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THE O. A. C. REVIEW

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

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The Fruit Industry of Canada

By D. Johnson, Fruit Commissioner, Ottawa.

HE value of the fruit orchards of Canada is estimated at \$150,000,000, distributed throughout the provinces of British Columbia, Ontario, Quebec and Nova Scotia, with New Brunswick and Prince Edward Island also coming to the front as fruit producing provinces. Within all these provinces, however, fruit growing on a

from the North are moderated by passing over Lake Ontario, thus permitting the production of fruit under the most ideal conditions. Peaches are also grown in large quantities in Lambton, Essex and Norfolk Counties in Ontario and, to some extent, in British Columbia.

The apple orchards are also largely



Harvesting Gravensteins in Nova Scotia

commercial scale is, to a large extent, centered in certain districts.

The largest soft fruit growing district of the Dominion is the Niagara District. Its output per season amounts to about 5,000 cars, composed chiefly of grapes, peaches, plums, pears and berries of all kinds. This district is peculiarly situated on the south shore of Lake Ontario, where the cold winds

confined to districts. The Georgian Bay District has made itself famous in producing the Northern Spy. In the counties bordering Lake Huron and Lake Erie many of our finest varieties, such as Kings, Baldwins, Spies, Greenings and Russets, are found at their best. A large apple district also is situated on the North Shore of Lake Ontario, where very large plantings

have been made in recent years of such varieties as Russet, Gano, Stark and Ben Davis. The apples of Western Ontario find a market chiefly in Canada, more particularly in the Prairie Provinces, while the Eastern Ontario apple crop is marketed principally in Great Britain. The varieties of apples produced in Eastern Ontario are principally of the bright red kind, are excellent carriers, and are consequently in popular demand in Great Britain.

There is perhaps no province that produces apples of finer quality than Quebec, and, although the more tender varieties grown in Ontario are not hardy here, this province is able to produce to the highest state of perfection such varieties as the McIntosh red, Fameuse, Wealthy and Duchess. Fruit growing here is confined largely to the districts around Abbotsford, Rougemont, St. Joseph du Lac, Oka, St. Hilaire and Chateauguay County. While this province has nothing like the acreage that Ontario has in apples, yet there are some most excellent orchards and, in fact, one of the finest crops of apples grown in Canada last year was produced in a thirty-acre orchard at Abbotsford.

The province of New Brunswick has not yet developed into an important commercial fruit district, although along the St. John River are to be found many splendid young orchards just coming into bearing, and the Apple Show held in St. John last November was one of the largest and finest displays of fruit ever made in Canada, and showed the possibilities of the St. John Valley as a fruit producing district.

Nova Scotia has long been famous for its splendid orchards in the Annapolis Valley. This beautiful valley is about eighty miles long and five or six miles wide; through the center of

it run the Annapolis and Cornwallis rivers, and it is bounded by the North and South Mountains. Probably the first orchards planted in Canada were planted here by the early French settlers in the days of Evangeine. The farms are largely given up to the production of apples, and during the past few years the orchards have been given the most excellent care and attention and have yielded very fine crops. Situated on the Eastern Coast, it is in close touch with the British markets, and Nova Scotian apples are largely in demand in London and Liverpool, and surrounding countries. The average crop of apples in Nova Scotia over the past six years has been estimated at 880,000 barrels. This year (1916 crop) the production was estimated at slightly over 600,000, while the maximum crop of which we have record was that of 1911, estimated at 1,700,000 barrels. Nova Scotian exports this season amounted to 415,-000 barrels. Large quantities of their earlier varieties and, of late years, their winter apples also, find a market in the consuming centers of Eastern Canada. In Nova Scotia the Gravenstein reaches a very high state of perfection, both in flavor and in appearance; so also do such varieties as the Bishop Pippin, Nonpareil, King, Spy, Stark and Wagener.

The people of Prince Edward Island, one of the finest agricultural provinces in the Dominion, have not devoted themselves very seriously to the production of fruit, but many individual orchards produce apples of good quality and supply largely the home demand for the early, hardier varieties suitable to the climate.

The province of British Columbia has made more rapid strides in the production of fruit than any other province of the Dominion. Last year the production of fruit of all kinds was something over 3,000 carloads, a large proportion being marketed in the Prairie Provinces, and considerable quantities of apples being exported to Australia, New Zealand, the United Kingdom, and even to South Africa, South America, Hong Kong, and other foreign markets.

The fruit industry of British Columbia is largely located in the lake and river districts and, as the climate is moderate and healthful, settlers have been attracted from many diswould indicate that this will continue for many years! Therefore, we may reasonably expect that in ten years' time British Columbia will be one of the largest, if not the largest fruit producing district in Canada.

In the Gordon Head district, which is a few miles from Victoria, large areas are devoted to the production of strawberries, and I think it is casting no reflection on any other part of Canada to say that so far as my experience goes, their methods of production, the quality of their fruit



A British Columbia Orchard

tant points. The Okanagan Lake district has of recent years been planted largely to fruit, and it is surprising to see the extent of the orchards and the fine care and attention they are given. The orchards are still young, the average age being probably seven or eight years, but already their apples are making themselves felt commercially in the rairie Provinces and even on our Eastern markets. There has been an average yearly increase in tonnage during the last few years of about 25 per cent., and conditions

and the grade of their pack, surpass anything in Canada or that we have seen from the United States. Creston, in the Kootenay district, also produces fine strawberries and raspberries, as well as Mission and Hatzic in the Fraser Valley district. The carload shipments of strawberries from these points have attracted a great deal of admiration and have met with a good demand on the Prairie markets.

In the Kootenay Lakes district are many large orchards and fruit ranches of various kinds, but the same progress has not been made here as in the Okanagan, although the possibilities there are very great.

Since the commencement of the war it is evident that the production of fruit in Canada as a whole has fallen off seriously and, while it is gratifying to know that the commercial orchards are being given attention, yet it is unfortunately true that the farmers' orchards throughout the country are being more or less neglected. Disease and insects are destroying the trees and it is possible that, on the return of normal conditions after the war, Canada will have to import a large part of its fruit. While I could not advocate the wholesale and indiscriminate planting of orchards, I do believe that intelligent planting in moderation should be much encouraged as we have every

reason to believe that, with the great development which will naturally come to the country in the near future, fruit growing will be found to be one of the most profitable lines of agriculture. I would earnestly urge all farmers to preserve their orchards, giving them all the care possible, and feel sure that, taking the average returns over a given number of years, it will be found that there is no more profitable line of agriculture.

The Fruit Branch will consider it a privilege at all times to give information with respect to the picking, grading, packing and marketing of the fruit crop, and will be glad to co-operate in the organization of co-operative associations or in the bringing together, to their mutual advantage, the producer, dealer and consumer.



"The Equator"

By A. SAILOR

INNER at the "Yew Trees" was always a formal affair, and any guest there was always rather careful to show his or her best conversational ability, chiefly because formality rather than enjoyment seemed to be the desired feature at that function.

Now Miss Holland, who was no longer young, lived in the quiet seclusion of a small house in the village, and she had always found her invitations to the "Yew Trees" rather fewer and farther between than she could have desired. Consequently, finding herself a guest there for the evening she was quite determined to show herself rather more than equal to the occasion; and when somebody

turned the conversation to travel, having herself just come back from a short stay in the Argentine, she quite thought her opportunity had come.

A fellow guest, a lieutenant home on leave, had just finished a short description of the Rock of Gibraltar. Miss Holland could go one better, she knew it; she had not stopped short at Gibraltar, she had made a real voyage. So she asked the lieutenant in the quiet voice of complete superiority whether he had seen the Equator. He was forced to admit he had not; in self defence he quoted the time honored chestnut of the erring youthful scholar who had described it as "an imaginary 'lion' running about the

centre of the earth," and he ventured to remark that nobody had ever seen the Equator.

Miss Holland felt her conversational conquest complete-"Well, anyhow, I have seen it," she said; and she gave an exact description of it. When she had finished, glowing with triumph, a younger guest asked her if her travels had given her also any experiences to relate about the inhabitants of Mars .and some one briefly outlined how the flag was nailed to the North Pole. Then conversation took another turnsuch is the skill of a tactful hostess.

But there was one thing Miss Holland had never suspected. Being chaperone to her young and pretty niece on her homeward voyage from South America, and being by nature much more efficient than tactful, she had not gained unlimited popularity. As she had come onto the boat deck one day the third officer was taking the mid-day sights with the second. The third officer noticed her first and he said to the second it was a bit of tough luck that a chap couldn't get five minutes to chat to the pretty niece without having everlastingly to entertain that superannuated old aunt as well. They

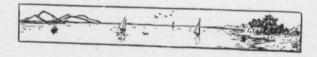
agreed and then they concocted a wicked scheme—to "get their own back" as the second expressed it.

So they got out the big telescope from the chart-room; they fixed it in its bracket on the bridge; they focus-sed it near the horizon and then what—they stretched a tiny piece of black thread across the inside of the lens.

Then they suddenly became animated about the big telescope. Miss Holland saw the animation. Woman's curiosity brought her to the bridge in defiance of the regulations that passengers shall not cross the white line, and she panted: "Tell me Mr. Mahoney, what can you see? May I look? Oh, let me look!"

Mr. Mahoney told Miss Holland they had just sighted the Equator; Miss Holland looked; the black thread did its duty nobly. Mr. Mahoney and his junior colleague rejoiced long and greatly that the "biter had been bit;" and as we have seen Miss Holland acquired a close acquaintance with that strange geographical phenomenon the world's Equator.

Mahoney is a chief officer now but he still lets out a bellow of merriment if anybody happens to remark, "that all things are not just what they seem."



Antityphoid Vaccination and the War

Reason for Treating the Soldiers with Antityphoid Vaccine.

By DAN H. JONES, B.S.A.

URING former wars prostrations and deaths from typhoid fever among the soldiers have always been numerous, usually more numerous than those which occurred from wounds received in action. In the Franco-German War, 60 per cent. of the total German mortality was due to typhoid fever, there being 73,396 cases and 8.789 deaths. In the Boer War the British Army had 31,000 cases of the disease with 8,200 deaths, while only 7,772 men were killed in action or died of wounds. In the Spanish-American War the army of the United States, consisting of 107,973 men had 20,738 cases, and 1,580 deaths from typhoid, or nearly 1 case to every 5 men. Any measures, therefore, which will tend to prevent these enormous losses where large numbers of men are mobilized, should be enforced.

Improved sanitation such as sterilizing the drinking water and effective disposal of camp refuse all tends to reduce the spread of the disease, but most remarkably beneficial results have followed the practise of antityphoid vaccination. In the British Army in India 1910, in which typhoid vaccination was voluntary, the rate of typhoid attack was about one-sixth as great among the vaccinated as among the unvaccinated. In 1911 a United States Army Division of 12, 800 men in camp at San Antonia, Texas, were vaccinated and only one case of typhoid occurred. and this was a case where the disease established itself before the vaccination was completed. At the beginning of the present war typhoid was prevalent to a great extent among some of the

German troops who had not been protected. Antityphoid vaccination was made compulsory with the result that typhoid was practically wiped out. According to a statement made in 1915 in the British House of Commons only 421 cases of typhoid had developed in the British forces to date, and of these 305 had not been vaccinated within two years. Only one death occurred among the 116 men who had been recently vaccinated, while among the 305 unprotected there were 35 deaths. NATURE OF ANTITYPHOID VACCINE.

In 1896, Wright, an English army surgeon, and Pfeiffer and Kolle of Germany working independently, demonstrated that persons injected with a vaccine or bacterin composed of killed typhoid bacilli developed the same antibodies in their blood as were developed naturally in the blood of recovered cases of typhoid fever. Wright then introduced its use in the English army and the results led to its use in other countries.

The methods of preparing the vaccine have been modified from time to time as improvements have suggested themselves. One of the standard methods, the one most commonly used, is to grow a culture of the typhoid bacillus of low virulence at 37 C. for 12 days in a shallow layer of peptone broth. This culture is then sterilized by heating to 53 C. for an hour and 0.25 per cent. lysol is then added to ensure its sterility being retained. This sterilized culture constitutes the vaccine. It then has to be standardized so that one dose of 1 c.c. shall contain 1,000 million dead bacilli. Two inoculations

are necessary to be effective. The first inoculation should consist of half a dose, i.e., 500 million dead bacilli, the second inoculation should be made ten days later and consist of 1 dose or 1,000 million dead bacilli.

EFFECTS OF VACCINATION.

Two or three hours after inoculation tenderness develops about the site of inoculation, reaches its maximum in about 12 hours, and vanishes, as a rule about 40 hours after inoculation. At the same time there is some rise of temperature accompanied by stiffness of the back and limbs, headache, loss of appetite and nausea, lasting 24 hours or so.

About the end of the first week considerable quantities of typhoid antibodies will have developed in the blood as a reaction to the vaccine. These newly-acquired properties rapidly increase and reach their maximum on the third day after the second inoculation. The vaccine is usually effective for two years or more.

The vaccine should not be administered to a person who is fatigued, and following the injection, the more strictly one rests for a day or so, the less discomfort will follow.

METHOD OF ADMINISTERING THE VACCINE.

The vaccine is injected, by means of a hypodermic syringe, into the subcutaneous tissue of the left arm near the insertion of the deltoid muscle, or into the fleshy part of the breast. The skin over the area of injection is first painted with a 10 per cent. tincture of iodine and after the needle is withdrawn it should be wiped with cotton soaked with alcohol and then flamed in a lamp.

When the first Canadian Expedition-

ary Force was in the concentration camp at Valcartier, 27,000 men submitted to antityphoid vaccination. This involved 54,000 injections, probably the largest number on record up to that time in one place at one time. The serum was prepared by the Ontario Board of Health, Toronto. No cases of severe constitutional reaction nor any infected arms, followed the injection.

PARATYFHOID FEVER.

In addition to the true typhoid fever which is caused by Bacillus typhosus there is a fever which very closely resembles it but is usually milder in type and shorter in duration, known as paratyphoid. Again there are two varieties of paratyphoid, known as paratyphoid A and paratyphoid B, each caused by a different variety of bacillus, known as Bacillus paratyphosus A and B respectively. The former is very common in India and the latter common in Germany. The vaccine prepared from Bacillus typhosus will not protect against paratyphoid A or B. Vaccines for these have to be prepared from the respective bacilli which cause the disease. Ouite a number of cases of dysentery and apparently of typhoid fever developed amongst the troops at Gallipoli who had been vaccinated against typhoid. Investigation showed that the suspected typhoid cases were, however, mostly, if not altogether, paratyphoid A, which was likely introduced by the troops from India. Cases of paratyphoid B have also occurred among the men vaccinated against the true typhoid. To prevent such cases occurring a multiple vaccine is now prepared, using cultures of Bacillus typhosus, Bacillus paratyphosus A and Bacillus paratyphosus B.

Cherry Fruit Flies

By B. P. GANDIER, '18.

HESE flies although not common in many districts of Ontario as yet, are demanding more attention every season especially in the southern fruit districts of our province.

We have in Canada two species, the Black-bodied Cherry Fruit Fly and White-banded Cherry Fruit Fly. These are easily distinguished by their various markings but we must be careful because there is also another pest which resembles the White-banded very much. This is the Apple Maggot Adult or Railroad Worm. The Black-bodied Cherry Fruit Fly is slightly the largest, while the markings on the wing are of a darker color and has only one light area across the wing. Also it carries a small light dot in the curve of the



markings they are easily identified. The Apple Maggot's wing marking resembles a combined U and F as shown in cut.



dark area. The White-banded is easily distinguished by the four white bands on the female's abdomen, while the male carries three. Also the dark areas are of a brownish color, bur in number giving two light areas across the wing.

Where we are likely to go astray is in separating the Apple Maggot adult from the White-banded Cherry Fly, but if we fully understand the wing



Most of the investigation regarding this pest has been carried on in the Niagara District although the pest has been reported from districts outside of this, but seemingly not serious enough to cause much loss, but it would be well for all cherry growers to keep a thorough look out for the flies.

The injury is not done by the adult but by the larvae. A maggot comes from the egg which was deposited by the long sharp ovipositor of the female under the skin of the fruit. The maggot tunnels under the skin thus causing a brown area in the flesh of the fruit. It also causes a breaking down of the tissue. This condition naturally is perfect in moist warm seasons for the disease "brown rot" to set in.

Some time probably you have noticed the fly on the cherry seemingly restless and moving about very quickly. If you were to continue watching, she would presently raise up and slowly work her sharp ovipositor into the fruit and deposit the egg. The puncture appears as a small dark spot, off which if you cut the skin, one may see the small, very white egg.

The maggots which hatch from these eggs are small, legless, white and taper gradually to a small point in which are two black hooks, used for tearing away the flesh of the cherry. We cannot identify the species when in the maggot form both being of the same color and shape.

In considering the control of a pest, it is always well to study the natural means of control as well as artificial.

The control of Cherry Fruit Fly by nature is much different from other pests in one way, that is, disturbing the pupal cases does not in any way injure the pupae. Also a loose well-cultivated soil in June and about two months later is an ideal condition for the maggot to work its way in and the fly its way out, whereas if the surface is hard or packed they cannot reproduce so well as it allows ants and spiders a chance to prey on them.

The artificial means or spraying is, as with other pests, the greatest factor in controlling the Cherry Fruit Flies.

The mixture used is: Arsenate of Lead, 2 to 3 lbs.; added to 40 gals. of water; then one gal. of syrup stirred in.

Spraying with this mixture must be at a specific time because we can't attack the eggs or maggot so must direct our attention to the fly. first spray should be applied when the flies appear. Some prefer spraying just as the Early Richmond shows a tint of red, which seems very good. The second application should be applied only to the later varieties when they begin to change in color. Lastly in fighting this pest it may do some good to destroy old, useless trees about the place and if your neighbors' orchards are infested get them to cooperate and spray also.

How the Farmer Can Help the Dairy Interests of Canada

Milk is a Wholesome, Digestible, Nutritious and Economical Food.

NORMAN JAMES, '18.

THE people of Canada can help to reduce the high cost of living so much read about in the public press and discussed from our platforms, and at the same time boost the dairy industry of our fair land by the more liberal use of milk as a regular article of diet. Hitherto too large a majority

of our people, except in the case of infants and invalids, have considered it as a luxury and have used it largely as a beverage; whereas if they truly realized its nutritive value the amount used would easily be doubled or tripled as I doubt if the average amount consumed daily by each adult in the count-

ry surpasses ½ pint. Such advice seems timely for our dairymen. The price of milk and all its products has doubled under war conditions, and unless more is done to increase home consumption of this valuable food the dairy farmer is going to experience the terrible slump in prices anticipated when the horrors of war have ended and not such a ready market is open for cheese which is the more concentrated and unperishable product.

That it is wholesome, digestible and nutritious requires only the statement. Very few of our food materials form in themselves a complete or balanced food. Yet we know that milk is especially adapted for man's use for two reasons: (1). Milk is the sole food which sustains and develops the infant and is prescribed for use in hospitals where peoples' constitutions have become so weakened that they are unable to digest and assimilate other and more undigestible foods and where a building up food is required. (2). Chemical analysis shows us that it is a more complete food than any other material-that is it contains protein, fat, carbohydrate and mineral matter in more nearly the proper proportions, and these are the food constituents required by any person or animal. For adults however, too large quantities would need to be consumed as more of the carbohydrates as supplied by potatoes or bread are required to supply the energy exacted by the grown person whose work demands the expenditure of physical or mental energy or both.

Furthermore, even at record prices as we witness them today, it is a comparatively economical food. The following table compiled by specialists of the U. S. Department of Agriculture shows the quantities of various foods required to supply as much protein or

energy (supplied by use of carbohydrates) as milk, both of which deserve consideration in any definite comparison.

To SUPPLY PROTEIN AT EQUAL COST.

Is as Cheap
as Sirloin

Milk at 7caqt.		Steak at 16.3c per lb.		Or Eggs at 17.6c per doz.	
9	4.6	21.	**	22.6	
10.	**	23.3	**	25.1	**
12.	"	27.9	**	30.2	**
15.	"	34.9		37.7	"

To Supply Energy At Equal Cost. Is as Cheap

as Sirloin Milk at Steak at Or Eggs at 7ca qt. 9.9c per lb. 9.3c per doz. 8 11.3 10.6 9 12.8 11.9 10 14.2 13.2 12 17.0 15.9 15 21.3 19.8

It is difficult to compare foods as to mineral matter but all physiologists agree that milk is extremely valuable from this standpoint. Indeed, it is the food supplied by nature for growth and development of the young, and the mineral matter is an essential factor in formation of bone. So too, from the above tables, which are self explanatory do we find milk to be the cheapest source of protein and energy that we can buy today. The trouble exists in the fact that the consumer has always been supplied with this food at less than half of its real value. Even now he is fortunate to receive it at current prices as is indicated above.

Milk products of which cheese has already been mentioned too have their real place in our dietaries. Experiments have demonstrated that when properly masticated it is as fully digested as milk or meat and it may here be pointed out that 1 lb. of cheese will furnish as much protein and fat as 1 gal. of milk or as much nourishment as 2 lbs. of fresh meat, 2 lbs. or 15 eggs, or 3 lbs. of fish. Cheese then could economically replace meats as a source of protein required at least one meal per day. Skim milk and buttermilk are two other sources of cheap and nutritious additions to our diet especially when used in cooking. For the recipes for cheese and skim milk dishes consult Bull. 221, Ontario Dept. of Agriculture: The Value of Milk and its Products.

Granted then that milk is our cheapest and best food, why does it not form a larger part of our regular diet? It requires no cooking or other preparation and can be used in innumerable ways in our cooking to make appetizing and nourishing dishes. It is for us to refrain from "weaning" ourselves of this essential natural food and to educate our tastes to a desire for it if we would help ourselves and strengthen this important industry in our country.

Autobiography of An Egg

Part I .-- As Told by the Egg.

By H. J. SULLIVAN, '18.

"Start off an egg in the way it should go, and when it is old it will not depart from it."

"No, I never had a chance."

"I came into this world of pain and penury on the morning of June 1, 1917, and from that date until now I have been slowly but surely going to the bad. I suppose that the easiest way to tell you why I am in this condition today would be to give you a sketch of my past life."

Here the egg paused to recover its breath and I had a chance to observe it more closely. It was small, dirty, had a distinct hump around the center and upon holding it in between me and the light, I saw that the contents were black and addled. I also, by the aid of my nasal protuberance, knew that it had passed the bounds of propriety.

"My mother was a cross between a Barred Rock and a White Leghorn, but they were not full blooded birds. I suppose the word "mongrel" would describe them fairly well. Of course, mongrels lay just as good eggs as pure bred birds, but they don't lay as regularly, as a rule. But to return to my story."

"On June the first, it rained hard all day and mother would have liked to have laid me in one of the nests in the chicken house but they were so full of mites and lice and dirt, that she went under the barn, and there I was born. Mother's feet were dirty from walking around in the mud and so when she turned me over to see whether I was O.K. or not, she dirtied my shell. That was something that I can never forgive her for, because she ruined me commercially,-a dirty egg can never bring as high prices as a clean one, and also, I could never hatch a chick, because the dirt on me had filled the pores in my shell and consequently not enough air could get in to keep a chick alive."

Here the egg paused for another breath and asked me to move it out of the sun. Eggs should always be kept in a cool place, it informed me. I. then asked what had caused the hump on the shell.

"So you noticed that I am a cripple? Before I was laid, a dog chased mother, and she flew over the fence to escape him. When she lit on the ground the jar cracked me and new shell had to be put on to cover over the injuries. But I must hurry."

"It was hot under the barn and two or three hens sat on me just to keep in practice, and soon my yolk began to feel queer and my white felt as if it had turned to water, but Jim, the hired man on the farm, found me when I was four days old and I thought that my troubles were over. He was very busy and placed me on the window sill in the kitchen. Think of it!! On the window sill when the sun could beat in on me, and in the kitchen where the temperature was as high as 100° at times!!"

"Oh well, the damage is done."

"A week after being laid I found myself in the village of X—— and was sold to Mr. A—— who keeps the grocery store there. I was put in a big box containing many other eggs and here I spent three more days. I was now ten days old, and felt that I was growing prematurely old. I had collected several hundred fly specks since coming to the store, and began to fear a general breakdown when I was put on board a freight train and sent on a long journey."

"Fancy sending eggs by freight, when express costs just a little more and is ten times quicker," the egg sarcastically remarked.

"That trip, together with the jolting in Mr. B——'s wagon and the hot sun, and the intolerably hot freight car caused me to lose what little self respect I had left. Many of the other eggs in the box were broken, but luckily I was on top and escaped."

"Upon reaching the end of my journey I found that my air cell was loose and ran around inside me like a lost soul, churning my yolk and white and making me deathly sick, until I thought I should burst, but my iron will, (I wish I could say shell) held me back and I resisted the temptation to end my misery."

"I was now taken into a dark room and presently as I became accustomed to the dark, could see men handling eggs very rapidly, placing each in a little hole through which the sun was shining, at least it looked like the sun. Presently I was placed in the hole and the man who held me gave a cry of surprise and called the rest over to where he was."

"How's that for a Lulu?" he

"How old is it!" asked another.

"A month any way; why that air cell is big as half a dollar."

"I feit like telling them that I was only seventeen days old, but hesitated. Then the man who held me put me in this can and brought it out here. I am ruined, disgraced! I can never look an egg in the face again!! What would mother say if she could see me now?"

And before I could prevent, the egg had burst.

The embryo was about half an inch long. The yolk and white were indescribably mixed. There was blood from the embryonic sac, and also green mould on the inside of the shell.

The odor? --- Terrible!

A Teacher's Viewpoint Regarding Agriculture

By G. A. CLARK

There are many problems which a teacher is called upon to solve in introducing the study of agriculture in our secondary schools and I would judge that the same or similar problems would confront the teacher of our elementary schools.

Agriculture is looked upon as a new subject butting in among the old established ones and demanding a place in an already overcrowded course of study. Parents are inclined to look upon it as a fad. Students say within themselves, "that means more homework for me," and the teacher feels that he cannot find the time.

As I am writing this article, primarily, for the teacher, I shall consider his objections first. You have heard it said that if you want anything done you should ask a busy person to do it. You have also heard it said that it is a full barn that will not hold another sheaf. The teacher is a busy man but still he has time. The course of study is full but yet there is room. The question he must decide is, whether agriculture is a fad or not. If it is, avoid it. We have enough fads now. If it is no fad, is it worthy of a place on our curriculum? Is it in fact more worthy than many subjects already entroched within it? If so, introduce the subject. But how is he going to create the time? I am convinced, as hinted above, that there are many subjects which might well be relegated to the scrap heap in lieu of agriculture. But we wont do that. The powers that be would find serious fault with us. Our students would lack in culture if they do not spend hours, and hours, and hours and still more hours in a most laborious struggle to learn to read about Caesar's wars, written

in a language which is of no practical use. And they must spend hours and hours in a vain attempt to make artists of themselves when there is not a trace of the artistic in their composition. But they must struggle along. The cultural side of their natures must be developed. Is there not as much culture for the average student in nature study and agriculture as there is in Latin or art? But I must return to my subject and not be so sacreligious as to say that it is possible for a person to be educated and cultured without reading Latin for pleasure and painting a half of a lemon or a potato in water colours. Therefore to keep peace with the gods we must continue our Latin else they close the doors of every one of the so called professions against us forever.

It is thus apparent that the nature teacher must make sacrifices. He must perhaps lengthen his teaching day a little, especially at the start. He must organize a little more closely. The programme will adjust itself more and more as time goes on. It requires some faith to start a new subject under present conditions but if you feel that the subject is worthy, take the plunge and trust. You may hit your head against something but that may at least tend to loosen the obstruction so that it may be removed. The course is worthy so let us try to remove the obstacles.

May we assume that the teacher has secured his own consent to introduce the study of agriculture. His attention must now be turned to the students and to the parents. They are so heartily sick of some of the subjects we have to study that they may not be inclined to listen to us when we speak of adding

a new one. The pupil is the medium through which we can reach the parent. Tell the pupils that in some localities school fairs are held once a year, at which the pupils exhibit the products of home gardens and other things which they have produced. At those school fairs they have school sports. The students will be found to be interested. Then draw their attention to the fact that in order to make such a fair a success the subject of agriculture must be taught in the school. Then inform them that it is a bonus subject in the Lower, Middle and Upper school examinations. The students are won-three things, school fair, school sports, bonus subject. They appeal to the parents, and the parents are interested. The teacher may now take the matter up with the trustees and explain to them that the project does not cost

anything by way of increased local taxation and they are agreed.

The consent of all interested parties has been obtained. The next thing to do is to get started. Make the work as practical as possible. Take your class outside on fine days to study weeds. Make measurements with the chain. Collect seeds. If you see any cattle, sheep, hens or other animals stop and look at them. If there is a dairy barn in the vicinity get permission to visit it. Let the pupils at some old apple tree to prune it. Have them try grafting wherever possible.

The study of agriculture helps the student in elementary science, chemistry, arithmetic, geography, English composition and art. When once introduced it takes such a firm hold that nothing short of an allied mine ex-

plosion will dig it up.

The Relation of Household Arts to Our Girls and to Secondary Education

F. SYBIL MORGAN.

IN looking over the field of domestic art in relation to the social, vocational and cultural aims it is possible to find many lines of thought by which the more modern type of school may help to accomplish these new aims.

In the last few years the system of education has undergone and is still undergoing a radical change. Old ideas of teaching are being thoroughly and forever discarded and more sane and practical methods are rapidly taking their places. This is clearly shown in an experience which Professor Dewey of Columbia University once had. Some years ago he was looking about, trying to find desks and chairs which seemed thoroughly suitable from the point of view of the artistic, hygienic and edu-

cational needs of his pupils. Finally, one dealer, rather more intelligent then the rest, made this remark,—"I am afraid we have not what you want. You want something at which your students may work; these, that we have, are only for listening." This tells the story, I think, of traditional education. The attitude of listening, merely, means lack of interest, passiveness, and unprogressiveness.

Educators seem to have been rather slow to realize that hard work has been a great factor in the spiritual and mental development of nations. There is, though often previously crushed down, a longing in every soul for self expression. Frobel, one of the greatest educators the world has ever known

realized this, and for that purpose introduced gifts, occupations, song and plays into his curriculum allowing his pupils, at the same time, to create and invent, thus applying their ability in the right channels. Joy and happiness were among the results.

In the days of our grandmothers, the household was practically the only place where all the typical forms of industrial occupation were carried on. The girls of the household, as they became old enough, were taught the mysteries of all the processes of homemaking, learning at the same time, habits of neatness, order, responsibility, observation and industry. There was therefore no need and no thought of introducing these subjects into the schools. Times, however, changed. Factories became an easier way of obtaining the necessaries and luxuries of life and many household occupations were eliminated. If not in the home, where, then, could the girls learn to meet the problems that they would soon have to face when they established their own homes, or less fortunately, went into the trades? (Of this latter class it seems almost incredible to believe that 95 per cent, of school children leave school before the high school age is reached.)

Naturally the answer lay in the place where the girls spent a good part of their time,—the school.

A young woman well trained in school in all phases of household art will become a better producer, consumer, and homemaker wherever she may be situated. She will have learned through her own experience to buy wisely and economically, to choose with good taste the best and most appropriate clothing and home furnishings for her family, to manage her home and her servants for the good of all its members and to enter into the prob-

lems of social life much more intelligently than her less fortunate friend who hasn't had her advantages.

Vocational education has been defined as "that which equips an individual for self support." Self support does not necessarily mean wageearning. It means also, home-making. Not every girl is able to get a college education and to be able to enter into professional life with its varied interests and times for study. So it seems the place of the secondary school to provide some means for helping girls to choose their life work. Courses in household art, commercial and other business courses are needed in order that the girl may choose with guidance what part she is to play in the tremendously busy world about her. Courses in dressmaking, design, millinery, etc., may lead her to a life work along these lines. These courses do not aim to prepare a girl directly for the trade but they do aim to give an appreciation of their true value as well as something of the working knowledge.

General culture has been defined as "the capacity to understand, appreciate and react on the resources and problems of modern civilization." No one individual could possibly choose all the work offered in the average secondary schools but should be taught to think about her choices and to choose wisely. Domestic art in this sense may be cultural in many ways. The various courses in art, design, garment making, trimming and decoration are studies in line, spacing, balance, rhythm and harmony of color. The study of fabrics their manufacture, adulteration, and the dyeing, cleansing and laundering of materials are all cultural subjects and should well pay the girl who studies these various subjects with the intention of finding their real value.

The Flycatchers

A. B. Jackson, Year '19.

777 E have two abundant and three common members of this family in Ontario. The two former are the Phoebe and Kingbird, the latter are the Crested Flycatcher, Wood Pewee and Least Flycatcher. The Flycatchers are very modest in their coloration. all being dark above and light below with a few additional markings. Also none are songsters, but some have very pleasant calls. This lack in color and song, however, is more than balanced by very interesting habits and great usefulness in the destruction of insects. As their name implies they are persistent fly and bug hunters, and they catch these in a very characteristic way. Selecting a perch with a fairly open field of vision the Flycatcher watches for the passing of its prey. When a tempting morsel hoves in view, he darts straight out after it and a faint "click" tells us that another insect has been crushed in his bill. After each successful sally he returns to the same perch or to another as suitable. These hunting habits are peculiar to all Flycatchers, and we may notice them busiest in the evenings, just before sunset. Being entirely insectivorous they are very beneficial and should receive our protection wherever possible.

The Phoebe is the earliest to arrive in the spring, returning to us at the end of March or early in April—just as the first bugs and flies begin to appear. Soon all old bridges and culverts, which were inhabited during the previous season again resound with its clear, abrupt, call "Phoe-be," "Phoebe." Favorite perches near at hand are chosen, from which, in true Flycatcher style, they prey upon passing

insects. They are slightly larger than the English sparrow, almost slate above, darkest on the head and light below. An easy point of recognition is the constant twitching of their tails. In May a nest of mud and grass is constructed on the beams under the bridges and culverts, in which are laid four or five white eggs.

The Kingbird arrives a month later than the Phoebe. It's distinguishing mark is a broad band of white across the tip of its tail. For the rest it is dark slate above and white below. Adults also have an inconspicuous orange crown patch. Unlike the inoffensive Phoebes, these birds are very noisy and quarrelsome, boldly attacking and driving away any crows, hawks or blackbirds that come near the neighborhood of their nest. Their notes are a series of shrill chatterings like "thsee," "th-see." Kingbirds have been accused of catching honey-bees, but this has been proven to be rare and the harm they do in this way is nothing in comparison to their usefulness. Their nest of grass and rootlets is usually built in rather low trees. The eggs are creamy-white speckled with brown.

The Crested Flycatcher arrives from the south at about the middle of May. They are slightly larger than the Kingbirds and almost as quarrelsome, but are the prettiest, and in many respects, the most interesting of the Flycatchers. However, being chiefly a bird of the woods, they are not well known. The best time to become acquainted with them is during berrypicking. The clear, two-syllabled whistle, which is often heard in the woods at that time, sounding like "wit-whit," "wit-whit," is sure to be the call of the Crested Flycatcher.

He is also easily recognized by color and shape, having two white wing-bars and a white breast, but the remainder of the underparts yellow. This, with his top-knot readily distinguishes him.

The Wood Pewee and Least Flycatcher arrive a few days after the middle of May and take up their abode in the woods. Both are slate above, with two pretty white wing-bars, and with white underparts. They are distinguished from each other by size and notes. The Pewee is as large as the English sparrow, while the Least Flycatcher is the size of the Chickadee, and the sad, plaintive "pee-aw-wee" of the former cannot be mistaken.



Summer School

A. V. M.

The College campus is now splendid with its verdant foliage and multi-colored flowers. We college men are proud of our equipment and surroundings. They are inviting and it is no wonder that any course given here in the summer is popular.

For a number of years now school teachers, both High and Public, have received instruction here in elementary agriculture during July and August. This year the attendance has reached a new high level. This is another evidence of the ever increasing interest which is being taken in agriculture throughout the length and breadth of the land.

The Review extends a very genuine welcome both to those who have been here before and to those who are come for the first time. Make use of all our institutions and feel at home at once since five weeks will pass all too quickly. We would especially call your attention to the Co-operative Store, where you can get anything from chewinggum to seeds for your school garden. It is commendable for its convenience if for no other reason.

We wish you a very pleasant and beneficial summer and hope that you will go back to your schools filled with enthusiasm for that most fundamental of industries—agriculture.

SOMETHING TO WORRY ABOUT.

In these days of indigestion, it is oftentimes a question, As to what to eat and what to leave 'alone;'
For each microbe and bacillus has a different way to kill us, And in time they always claim us for their own.
There are germs of every kind, in any food that you can find In the market or upon the bill of fare.
Drinking water's just as risky as the so-called deadly whisky, And its often a mistake to breathet the air.

Some little bug is going to find you some day, Some little bug will creep behind you some day, Then he'll send for his bug friends, and all your earthly trouble ends; Some little bug is going to find you some day.

The inviting green cucumber get's most everybody's number, While the green corn has a system of its own; Though a radish seems nutritious, its behaviour is quite vicious, And a doctor will be coming to your home. Eating lobster cooked or plain, is only flirting with ptomaine, While an oyster often has a lot to say, But the clams we eat in chowder make the angels chant the louder, For they know that we'll be with them right away.

Take a slice of nice fried onion, and you're fit for Dr. Munyon, Apple dumplings kill you quicker than a train, Chew a cheesy mid-night "rabbit" and a grave you'll soon inhabit—Ah, to eat at all is such a foolish game. Eating huckleberry pie is a pleasing way to die, While sauerkraut brings on softening of the brain, When you eat banana fritters, every undertaker titters, And the casket makers nearly go insane.

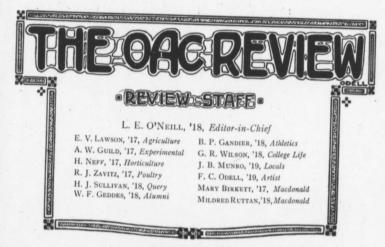
Some little bug is going to find you some day, Some little bug will creep up behind you some day, With a nervous little quiver, he'll give cirrhosis of the liver, Some little bug is going to find you some day.

When cold storage vaults I visit, I can only say what is it Makes poor mortals fill their systems with such stuff, Now, for breakfast, prunes are dandy, if a stomach pump is handy, And your doctor can be found quite soon enough. Eat a plate of fine pigs' knuckles, and the headstone cutter chuckles, While the grave digger makes a note upon his cuff. Eat that lovely red bologna, and you'll wear a wooden kimona, As your relatives start scrapping 'bout your stuff.

Some little bug is going to find you some day, Some little bug will creep up behind you some day, Eating juicy sliced pineapple, makes the sexton dust the chapel, Some little bug is going to find you some day.

All those crazy foods that mix, will float you 'cross the River Styx, Or they'll start us climbing up the milky way, And the meat we eat in courses, means a hearse and two black horses, So before a meal some people always pray, Luscious grapes breed 'pendicitis, and the juice leads to gastritis, So there's only death to greet us either way. And fried liver's nice, but, mind you, Friends will soon ride slow behind you, And the papers will then have nice things to say.

Some little bug is going to find you some day, Some little bug will creep up behind you some day, Eat some sauce—they call it chili, on your breast they'll place a lily; Some little bug is going to find you some day.



EDITORIA1:

The members of the staff are scattered far and wide, from Nova Scotia to British Columbia, consequently the work of collecting material for the summer issues is hard indeed. Nevertheless the office remains, and the editor, who is now a horny handed son of toil, finds pleasure in visiting the college once a month. The old familiar scenes are gone from the residence corridors but instead we find the whitewash man under the direction of the dean, busily plying his trade and the walls if not mutilated by the teachers taking the summer course should present a very attractive appearance in the fall.

The campus is at its best. The tennis courts are fine. The junior faculty members are showing such form in mixed doubles as would put many professionals to shame.

The old familiar signs "Do not make paths" are occupying conspicuous places but the editor would suggest that the sign should be painted on both sides of the board as on several occasions it was noticed that parties evidently thought the back of the board was meant for a match-scratcher.

The girls of Mac. Hall are enjoying their customary extended privileges since the departure of the boys. Messrs. Mackenzie, McLennan, Stanley, Curzon, Finklestein, Sproule, Munro, Forman, and several others do their best to make life interesting and worth while for them. Even Dr. Creelman is doing his part as the editor was awakened by the sound of many voices singing, "He's a Jolly Good Fellow," after our genial president had taken a party to Griffin's.

Altogether the domain of cupid seems to be frequently visited and, while the editor claims not the distinction of being a prophet nor the son of a prophet, a matrimonial storm such as visited the college last year may again appear in the near future.

DAYLIGHT SAVING.

A bill has been introduced in parliament providing that the clocks may be moved on one hour during the summer months throughout the Dominion. This bill if passed merely gives the government power to enact a daylight saving scheme from coast to coast, if thought wise. However important this may seem to people in towns and cities farmers as a class have reason to be opposed to such a measure in so far as it concerns their own work. The busy season on the farm is here. Haying is on and harvest only a few days off. No matter what time the clock may be the farmer must wait until the morning sun has had its drying affects on the grain before work can begin. This condition of nature necessitates working late in the day. Should this bill come into force the question of farm labor is likely to be affected as the hours on the farm are now long enough but with such legislation are likely to be much longer.

ARE YOU READING.

It is frequently remarked by men outside the student body that the students do too little reading on subjects not found in the college course. This charge is generally admitted to be true and the reason given is that of lack of time during the college year. Such condition should not exist

and under present conditions with a little thoughtfulness may be easily remedied.

Bacon says, "Reading makes a full man; conversation, a ready man; writing, an exact man!" Since reading nourishes and enriches the mind just as food nourishes and supplies the body with energy enabling us to do things, why not do more? How can this be done? The college calendar is at your disposal; make use of it. Find out the text books you will be using next year, also note those recommended as references. Make use of this information now. Read these books carefully and then when you return to college in the fall you will not only have an excellent foundation for your lecture work but you will also have time for outside reading with discussion and enlightenment on topics of the hour.

Every agricultural student should have a knowledge of taxation, tariff, government in all its branches, cooperation and all other questions of vital importance and interest to him.

At present we find too many farmers who cannot stand on a public platform and express their views. Neither can they express their views through the press. Such a state of affairs should not, and must not, exist unless we are content and satisfied to be hewers of wood and drawers of water, ruled over by men who have no interest in us only in so far as improves their own condition.

CORRECTION.

In the June issue, through a error the word candle hovers appeared in an article by F. B. Hutt, on "The Raising of Young Chicks at O.A.C.," should have read Candee hovers.



College men, make this 'your department in fact as well as in name. Send us the news and we will see that it gets into the printer's hands. There are many who would like to know what you are doing. Put modesty aside and tell us about yourself or your classmates.

We are grateful to those who, during the past month, have sent us interesting items. Will you please favor us again?

Address your letters to: Alumni, Editor, O.A.C. Review, Guelph, Ont.

ON MILITARY SERVICE KILLED IN ACTION.

Recently word was received at the college that on Feb. 18, Lieut. Clifford Stokes, '17 had been killed in action. Clifford Stokes, while at the college was connected with the C.O.T.C. and in April, 1916, at the end of his third year, left for England to train as an officer. In Nov., 1916, he was successful in obtaining a commission and early in December was sent with an Imperial Unit to France. He had only been in action about three weeks when he fell in the cause of justice and liberty.

GASSED.

Lieut. Nicholas Curtis, '15, of Simcoe Ont., who was reported ill two months ago is now reported to be suffering from gas poisoning. Lieut. Curtis received his commission with a howitzer battery at Guelph early in the spring of 1915. He was later gazetted to a Toronto second contingent unit, and has been at the front since Sept. of the same year.

R. E. Middleton, '18, writes from Witley Camp, England, in a letter dated May 20, that his friend A. F. Wagner who took his place as bugler in the 56th Battery has been killed in action. "Dutch" had to drop out of the battery on account of a stiff knee. Later, however, he was successful in re-entering the battery. He says that all the fellows of the 56th Battery are still in the best of health and waiting for the division to move across some time this summer.

LETTERS FROM THE FRONT.
May 20th, 1917.

L. E. O'Neill,

O.A.C. Review,

Guelph, Ontario.

Dear Friend:

I received your very welcome letter yesterday, I was glad to hear a little news of the old college and especially of year '17. I sent the letter on to my old roommate, Sig. R. D. Ure, 91057, 35th Battery, France. I have moved around considerably since I wrote last. Shortly after I wrote I was attached to the 7th Can. Railway Troops as a Motor Transport Driver.

We got new cars and shortly afterwards drove to the coast en route for France. It certainly was a fine trip through England and I enjoyed it thoroughly. After a few days at the base in France we drove to our present position, a few miles from the front lines. France is a beautiful country and if it wasn't for the military aspect it would be almost perfect.

They have kept us pretty busy since coming here and although we have had considerable excitement none of our M. T. party have been hurt yet.

Our main grievance here is the mail service. A great deal of our mail goes astray or has gone down in the Atlantic.

Although a number of Reviews have been sent to me I have never received one yet so your letter was very interesting.

I'm sorry I can't tell very much about my work here as the censor is rather strict. My address is Pte. J. M. Lawrence, 513164, M. T. 7th Bn. C. R. T., France. I have been hoping to see some of the O.A.C. boys but have not seen any yet since arriving in France as there are very few Canadians in this district. Well I must close now.

Yours sincerely,

J. M. Lawrence, '17.

May 10, 1917.

Can. M. Gun Depot, Crowborough, Sussex;

To Editor, O.A.C. Review.

O.A.C. Review Dear Sir:

Just a few lines to the old paper, which I found after my months of absence was still being printed.

The copy I refer to is the March issue, belonging to R. C. Merrick, '18,

with whom I am now residing. I am sorry to say we expect to part in the near future, owing to him wanting to go to the continent for a trip.

McGuire is with the 7th Machine Gun Co., and Dickson, Ferguson and Christy are the only remaining crew of the original 1st University Co., O.A.C. section. Many are in different paths of life and some have made the supreme sacrifice.

I have just returned from France to take up my commission and was rather pleased to find Merrick here. Lieut. Fuller, '17, is at "Pats" Reserve as is also Leach, '18.

I sincerely hope I may receive the Review a little more regularly now.

H. W. Pearson, '18. Lieut. H. W. Pearson.

C.M.Y. Depot,

Crowborough, Sussex,

England.

A letter dated May 21, from Lieut. W. H. Wright, B.S.A., '12, was recently received at the college. He has lately been appointed to take charge of a course of instruction in the use of the Lewis Machine Gun at Crowborough.

The following are some interesting items from his letter.

Lieut. G. V. Cooke, '13, is improving from the effects of serious wounds.

Lieut. E. G. Rowley, '17, went to France on May 16 with an aeroplane battle squadron.

"Shorty" Culham, B.S.A., '13, also crossed the Channel on May 21.

Tommy Clarke, B.S.A., '12, "Bunny" Wearne, B.S.A., '11, and Ken Stairs, '13, were seen recently.

BRIEF BITS OF INTEREST.

Major Alfred Eastham, B.S.A., '09, is in command of the Sixth Canadian Machine Gun Company.

Capt. G. H. Carpenter, B.S.A., '04, is in the hospital at Mytchett Camp.

Lieut. T. W. Morse, '15, is in France. He has been through many infantry engagements but is enjoying the best of health as yet.

Cowan, Sands, and Sutton of recent college fame are at the front serving on the Army Service Corps. Sutton is right up at the front while Cowan and Sands are working in a hospital a little distance behind the firing line.

R. H. Murray, B.S.A., '12, is at present in the Army Service Corps after having done a term in the trenches.

E. J. Salter, '20, has enlisted with the Royal Flying Corps with headquarters at Toronto.

H. J. Sullivan, '18, and "Red" Wallace, '18, have both enlisted with the American Army. We have not heard what branch of the service they have entered.

ON PRODUCTION

L. S. Klinck, B.S.A., '03, Dean of the Faculty of Agriculture at the Univ. of British Columbia was a recent visitor at the college.

K. G. MacKay, B.S.A., '06, who was in India for some time has been, since his return to Canada, with the Dairy Branch of the Faculty of Agric. of Sask. Univ. He has been requested to return to India, but his health prevents him from doing this. Dairying

must be quite an industry in the neighborhood of Saskatoon as MacKay says that in three months he graded and shipped 35 carloads of butter from that part of Canada.

Mr. R. D. Colquette, B.S.A., '15, formerly editor of Farm and Dairy, Peterboro, Ont., has joined the staff of the Grain Growers' Guide, Winnipeg, Man., as associate editor. Mr. Colquette comes to the Guide with excellent experience both as a practical farmer and as a newspaper man. His wife was Miss Alice Dougherty of Guelph.

G. I. Christie, B.S.A., '02, has been appointed Food Controller for the State of Indiana.

L. A. Moorhouse, B.S.A., '02, is now in charge of sugar beet investigation work for the Bureau of Farm Management at Washington, U.S.A.

P. L. Fancher, B.S.A., '17, has the appointment of Corn Expert for Ontario. His headquarters are at Chatham.

Beans and corn are almost synonomous terms this year and lucky is the man who has either. It was either luck or foresight that enabled Dave Carroll, B.S.A., '16, who is at home on the farm at Iona Station to have several hundred bushels of seed beans for sale this spring.

BORN.

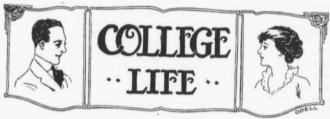
Born to Mr. and Mrs. Wilbert Locke of Morrisburg, Ont., a daughter. MARRIAGES.

Hugo L. Knauss, '10, was married to Lillian A. Peterson of Detroit, Mich., on June 4.

Another wedding of interest is that of D. R. Schuyler, B.S.A., '16, to Clara Aulesbrook. This event took place on June 12 at Paris, Ont. At the time of writing Dave and his wife are enjoying a nice little trip up Muskoka way.

DIED.

Arthur O. Frost, '19, passed away at the residence of his grandfather, J. J. Otto, 34 Frontenac St., Kingston, after an illness of five days from pneumonia.



COLLEGE LIFE REVIEWED.

It was September. The sun was casting his last rays of light over the tree tops. The day's work was done and John and his father were peaceably resting after the toil and turmoil of corn harvesting. The father was deeply immersed in thought, while John sat brooding over an advertisement, an appeal to farmers to "increase production." As he read on an expression of disgust and amazement gradually took possession of his countenance. It was clear that John had already sacrificed his pleasure that he might utilize every possible minute to enlarge the production of the farm. What more could he do?

Finally the paper was cast aside and in a moment a slight smile followed the look of disgust. A new idea had dawned upon him. To him the problem was solved. He had never stopped to think that he and his father had not been farming, they had simply been following the routine labors of cultivation. At last he realized that if he knew why he ploughed as much as

possible in the fall, why the low fifty behind the barn was sour and how to render it fertile, or why a clover crop added fertility to the soil instead of depleting it, his labors would no longer be performed as a job but as a business, as farming-an occupation, noble and worthy the best efforts of man. He realized that if the farming questions were organized on a systematic basis it would not be necessary to work harder, but with a knowledge of agricultural science he could give his crops every possible chance; he could utilize more modern methods and incidentally increase production while he enjoyed the practical application of science in the farming business. Having come to these conclusions he lost no time in formulating his plans.

The next few days were spent in deep consideration with his father, who like many another seemed to think himself as good a man as his father before him and could live under the same conditions. After much persuasion the father began to take a

broader outlook upon life. The old conservative adage of letting "Sleeping dogs lie," gradually mouldered to dust and on September 18th John found himself wending his way down the lane from the old log cabin and up the road to the depot with a firm resolution in his mind, that in the realms of science at the Ontario Agricultural College he would find an answer to the many troublesome problems which he had before confronted with brute strength and ignorance.

The following day John found himself bewildered and alone, thumping down a "ten spot" before the Secretary of the college in order that he might become a full-fledged student of O.A.C. Next in order he came face to face with Dean Mitchener, who at a casual glance took for granted there was trouble ahead and gathered in a "five spot" in remuneration for the windows, past, present or future, which had been, were, or might be broken, pitchers broken and other anticipated damages at the hands of this welldirected, man-fearing youth. Having located his little area of one hundred and twenty square feet in which he was to be hemmed in by four bare walls he at last heaved a sigh of relief and set about to arrange his few small household articles with a faint suspicion that the worst was yet to come.

Suddenly a knock was heard at the door and a great husky Sophomore peaked around the corner and addressed the occupant—"Tomorrow we hope to see you on the campus in clothes suitable for sheep-washing,—do you hear?" Full of fear and trembling John went out to enquire as to what was up. What great calamity was to befall him next! The next day in obedience to his Sophomore lord and master he "with rags all around and his hat stove in" marched

forth with his classmates dreading the consequences but fearing most the shrewd glance and stern hand of the Sophomore. Unexpectedly came out the call from the Sophomore ranks: "Freshmen will advance on all fours in single file and receive the pat of the hand from their coilege brethren to speed them on their way." This completed and having staged a very interesting program of events ranging from speeches which exhibited oratorical powers of Cicero to athletics which vie with the acrobatic fly in agility they prepared for the bump.

Like soldiers of the king, the Freshmen allied themselves around the flag to defend it from the onrush of the Sophomores. Down the hill came the Sophomores, and in a shady secluded retreat the quarrel began with a ready supply of egg omelet and tomato salad (?) to satisfy the hunger of the warriors.

"When the day was over, and the battle lost and won,

The Freshies all were ghastly pale beneath the setting sun."

At last the preliminaries of the college course were completed and John, feeling none the worse for his initiation girded himself to the task of studying out the polysepalous, epipetalous flower, the laws of gravity, the beautiful little chrysomeloid insect and the hyper development on the posterior interior surface of the cuboid bone.

As John was deeply interested in drawing "the plan and elev-a-tion of a block of wood" his neighbor, Bill, rushed into the room and after much persuasion inticed John to accompany him to the opera with a couple of fair ladies. It was ten o'clock and all was well. Eleven o'clock found John strolling peaceably toward the college with visions of romance dancing before him. Crack! Crack! Surely that cannot

be a vicious animal in those bushes. Things began to happen quickly and John, before he had time to locate the trample of feet and crackling of branches, was seized in the strong arms of three stalwarts. While he was fast endeavoring to collect his thoughts and trying to recollect if he had trod on German soil or if he had lost his course and strayed to the prison farm, a husky voice of a Sophomore exclaimed: "Oh, Freshman John, this night thou hast taken thy destiny in thine own hands; thou hast sinned against Sophomores and in our sight; thou art no more worthy to wear long hair; (sound of shears was heard) therefore, I say unto you; go forth among thy brethren, exhibit thy bald head, make known the errors of thy ways or there shall be weeping and gnashing of shears."

John, cool-headed and alone in his room, considered the situation, A feeling of revenge seized him. He exclaimed: "My beautiful locks are sacrificed, what more can they take?

I shall continue to visit the realms of Macdonald Hall and defy the laws of the Sophomores." What next?

Weeks passed quietly by and John's sins remained unpunished. Lecture after lecture was filed away in the notebook. The term's work piled on the table before him. One day a notice was posted that examinations would begin the following week. John became frenzied. He had cast aside the advice of the experienced Sophs.; he had let human nature take its course and now the climax had come. One thing was evident,-either John must utterly fail, disgrace himself and neglect to serve his country by increasing production or he must cast aside everything and bend himself to his study. Study was the word. He girded himself to work, mastered the situation, made his second year standing and passed from the trials and temptations of the Freshman to the directorship of college activities, a Sophomore.

(To be continued.)



THE FACULTY LUNCHEON.

Toward the end of May the Seniors of Macdonald Hall think not of June weddings. No! their thoughts take a more serious turn—the Faculty dinner is the sole topic for two straight weeks.

"I would like to meet the Seniors in room forty-seven at two o'clock," Miss Watson announced one day. Everybody knew what that meant. Each girl in the housekeeper class had her own special reasons for believing that she would not be appointed steward—a position not at all to be envied.

This year the fates decreed that Helen Grant should be steward. The other Seniors inwardly sighed a sigh of relief but backed it up with "We'll do our best to make the steward's task as easy as possible."

The old regime was changed slightly. Instead of giving a dinner to the whole Faculty a luncheon was given to the Professors' wives and the Faculty ladies. Dr. Creelman admitted that he felt rather ill-protected being the only male representative present. It was not really he who felt the need of protectors—it was his voice. One deep, bass voice among forty sopranos sounds very lonely indeed.

The luncheon was served at one o'clock on Monday, May 28th. The classroom was transformed into a fairy land of pink tulips and pale yellow daffodils. Pink tissue paper tulips shaded the lights. Those blackboards! the old bugbear when transforming a classroom into a dining-room! But this year the girls completed their education at Mac. by covering these

blackboards with wall paper of a quiet hue over which they placed green branches.

The menu was both dainty and substantial;

Cream of Tomato Soup
Ramequin of Chicken
Asparagus Salad
Rhubarb Sherbet
Mints
Coffee
Croutons
Rolls
Wonder Wafers
Sponge Drops
Salted Nuts

Dr. Creelman congratulated the girls on the splendid luncheon prepared and served by them. He then introduced the speaker, Mrs. VanKonghuet, who is an active worker for our returned soldiers. Mrs. Van-Konghuet spoke of her work in a most interesting way and told the girls of various branches of Red Cross work open to them after graduation from Macdonald Institute.



There was a young man from the city, Who said, "What a beautiful kitty!" It wasn't a cat.

He didn't know that.

They burned all his clothes what a pity.

Notice appearing in a Minnesota newspaper: "I have been instructed by the village council to enforce the ordinance against chickens running at large and riding bicycles on the sidewalk."

A Freshman stood on the burning deck But as far as he could learn, He stood in perfect safety.

For he was too green to burn.

A boy hates soap and water until he discovers her.

Butcher.—"Come John, be lively; break the bones of Mrs. Jones' chops and put Mr. Smiths' ribs in the basket for him."

John, (briskly.)—"All right sir, just as soon as I have sawed off Mrs. Murphy's legs."

Sproule.—"Well S——, what are you going to be doing this afternoon?"
S——.—"Oh, nothing much, I guess."

Sproule.—"I see, no change from the usual program, eh?"

City Girl, (watching farmer's wife picking feathers off chickens.)—"Do you take their clothes off every night?"

PERSONAL MENTION.

It is reported that D. J. M., '19, is acting as accountant in a mercantile establishment. He says the course in Farm Accounting at O. A. C. helped him a lot.

A. H. K. M., '19, paid a visit to O.A.C. and immediate vicinity recently. He had a pleasant time and seemed reluctant to Gow home.

We notice that W. T. Z. also of '19 was away from the college for a weekend lately. He seems to find Kennilworth while, but we think that he would be the better of having the matrons' motherly eye over him for a while yet.

The above are the remnant of the notorious Mill Street Gang; the others are beyond our ken entirely.

"Mother," said little Evelyn, "may I go out and play with the other children now?"

"You may play with the little girls, sweetheart, but not with the little boys; the little boys are too rough."

"But, Mother," rejoined the little Miss, "if I find a nice smooth little boy, may I play with him?"

Judge.—"Do you know the nature of an oath, madam?"

Witness.—"Well I ought to. We just moved and my husband has been putting up the stove-pipes."

An inquisitive visitor was looking over the various departments at the college last week. In the apiary she met two students working industriously among the bees. Addressing the younger of the two, she asked: "How much a week do you get paid for the work you are doing here?" "Well," replied the young man suavely, "I get paid for what I know, not for what I do."

Then turning to the tall man she enquired, "How much a week do you get, sir?" "Oh, replied the tall one dryly, "about three dollars a week." "Humph!" returned the lady indignantly, "I suppose you also get paid for what you know."

Ed.—"Are late hours good for one?" Co-ed.—"No, but they are good for two."

She.—"What do you think of a man who constantly deceives his wife?"

He.—"Why, I think he's a wonder."

Lady.—"What is that peculiar odour I get from that field?"

Farmer.—"That's fertilizer." Lady.—"Oh, for the land's sake!" Farmer.—"Yes, lady."

"You are quite comfortable, wifey dear?"

"Yes, love."

"The cushions are easy and soft?"

"Yes, darling."

"You don't feel any jolts?"

"No, sweetest."

"And there is no draught on my lamb?"

"No, my ownest one."

"Then change seats with me."

Self-made Man.—"When I was four years old I was left an orphan."

Sweet Young Thing.—"Yes? What did you do with it?"

(Advertisement). New song, just out: "The smell of moth balls will remind us, etc.," Wady's latest hit.