give little information. Whether or not it will pay a farmer to undertake this work and trouble is another question to be settled by the farmer himself and forms too large a question to be discussed here.

The whole question of bookkeeping is so much a question of individuality that any system used by one man may be only a guide for his neighbor, and the foregoing is presented without comment, as a system which is serving our purpose, in the hope that there may be something in it which will be of some use to farmers who are seeking efficiency in their attempt to solve their problems.



Where Everybody "Gets into the Game".

The Musk Melon in Ontario

By E. G. Rowley, '17.

Editor's Note—This article, written by Mr. Rowley as a Second year thesis, contains much valuable information, gained by actual experience, and should be of interest to everyone interested in fruit or truck farming.

DURING the past four years, the writer has been making a study of the Ontario Musk Melon Industry. Living in the heart of the melon-growing district in this Province, in which every grower is up-to-date and thorough in his methods, there has been an opportunity of understanding the methodical growing of this fruit in every detail.

As before stated, most growers have now reduced their operations to an exact science, in which every action has a definite cause and upon which a large amount of thought and experience has been expended.

A careful study of conditions; not only in Ontario, but by means of books and bulletins—in every part of the Continent in which the industry is important, has convinced the writer that there are some parts of the Ontario grower's methods which might be materially improved.

It would be useless to give a detailed account of the usual growing operations in this thesis, as it could not be full and clear enough to give the novice a sufficient understanding of the subject to enable him to grow melons successfully; nor on the other hand, would it teach the average well-informed grower anything which would be of practical value to him.

The plan, therefore, of this thesis, is to give briefly and concisely the general methods followed, and to dwell

in detail and at length only upon the few points in which the grower makes his greatest mistakes, and for which at least a partial remedy may be suggested.

For a correct knowledge of any plant, a precise botanical description is necessary, in order to understand the place of the species in the plant kingdom, and also become acquainted with its structure and physiology.

The musk-melon belongs to the natural family "Cucurbitaceae", to which also belong such familiar plants as the gourd, squash, pumpkin, watermelon and cucumber. The family is composed of succulent herbs, with tendrils, dioecious or monoecious flowers, the calyx tube adherent to the 1-3 celled ovary, the 5 or 3 stamens commonly united by their tortuous anthers, and sometimes by their filaments. The fruit is a pepo, fleshy or membranous.

The Genus to which the musk-melon belongs is "Cucumis," characterized by having the male flowers clustered and the female or fertile ones solitary in the axils of the leaves, stamens separate, stigmas 3. The species of this fruit is "melo" the scientific name of the plant being "Cucumis melo."

In the preceding paragraph, taken word for word, from Gray's and Leavitt's Botany, the family is said to contain plants having monoecious or dioecious flowers. Such a small point as this is worthy of note, for, although such blossoms can be easily fertilized by wind and insects when grown outdoors, the flowers of plants grown in the greenhouse would have to be hand-pollinated. Anyone who has had any experience knows what a difficult task

it is to remove the pollen from the staminate flowers to a piece of glass, and then, by means of a camel-hair brush, to transfer it to the stigmas of the pistillate ones. The Vermont Experimental Station, in giving the results of tests and experiments conducted by them, report, in Bulletin 70, page 18, that in ordinary musk-melon plants an average of eighty-three out of ninety three blossoms are perfect, and thus need no artificial pollination. Thus the labor of hand-fertilization of greenhouse crops is materially decreased from that which would be required if conditions were such as are given in the botanical descriptions.

To understand the modern requirements of this plant, something must be known of its origin and history. It is a native of Southern Asia, and has been grown for centuries in this region. From this district, it was introduced into America early in the colonization of this Continent, and in the Southern and Middle States, it found an environment in which it could thrive to perfection. It has also been introduced into nearly every country in the world, and is relished as a delicacy in cold countries and as an ordinary article of diet in more tropical ones. We see therefore, why this plant will thrive to perfection with little or no care in the South, and also why it requires an extreme amount of care and protection in districts North of the Niagara Peninsula.

In Ontario there are only two small districts in which melons are grown commercially. One is that well-known stretch of land at the North-Western end of Lake Ontario, between Burlington and Hamilton, which is known on Toronto and Montreal fruit markets as the Aldershot district. This district, about eight miles long and one mile wide, produces about sixty per

cent. of all the commercial melons in this Province. The other district is that surrounding the town of Leamington in Essex County. It might be well at this point to explain why the Aldershot district is so well suited to this special line of small fruit growing. In this section, almost every grower produces melons in large quantities, and although the crop is not one out of which fortunes can be sifted, yet it usually provides very fair remuneration for the careful man.

The district is protected on the North and West by the Niagara Escarpment, which shields it from hurricanes and hailstorms to a large extent. Lake Ontario to the South and East makes the climate very equable and moderate, and provides that humid atmosphere which is essential.

The soil varies from a light sand to a rich sandy loam, and the lighter types, when well supplied with humus, are especially suitable.

The soil upon which melons are to be grown should preferably have had a crop of rye plowed under early in the spring. The writer, in testing rye, rape, and hairy vetch as cover crops for melon land, has found that the vetch is very likely to raise the nitrogen content of the soil to such an extent that too rank a vine will be produced, and a consequent decrease in crop will be noticed. Rape does not produce the same amount of fibre and humus as does rye, and the latter crop has been proven in actual test to be most suitable for sowing year after year on melon land. The soil must be of such a type that it will warm up early in the spring and this necessitates either natural or artificial drainage.

It is very essential that the land be plowed as early as possible in the spring and that light cultivation be continued incessantly until the plants are set out.

Any action which will conserve moisture in the field will lessen the shock which the plants must feel when transferred from the pampered life of the hotbed to the more rigorous one outside.

The writer well remembers a certain patch of three acres which was to be planted in melons in 1913. One half of the field was plowed early and kept in mulch, while the other half was plowed only soon enough to allow for planting out. The line of division could be noted during the entire season; on one side—that which had been worked early—were dark green vines on which was a fair crop of very well shaped and netted melons, while on the other part, were vines much paler in color, bearing a crop of rather undersized melons, remarkably lacking in netting.

The soil should be especially rich in potash and phosphoric acid, the reason for this becoming apparent when one thinks of the large amount of seed which is produced by a fruitful plant, and it is a well-known fact that it is this part of the plant which draws most deeply upon these elements.

One difficulty with which the grower has to contend is melon sickness. This is a condition which appears in land which has borne a crop of melons successively for several years. The exact nature of the condition is not known, but it is supposed that the roots of the plant throw out a toxin which, accumulating year after year, prevents the proper growth of later crops.

This brings upon the grower the necessity of a rotation. Tomatoes are most generally used, but they appear to be very similar to melons in their demands on the soil, and in practice, are not altogether satisfactory. Strawberries are much better, and on

land which is moist enough, this is probably the best crop.

It would not be advisable to describe cultural methods in detail except on one or two points, as there is nothing unusual in them to discuss.

The seed should be sown in fresh well made hotbeds about May 1st, and must either be sown in three inch clay pots, or in four inch square inverted sods. Paper-dirt bands are not found satisfactory for melons. It was only by watching the progress of thousands of plants, grown under similar conditions by each of the two former methods, that a satisfactory conclusion was reached.

It appears that seed sown in inverted sods will produce a more uniform stand of seedlings, and a higher percentage of germination will result, the difference in this point being quite marked in many cases. However, when the plants grown in pots are planted in the field, they rarely wilt, and do not seem to suffer any serious setback, while those in sods often take a week to get over wilting.

When taking into account both the difficulty of obtaining suitable sod, the cost of the pots, and the labor of taking care of them, it seems that the best practice is to use three inch pots and by sowing from six to eight seeds in a pot, to get as good a stand of plants as possible.

It is unnecessary to say that shallow horse and hand cultivation should be maintained until the fruit has attained a large size. It is also good to apply a small amount of sodium nitrate to each hill within a few days after planting out.

With reference to the question of insects and diseases, all that can be said is that preventative measures only are reliable. The chief insect enemy is the small striped cucumber beetle, the

appearance of which is known to all growers. They all know the damage which the adult does in eating the leaves but few are aware that the small creamy larvae do even more damage to the roots and stems. The plants should be sprayed with arsenate of lead and lime sulphur before they are removed from the hotbed, but it rarely pays to spray the plants when in the field.

The chief disease is that fungus which so often attacks the seedlings in the beds, which is known as "damping off". In order if possible to devise a remedy for this, and to prevent the destruction of whole beds of plants in a few days, an experiment was conducted, in which the surface of the soil in one bed was covered with one half inch of mill shavings, that of another with rather heavy soil, and that of another with beach sand. Each bed contained five hundred and forty plants and all were kept under similar conditions. The plants in the bed covered with clay loam soil were badly affected, while those in the other two suffered to some extent. The mill shavings were very awkward and not very satisfactory, but the beach sand was productive of fairly good results. Check beds, however, in which were used only common potting soils, proved that the control of this disease rests in the proper control of the heat and moisture of the beds. Good bottom heat, a sunny location, ventilation, and the stirring of the surface soil are all that can at present be recommended.

The worst disease of the mature plants is bacterial wilt. This disease will cause the death of healthy plants in two days or less, and is absolutely uncontrollable when it has gained entrance to a plant. The micro-organisms plug up the conducting tubes of the stem, and so cause death. A test for this disease is to cut a stem near

to the ground, and, rubbing the cut surfaces together, to draw them apart slowly. If it is this disease, a white gummy substance will string out. All diseased plants should be promptly burned.

While most growers are able to produce a good crop, and to care for it in such a way that the fruit is in good condition when fully grown, very few men give much thought to the course which they must pursue after the melon becomes ready for market. It has been well said that an article is only produced when it reaches the consumer, and so it seems.

In almost every case, the grower ships his product to Commission Merchants in Toronto and Montreal, and it is in his methods of marketing that the grower makes his greatest mistakes. It is natural that the Commission Merchant, standing as he does midway between producer and consumer, should know both the requirements of the latter, and the ability of the former to comply with them.

When arranging the plan of this thesis, it was thought necessary that first-hand information should be obtained upon certain points, and to obtain this, the following method was adopted.

Many of the largest and most reliable Commission Merchants in Toronto and Montreal were communicated with, and certain direct questions were asked them. In every case, a detailed reply was received, and the value of such material, when collected and compared, is self evident.

Some of the questions asked were as follows:—

- 1 What is the most desirable variety?
- 2 In what stage of ripeness do the melons reach you?

3 Are the packages generally used suitable and efficient?

4 From what district do most of the melons come?

5 Do the transportation companies handle the fruit properly and carefully?

In reference to the first question, the Commission men are agreed that the most desirable varieties are:—

(a) *Osage*—a fairly late melon, a little above medium in size, salmon fleshed, well netted, having a rich bronze tinge and an exquisite flavor. Its one weakness is that it is rather more prone to crack in wet autumns than are most kinds, a fault which, very possibly, might be eliminated by proper seed selection for several generations.

(b) *Paul Rose*—a smaller melon, several days earlier than the above, salmon fleshed, and of good quality.

(c) *Burrell Gem*—a later melon, noted for its small even size, good netting, and excellent carrying powers. This is the variety most sought by hotels and restaurants.

If the growers would keep to such tried varieties, instead of experimenting with new, and often worthless kinds, a better and more uniform product would be the result.

With the question of varieties comes that of seed. Most growers buy their seed from Southern dealers at fancy prices. The use of home grown seed, obtained from the finest fruits growing on the most prolific vines cannot be too strongly recommended. This ensures a supply of selected seed of a strain which has become acclimatized. Seed which is two or three years old is preferable to that which has been grown the previous year, as it produces more fruit in proportion to leafage.

The second question asked by the writer brings to our attention one of the most unscrupulous practices of

some growers. In order to take advantage of high early prices, many men will pick the fruit green, sometimes when it is hardly full grown. The stem, which in a ripe melon breaks away naturally, is usually cut skillfully out with a sharp knife, and the grower, to his shame, depends on the ignorance of the buyer to prevent the detection of the fraud. The shipping of such material prejudices the buying public against the entire crop, and a decrease in demand follows.

The Commission men agree without exception that they receive the melons too green, and urge most strongly that the grower should be sure to have them reach the market in the proper condition. The statement of Messrs. Geo. Vipond & Co., of Montreal, is suggestive—"————(many) reach us so green that it is a waste of time and money to ship them by express."

In reference to the third question, the usual sixteen quart splint basket, and the twenty-four quart slat crate come under discussion. These are often so poorly constructed by the basket factories, that by the time they reach their destination, they are not in a condition to protect their contents properly. Some standard, serviceable crate must be used which will deliver the melons unbruised and unscratched. The reply of Messrs. Mc William & Everist throws light on this point.—

"If our growers would follow the American plan of having one size crate we are sure that with *proper grading*, much more satisfactory results might be obtained————. If it pays the Americans to take such great care of theirs, wrapping each melon in paper, and paying duty and transportation, it surely would be worth the while of our local growers to follow suit."

It has actually been found that

stencilling the variety of melon, and the words "Ripe Salmon Flesh," neatly on the baskets, will sometimes mean a difference of ten cents over similar melons unstamped.

As before stated, the great bulk of melons is shipped to Commission Merchants in Toronto and Montreal. This is an easy way of disposing of the fruit but it is not altogether a good system.

In the first place, the producer cannot get into close touch with the consumer, and thus the exact requirements of the market, such as size, shape and color of fleshing, cannot be understood by the grower. Beside this the system causes the concentration into two points of almost the whole crop, and "slumps" often occur when there is such a supply that the jobbers, who buy from the Commission Merchants, cannot reship such quantities quickly enough to the smaller towns which use the over-supply of the two cities mentioned.

It will be seen that a system which entails the handling of the fruit by so many middlemen must necessarily be expensive. It is no uncommon thing to see melons selling in retail stores in Toronto at \$1.25 per basket, when the Commission Merchant is only returning to the grower from sixty to seventy-five cents per basket.

The Commission Merchant charges ten per cent. on his sales, plus one per cent. per basket cartage. The express companies charge thirty cents per cwt. to Toronto, and eighty cents per cwt. to Montreal, from Burlington.

It might be interesting to see how much profit a grower receives when selling at different prices.

Case I. Selling in 16 qt baskets to Toronto:

Sale Price	\$	\$.60
Basket	.04	
Cover	.01	
Express	.05	

Cartage	.01	
Commission	.06	
	\$.17	\$.60

Profit, \$0.43 per basket.

Case II. Selling in 16 qt. baskets to Montreal.

Note—the Montreal Commission men charge no cartage.

Sale Price	\$	\$.70
Basket	.04	
Cover	.01	
Express	.13	
Commission	.07.	
	\$.25	\$.70

Profit, \$0.45 per basket.

From these profits, which are average the grower must pay all the cost of growing and picking.

The land is worth usually from \$700 to \$1,000 per acre, and the labor, manure and other costs are very high.

Another disadvantage of this system of marketing is that little discount is placed on poor grades. The fruit is sold as it stands, hundreds of baskets at a time, and it often happens that two very different grades of fruit, shipped at the same time, will return the same price. On the other hand it is no more unusual to have the returns from a uniform shipment, range in price from, say, eight-five cents per basket to fifty cents per basket, showing clearly that quality is taken into account but very little.

Of course, a co-operative association could remedy many of these defects, but it is unlikely that such a society will be in operation for many years.

For the grower of first-class fruits and vegetables, the plan of monopolizing the trade of one or more hotels, or other large consumers, is well worth

Meteorology in Canada in Relation to Agriculture

Editor's Note—This is an extract from a lecture on Agricultural Meteorology delivered by R. F. Stupart, Director of the Weather Bureau, Toronto, at the Physics Department, O.A.C., January 19th, 1916.

THE possibility of human life existing on the earth depends on two chief factors, *the soil* and *the atmosphere*. There are certain places on the globe where the conditions of either one or the other, or both, render any permanent settlement impossible, e.g. the Sinai peninsular, where rock and sand, coupled with an almost entire absence of moisture in the atmosphere, make the country well nigh uninhabitable; other desert areas are the Sahara and the Arctic and Antarctic regions, due to climatic conditions rather than to soil.

If the soil of a country does not contain nitrogenous matter, crops will not grow, and this is equally the case if the air is too hot or too cold, or what is more to the point, does not contain moisture.

Since, then, the food supply of the earth is so largely dependent on weather conditions, the advance in scientific methods demands that we determine with greater accuracy than heretofore what the relationship really is between the *growth of crops* and the *weather*, and this is Agricultural Meteorology.

Agricultural Meteorology is not an entirely new subject, especially in Russia, where since 1897 there has been a thoroughly organized service for its study. Its importance was recognized more generally and officially when in 1911 the International

institute of Agriculture, convened at Rome, had under consideration what could be done to determine the connection between variations in weather, and the growth of crops, and in accordance with a resolution there adopted, made application to the International Meteorological Committee for assistance in solving some of the problems involved.

The Meteorological Committee at a meeting in Rome in April, 1913, willingly undertook to render all possible assistance, and a month later the General Assembly of the International Institute of Agriculture forwarded the following questions for the consideration of a committee composed of Meteorologists and Agriculturists:

- 1 Statistics of losses occasioned by storms in relation to the possible maximum.
- 2 Importance of daily reports of the weather in order to establish statistics regarding favorable conditions.
- 3 Study of the factors which contribute to the best harvest.
- 4 Study of the means of disseminating general meteorological information among Agriculturists.
- 5 Study of the connection existing between the harvest and the various atmospheric elements.
- 6 Establishment of the atmospheric conditions which lead to the best agricultural results in any year.
- 7 Establishment of notes or percentages for the good year and for normal years.
- 8 Special study of the elements of a good year.

- 9 Study of the various elements which contribute to a good harvest.
- (a) Weather necessary for a good harvest.
 - (b) Quantity of sunshine for a good harvest.
 - (c) Quantity of heat required for a good harvest.
 - (d) Quantity of rain required for a good harvest.
- 10 The establishment of a Meteorological information office for Agriculturists.

It is evident that those attending the International Assembly were of the opinion that the Meteorologist could assist the Agriculturist—and as I knew that there would be delay in getting an International Committee together to outline the exact methods of investigation—I decided to make a beginning in Canada; and with the kind assistance of Dr. Creelman, a gentleman with the necessary qualifications, in the person of Mr. R. W. Mills, was obtained to take charge of a Department of Agricultural Meteorology. Perhaps it is as well I did this as the war has indefinitely postponed any international co-operation. I will now indicate the lines along which we are working:—

A systematic climatological survey of the Dominion has been the primary work of the Meteorological Service, and records of the weather covering periods ranging from a few years to 45 years are now existent in all the Provinces. From these records mean values of the various factors of the weather such as temperature, rain and sunshine have been deduced, and are available to Agriculturists and others who may desire them.

A Meteorological equipment has been placed at each of the Experimental farms and the data which is being

obtained by observers is certainly of use to the farm in its usual activities, as well as to the student of agricultural meteorology.

From the earliest days of the Service much thought and attention has been devoted to weather forecasts, which are disseminated in all the Provinces of the Dominion. Contracts have been made with the various telegraph and telephone companies for the transmission of the forecasts to nearly every point reached by wire, and it only remains to arrange that the bulletins now received at the telegraph office be disseminated more generally among the farming community and others living away from the centers of population. Some progress has been made in this, inasmuch as at a large number of towns in Ontario a copy of the daily forecast issued at 10 A.M. is delivered at the telephone exchange, and subscribers on rural lines have been informed that they can obtain the weather forecast by calling the Central Office; also in the Maritime Provinces where the dissemination of the forecasts is more generally with the Telephone Companies, subscribers can easily obtain the forecast.

It is probable, however, that it is through the Press that the largest number of farmers obtain the forecasts—and this number is constantly augmented as the rural mail routes become more general.

The forecasts are issued twice daily at 10 A.M. and 10 P.M., and are based on weather maps prepared from observations all over the continent two hours earlier. It is the 10 A.M. forecast which is disseminated most generally in the Dominion, but the 10 P.M. forecast is of high importance as it is this which appears in the morning newspapers in every Province.

Many years ago, arrangements were

made with the railway companies whereby weather signals were carried on the baggage vans of trains. The experiment was not, however, wholly satisfactory, as there was difficulty in making the station agent see to it that the signal was changed from day to day in accordance with the forecasts, and the trains would at times carry a fine weather signal when it should have been rain. Another consideration in connection with train signals and the use of flags, is the difficulty of conveying an idea of the coming weather by means of one signal. It is seldom in Canada that days are wholly rainy, and in summer especially, there are very many days which are for the most part fine, but thunderstorms occur in some localities. The idea of such conditions may be conveyed with fair accuracy in several words, but with but one word it becomes a matter of uncertainty whether "fine" or "showers" will best suit the situation.

We believe that there is no section of the farming community which can be more profitably assisted by weather forecasts than the fruit growers, inasmuch as, it is possible in a large majority of instances to predict frost with accuracy, or at least to inform the fruit grower that he should be on the qui vive, as the temperature is likely to go dangerously near the freezing point.

It is certain that, under existing arrangements, any farmer in the more thickly populated portions of the country may by noon obtain the weather forecasts for the coming night and following day, and a strong endeavour will be made early in the next year to make it still more simple to obtain the weather bulletins.

It is thoroughly recognized in the Meteorological Office that the aim of the Meteorologist must be to forecast for

a longer period than is at present possible, and indeed to outline the general character of the coming seasons. With a vast accumulation of data and a period of experience covering several decades, the forecast officers of Canada, having made the attempt, must confess that, generally speaking, forecasts for over 48 hours are not sufficiently accurate to warrant publicity. In nearly every season there are some periods when the movements of areas of high and low pressure are most erratic, and in some seasons the erratic movements are quite prevalent for long periods, and it has been especially noticeable that severe storms and large temperature changes have seldom been foreseen many days in advance.

The writer is, however, confident that when variation in solar radiation is more fully understood and accurately measured, it will be found that when carefully correlated with the changes in the atmospheric distribution over the Globe and the wind changes consequent therefrom, a general basis will exist for determining seasonal variations in climate.

The channels through which the Agriculturist may obtain a knowledge of the climate of his district are the Annual Climatological Report of the Service, the Monthly Weather Review, and the Monthly Weather Map. The *first* of these gives summaries of the monthly and annual mean values of every meteorological station and tables of the monthly values of rain and snow. The Monthly Review gives mean values for the month, and a general summary of the weather conditions that have been obtained. The Map which is published three days after the close of the month, shows the mean temperature, in each of the Provinces, of the month just closed, the departures from average mean temperatures, and

the total precipitation, also in winter the depth of snow lying on the ground on the last day of the month. In the text is given a general outline of the weather conditions and also a brief summary of crop reports obtained by telegraph through various agencies in the different Provinces.

The agricultural section of the Meteorological Service, established in 1914, has, during the season of 1915, co-operated with the Dominion Experimental Farms System, in a field experiment on Spring Wheat in relation to the weather, or meteorological environment. A plot of Marquis variety was grown at each of the fourteen stations, distributed throughout Canada from the east to the west coast. At every station regular daily records were, and indeed have been for a varying number of years, taken of precipitation, maximum and minimum temperatures, and bright sunshine.

Observers recorded crop notes on a printed form, adapted from a model translated from Russian. Questions called for a good deal of information, including, (1) General field conditions, and farming methods employed. (2) Dates of the important stages in the life of the wheat, from sowing to reaping, and the general condition of the plants at the time of the stages. (3) Average height of plants on the plot every seven days. (4) The damaging effect of adverse weather phenomena

on the plants and soil at any time throughout the season, and losses due to meteorological and to other factors, and (5) Final yield and quality. After threshing time, the completed forms are returned to the central office of the Meteorological Service, where the weather and crop data are correlated.

But before an attempt at such correlation was made, every experimental station, engaged in the co-operative work, was visited and a knowledge of conditions, climatic and agricultural, obtained at first hand.

At the present time all the data collected is being recorded by a graphical method, and by tables, correlations of wheat and weather studied and cautious conclusions will be drawn.

The work is founded on the valuable precedent, set by Russia in agricultural meteorology, and it is hoped to learn all that is possible about the details of this Russian work from translations of publications in Russia during the past fifteen years. It is hoped too, that equipment and methods may be perfected, so that a serious field attack may be made on the great problems presented in agricultural meteorology.

NOTE—The Russian publications on this work are being translated into English and will soon be published, from time to time, in the Agricultural Gazette and in other reports.



The Experimental Union

By J. Coke

THE production of Ontario farms must not and shall not be allowed to lag. This seemed to be the dominant note of almost every address delivered at the 37th Annual Meeting of the Experimental Union held on the 10th, 11th and 12th of January at the O.A.C. The vacant seats of many ex-students were filled by eager "Shorthorns" and students in the regular courses at the College. Hence we may say that the meeting was one of the best yet held.

The President, Herbert Groh, in his Presidential Address, referring to the farmers' part in the present world war stated, that in his opinion farmers had done and were doing their part, and could not be expected to increase production and at the same time send men to the Front.

"As evidence of the potent part played by agriculture in the national well being," said Mr. Groh, "We need only instance the experience of the past trying year in Canada, at the outbreak of the war and after, the business and financial situation was far from satisfactory. Farmers as the great primary producing class were urged to redouble their efforts in production with a view, I believe in warding off a still greater disaster. Farmers, east and west, responded with increased acreage and closer attention in improvement at every point and under the blessing of a kind Providence brought to the rescue a record crop. Confidence in our Nation has been greatly restored.

"The question now is, can we repeat this achievement? The need remains as great as ever. Our means of meeting it are certainly going to be less than they were a year ago. In the first

place, untoward weather conditions, and other things operated to prevent as large an acreage from being prepared for crop last fall. In the second place every indication points to a shortage of suitable farm labor, even more serious than it has been in past years. If to these handicaps for crop production should be added a season unfavorable for crop production, the output of another year might easily be reduced.

"Furthermore," said Mr. Groh, "the farmer at anytime leads a life of long working hours and frugality such as is lived by few in the neighboring towns. He does it for an interest on capital and investment of labor that the townsman of equal business capacity would scorn to accept."

THE CO-OPERATIVE EXPERIMENTS

Prof. C. A. Zavitz presented his report of the 4100 experiments conducted throughout the province of Ontario. We shall not attempt to report these in full but simply place before our readers the most outstanding features.

OATS

Of all varieties grown in Ontario today, the O.A.C. No. 72 is the most outstanding variety. It is the heaviest yielder, has the stiffest straw and the grain has only 27% of hull. It is also very resistant to smut. Comparing it with the Banner, which is the most widely grown Oat in this Province, we see that over a period of nine years the average yield of the O.A.C., No. 72 was 90.6 while that of the Banner was only 72.5 bushels per acre.

Another Oat which is coming into prominence is the O.A.C. No. 3. It

is a very early Oat and therefore is quite suitable for sowing with Barley where a grain mixture is desired.

BARLEY

In the experiments conducted at the College the O.A.C. No. 21 Barley still leads. It is even better than the Mandscheuri variety, introduced by the College 26 years ago. It is now estimated that 96% of all Barley grown in Ontario belongs either to the O.A.C. No. 21 or Mandscheuri varieties. It is worthy of note that of the 40 entries of Barley at the Winter Fair, O.A.C. No. 21 was the only variety exhibited.

According to the reports of the Bureau of Industries, the yield of Barley per acre for the past 16 years has increased twenty-three per cent. This has undoubtedly been due to the introduction of superior varieties. It is estimated that the value of this increase is approximately \$3,500,000.

SPRING WHEAT.

The past year has seen an increase in the production of spring wheats, due of course to conditions in Europe which has brought about an increase in the price of wheat. Of the two varieties sent out to experimenters last year, the Wild Goose variety gave the highest yield, 19.9 bushels per acre. However, Marquis yielded 19.2 bushels and has much better milling qualities.

MIXED GRAINS

The average results of experiments conducted over a period of five years show that a mixture of one bushel of Barley and one bushel of Oats give the highest yield. This is sown at the rate of two bushels per acre. For two years, during which the growing season was rather dry, a heavier seeding gave better yields. In each year the poorest yield resulted from the thinnest seeding.

ROOTS

In mangolds Sutton's Mammoth Long Red gave a slightly higher yield than the Yellow Leviathan. However, taking the result of experiments over a number of years, the Yellow Leviathan has given higher yields and is the most popular mangold in Ontario today.

POTATOES

In the Co-operative experiments with Potatoes, the Davies Warrior gave the highest yield. Some farmers have objected to this variety because of its lateness. Of the earlier varieties, Extra Early Eureka still holds its lead.

BLIGHT AND ROT OF POTATOES

Professor J. E. Howitt, in dealing with the late blight and rot of Potatoes, estimated the loss to the growers in Ontario due to this disease in 1915, at \$1,200,000. He briefly outlined the life history of the fungus causing the disease and then dealt with the problem of securing seed for the new crop. "It would be useless to secure seed from the localities in which the epidemic had not been serious the previous year because the spores of the disease would remain in the fields year after year." Professor Howitt advised the farmers to secure seed of varieties which were known to be resistant to late blight and rot. In this respect varieties differ very much, as is shown by experiments conducted by the Department of Field Husbandry. In 1915 two varieties showed less than 10% each of rot. Those that were freest from rot were Davies Warrior, Extra Early Eureka and Halbom's Abundance. Those most affected were Early Rose and Beauty of Hebron.

In conclusion Prof. Howitt advised farmers to start spraying the plants with Bordeaux Mixture and keep the vines covered with this spray. The Bordeaux may be applied at the same

time as application of paris green to control the potato beetle.

WEED SEEDS SHIPPED TO ONTARIO

G. H. Clark, Dominion Seed Commissioner, presented the report of the Committee on the prevention of the importation of noxious weed seeds in feed grain and screenings.

Mr. Clark stated that at present it did not pay the farmer whose fields were infested with foul weed seeds to clean his grain before sending it to market. To clean his oats would mean a dockage of ten to twenty per cent., and since the Ontario feeders have not yet learned that mustard and other seeds are not only useless as feed but harmful to stock, the practice of feeding them goes on.

It is important that Ontario feeders should understand the actual food value of re-cleaned grains, as compared with the uncleaned, which is contaminated with weeds. As soon as he does

this and refuses to accept the uncleaned grain, it will become profitable for the western farmer to clean his grain.

Mr. Clark then discussed the results of experiments conducted by the Dominion Seed Branch, regarding composition and feeding value of grain screenings.

THE NEW OFFICERS

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The Poultry Short Course

By R. J. Zavitz

THIS is one of the Short Courses held in the early part of each year at the O.A.C. This year it opened Jan. 11th, with an attendance of twenty, and concluded Feb. 5th. The aim of the course is to give instruction, both theoretical and practical on the main points of poultry culture, as practised on the farm. Most of the instruction is given by the staff at the Poultry Department but outside men, chiefly those who are conducting successful poultry plants in Ontario, are brought in for one or two lectures a week. The principles of breeding, feeding, housing, marketing, etc., are discussed in the lectures, and practical

demonstrations given of killing, plucking and judging, together with the grading and packing of eggs. Each student is required to care for an incubator, a pen of laying fowls and a crate of fattening birds. They are watched at this practical work, and any mistakes are corrected. As the course advances considerable latitude is allowed them and they are given permission to care for the laying fowls accordingly to their own ideas. In this way some very original methods are discovered.

The Poultry Short Course differs from the other Short Courses in that the majority of its members have had

little or no practical experience with chickens before coming to the O.A.C. From this it will be seen that only the essential and rudimentary points can

be gone into, and perhaps the most important result of the course is to stir the student's enthusiasm to follow up and learn more about the poultry industry.

Backyard Environment

Untidiness of Home Surroundings the Cause of Many Children Leaving the Farm

A GREAT part of the home life of families on farms is associated with the backyard, which, of all places around the farm home, is usually the most neglected. The front yard may be fairly well attended for the occasional passer-by to see, but flowers and shrubs should be placed where they will do the most good—where they will be seen and enjoyed by the occupants of the house. Children and young people especially are often influenced by their own environment more than they know, or are willing to admit, and the unattractiveness of their home surroundings has driven many boys to the city.

The backyard, seen and traversed many times daily, should receive special attention. If it is a bare place with muddy pools and unsightly accumulations, it should undergo a radical change. Such change costs little but, when made, should be carried out with care and a view to permanency. Take time to plan the planting and decide once and for all where the shrubs will be most effective and attractive.

The women usually have to take the initiative work of this kind, and should be given every assistance possible by the men. During the winter the subject should be discussed at Farmers' Club and plans made for an active campaign in the spring. Several Clubs in Quebec have organized competitions in this line of work with excellent results. These improvements involve little or no expense and may be accomplished in the time that the busiest farmer and his family can easily find if they appreciate the importance of the work and are disposed to undertake it. The farmer owes to his wife and to himself, but chiefly to his children, the best that he can do toward increasing the attractiveness of his home. The improvement often need not cost a cent. The first item, greater neatness, costs only an effort. The second item of improvement, the plan, costs nothing but study. The third item of improvement, the plants, can often be wholly secured from the wild.—*F.C.N.—Conservation.*



Danger Threatens Our Native Birds

Embargo on Foreign Plumage Encourages Domestic Slaughter —Supplementary Legislation Needed

THE skins of two chickadees were noticed on a lady's hat the other day by an official of the Central Experimental Farm, Ottawa. The chickadee is one of our most beautiful and widely distributed birds, 70 per cent. of whose food consists of injurious insects. To all lovers of the Canadian woods it is a general favourite. There is every reason, humane, aesthetic and economic, for preserving it; yet thoughtless, fashion-crazy women persist in wantonly sacrificing it and others of man's feathered friends to decorate their millinery.

Not all women are included in this indictment, but the law should be amended to reach those who will not refrain from patronizing the slaughter of innocent and useful birds. Already our legislators have forbidden the importation of foreign plumage, but this must be supplemented by an act to suppress the traffic in native birds. It should be made illegal, not only to kill useful, rare and insectivorous birds, but the vendors and wearer' of the plumes of such birds should be punished likewise.—*Conservation*

The Anglicising of Foreign Names

By N. M. Leckie, B.D.

THE Anglicizing of names from foreign languages is an interesting process in the building up of our own English speech, and one to which our attention is specially drawn at the present time when so many new and unfamiliar names are coming to our notice. Many foreign names when brought into the English language come to be pronounced as we pronounce a native English word of a similar form, while on the other hand many remain unchanged. Of the former class are such names as Paris, Don Quixote, Montreal, Cicero, while Calais, Goethe, Millet, Beethoven, Limoges and many others retain in English their own native pronunciations. Let us see if there is any definite principle underlying this distinction.

One might suppose at first sight that the age of a word would determine

whether it should be pronounced in the English manner or not, and that the names which had been imparted at an earlier time would be more likely to have passed through this change than those which had been borrowed recently. Yet it is quite evident that foreign names which have been known in England for centuries have retained their foreign sound. Calais and Paris, both ending in the letter "s" have been known to Englishmen a long time yet one most persistently retains its own pronunciation while the other is treated like a native English word. Don Quixote and New Orleans are both more recent names than Calais yet both have been completely Anglicized.

Or it might seem that such alterations in the sound of words are due to the nature of the sounds themselves; the

easier ones being retained and the more difficult ones altered. It is doubtless true that this principle has been in operation to some extent; yet there are so many instances in which the English pronunciation of borrowed words is more elaborate than that which we have abandoned, and so many instances of difficult foreign sounds being retained at all cost, that this explanation of the process does not seem to square the whole account. To say "Kaiser" or "Kay-sar" is no more difficult than to say Caesar. Goethe on the other hand is a name pronounced with difficulty, yet it has never been Anglicized to the slightest degree, and if it were some instinct of ease which governed these changes, "Pericles" would long ago have been made to rhyme with "articles."

We shall perhaps discover a principle underlying these transformations in our use of foreign names, if we look for it, in the ignorance or carelessness with which words are used by the great majority of those who possess the gift of speech. Nearly all changes in language are due to the blunders and mistakes of the ignorant. Unlearned indifferent persons, with no ear for delicate shades of sound, hear new words and pronounce them in their own crude way. Or they see a word in writing and give it a sound like some other word of a somewhat similar spelling. If we had all been scholars, exact and careful about our parts of speech, we would still be speaking the English of Alfred the Great or the Latin of Cicero or perhaps some mode of speech still earlier. But each generation of blunderers changed old forms into new, "stratum" into "street," "familia" into "family," "corona" into "crown," "diligentia" into "diligence", and the careless indifferent children of the earth were always in

such a majority that those who knew better were compelled in due time to submit and adopt the new and barbarous sound.

It is this same carelessness that operates upon foreign names and gives them the homely English sound, like the sounds we have heard and known all our lives. We do not know nor care how a Spaniard pronounces the name of his great novel. It looks "don-quick-sot" and we pronounce it accordingly, even coining out of our blunder the new word "quixotic." "Paris" looks as if it rhymed with "Harris" and we give it this sound, in spite of its entire population of Frenchmen who call it something else. Wherever a foreign name has been brought into the English language and given a common English sound, the change is due to the tongues of those who wanted an English symbol of something that English people talked about, and they did not take the trouble to find out what Frenchmen or Italians or Spaniards called these things, or at best they took the foreign spelling and used it their own way.

But along with the blunderers who have wrought these changes there have always been a few who were more careful and exact. Such persons always do their best to keep the foreign pronunciation of the words that came into our speech. In the case of names which by their nature are known to the multitude, the names of great cities, great men, great books, they have not been successful, and the erring majority has had its way. But in the case of names not well known, or known and spoken only by the learned, the foreign sound has generally been retained. If Don Quixote had been a treatise in philosophy it would have had its Spanish pronunciation to this day. If Goethe had appealed to the great mass of English

people he would have been dubbed "Goth" long ago, and "Goth" would have been his rightful English name. Beethoven, Wagner, keep their German sound because it is only by persons of some culture, or by persons who profess to have some culture, that the music and the names of these great composers are known. Names of places known only to travellers or to readers of history, names of artists and scholars known only to the few, remain for centuries in our speech without being made English.

There is a fine example of this process, even within the bounds of our own English speech, in the history of the name of the English poet, Cowper. A recent essayist, Mr. G. W. E. Russell, in a good essay on this poet begins his study by saying that "whatever else is debatable about Cowper, let us at any rate be quite clear about the fact that his name was pronounced as though it were spelt "Cooper." Let us pay him the common civility of pronouncing his name properly."

Now it is perhaps quite true that this poet's family name was pronounced as Mr. Russell says it was, and that to make the "Cow" rhyme with "now"

or "sow" was a grievous blunder. But the very blunder is an evidence of the kind of hearts that this poet has touched. Not the hearts only of the persons who knew or cared much about the English gentry and the way in which they wished to have their names pronounced, not the heart only of the careful and exact in speech, but the great merry heart, the great sad heart of the England that calls c-o-w-, cow, and C-o-w-per, Cowper.

A name after all is only a symbol for a thing, and if the thing is mine I can give it any name I like. This poet became the property of England, and England, as it had the right to do, gave him a name of its own coinage, thus paying him the highest compliment it had to give. Had Cowper written for the learned, for the precise, for the dilettante, for the genteel, he might still have borne his family name. But he wrote for the blundering common people, who heard him gladly and gave him a name of their own making. To this name Mr. Russell and all of us must of necessity submit, until at least he can prove to us that someone else wrote, the ballad of John Gilpin.

The Night That I Studied

By D. C. McArthur, '18.

THIS evening, after supper, I walked up to my room with my mind filled with stern resolve. My usually genial features were firm and set, for tonight, gentle reader, I would start studying. Ever since the term opened, I had anticipated this night; time and again I had soothed my conscientious fears by murmuring, "Only a couple of weeks of pleasure, and then hard, strenuous work." After which I had

gone with a light heart, to spend the evening at the rink, at Poverty Pond, or some similar haunt of the pleasure-seeker. But now, all that was passed; a pleasant memory, perhaps, but gone, never to return.

Shedding a bitter tear, I turned the lock and went into my room. My roommate was already rummaging around for his skates. "Hurry up!" he yelled, "There's a band tonight, and we'll

have to get a move on if we're going to fill our programmes!" "Move nothing," I retorted, casting a baleful glance at him, "Don't you ever consider, that in two months—yes, two months, I say,—the exams will be upon us? Tonight, my boy, I start *Studying!*" My room-mate did not reply, but gathered up his skates, and departed, whistling cheerfully. Let him whistle, I thought consolingly, but when the exams come round—my turn then.

The window had been left open, and the room felt like a precooling plant. I pulled it down, and having put on slippers and dressing gown, went over to the book-shelf, and surveyed its contents gloomily. "Now or never," I thought, and with desperate bravery took down "Co-operation in Agriculture" by Wolff. Pulling a chair up to the steam pipes, I settled down for an evening of pure mental enjoyment.

The steam-pipe continued working in short gasps till about nine o'clock, when it flickered and died out entirely. A dull sense of numbness was permeating my feet and hands. Not even the benefits of co-operation in Switzerland could keep me in that room. Not caring where I went, as long as the place was warm, I made for the parlor.

Picking up a 1904 copy of the *Missionary Review*, I tried to interest myself in student activities in Korea at that time. It was useless. I went to the reading room, and plied myself with war news, Mutt and Jeff, and even read the advertisements. At last I returned to my room. The steam had come on in my absence, and things were warm again. My room-mate would be back soon, and I would show him that I had not wavered in my resolve. I picked up the forsaken Wolff, and read with great avidity. The fellow next door started thrumming a mandolin—sad little ditties, intelligible only to himself. Still I remained resolute and did not move. Down the corridor I heard singing, and inwardly scorning the singers, I read on.

Presently some one rapped cautiously at the door. "What d'ye want?" I asked, gruffly "I'm studying." "A feed," he whispered hoarsely through the key hole, "Come on up." I trembled in the balance. I had sworn off feeds at New Year's. I also knew that they were the abomination of any well-ordered digestive system. "Roast duck," he added seductively, "and currant jelly—"

I succumbed. Weakly, I opened the door and left Wolff to himself.

Be a "Mixer"

DOU know we women don't have half the good times we might have, and it is entirely our own fault. We are not good "Mixers", and that's the long and short of it. Our dignity stiffens our backbone, and our rules of etiquette stiffen our handshake, and our set form of speech takes all the warmth of heart and soul from our voice making of us creatures neither natural nor beautiful.

Men are lots different from women, and in some ways lots more sensible. They are not afraid to speak to the man who stands next to them in line. They go into the smoker, and men who never met before swap stories and have a right jolly time. The wives perhaps of these same men are sitting in the car beside real nice, respectable-looking ladies, but no word has been exchanged. *They haven't been introduced*, and she

might not be a lady of their set, and it would never do to be seen conversing with a person who wasn't in the inner circle of *Good Society*.

A lot of nonsense! A true lady may sit down beside her washwoman and find some common camping ground for conversation and chat away without the slightest atom of her dignity or self-respect vanishing.

These people who are so mightily afraid of losing their high seat haven't become really used to it, else they would not be so conscious of their own importance.

We want to learn the art of "mixing" if we want to enjoy life and the opportunities as they come to us.

Haven't you been to many a *social* gathering where folks just sat themselves down in the first handy chair and stayed glued to it throughout the evening, not speaking to the person in the next seat unless he or she

happened to be an acquaintance? Of course I'm speaking of rural gatherings. In cities one has to be more guarded.

But at a church tea or the like, be a "mixer." Get around among the people; make them feel you're right glad to know them and see them there. Be a policeman—listen to the other's troubles, and if there's a chance tell a few of your own. Exchange ideas on successes and *failures*. Make yourself known in meeting and out. People like to be taken notice of. By giving of ourselves, we get a lot of fun and real happiness in return.

Don't you admire the fat, comfortable, jolly woman who has a word for everyone—no one gets by her. The milkman, the butcher, the errand boy, even the stray cat and dog, all come in for some word of pleasantry, she is the type of the true "mixer," and may her number be increased.

—*Laura Rose Stephen in Canadian Farm*

The Woman's National Anthem

A letter from a gentleman who does not care to have his name published.—Ed.

would sing "The Women's National Anthem."

Dear _____,

Then in splendid voice she sang—

While in London recently I came in touch with a little incident, which I think will interest you.

"God save our splendid men
Send them safe home again
God save our men,

I attended, one day, at noon, a recruiting meeting in front of the Mansion House. A great crowd of men and women listened to the recruiting Sergeants, all of whom had "done their bit" at the front.

Keep them victorious,
Patient and chivalrous,
They are so dear to us,
God save our men."

A lady, with a magnificent voice, sang patriotic songs, which perhaps were more effective than the speeches of the recruiting Sergeants. At the close of the meeting, it was announced that after singing "The King", the lady

As she sang, every man stood, uncovered and with bowed head, and there were not many dry eyes.

I think it would be a good thing if the women of Canada would learn this as "The British Women's National Anthem" for surely it is the prayer of every loyal British woman.

After the meeting I went up to the singer, handed her my card, and asked her for the words she had just sung. When she saw that I was from Montreal she said "Oh, I sang in Montreal, and I will be glad to send

the words to the women of Canada."

She wrote them on the back of the blue envelope, which contained my passport.

Very truly yours,
 (—————)



UNSATISFIED

"An old farm house, with meadows wide.
 And sweet with clover on either side;
 A bright eyed boy who looks from out
 The door, with woodbine wreathed about,
 And wishes this one thought all day:
 "Oh, if I could only fly away
 From this dull spot, the world to see,
 How happy, O how happy,
 How happy I would be.

Amid the city's constant din
 A man who round the world has been;
 Who mid the tumult and the throng,
 Is thinking, thinking all day long:
 Oh, could I only tread once more
 The field path to the farmhouse door,
 The old green meadows could I see,
 How happy, Oh how happy,
 How happy I would be.

—Anonymous

THE O. A. C. REVIEW

REVIEW STAFF

J. C. NEALE, *Editor-in-Chief.*

D. M. McLENNAN, *Agriculture.*

J. COKE, *Experimental*

C. C. DUNCAN, *Horticulture.*

W. STRONG, *Poultry.*

W. J. AUSTIN, *Query.*

H. H. SELWYN, *Alumni*

C. M. NIXON, *College Life*

A. H. WHITE, *Athletics.*

D. C. McARTHUR, *Artist.*

H. J. SULLIVAN, *Locals.*

MARGARET SAXTON, *Macdonald*

M. BURKETT, *Macdonald.*

Editorial

We regret to state that Mr. A. M. McDermott, who so lately vacated the Editorial Chair of the *Review*, was the victim of a severe accident on January 10th. While on his way to attend morning lectures, he slipped on the icy walk and fell, striking his head a severe blow upon the pavement. He was unconscious for several days and remained in only a semi-conscious state for several days after that. Latest reports, however, proclaim him to be slowly convalescing. The *Review* extends to Mr. McDermott most sincere wishes for a speedy and complete recovery, that he may be able to complete his College Course and Graduate with his own year, this coming Spring.

THE SHORT COURSES

Once again, we have the stranger in our midst, in the person of the Short Course Student. It was expected that the Short Courses, this year, would be considerably reduced in numbers, but when all were registered, it was found that with the exception of the Dairy course, all were as large as, or larger than last year. The farmers

of Ontario have determined to "do their bit," in the production of more crops and better crops in 1916 than ever before, and are here to gain information which may further this determination. This year, they will be working against greater disadvantages than usual. In nearly every part of the Province, can be felt the increasing lack of labor due to the call for the enlistment of the younger men. In consequence, the Short Course assumes a more serious aspect than heretofore. The men are here this year, not for a two week vacation, but to assimilate knowledge which will enable them to use, to the best possible advantage, their own and any other remaining labor, which may come under their control. The College is reciprocating, and is giving to these men the very best that it has, in order that they may return to their farms better enabled to produce more of that "Agricultural wealth," which, as Hon. I. B. Lucas stated in his address at the Experimental Union banquet, will be one of the greatest factors in determining the outcome of this present greatest crisis in our national history.

PLANNING

The statement that "A definite plan is essential to greatest achievement," is as truly related to Agriculture as to any other business. Trying to run any business without a plan is like trying to cross the Atlantic without a compass.

How many farmers are now in the enforced slackness of the Winter months, preparing plans for the coming months of rush and worry? When the Spring work commences there will be no time to plan the distribution of crops for the different fields of the farm. All time and energy must then be devoted to the carrying out of plans previously made.

Suppose that vague plans, as to the crop to be grown in each field, have already been made. This is the time to figure out the number of bushels of seed required for each of these fields, to get this seed cleaned and stored where it will be ready at a moment's notice, when required. Then it will not be necessary to stop the team and sweep up the bottom of the bin in a frantic effort to get enough seed for that last half acre.

Better seed may be procured in this way also. There is the whole full bin to clean over, if necessary, to get the required amount of plump, vigorous grain. It will not be necessary now to run the fanning mill a little more slowly in order that so much will not be blown over that there will not be enough left

to go over the required number of acres. In consequence, every field—and every part of every field—seeded with the best quality of seed will mean a more bountiful harvest next Fall.

This is the time—in the long Winter evenings—to study Agricultural books and bulletins, and reports of the different Experimental Farms, to find out what science is doing in aid of Agriculture,—the control of noxious weeds and injurious insects, the most advantageous manner of applying fertilizers, the proper dates of sowing of different kinds of grain, and other miscellaneous bits of information. This will aid greatly in the preparation of plans for the coming Summer.

Then, again, there are those broken parts of machinery to repair or replace, or new implements to be purchased, to aid in cultivation or harvesting. The day before the machines are to be used is not the time to first think of these things. Let your motto, in this regard be "Do it now."

Planning and preparation will assuredly do much toward increasing production in this year, when increased production is every farmer's duty to the Empire.

CORRECTION

In a recent issue of the REVIEW an error was made in printing the name of one of our advertisers: Glass Builders, Ltd., should have read Glass Garden Builders.



College Life

ANNUAL BANQUET

Jan. 10th,—A splendid banquet was tendered the officers of the Ontario Agricultural and Experimental Union, together with the College Faculty and their wives, ex-students and students, in the new dining hall.

President Creelman, in his opening address, welcomed the officers of the Union, and the other visitors, after which he explained the object of having a union of this kind in our Province, commenting briefly upon its thirty-seven years of success and steadily increasing membership.

A feature of the evening was an address on "Canada and the War," by Hon. I. B. Lucas.

During the course of his address Mr. Lucas said he believed in the "Doctrine of Good Cheer;" we should not go around looking downcast and feeling blue, but rather cheerfully go about doing our "bit" to make the war a speedy and splendid victory.

After a year and a half of fighting, our homes chastened by war, not a man in Canada today, who is truly a Canadian, would rather that England had not stood by Belgium and her Allies.

Every bit of wealth produced in this country makes it just so much easier to maintain men at the front. We who cannot give our fighting power, must give our material goods till it begins to pinch and even then, keep right on giving till we get the habit.

The Province of Ontario has given Thirty Millions of dollars, which measures up handsomely with what other parts of Canada have done.

Several of the ex-students present in a few well chosen words, responded to an invitation to tell of "other days"

at the College. President Creelman in reply said, "Though the boys of by-gone days have had their pranks and fun they cannot show the students of today one thing in this respect." (He's right.)

A selection by the College Quartette, and the singing of the National Anthem brought to a close the best banquet ever held at the College.

CANADIAN LITERATURE

In Massey Hall, on January 15th, a most enjoyable and educational evening was spent by the majority of the students, from both sides of the campus.

Miss Evelyn Vrooman, A.T.C.M., of Toronto, had been secured to lecture on Canadian Literature and to read selections from the works of some of Canada's foremost literary men and women.

Anticipation among the students was keen, as was evidenced by the early filling of the hall, and the fact that extra seats and chairs had to be supplied to supplement the regular seating capacity. None were disappointed. Miss Vrooman even exceeded the expectations of her audience, in the delightful manner in which she rendered her selections. After giving a brief historical outline of Canadian Literature as a whole, she synopsised the lives and works of some of the leading writers, and gave one or two readings, as exemplifying the works of each. Among these were—

Music in the Bush.

The Lure of Little Voices.

Robert W. Service

Qu'Apelle—Sir Gilbert Parker

Overlooked

Riders of the Plains.

Pauline Johnson

The Runaway Grandmother
Mrs. Brown's Change and Rest.

Nellie L. McClung

My Financial Career.

Stephen Leacock

Canadian Forever.—*Dr. Drummond*

Prof. Geo. E. Day, Honorary President of the Union Literary Society, occupied the chair. Vocal solos by Miss E. O'Flynn and Mr. J. R. Higgins were also greatly appreciated.

The value to the students, of an evening spent in this manner, can scarcely be overestimated. It is a lamentable fact that we are all woefully ignorant of the jewels of literature which have been produced in our own Country and of the men and women who produce them. A few more addresses upon the same topic would do much to open our eyes to this fact and we hope that Miss Vrooman may again appear before us at some not too far distant date.

INTER-YEAR DEBATE

The first inter-year debate of the Winter term was held in Massey Hall on Saturday evening, January 22nd. The resolution, "That War is a necessity," was upheld by Messrs. Carn-cross and Welton of the Senior year, while Messrs. Mason and Guild of the Junior year constituted the opposition. It was a hard fought battle but after a rather lengthy conference, the judges granted the decision in favor of the Negative. The judges were Messrs. G. W. Unwin, B.S.A., H. L. Fulmer, B.S.A. and J. R. Spry, B.S.A., Mr. Unwin also acting as critic. In his criticism, Mr. Unwin commented upon the scale of points which is used in the judging of these debates, and suggested several improvements.

Vocal solos by Mr. G. Ames and Miss K. Stevenson and selections by the College orchestra were enthusiastically applauded, making in all a most enjoyable evening's entertainment.

Athletics.

THE outlook for athletics during the ensuing year is somewhat hazy. The war has reduced our student body quite appreciably and those boys who have gone to the front are playing a bigger game. The decrease in the student body means less members for the athletic Association and therefore less finances to carry on successfully the plans of the association.

This puts the executive in a very hard position this year. However, we have at the head of our executive, in the person of Mr. I. B. Martin, a man who can always be depended upon, and one who will serve the interests of the Athletic Association to the utmost of his ability.

Although the coming year will likely

be the most trying year in the history of the Association, Mr. Martin and his able executive, will, no doubt, successfully cope with the situation. To do this, however, every man must back up the executive in its work and always be ready to lend a helping hand whenever possible.

The Athletic Association is one of the major student societies and to which every man belongs. It has done a great deal of good as a society in this College, and will continue to do good as long as every member does his duty by the Association.

BASKETBALL

GALT Y.M.C.A. VS. O.A. COLLEGE

On Saturday afternoon, Jan. 15th,

the College gymnasium was the scene of the first basketball game of the season. The Galt Y.M.C.A. boys came up to give an exhibition game with our team. The game was very fast and exciting, and although the College boys were never behind, the score was close, especially in the first half which ended in a score of 20-17 in our favor.

At the outset of the second half, O.A.C. bucked up somewhat and drew away gradually from their opponents until at the end of the game the score was 44-30 in favor of O.A.C. It was a good clean game and was enjoyed by both spectators and contestants alike.

Rowlands and Forman were chiefly responsible for our score although the whole team played very well. The team needs a lot of practice to perfect team play however, before they can produce the brand of basketball they are capable of showing.

LINE-UP OF TEAMS

Galt—Blain (8), Hines (14), forwards; Irwin Hammond (8), Centre; Ira Hammond and Storms, guards; Haman, spare.

O.A.C.—Rowland (16), Forman (22) forwards; White (2), centre; Wilson (4), Lambert, guards.

The team is playing O.B.A. intermediate this year as before and have been grouped with Brantford and Hamilton. Both these teams are very strong and will take a lot of beating, but this can only be done by every member of the first and second teams attending the practices faithfully. The boys of the second team are doing a lot of good in providing good practice for the first, and although it seems rather unsatisfactory to come out and take part in the practices and then not get on the first team, but only five men can play on the first team and they ought to be

the very best men in the College. Remember, if it were not for the second team, the College could not put out a good first team which would acquit itself creditably in the schedule games to be played. Therefore let all the men come to all practices and play the game all the time.

THE FRESHMAN INDOOR MEET

The Freshman Indoor Meet was held on the afternoon of Jan. 15th, at 1:30 p.m. in the College gymnasium. There was a good list of events which were keenly contested by the members of the first year. The spectators were quite numerous also and seemed to enjoy the sport, but it is to be regretted that there was such a small percentage of the men of the first year taking part. It would have been a much greater success if more of the men of the first year, who were spectators, had been contestants. Don't think that the other fellow is better than you are until you try. How many men come out on field day and at the indoor meet to see what they can do? Come out and try to do something and if you find you are not good enough to beat the other fellow, get out and practice till you can. Practice makes perfect.

The College indoor meet will be coming along soon, and it should be made a big success. Get out, freshmen, and practice for this meet and come out determined to beat the other three years—but you must expect strong opposition for the other years are going to try and do the same thing to you.

RESULTS OF MEET

15 yd. Dash—Allen, 1; Raymond, 2; Howorth, 3; Time 2 1-5 seconds.

Hitch and kick—Raymond, 1; Toole, 2; Whitlock, 3; Height, 7 ft. 10¼ in.

Standing high jump—Allen, 1; Way, 2; Main, 3; Height, 4 ft.

Standing broad jump—Gunn, 1; Whitelock, 2; Allen, 3; Distance 9 ft. 2 in.

Pole vault—Toole, 1; Allen, 2; Scan-ten, 3; Height 6 ft. 6½ in.

Rope vault—Main, 1; Whitelock, 2; Allen, 3; Height 9 ft. 11 in.

Shot put (12 lbs.)—Allen, 1; Steckle, 2; Raymond, 3; Distance 33 ft. 1 in.

Running high jump—Allen, 1; Way, 2; Main, 3; Height 4 ft. 9¼ in.

Rope climb—Steckle, 1; Allen, 2; Raymond, 3; Time 15 secs.

Potato race, 60 yds—Allen, 1; Way, 2; Peters, 3; Time 15 3-5 secs.

Chinning the bar—Neville, 1; Way, 2; Wiltshire, 3; Times 16.

Fence Vault—Toole, 1; Allen, 2; Way, 3; Height 5 ft. 10¾ in.

Relay race—A Div. 1st.
52 yd. swim—Allen, 1; O'Dell, 2; Delamore, 3; Time 37 secs.

Long Plunge—Allen, 1; Way, 2; Fisher, 3; Distance 35 ft. 5 in.

Allen was champion of the meet with 46 points.

Alumni

WELCOME BACK ERIC HEARLE

We are more than pleased to open the Alumni columns of this number



ERIC HEARLE

with an account of the safe return to the O.A.C. of Eric Hearle of year '16, from the battle fields of Flanders

where he bravely did his "bit" for King and Country.

Mr. Hearle carries, we regret to say, in addition to the modest emblem now worn by those who have seen active service in this great War, the effects of a rifle bullet which incapacitated his right arm completely, but which it is hoped, as time passes, will regain its usefulness. The wound was made more serious owing to the scattering of the nickel coating when the bullet hit the bone. It appears the Germans are feeling the shortage of metals and are using a minimum amount of nickel on their ammunition. This is the source of ghastly wounds—the leaden interior spreading as in a dum-dum bullet.

Mr. Hearle was one of the very first of those to volunteer his services, enlisting with the 4th Hamilton-battalion only ten days after war was declared.

His battalion was sent from Valcartier to Salisbury Plains as part of the first Canadian Contingent, and the hardship suffered there will be an everlasting tribute to the indomitable perseverance of the Canadians. It is gratifying to know that these conditions, existant at the beginning of

the campaign, have been materially remedied and those of our boys now going forward may look for fairly comfortable quarters while in billets.

The 4th Battalion's first action came shortly after their arrival in France at a place called Outersteene where they were placed with the Argyle Sutherlands,—a veteran Scottish regiment—to hold part of the first line trenches. In this manner the Canadians were given the moral support of more experienced men in their baptism of fire. From then on they occupied at various times and places a part of the firing line which was assigned permanently to the Canadians' Division.

Eric Hearle received his wound at Vlamertinge where they were called on to reinforce a break in the French line. It was here that the 4th Battalion, twelve hundred strong, suffered such fearful loss—only 120 men answering roll call when they were able to report at the base.

The position was exposed to the entire fire of the entrenched Germans and at a distance of only 400 yards the Battalion dug its self in—one half the men firing while the others, as Mr. Hearle relates, "dug like gophers." While wielding his entrenching tools a bullet passed through Eric's right arm above the elbow, cutting the main artery and shattering the bone. After a harrowing two hours in a slight hollow near by in which several other wounded men lay and *which still held the fumes of the German gasses*, he managed, by degrees, to crawl back to more covered ground and finally reached the reserve base.

Mr Hearle lay for two months in the Rawal Pindia Hospital, France, in a very critical condition—his memory leaving him completely and being at times highly delirious, but his strong

constitution reasserted itself and after convalescing near Bournemouth, England, for some time, he was able to take ship for home, leaving England on December 31st.

If Mr. Hearle's health permits, he anticipates trying for his third year standing. We wish him every success during the remainder of his college course and in his subsequent career.



"WE ARE SEVEN"

C.E.F. Fourth Overseas Co.,
Army Post Office.,

London, England.

J. C. Fuller has sent us a photograph of seven O.A.C. boys which we take pleasure in reproducing. Fuller writes as follows—

"We are seven," Hiddleston. '15,

Parker, '16, Fenwick and Fuller, '17, Fidler and Erb, '18. Although few in number we are doing what we can to uphold the name of our Alma Mater even to giving a few of the old College yells so familiar to you all.

"Just a word about our company, (Fourth University Overseas Company) which is composed of a very fine bunch of men gathered from every province, graduates or undergraduates of nearly every university in the Dominion.

"Our day begins with "Reveille" at 6 a.m. Physical Drill 6.30-7, swim and breakfast, Morning parade, 8.40-12. Afternoon parade, 1.40-5 p.m. We sleep in barracks provided by McGill University (This was written prior to their departure for England) and obtain our meals wherever we choose. Tattoo sounds at 10 p.m. and as we slip into our blankets after a hard day, we can slumber peacefully without fear of being unmercifully dumped or drenched with cold water.

"Of course everything is not hard work. We had a very successful sports day with keen competition between the different platoons. Fidler and Fenwick won the Wheelbarrow and Erb and Fuller the Jockey races. Both these were out of a field of 25 competitors.

In the midst of War notes, it is interesting to receive an account of what some O.A.C. men are doing in the field of Missionary endeavour. The Reverend David M. Rose, whom we spoke of not long ago, as being ordained in St. George's Church, Guelph, has kindly told us of the following men who are engaged in furthering Christianity. Mr. Rose himself has left for the Mission fields of Kangra India.

"MISSIONARY GRADUATES"

H. H. Colwell, B.S.A., M.B., class 1906, in Central India under the Can-

adian Presbyterian Church. Sailed October, 1915.

A. E. Slater, B.S.A., 1908 at Etah, near Allahabad, India, under the American Presbyterian Church. He has been in the work for about five years. Went with Sam Higginbottom who visited and spoke at O.A.C. in the fall of 1914. "Archie" is carrying on experiments with poultry. Mr. Slater's wife was a former Mac. Hall girl, Miss Pickett of Vittoria, Ont.

F. C. Clowes, B.S.A., 1908, under the American Baptists at Hilo, Hawaii.

H. A. Wolverton, B.S.A., M.D., 1908, sailed October 1st, 1915 to Cononada, Godaveri District, India, under the Canadian Baptists. Was married just before leaving.

"Bobbie" Ruds, M.B., who was physical director at O.A.C. in 1906, sailed for North Howan, China, a year ago under Canadian Presbyterian Board. His wife was a Miss Black—a "Mac" girl.

There may be others of whom we we are not aware. K. C. MacKay, 1906 spent seven years in India under Canadian Presbyterian, being now in Regina, Sask., Dept. of Agriculture. John Buchanan, who was lecturer in Agronomy at O.A.C., has a brother, Dave, in South America, who was an O.A.C. man.

Father Miles N. Tompkins, B.A., B.S.A., '12, has been appointed Chaplain to the 40th Battalion, C.E.F. and left for the front early in November last.

Robert Wilson, one of our ex-students, has written from Tugaske, Sask. Mr. Wilson is farming at Tugaske and reports a bountiful crop of wheat for the past season. He had 11,100 bushels of No. 1 Hard off 300 acres. We would

thank Mr. Wilson for his letter and wish him good success in the future.

Paul E. Angle, a member of class 1909, is now managing the Lynndale Farms at Simcoe, Ont.

After graduation Mr. Angle was appointed to open a District Representative's Office at Simcoe, Ont. by C. C. James, who was then Deputy Minister of Agriculture for Ontario. He also conducted a class in Agriculture in the High School, which work was continued until June, 1911, when Mr. Angle decided to enter into extensive farming.

An article by Mr. Angle, System in Farm Accounts, appears in this issue. He has made special study of farm accounting and tells in a practical way of the system he has found to be efficient.

Karookom P.O., Vierfontein, So. Africa
13-6-15.

The Editor, O.A.C. Review, Guelph.

Dear Sir,—Enclosed is a money order for \$1.00 to cover my subscription to the Review for 1914-15.

Yours faithfully, B. J. Bourke.

P.S.—It may be of interest to know that the O.A.C. South African Students, now back here, are calling a meeting towards the end of the year, with the idea of forming an association of those in this country who have attended the old institution. I find that there are at least 15 now and our numbers are growing. We also mean to include all S. African Students who attended American Colleges, will send particulars from time to time of our doings, should they be of interest. B.J.B.

Will Mr. Bourke please let us have an account of this meeting with names of those attending and notes on their work for future Alumni records.

Query

Question—I have to put about 8 acres into cover crop and would like your opinion about the relative value of Sweet Clover, Summer Vetch and Buckwheat. The land is clay in poor condition, in fact it is the worst piece of land on my farm. The cover crop is for an orchard 4 years planted.

Answer—Have very little information re Sweet Clover and am not at all sure that it is likely to prove satisfactory for this purpose. Summer Vetch would scarcely make enough growth to be satisfactory. Buckwheat makes a strong growth, producing lots of humus, but is scarcely the best crop which could be used. You will no doubt desire to use a legume for the sake of the nitrogen which would be added to the soil, and

would say hairy vetch is, without question, the best leguminous plant which could be made use of. In fact, under the circumstances, would say hairy vetch is the most durable cover crop you could use. Not less than 25 lbs. should be used per acre. Some of the best fruit growers are using a mixture of hairy vetch and rye, and would say this has the advantage of giving double assurance. Rye is one of the best non-leguminous crops, and sown in mixture with hairy vetch would be first class.

Question—What causes potatoes to turn black on the outside when boiled.

R.G.S.

Answer—This is no doubt due to the breaking down of the starch, and

occurs more frequently in old potatoes where the starch is easily broken down. Potatoes cooked in an iron kettle will quite often turn black. The iron helps to break up the starch.

Question—I propose trying some nur-

sery work. What books would you recommend on orchard propagation.
P.S.M.

Answer—The Nursery Book by Bailey, Price \$1.50. Can be obtained from the O.A.C. Co-operative Book Club, Guelph.

Macdonald

VICE VERSA

"WELL, of all the foolishness—" snorted Mrs. Brown angrily, as she emerged from behind the evening paper.

"What is it, my dear?" enquired gentle Mr. Brown, looking up from the number twelve sock he was patiently mending.

"This leap year foolishness again!" growled his irate spouse. "Here is a long account of a young man, a mere boy, proposing to a woman!—"

"Algernon!" glaring at her pretty twenty year old son, "put down that silly novel and listen to your mother. You know my opinion of such unmanly conduct and if I ever hear of you—"

"There, there, Jane," broke in Mr. Brown soothingly, "you know as well as I do that our Algernon would never do such a thing. Many a time have I told him that no really gentle young man ever dreams that a woman may be in love with him until she tells him so and I know—" here Mr. Brown's voice trailed off into silence as a particularly ugly hole demanded his attention, and with an indistinct grumble, Mrs. Brown became once more immersed in her paper. Not so with pretty Algernon. His novel forgotten, he sat staring before him into the flickering flames. It was not fair, he thought hotly, tears in his large violet eyes, that women should have all the power of choice. He was almost sure

that Susan Jones loved him. For a long time he had known that he loved her but, hampered by senseless convention, he had been powerless to speak his love. But now it was Leap year—Why not—he scarcely dared complete the audacious thought. If he only dare—and the color in his soft cheeks deepened to a blushing rose—In a few years, at the most, men would cease to be bound by women-made traditions. Even now a few bold spirits were leading their brothers into a struggle for equal rights. Why not—He would —. He, too, would be one of the new men, and tomorrow—tomorrow he would tell Susan quite simply but manfully of his great love for her and then—

"Good Heavens, What are you mooning about now, Algernon?" demanded Mother Brown's big feminine voice from across the room. "I tell you quite frankly, Percival, that letting that boy go to those Votes for men lectures is completely spoiling him. He has altogether too much freedom. Now, just run into the study and bring me my tobacco pouch, Little Son."

It was the next evening, Algernon, in his most bewitching evening suit, wandered aimlessly about the drawing room anxiously yet fearfully waiting for Susan's ring at the door. Tonight was the night when he had determined to put his newly found theories to the test —. But hark! surely that was the

welcome sound of the door bell now, Algernon started gracefully from his chair and with languid step crossed the room to greet Susan.

"Why, how sweet you look tonight, Algernon."

"I'm glad you like my suit—Come, let's sit down by the fire-place."

For some time they talked indifferently of various things. Then Algernon, with a desperate grasp after his fast failing courage, spoke hurriedly—

"Oh, Susan, I must ask you something."

"Well?" she smiled lazily, watching the shadow cast by his long, curly eye-lashes.

"Will you—I want you—I mean—will you smoke?"

"Why, what's the matter, Algie, you seem nervous?"

"Nothing at all" and Algernon stooped to poke the glowing coals in order to hide his blushing cheek. Once again Algernon plucked up courage—.

"Susan, do you—do you—do you like to smoke?"

"Algernon, there must be something wrong. Aren't you well?"

"Yes, but Susan, do you——" With the light of comprehension dawning on her face, Susan sprang to her feet, "Algernon, you foolish boy, I know what you mean, I love you, my darling. Is it possible that you love me?" Algernon, from the safe shelter of her muscular arms, murmured an indistinct "Yes" and the importance of Votes for Men faded into nothingness as their lips met in the first, long kiss.

—M. S.

INITIATION

Once more a bevy of Freshettes have been duly initiated into the life of Mac. Hall. The Initiation which took place on the evening of January

17th was in charge of the A and C Homemaker classes.

Owing to the small number to be dealt with each girl was given individual attention. On a charge of lunacy she appeared before the physician and the board of directors of Macdonald Hall Asylum for the Mentally Deranged. The most serious charges seemed to be those of either being too fresh or too quiet. The former were punished by having to tell a funny story and afterwards looking for the point on the floor, the latter were asked to grin their loudest, the grins being measured. The prize grin measured twelve and one half inches.

After taking the Macdonald Hall oath the girls were welcomed by both Seniors and Juniors into the life of Mac. Hall.

MACDONALD LOCALS

The following statement was found in our president's notes. "In 1896 typhoid bacilli were obtained from soldiers planted in clean boullion.

Wanted to know—

Why Jean Grant likes to come home from the rink de long way.

Edith O'Flynn, removing her injured finger from the meat chopper, "I always did believe in putting myself into my work.

Old Girl—"Did you ever take chloroform."

New girl—"No, who teaches it?"

Home maker A—"What did you do when Miss Roddick handed you that cake of compressed yeast."

Home maker C—"I rose to the occasion."

Heard at choir practice—

Mr. Heatley—"Miss Beven, show more enthusiasm in your singing, open your mouth and throw yourself into it."

Mary M—"Where were you coming from just now?"

Eleanor S—"Oh, I just went to Hop's room for a minute."

Mary M—"Did you get it?"

In the Question Box—

When calling at Macdonald Hall at what time should one leave?

I. B. M—t—n.

Ans.—As soon as one finds one's hat and one's coat.

Why does a girl shut her eyes when I kiss her? A puzzled Freshman.

Ans.—Study your mirror a while. We reserve judgment.

Locals

ODE TO A ROTTEN EGG

Oh, beautiful egg, thou art rotten,

How thou camest so man cannot tell,

But all of us know thou art rotten,

At least, all of us who can smell.

When laid in the nest by the hen,

Thou wert pure and spotless as gold,

And now, O Egg, thou art numbered,

'Mong the over-ripe and old.

Oh Egg, if I handle thee gently,

Art sure thou wilt not burst,

And do as the dog of fable,

Who went from worse to wurst.

Cruel Egg, thou has spoiled my breakfast,

For as at thy form I stare,

My thoughts arise within me,

And I leave the breakfast chair.

Editor's Note—There is more truth than poetry about this.

At a recent faculty meeting, it was decided to try once more to induce Mr. McWhinney to arrive at lectures on time. He was presented with a beautiful, new, unopened, and unadulterated bottle of Catsup. (Catch up.)

Not every man who dives into the Matrimonial Sea brings up a pearl.

CONVERSATION OVERHEARD ON STREET CAR

1st voice—"Did I understand you to say you were a doctor.?"

2nd voice—"No."

1st voice—"I thought I did."

2nd voice—"I said I followed the medical profession."

1st voice—"Well, then, are you not a doctor.?"

2nd voice—"No, I'm an undertaker."

McAdam—"I see that the undertaker has a new motor hearse."

McArthur—"Yes, and there's people just dying to ride in it."

Miss Creelman thinks Mr. White was mentally unbalanced Wednesday night. He came up to her and said, "May I have this skate Miss—, Oh, I beg your pardon," and then skated madly down the ice. Mr. Clark did the same thing a little while later. He must have caught it from White.

Always take a girl named Sally, but don't take "Ann", because "an" is an indefinite article.

Naomi, the daughter of Enoch, was 580 years old when she was married. Courage, ladies!

PROPOSED STATUE,

TO SURMOUNT THE NEW
PHYSICS BUILDING —
MR. R. A. GRAMAM DELIVERING
HIS FAMOUS ULTIMATUM:—

"You! WHAT'S YOUR NAME?
GET OUT!"



Mr. Harcourt—"Macadam, name the fatty acids."

Macadam (in an oily voice)—"I'm sorry sir, but I'm so hotheaded that they all turned greasy, and slipped my memory."

Mr. Harcourt (speaking gruffly)"Why don't you put some sandpaper in your hat?"

With whiskers thick upon my face,
I went my fair to see;

She told me she could never love
A bear-faced chap like me.

I shaved them clean, and called again,
And thought my trouble o'er;

She laughed outright, and said I was
More bare-faced than before.

One of the young ladies who caught cold from drinking out of a damp tumbler is said to be convalescent.

Miss—(at Prom)—"Do you like cod fish ball?"

Mr. Wiggins (hesitatingly)—"Really I don't know, I never attended one."

For Sale—One registered Holstein cow, giving milk, also, 1 wheelbarrow, 2 hoes, 3 spades, 2 bushels of turnips, a phonograph, and a sewing machine.

Editor's Note—I would advise anyone who is thinking of starting housekeeping to buy this cow, at any price.

Miss Stewart to Strong—"Will you wear a wig when your hair turns grey?"

Strong (earnestly)—"No, I'll dye first."

McConkey—"I hear there was a row on Grub Alley the other night and that Sullivan sprained his wrist and that Waterman cut his lip."

Skinner—"Yes, but I wish it had been turned the other way round."

McConkey—"Why?"

Skinner—"Because Waterman has a fiddle and Sully is trying to learn to play the cornet."

Miss P——y—"Mr. James would dance well but for two things."

Miss E——n—"Yes? What are they?"

Miss P——y—"His feet."

Mr. Squirrel—"Sullivan, your head makes me think of a dollar."

Sully—"How's that?"

Mr. Squirrel—"One bone."

WORSE AND WORSE

On a dilapidated narrow gauge railroad in a certain State a traveler was struck with the general air of hopelessness of the entire country. Run down farms, fences falling to pieces and houses unpainted and dismal were seen as mile after mile was reeled off. Finally a countryman got on and the two fell into conversation. "Country around here looks fearfully dilapidated," remarked the traveler.

"Yaas, but jest wait an' ye'll see sumpin wuss," replied the countryman.

The train stopped. They looked out and saw a rail rising ahead. The entire train crew clambered out, crowbars in hand, proceeded leisurely to the rear

of the train and in due time loosened a rail and carried it forward. It was spiked into position and the train proceeded.

"Somebody stole a rail?" asked the traveler.

"Yaas, about twenty years ago, I reckon. Evah since then they hain't nobody bought a new one. When the train comes back they've gotter stop and tear up a rail behind em'. Ain't that the dilapidatedest thing ye ever see, stranger?"

A SPRIG OF HEATHER

'Twas just a wee bit heather,

It came across the sea;
Ye dinna ken hoo awfu' dear
That heather is to me.

It makes me think o' hameland,

The land where I was born,
The land wherein ma mither bides
Sae lanely an' forlorn.

O, precious is that heather;

Hoo it stirs my Scottish bluid,
And makes me think o' childhood's
years
And memories unco guid.

It brings to mind familiar scenes

O' Scottish hills an' dells,
O' Scottish hames an' Scottish hearths
An' Scottish sweet bluebells.

'Twas just a wee bit heather

Frae far across the sea;
It warmed the heart wi' Scottish pride,
Brought teardraps to the e'e.

'Twas grown among the upland slopes

On Scotland's grand auld hills—
A token drae the freens at hame
O' love and puir guidwill.

—*Scottish-American.*

Cessnock, N.S.W.