

PAGES

MISSING

THE O. A. C. REVIEW

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

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As of Old

By Arthur D. A. Randolph

*The night is calm,
The stars shine clear,
The sky is all aglow:
A heavenly messenger draws near
As, centuries ago,
On Bethlehem plain
The angel spoke
The birth of Christ
To shepherd folk.*

*Above the din
Of market place,
The turmoil and the strife—
Alike to honor or disgrace—
To all the walks of life,
This Christmas night
The angels bring
Glad tidings of
The new-born king.*

*Be still this night,
O restless town,
Forget the loss or gain—
The angel song comes floating
down,
A sweet and heavenly strain.
Let, if you can,
The song fulfil
Peace upon earth,
To men good will.*

A Christmas Message

HON. JAS. S. DUFF, MINISTER OF AGRICULTURE.

For the first time in our experience Christmas comes to us this year after a full year of war. Looking back, Christmas of 1914 seems but in the initial stages of the conflict which now has developed into such titanic proportions. The passing of the year, however, a year at once the most tragic and most glorious in our history, finds our enthusiasm unabated, our conviction as to the justice of our cause deepened, our determination to press forward untill ultimate victory is secured on terms which will be in the interests of humanity even more grim. Christmas 1915 therefore must partake a significance and call up thoughts appropriate to this most unusual setting of the great festival of good-will and home. Christmas is essentially a festival of the home. The home is the unit and basis of the community, of the nation, of civilization itself. While there are many home reunions which will not take place this year, it nevertheless should be remembered with gratitude that through the Providence of God and the might of the British Navy, our homes are still serene and secure. While this thought should fill us with gratitude, it should not make us forgetful of the fact that homes in the countries of our kinsmen and our allies are not so fortunate and that we owe an obligation to them to drive out the invader and punish the oppressor.

The students of the Ontario Agricultural College I heartily congratulate on the fact that they are at the present time so fortunately situated in enjoying a rare opportunity to prepare themselves for the demands of the future, both in times of war and peace. The inauguration of military training at the college presents a splendid chance to every young man to equip himself with a knowledge which may in the future enable him to render distinguished service to his country on the field of battle, and which in any event will make him a better and more usefull citizen at home. Along with this you are enjoying the opportunity of receiving a training which will enable you to render the highest good to yourself and to you country in the development of our agricultural resources after the war is over. I wish you every success in the discharge of the responsibilities which these opportunities involve, and even at this hallowed season we cannot forget that the main business of the country is still war and to that end every service and sacrifice must be consecrated.

Christmas and the New Year

BY DOCTOR CREELMAN.

Why should we be down hearted? The Empire is at war, therefore, we are at war, but our remoteness from the scene of active hostilities does not bring the great conflict home to Canadians, as it would, were we actually feeling the pinch of poverty, or ruthless devastation or personal danger.

The Allies must win, and we must believe it with all our heart and soul and do all that we can as Canadians to bring it about.

What can we do—men of the O.A.C. who must stay at home?

We can fit ourselves to produce the most and the best food products for the soldiers at the front—we can make up our minds that if God wills that we go back to our farms, that we will never again be satisfied with the old methods of farming.

We must now resolve to hate weeds and injurious insects and scrub stock, and poor seed with enduring hatred, and we resolve to have good stock and clean seed and up-to-date methods, and in this resolve may we not fall from grace at any time.

We can do our "bit" at home if we cannot go forward and fight, and on these broad Canadian acres **it behooves us to see that no soldier of the Empire ever wants for food.** And now while home for Christmas let each man resolve to talk over the whole matter with father. What plans are on foot for each field for next year? What stock should be sold, and what pure bred purchased? Remember, nothing pleases a parent more than to see his own child intelligently interested in the home affairs. You are a student in Agriculture—what are you taking home at Christmas time that will in some measure repay your parents for their sacrifice in sending you to school, and what can you say or do toward increasing the output next year for the Honor of Canada and the Empire?

And what for the Girls of Macdonald Hall—just a heart-to-heart talk with mother about the home and Christmas. Not "what have you got for me?" but "what can I do for everyone?". "I have been away all fall, happy, free from hard work and from care; now I am home again, what can I do to make home happier for Christmas while the whole world looks and feels so blue?" Oh! how much our girls can do, I am sure they will do their best.

I wish every student from every clime a very Homely Christmas and a clear vision of the duties and responsibilities of Nineteen Hundred and Sixteen.

Herds and the Individual

By Ethel M. Chapman

"Not unto the forest, O my lover,
 O my lover, do not lead me to the forest.
 Joy is where the temples are, lines of
 dancers swinging far
 Drums and lyres and viols in the town,
 And the flapping leaves would blind me
 and the clinging vines would bind me
 And the thorny rose-boughs tear my
 saffron gown.
 I will love you by the light, and the
 beat of drums at night,
 And the echoing of laughter in my ears,
 But I fear the forest."

—*Greek Folk Song.*

It is as old as civilization, this fear of the lonely road. The warmth and light and laughter of the crowd and the swinging doors of the full house are alluring, so we have few pioneers in new or forbidden places; the spirit is not lacking but the stamina is weak. The very day that the idealist begins to live out his dreams, subtle forces set to work to make him one of the herd instead of an individual. Sometimes, even, the levelling process begins right where he goes to get his training for living. The broadness that should come through college life, may prove to be nothing more than a certain smoothness, a by-product which the student gets by rubbing against the walls of college buildings. We flatter ourselves that we have gained a breadth of vision, or at least that we can take a broad view of things right around us. The danger is that our estimate of things may have broadened as a spider's web, stretched by the tossings of a thousand little winds until it is ready to lose its grip with the first real gale. We have just lost our identity in the crowd.

Long rows of street lights stretched after one another, and under the lights people swarmed. Moths also do that, and lizards. Whole squads of lizards will clamber up from the cool waters of the pond and crawl, grinning, right into a brush fire. They love the dazzle. And a young man stood at the edge of the crowd and wondered—the lizard in him wanted company. Then an old man rode up in a limousine, a shifting-eyed, red-faced old man whom Time had brought so near the gates that he should almost have been listening for the music, but he still revelled in the flesh-pots. At an opportune moment he had fallen in with the herd and rushed for the common object, and he got it. It had given him the flesh-pots but it had given him nothing else. At the time when the effort of his whole life had about reached the sum total of its accomplishment, his name was known only by a certain wavering market value, just like coal or mutton. When he might have been guiding public opinion, he was merely guiding a party of fur-and-jewel-and-flower-decked women into an expensive show. The young man thought, "Fifty years from now will I be like that?" He was just fighting through the crisis that every individual has to face sometime—the choice between commercialism and achievement—literally the choice of a job.

And he went off by himself to fight it out. He worked with the crowd all day, but in the evening he wandered out from the city to a meadow where the air was cooler and the stars a little nearer, and strangely enough, while the problem of a career was

with him all day, when he found himself alone he thought of other things, things more vital than a career considered as an end in itself. One day he discovered that he had staked off and bought a corner of the meadow, right where some tall, black pines suggested a shelter for a dwelling, too, and half in amusement, half dreaming, in his spare hours he found himself always returning to the spot to dig away a few feet of earth for the foundation or to pile together a few stones for the chimney. This was merely an incident, of course, but it had some significance, for the chimney idea soon evolved into a fireplace and the fireplace into an altar, and then it gave direction to his whole life.

So this getting away from the crowd saved him. There is something about the machinery of highly efficient office systems, the all-sufficiency of clubs and boarding houses, the relative value of city lots and of church pews according to their position, which makes us afraid of the real things. The man knew what he wanted, he knew where he belonged, but down with the herd, where things were measured entirely by statistics, he was afraid to take the risk of losing his grip on the daily scrap of mammon. This commercial complication in the choice of a job has spoiled a lot of lives, for without a certain commercialism there would be starvation and while a man might not mind the adventure of a little starvation alone, he can't entertain the idea if he has others depending on him. But sometimes he thinks he owes it to his reputation to make good at once—and sometimes he thinks he owes it to a woman. Then it is the woman's fault or the fault of her training. She has never learned what things are worth while. It is expected of her that by a certain time the

responsibility of her support will be shifted from her father's shoulders to those of a younger man. The success or failure of her life depends upon how well he can discharge the responsibility.

Another question troubled the man. Even though he knew just where he belonged he was afraid it was too late to enter a new field now. Strangely enough this delusion has discouraged thousands, yet the Man who gave the world the great example of a life didn't commence his real work until he was thirty. He had worked at a trade entirely different before that, supporting his mother, and the time wasn't wasted either. It might even be possible that his contact with the common people looking in at the carpenter's shop, had some part in cultivating that wonderful gift of coming close to people. Might there not also be a significance in the fact that this highest calling did not find its expression on the heights, that while a man gets away alone to dream his dreams and make his decisions, he must go down among the crowd to work. When the young man learned these things he had settled one of the biggest problems of his life. He had found his job. Still there was the unfinished heap of earth and stones in the meadow.

It happened very naturally. In fact everything seemed to contrive to make it happen. Like birds and butterflies, human beings seem most often to find their mates while they are playing. The trouble is, whether Convention realized what she was doing or not, she has overstepped the mark a little. The musical artist must play softly just to drown conversation, not to give people music; he must play the lighter rythmical melodies that can be set to dancing; the recognized essential of all entertainment is that it provide a

stimulus or at least an opportunity for flirting and the herd just follow the line of least resistance.

An artificial fire-light gave the necessary glamour to the stage setting, the orchestra was dreamy, the perfume of the roses just across the arm-rest as delicate as a breath from Arcady, and a little hand came very close to slipping accidentally, impulsively, cleverly into his own. He didn't want the little hand particularly, he knew somehow that this was a habit it had—but then, he reflected, a man could scarcely push it away. Then suddenly, like an omen the fire on the hearth of the stage flamed up and went out, just as fires have done on a lot of real hearths, and the man thought strangely of the new, shapeless pile of stones and mortar in the corner of the meadow and all he had dreamed it might be some time. He couldn't think of it becoming just like any one of a hundred houses on the Avenue. So he looked kindly, brutally, right past the little hand, and he never went back to that play-house again.

After that he didn't put another stone on the foundation for a long time. It had been such an easy and natural thing to do before. Now it seemed both serious and hopeless. There was just one thing left to do—to gather together his prodigal forces and throw them savagely into his work. He was glad now that he had chosen a work with a meaning. Whatever calamity might come, it would remain a permanent saving force.

It was a Master Mind that made the world primarily a working world, from the insects right up to the angels. He must have known at the beginning that through work people could best be fitted for other things. For while the man was right in his work, almost lost in it, a strange thing happened.

He found a woman working at the same job. Almost everywhere a man does, now-a-days. She wasn't doing exactly the same thing, but she was working toward the same end, which is all that really matters. But she didn't say "Give that to me. I can do it as well as you can." She asked: "What part can you do best, and what can I, and what part can we best work out together?"

This woman was not of the herd for she was beginning to think. She was looking at conditions that had been covered over for years and asking "Why?", which is generally considered a very unwomanly question. She didn't have eyes like limpid pools, innocent and blind and ready to accept anything. They were serious, those eyes and when they looked at the man, as wistfully as ever Nature intended but gravely as befits an individual who holds in trust the most precious thing in creation, they seemed to look straight through him and ask a question. And the man knew then, that if he had gone with the herd on that first night, this thing that he had been waiting for would never have come to him, and his altar in the meadow would have remained an unfinished, abandoned heap of stones.

But now he worked harder than ever at his house, and when it was finished it wasn't like any other house that had ever been built, because it was the symbolism of a certain ideal of a man and a woman who thought their own thoughts, who didn't want their world ready made for them, who knew that art is not something that people buy or hire or look at. It is something they do. And they were not afraid of the loneliest road, because they could create for themselves everything it lacked.

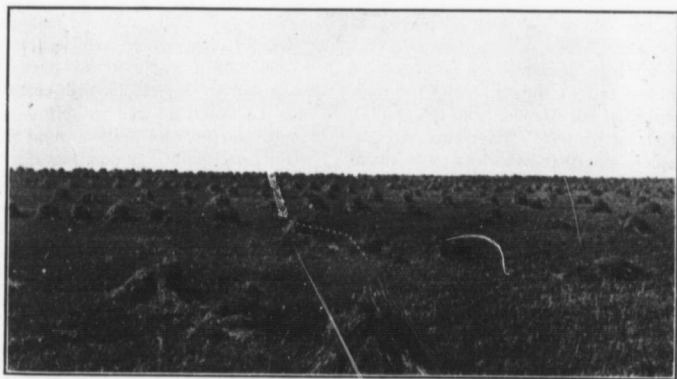
And they didn't live happily ever

afterwards. When they came from the church and kindled the first fire on the hearth of the new house they stood at the window and looked for a long time through the black pines, down at the lights of the town where people herded together just as they had always done. Then they turned and watched the firelight playing over the patches of moonlight on the floor. It would have been easy to shut the world out then, but having worked and suffered with the world they could not forget it just because they had found their Eldorado.

This is a high danger-point in "happy" lives—that they degenerate into a bovine contentment. Before any great happiness comes to us it is good to have been man-handled by the world a little to stir into life whatever little dormant sympathy we have.

Only then will the real spirit of leadership be developed—not the leadership that wants the admiration of the crowd but a leadership born of the love of men as individuals. Then no man will be content even in his work; he will think of the men he meets everywhere on the highway waiting for the wild goose to go by, the men who will never find their work; and no woman will be satisfied to rejoice just because a child is born into the world; she will think first "What kind of a world?"

We call such people fanatics; they are only individuals. And the herd go by and smile. Why should they care? They are satisfied with things as they are, just like the narrow, illiterate nonsensitive peasant with his squirrel dream of filled barns and plenteous harvests.



"Our Heritage"

Decorating the Home for Christmas

F all the old festivals, that of Christmas awakens the strongest and most heartfelt emotions. It is a time looked forward to throughout the year by both old and young, not only because it commemorates the announcement of the religion of peace and love but also because of the fact that from days of yore it has been the custom to make this the season for the gathering together of family connections, and drawing closer those bands of kindred hearts which the cares and pleasures of the world are operating to cast loose. Successful men and women of the world return to the parental hearth, there to grow young and loving again among the endearing emotions of childhood.

There is something in the very season of the year that gives a charm to this festive event. At other times we derive a great sense of satisfaction and enjoyment from the beauties which Nature has so lavishly displayed to our view. Now, all is changed. We seek refuge in our warm, comfortable homes, and in the congenial companionship of our friends, from the chilling blasts of winter. Under such circumstances surely it behooves us to make these homes as attractive as possible, and, under the cheering influences of bright firelight and attractive decorations, recall bygone days to the elder members of the family and leave on the children a lasting impression of joy and mirth.

Decorations, in order to be attractive, should, be used at the right time and in the right place. The hall, dining-room, and living-room are specially suited for decorative purposes. Any of the Christmas greens may be used, but the evergreens, emblems of

peace and gladness, are particularly appropriate.

The hall, being the first room entered, should represent the Christmas spirit of the house, and impress upon the beholder a hearty welcome. To this end the walls may be encircled with holly or evergreen in the form of wreaths or long strands, enlivened here and there by a knot of red ribbon or a gaudy Christmas bell. Doorways opening from the hall may be arched with green while a bunch of mistletoe suspended from one causes as much merriment as it did in the days of Mr. Pickwick.

In the dining-room the center of attraction will, of course, be the table around which will gather the circle of happy faces. Here a center-piece of white carnations may be chosen with holly leaves scattered over the damask as though blown there by the winter winds. The buffet may be similarly adorned, while holly may be fastened to the curtains, either promiscuously or following a symmetrical pattern. It was a charming old English custom which we would do well to imitate, to twine evergreen and holly around the portraits and paintings on the walls.

The scheme of decoration in the living-room should be as simple as possible, as the games and amusements of the party will take place there. The pictures may be encircled in green; a few flowers and a few Christmas bells may be used. The childrens tree must not be forgotten, as, shining and tinkling in all the splendor of tinsel and candles, it stands enthroned in a far corner waiting for old Santa with his pack of marvellous gifts, and seeming to share in the all-pervading air of expectancy and hush.

The Rural School Fall Fair

By Marion S. Hill.

IT was a beautiful, warm, sunny September afternoon, and as we drove on towards the school house, we saw stretching far before our eyes a long, almost endless line of horses, buggies and motors on either side of the road, and a throng of men, women and children assembling. This was the first glimpse of the School Fair! It foretold something of the size of it and what to expect later. Everyone seemed to be there, all the way from the tiny baby to the grandparents.

and such a nice, well grown lot of chickens they were. Prizes were awarded for the best trios, pairs, and single entries respectively. The judge was kept busy for an hour or so placing the birds, of which there were about sixty, and all the while anxious boys and girls hung around to see what their chickens won. The competition was very keen and when the ribbons were finally placed on the winners I noticed that all the first and second prizes were captured by two little girls. The



"Hatched from eggs furnished by the O. A. C. Poultry Department—
A well-grown flock.

Excited and enthusiastic children darted hither and thither, and well might they be excited as it was "Their" day. They were all exhibiting something.

The first thing that caught my eye upon entering the school grounds was a long row of boxes and coops with slatted fronts. This was the poultry show, and from first to last attracted much attention. The chickens shown were all Barded Plymouth Rock cockerels and pullets hatched from eggs furnished by the O.A.C. Poultry Department to the children last spring,

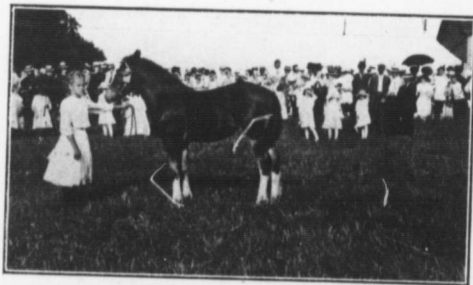
birds that won third and fourth place were good ones too and were a credit to the boys who showed them. Although the boys did not come on top in the show room, they succeeded in carrying off the prizes in the plucking contest, another interesting feature. Fifteen boys and five little girls took part in this and were given ten minutes in which to perform the operation of plucking. It was most amusing and called forth much interest and applause from the spectators.

On the other side of the school house

was to be found a large tent, in which there was everything usually seen in the main building of any fair, and as it was all the work of the children's hands it just added that much more interest. Everything from tall stalks of corn, sheaves of grain, large potatoes, huge, well polished roots, beautiful flowers, all grown on plots at home, to such things as collections of weeds and insects, compositions, delicious looking cakes and candy, and last but not least, all kinds of hand sewing, the work of the girls. In here the judges were busy at their task of placing the awards and in a

and were looking very sleek and fit. This was a dairy class and was composed largely of Holsteins and Short-horns and they were pretty evenly matched.

As the afternoon wore on the crowd drifted back to the other side of the school and lined up along the fence. This time it was to see the colts, the ever absorbing feature of the show. The first entries were two fine little Clydesdales, shown respectively by a girl and boy, and what do you think? The red ribbon went to the little girl's colt. How proud she was! and when she was asked to lead the beauti-



The Red Ribbon Colt.

few moments the doors were thrown open to the crowd and everywhere the children and their mothers were examining the many things before them.

Besides the interesting things to be seen in the tent there were many other features clamoring for attention, one in particular being the sports. Outside was to be heard the merry laughter of the children as preparations were being made for races in which nearly all took part. And over on the other side of the grounds, tied to the fence under the trees, were to be seen a number of small calves waiting patiently for their turns to be judged. They had been cared for by the children

ful little animal out to have its photograph taken (and she was in the picture too) it brought forth much applause from the spectators. The next class was made up of four nice little light roadsters-in-the-making, one was more of the hackney type and was much admired.

By this time the judging was finished and the crowds began to retrace their steps through the tent (or pavilion as I should say) and around the grounds to have a farewell look at the various exhibits—before they were packed up to start on their homeward journey. The children were looking satisfied and the mothers tired but happy. They

had had a good day at their fair with everything that made it like a real exhibition, with even the ice cream cone in evidence. There was also a Patriotic Booth which did a rushing business in dispensing cool drinks, candy and various refreshments, and I am sure that many a wounded soldier will be made happier and more comfortable as a result of their efforts.

Quickly and happily the crowd dispersed with their many treasures on their homeward way, leaving the District Representative, his assistant, the teacher, and a few others to straighten up after the successful day that will ever remain in the memories of these clever, enthusiastic, young Ontario agriculturists.



Preparation for the Start.

Speculation and Agriculture in Western Canada

By J. H. McCulloch '16.

FIVE years ago the only way to walk up the main street of a certain well known western city without being buttonholed by a real estate agent was to enlist protection of a policeman. Not long after this city was granted its city charter real estate men were constantly congregating at sundry banquets and they openly congratulated themselves on having made a city out of pure moonshine, for the city in question, although situated in a good agricultural country had no other legitimate claim to greatness. There were many places

in Saskatchewan as favorably situated with regard to natural resources and railway communications.

If you attempt to walk up the main street of this city today you will have no trouble whatever with real estate men. There are no more jubilant banquets, for the real estate men have pretty nearly succeeded in proving that cities can be successfully unbuilt on moonshine alone. In fact a lot of cities feel this way in the west today. Five years ago every one-horse town and budding metropolis in western Canada was running over with opti-

mists. In these days such men had their photographs taken in thoughtful poses, and newspapers published them from time to time. These men were called optimists, men of clear vision, men with faith in the future and so on, ad infinitum.

This optimism began to be recognized as a salient feature of westerners, and it was a conception born of bad judgment.

An optimist has been eternally lauded but western optimism to a great many people has always been associated with somebody who wants to sell something. You will always find that promptors of wild cat schemes are optimists to the core. Vancouver was full of optimists when her suburb swamps were subdivided and sold in England and Ontario; Calgary was a personification of optimism a year ago when a legion of oil promotors found it difficult to take in money quick enough for oil stock, much of which is generally regarded as a caustic joke today. On the whole, it's safe betting that among money-makers who don't work we find so-called optimism growing rank, while among those who do work we find a hybrid mental condition which generally leans towards pessimism.

Five years ago, and even more recently, it was a popular pastime of real estate agents to foregather at a banquet, and, stimulated by caviar sandwiches and the inspiring effects of a four-piece orchestra, discuss very seriously divers methods of helping out the man behind the plow. They had an inkling that maybe they were starting at the wrong end, for business conditions in the west began to slow down, and impertinent people began to ask how it was that wealth could be produced by the moonshine peddled by speculators.

Then the slump followed, and people began to see "as through a glass darkly" that Western Canada is, after all, an agricultural country, that we can't increase our exports by juggling with vacant lots, and that expensive suburban layouts and skyscrapers don't amount to a row of pins if people don't want to buy these suburban lots any more or if the skyscraper has hard digging to keep its taxes paid up. People began to see that development had far outdistanced the settler, that food and everything else was going up sky high, with the producer scraping away for a living back on the prairie. Fewer photographs of optimists appeared in the newspapers, and Western Canada suddenly sat down with a jolt that was almost audible and began to see things in a rational way.

Western Canada with its vast agricultural areas, is not yet a manufacturing country, whatever it may be in the future.

Neither is it a universal producing territory. Its one great source of wealth is its rich soil.

Now it is as plain as daylight that if wealth is to be produced in Western Canada it must come by the application of labor to this land. Most people realize this fact, too, strange to say, but the annoying thing has been the settling of the question as to whom this job should fall upon. Land speculators may, or may not, recognize the necessity of this work of production, but they conclude, obviously, that someone will do it, so they man-
 in ate the more agreeable sidelines.

It is generally agreed, however, that the day of land speculation in Western Canada is done, in spite of the reiterations of those hopeful beings who trust that the future will bring round good times again.

Now good times to a speculator in

land means phenomenal development; an influx of capital.

It is to be hoped, however, that the speculator's "good times" do not come again, for in reality they are bad times.

In any case the bank managers who ushered into their offices real estate men who banked money for speculative purposes are feeling rather meditative today, for a good many of them during the Western land boom gave faithful exhibitions of how not to use financial judgment. The next boom will witness more hesitation and discrimination among bank managers with regard to loans.

The real estate men, too, are wise, for it is easy enough to create a suburb site on borrowed money, but a much harder thing to pay back this money without selling half the lots in the suburb. The land boom will not come back. It may break out in sundry places, but it will never become an epidemic, for the farmers of Western Canada are beginning to take a hand in running their country. That means that agriculture will make a few demands and moreover, these demands will be met. As soon as sane agricultural development begins to make headway, all the land booms that are born will die an unnatural death without hurting so many people. Public interest will be focused on agriculture, and when this occurs the West will have good times. And just imagine what possibilities there are in the great rich prairies lying between Winnipeg and the Rockies. Just imagine what twenty million people could do with such a country by meeting its agricultural section half way. Imagine Western farmers farming like Ontario farmers; imagine a virile people utilizing intelligently unparalleled resources, and we get an idea of real "good times" in Western Canada.

The speculator has taken a back seat, and agriculture is just being ushered in. There is no phenomenal evidence of the fact, either, which is probably a good thing. Pessimism exists among a large number of farmers who have found that even on land which they bought for ten dollars an acre they cannot produce sixty cent wheat for less than fifty-five. A large number of Western farmers have not yet got their second wind in the race they started a few years ago, totally untrained, to wealth by the single cropping route. A great many of these men were speculators. They expected to farm indifferently, turn dollar wheat on the market and sell their land for a higher price. This did not happen.

Speculators recruited from the cities of Canada, the United States and Europe, who bought up large sections of land for partial development and future sale as separate farms at greatly enhanced prices, were likewise left high and dry.

Today you will find millions of rich acres in Saskatchewan and Alberta lying idle, or, what is worse, growing rank with noxious weeds. You will find farmers who are having a hard pull to make enough to live on respectably.

The speculative spirit which animated the whole warp and woof of Western Canada a few years ago caused the great majority of these failures. These speculators banked on the future without giving the present a chance to develop any future.

There is a spirit of pessimism among many farmers today, and it is a variety of pessimism which is worth ten times over the unbalanced optimism of several years ago.

From now on farmers will work from the ground up. They have learned that their success depends on

their own ability to produce economically. The clear understanding of this fact may not be a pleasant process, but it immediately brings with it the necessity of knowing how to produce economically, and in quest of this knowledge farmers will begin to re-

construct gradually the whole fabric of Western agriculture.

The speculative element will never get a chance to dominate then, for methods of creating wealth will have been clearly segregated from methods which only move wealth from the producers, to the non-producers' hands.

Footprints: A Christmas Story

By Orpha Bennet Hoblit

THE dusk of the November afternoon was closing in earlier than usual. The downpour of rain had given place to a fine mist and fog which shut in the cabin at Edwards's Lumbering Camp with still closer walls than those of the forest. The men, however, welcomed the dark for it marked the end of a day of enforced idleness, which to them, accustomed as they were to hours of strenuous toil in the open air, was little less than torture. The cook had already gone to prepare supper. "Boss" Williams had taken the one remaining lamp from the shelf and retired to his room—a roughly-boarded-in corner of the cabin—leaving the men with no light save that of the fire. It had grown too dark to see the cards, and the players had left their game and their quarreling and joined the circle about the chimney place at the one end of the long, low room.

Even the fire was sulky. It smouldered, sending out only now and then a gleam of light that played over the walls of the room, brought into view for a moment the rude staircase in the corner leading to the loft, shone on the long oilcloth-covered table and the benches ranged about it, glistened on the pile of shining axes, gleamed in the tiny cracked mirror

in its place above the lamp-shelf, and flickered over the faces of the group of men who, seated on benches, boxes and empty kegs, formed a wide semicircle about the fire.

Physically, they were superb specimens of humanity, broad of chest, long of arm, healthy, lean and muscular, rough-looking, perhaps, in their dark flannel shirts, coarse trousers and heavy boots; but rough and wild they were, as their blasphemous talk and the lines of dissipation in their broad faces plainly showed. Rough and ignorant but for all that, true men in their arduous work in the depths of these Michigan forests; brutes and savages only in the towns, when their season's work finished, and their accumulated wages in their hands, they gave themselves up to wickedness and riot.

Just now they were quiet enough. The sputtering of the fire and the snoring of a sleeper in the loft above were the only sounds that broke the silence as they sat smoking, waiting for their supper.

"Who's that?" suddenly asked Blacksmith Jim, taking his pipe from his mouth and turning an attentive face toward the door. The others had heard it also—the splashing of horses' hoofs in the rain-soaked earth outside. They stopped before the

cabin door. There was the sound of voices, then of tramping hoofs receding. Long Hi rose and threw open the door just as the "Boss" came out of his room with the lamp and the light fell strongly on the figure of a young man standing on the step, his hand raised to knock. He was tall and straight, strongly if rather slightly built; that much one could see in spite of the heavy ulster which enveloped him. The head from which he lifted a dripping felt hat, was crowned with a heavy mass of shining curls. The uplifted face was firm and strong, if somewhat boyish and lighted by a pair of clear, frank blue eyes.

"Good evening," said the stranger, smiling undismayed into the forbidding face of Long Hi, "Is this Edwards's camp?"

"Yes."

"Is Mr. Williams in?" May I speak with him?"

"Mr. Williams—that's him over there. "I haint got no objections to your speaking to him," and Long Hi returned to his seat and his pipe in apparent indifference.

The newcomer lifted a valise from the step and entered the room. "Good evening, sir," he said, stepping up to the "Boss." "My name is Marshall. I have a letter here from Mr. Edwards which will explain my business."

The "Boss" took the letter, turned it over rather helplessly, then handed it back. "I ain't got no time to fool with your letters," he said with an oath. "If you've got any business here tell it yourself or go back where you came from."

An appreciative wink went round the circle. The young man flushed a little, but stood his ground.

"It amounts to this," he said, "I'm a student at A——. I've not been well of late and my physician has

ordered me into some active out-of-door employment for a while. I happened to be in Mr. Edwards' when your message came that you needed another man. It seemed just the thing for me, and I applied for the job and got it. I don't know much about felling trees, that's a fact," he added, "but Mr. Edwards said there were other things you could put me at that require less skill, and I'm sure I can make myself useful."

"Boss" Williams's countenance was a study of amazement and wrath as he listened. His face turned from its usual dusky red to purple, the veins of his neck and temples stood out rigid, and his little gray eyes gleamed spitefully beneath his bristling eyebrows. The men sat waiting in joyful expectation of the explosion and the consequent annihilation of the presumptuous stranger, but it was more in disgust than in anger that he finally turned toward them, and, shorn of its oaths his speech was as follows: "I'll be blowed," he said slowly, "if I let any contractor hire my men for me another season. Here I'm snowed under with work and send in for a *Man*, and that fool sends me out a cub who never saw an axe in his whole life, and he comes whining to me for a soft job. A soft job *in the woods*"

The enormity of the offence seemed to deprive him of speech for a moment. "Clear out o' this," he shouted with a hideous oath. "I ain't got no soft snap for you."

He advanced threateningly but the young man did not stir. A stubborn look came into his frank eyes.

"No, sir," he said, "I'm hired and I shall stay."

Long Hi stepped swiftly between them, but it was not necessary, for the "Boss" stopped short and turned

on his heel. "Stay, then," he growled, "but you'll work if you do."

"Of course," said the new hand, "that is what I came for."

He slipped out of his wet ulster and hung it on a nail, and the men noticed with approval, as he drew up among them the easy poise of his lithe figure, his square shoulders, the strong lines of his neck and face, and, most of all, his flannel shirt, top boots, and suit of rough grey cloth.

However, there was no time for remark, for the kitchen door opened and the cook brought in the supper and the lights. The men gathered about the table. "Boss" Williams seated himself at the head, but he took no further notice of the new hand, who was stationed at the far end of one of the side benches. The men's spirits rose as the meal progressed, and talk and rough banter became general, but they paid no attention to the stranger, who was left free to satisfy his hunger with the plain, but well cooked food before him.

The meal finished, the boss and three others occupied themselves with a game of "Seven Up," while the others gathered about the fire which was blazing brightly now.

"Say, cub, have a chew," and Long Hi, who sat next to John Marshall on the bench hospitably offered him a plug of tobacco.

"Thank you, I never use it," said John.

"No-o," drawled Long Hi, easily, "I didn't spose you did, it's jest ez well, cubby, for it is a bad habit, I tell you," and he bit off a generous chew for himself and settled back comfortably against the wall.

"Say, cub, what can you do?" he drawled again after the space of a quarter of an hour, as one of the men executed a "double shuffle" to the

accompaniment of the clapping hands and stamping feet of the others, and amid much loud laughter and rude approval. "Can you dance like that, or sing?"

"I sing sometimes," said John, modestly, but he was unprepared for the announcement that followed.

"Say, you," called out Long Hi, "this young cub says he can sing."

"Make him prove it," came promptly from the other side of the fireplace.

"Yes, sing." "Pipe up, young feller."

"We don't 'low no bluff like that to pass here."

"Give us a warble, cubby," urged Long Hi; and thus exhorted, John began, and for an hour, his sweet, powerful baritone voice first in rollicking college songs, then in quaint plantation melodies, Scotch tunes, and even now and then a hymn, charmed the crew of lumbermen into appreciative quiet. Scarcely was one song finished until there were vociferous calls for another, until finally Long Hi clapped the singer heartily on the shoulder.

"Time to turn in," he announced.

"Shut up, you," as Black Bob urged another song. "He's proved he can sing all right enough, come along cub, I'll show you where you are to sleep."

There was a scramble up the stairs into the loft. It was a long room, running the entire length of the cabin; the sloping roof formed the ceiling, and the tall lumbermen could stand upright only in the centre under the ridge pole, but it was well ventilated for through the chinks in the log walls, and the cracks in the roughly boarded gables, the icy winds swept from end to end of the room, and sometimes the men awoke to find their bed covering reinforced by

a blanket of snow. The beds, frameworks of rough timbers, upon which were laid straw-filled ticks and woollen blankets were ranged in rows down the length of the loft. Long Hi assigned his protege a bed, and he was soon sleeping as soundly as if he had been in his own daintily furnished room at home.

Four o'clock was an early hour, but John Marshall rose with the rest when the harsh voice of the "Boss" resounded up the stair, calling to the men "To roll out o' that, in a hurry."

He shivered a little in the raw air as he went out with the others to wash at the stream that ran through the clearing, but the roaring fire within, and the hot breakfast warmed and fortified him so that he felt no dread of the unaccustomed work before him, as he heard the "Boss" say to Black Bob:

"Take that singing cub and clean up that timber over by the north skidway."

"Make him *work* or, by George, I'll take him in hand myself, and if I do, he won't stay long in this camp. This isn't no horspittle I can tell him."

So out of the cabin he walked with Black Bob, past the stable where the teamsters were greasing their wagons, and "hitching up" by lantern light, across the little run, and into the black depths of the hemlock woods. He was soon completely bewildered, but his companion held confidently on his way, threading the darkness with the unerring instinct of the trained woodsman, and just at daybreak, they emerged in a clearing where their work laid before them in the shape of fallen trees which the axes of the choppers had felled some days before. "Cleaning up," as he soon learned, consisted in cutting the bark at intervals along the huge trunks carefully peel-

ing it off, and piling it into heaps, then trimming the trunks of their branches, leaving the great logs ready to be taken to the skidways, by which they were to be conveyed to the stream and floated down to the mills in the Spring.

Black Bob started to work with an ease and skill and speed which John strained every nerve in a vain attempt to imitate. There was little conversation for the older man was by Nature taciturn and John had no breath to spare, but now and then, as the long morning wore away, Black Bob stopped and swearing softly to himself, watched the new hand with something like approval in his eyes, for, though awkward and blundering, though the sweat poured from his face, and his breath came in quick audible sighs, John worked on doggedly, and little by little gained in skill.

Near evening, the "Boss" came up; noted what had been done, and after watching John a few moments, began to urge him to faster movements, swearing loud and long, and working himself into a frenzy as he saw that John, though he bent every energy to the work, was apparently unconcerned amid the storm of threats and curses that rained upon him.

"Don't mind the "Boss" Cubby," said Black Bob, as the angry man rode away, and they shouldered their axes, preparatory to the walk back to camp. "He's a queer devil, and he's taken one of his spites at you. He won't get over it, no matter what you do. But hands are skerce, and he won't turn you off as long as you work like you did today."

Again, as the weary youth climbed the stairs to the loft, immediately after supper, he felt a thrill of gratitude as he overheard his companion say to one of the men:

"He's about as green a chap as ever I saw, but he's got sense, and stays with a thing. He'll be earnin' his two dollars a day before Christmas."

Black Bob's prophecy proved true. John became a tolerably skilful workman, and grew to love the vigorous open air life that brought him such ample returns of life and strength. The noise of the chopping, the crash of falling trees, the zip of the saws, were music to him. To the rough fare he brought the zest of a keen appetite, and his sleep up in the airy loft of the cabin, was of the deepest. He was soon a favorite with the men, whom he charmed by his frank, boyish good nature, while they respected a certain fibre of firmness in his character, which they felt to be akin to their own rude strength. His sturdy morality and clean speech they took without comment, and, while in no way altering their own course of life, they respected him in his.

With the "Boss," however, he made no progress. Work as he might, he never seemed to satisfy him, and there was no cessation of the abuse that rained upon him whenever their ways chanced to cross.

One day in late November, something happened which gained for John a new sobriquet, henceforth he was known, not as the "Cub," but as "Doc."

He had started with Long Hi to finish cutting a road for the waggons to some remote bark piles, only to find as they reached the place that an important tool was missing. He started back to the camp for it, taking a short cut through the woods, though he knew it would lead him past the point where the "Boss" had been working alone. When he came to the place, however, there was no sound of chop-

ping. One of the giant pines stood cut half way through and the ax lay on the ground, stained, John was horrified to observe, with blood, while a red trail stretched away across the snow in the direction of the camp.

He followed it on a run, and, not far distant, came upon Williams lying prostrate and unconscious in a pool of blood. The wound was in the foot. As John knelt and began hastily to cut away the boot, the "Boss" feebly opened his eyes and a look of amusement came into his face as he saw who it was and watched the deft fingers as they removed the boot and woollen sock and revealed a gaping wound, cut to the bone, and fully three inches long. Evidently the man was fast bleeding to death, and John lost no time in improvising a tourniquet with his handkerchief and applying it between the foot and the knee.

"Open your mouth wide," he said, authoritatively, and, wondering, the "Boss" obeyed.

"I thought so," said John coolly, extracting the large quid of tobacco that lay against the man's cheek. "I'll make it useful for once."

He plastered it over the wound and bound the woollen sock tightly over it. Its qualities as a styptic soon became apparent. The flow of blood ceased. In a little while the patient sat up, and, somewhat to John's amazement, swore at him.

"Thought I sent you over to help Long Hi," he growled. "What are you doing here?"

"I was going back for a canthook," said John. "A good thing for you I am here. You would have bled to death. Now the question is how to get you back to camp."

"The question is how to get that road cut if you loaf all day. Git out o' here an' get that hook, an' leave word

at the camp for one of the teams to come for me when they git in for dinner."

"I'll do nothing of the sort," said John. "You would freeze before noon. Keep still and don't touch those bandages if you value your life," and he started to fetch Long Hi.

It was cold and when the two men came, "Boss" Williams was thoroughly chilled, and offered no objections to their carrying him the two miles back to camp.

Once in the cabin John produced a little case of instruments from his valise, and, despite the oaths of the refractory patient, who roared at every twinge of pain, dressed the wound comfortably, while Long Hi stood looking on in wonder, as much at John's command of temper as at his skill.

"Shet up, Williams," he said at last, impatiently, "or have a little sense." I'd have let you bleed to death if I'd been in his place. Where did you learn it, Doc?"

"Oh," said John, it's only a trifle. "I'm a medical student, you know."

"Jes' so," said Long Hi. "I'd call you a first rate young feller besides if anyone was to ask me."

Williams was confined to the cabin for several weeks, while John attended him, dressing the injured foot every morning before he went to work. As a rule, his attentions were accepted as a matter of course, but now and then as he looked up from the bandages, John caught the man's eyes fixed on him with a curious wondering look. Once he spoke abruptly.

"What are you going to charge me for all this foolishness?" he asked.

"Nothing at all," said John, cheerfully. "I'm not a regular practitioner, you know."

"Umph!" said Williams, and relapsed again into silence. When he was again

able to go out, his dislike for John had apparently not abated, but it manifested itself now in a pointed avoidance of any speech with him—a course of conduct which Long Hi openly resented.

"I always knew Williams was a low-down cuss," he said, "but he's meaner'n I s'posed. He hain't got sense enough to hate himself for the ways he's acted, so he takes it all out in hatin' you, Doc."

Christmas was approaching, and John, remembering former holidays, could not help some twinges of homesickness, the more that the men were planning to send to town on that day for a supply of liquor with which to celebrate, and his mind shrank from the scenes which he feared might follow.

The day before Christmas the men worked as usual until starlight, and then trooped in a body back to the cabin. As Long Hi opened the door, he recoiled so sharply upon the man behind him, and he in turn against his neighbor, that when the impetus reached John, who was last, he promptly measured his length upon the ground. Naturally all pressed forward then, but once in the room stood awkward and abashed near the door, for, before the blazing fire, in the only chair which the cabin boasted, sat a woman, who, with her slight and delicate figure and the simple elegance of her dress, seemed strangely out of place amid her rude surroundings. The smile with which she looked up, the open brow, the frank, pleasant blue eyes, and her golden hair, were singularly like John's, and he, indeed, with a glad cry of surprise and welcome, sprang to meet her.

"Nelly! How in the world—"

"Oh," she said, as she kissed him warmly, "Jack had to come on busi-

ness, and I felt it a good opportunity to get a glimpse of you, and bring you all a bit of Christmas. I thought you all might like it."

"We do," said John, gratefully, "but," remembering the men's plans for the morrow, "you ought not to have come. This is no place for you."

"I know that I ought not to stay," she said, with a smile, and we intended to go back tonight, but one of the horses is sick, and Jack thought it best to wait until tomorrow. I shall be very comfortable. Mr. Williams," and she smiled up at the "Boss," who, with a tall, kindly-looking man, came out of his room at this juncture, "has very courteously given up his room to me."

The gentleman greeted John heartily, and the men recognized in him Mr. Edwards, the contractor. Their surprise at finding that their comrade was their employer's brother-in-law was only equalled by that of the "Boss."

However, there was no time for awkwardness, for Mr. Edwards, speaking cordially to the men, presented them to his wife, and it was pleasant to see their faces brighten and soften as she spoke to them, and gave each her slender, warm white hand. Pleasanter still to see her presiding over the coffee-cups at supper, chatting as gayly with the surly "Boss" as if he were an honored guest at her own table. Pleasantest of all when, later, she sat among them, a gracious presence, though she said little, but sat looking musingly into the fire, listening to her husband's conversation with her brother and the men.

There was no smoking and no swearing. Deprived of this last, their usual medium of expression, the men were very quiet, but the evening had no tedium for them.

"Wait a minute, Hi," said John, impulsively, as the tall man rose as a

signal to the others that it was time to turn in. "Nelly, won't you sing for us—just once? We all like music, and we don't hear much out here in the woods."

"Certainly, if you all wish it," she said. "It is Christmas Eve. This is what they will be singing at home," and in rich, full, liquid tones the notes of "Silent, night, hallowed night," floated out on the air. The holy calm of the first Christmas night seemed to draw about them as she sang, and the men listened, awed and hushed and touched to the depths of their great hearts.

There was a moment of silence when she finished, then Long Hi thanked her huskily and bade her good night, followed by the others, some of them too shy to speak, but all expressing by a vigorous handshake their appreciation.

Although it was a holiday, the men were up betimes next morning, and, freshly shaven, with their hair and beards trimmed and in clean clothing, they presented a much neater appearance than on the evening before.

It was a busy morning, for Nellie Edwards held a whispered consultation with the "Boss," and he placed his whole crew at her disposal. A half-hour's hunt and Black Bob brought in two fine wild turkeys, another man secured two ducks. These, dressed by the men, and stuffed by the skilful hands of the little mistress of ceremonies, were soon in the great oven, and Long Hi sat down beside it, basting-spoon in hand, to watch the roasting.

In due time the vegetables bubbled atop the stove. Raisins were seeded, nuts were cracked. "The bit of Christmas from home" proved to be a wonderful store—mince-meat, pumpkin, cranberries, jellies, fruit, and a

great plummy cake. Pies, flaky of crust, delicious as to filling, soon added their fragrance to the tantalizing odors that floated in from the kitchen; and meanwhile, with branches of fir and hemlock and pine, the men turned the large, bare room into a bower of green. Nothing was lacking when they sat down to the feast. Turkeys and ducks, toothsome and tender, with their rich graveys, squash and turnips and feathery mashed potatoes, cranberries and jellies, cake and fruit and coffee—and then the pies! Such pies as surely no lumberman ever ate before in his camp in the woods! Best of all, however, was the presence of the little woman who beamed upon them all from the head of the table as they ate.

All too soon the hour came for leaving, and the men crowded forward for a last glimpse of their charming visitor. "Boss" Williams himself handed her into a sleigh and tucked the robes about her, feeling a choking sensation in his throat as she waved a farewell to them and wished them a happy New Year.

"Same to you, ma'am," came in a touching chorus from the twenty-five men standing about the door.

Dull and lonely they all felt when they re-entered the cabin, but, though the long hours dragged wearily along till bed time, no one mentioned the very different celebration they themselves had planned.

At daybreak the next morning John stood outside the cabin looking regretfully down at the ground, and "Boss" Williams, coming up behind, saw in the snow two slender foot-prints—Nelly Edwards's tracks where she had stepped into the sleigh. Snow was falling fast, and soon this mute reminder of her visit would be obliterated.

The "Boss" turned aside into the cabin, but soon came out with a cracker box, which he placed carefully over the footprints in the snow. Then, straightening himself, he looked the younger man squarely in the eyes and held out his hand. As John grasped it heartily he said:

"Come along, Doc. Let's go git in the load of bark.

The African Campaign

By J. W. Jensen.

GERMAN South-west Africa occupies an area of about 322,000 square miles on the west coast of Southern Africa. A strip of

desert varying in breadth from 90 miles to 40 miles, fringes the sea coast, and would be of no economic value whatever were it not for some extraordinarily rich diamond diggings, which produce stones of excellent quality. The re-

Mr. Jensen is one of our students who took an active part in the campaign in German South Africa.—Editor's note.

mainder of the country is varied in character, some land being quite good agriculturally, but the greater part shows

no signs of Divine supervision at the time of creation. This territory has been under German rule for 30 years, Berlin voting \$10,000,000 annually toward the maintenance and improvement of the colony.

Had this amount of money, plus

the inland revenue, been spent on irrigation works and the improvement of the country in an agricultural way, a colony could have been built up that would not have been an absolute disgrace to the nation governing it. As it was this money was spent in the building of ports and the installation of one of the strongest wireless stations in the world at Windhuk, the Capital. It was possible to communicate direct with Berlin by wireless, with the aid of one intermediate station in Togoland, in fact it was claimed that, under favorable conditions this intermediate station could be dispensed with. The building of strategical railways, designed ultimately to be linked up to the railways of the South African Union, is another case in point where money was misspent.

The natives of the country belong to several tribes, of which the Hereros are the best and the semi-Christianized natives the worst.

Education was practically under the control of missionaries, and cannot, therefore, be said to have been eminently satisfactory. "The educated Bastard," as one writer has it, "has been taught to read and write German, and has also been taught to honor firstly the missionary, secondly the Kaiser, and thirdly God. He has imbibed the arrogance and uncouth meanness of his master. He is an unlovely beast, and they allow him to carry a gun!"

The Hereros rebelled against the Germans on two occasions. In the first uprising, after a struggle lasting 11 years, peace terms were concluded. In 1904 they rose again and carried on until 1908, when the German authorities granted a general amnesty to them, and so ended the rebellion.

On account of the difficulty the Germans experienced in putting down

these native risings, they naturally concluded that the natural conditions of the country alone would nearly suffice to hold back an invading army. This supposition was fairly well grounded, as innumerable difficulties presented themselves and were only overcome by sheer doggedness.

First of all large stores of supplies, both for man and horse had to be brought by boat from Cape Town; the railway line, of which every rail had been blown in half, had to be reconstructed; existing condensing plants for the purpose of rendering sea water fit for consumption by man and beast had to be enlarged, and many other details had to be carefully considered before aggressive operations could be undertaken on a large scale.

Crossing the desert gave one a foretaste of what was to come, as each man had to carry a sufficient supply of food for himself and horse, besides his ordinary equipment, across 85 miles of loose sand, with ranges of sand dunes to bar their progress.

German South-west Africa was attacked from three points of the compass. The Southern force took an all land route through from the north-west of the Cape Colony. The Central force was brought by boat from Cape Town and landed at Luderitzbucht, while the Northern force was landed further north at Swakopmund.

The Southern force threatened the rear of the German forces, causing them to evacuate strongly fortified positions at Aus, on the edge of the desert, thus giving the Central force a chance to establish themselves in somewhat better country after the desert conditions experienced.

From this point on, operations were pushed ahead with great vigor, and very little rest was given to both the German and South African forces. The

enemy retired east along the railway line, blowing it up as they went, removing all the live stock and provisions, poisoning wells with carbolic acid, arsenic and any kind of filth they could lay hands on, with the result that men following up were put at a great disadvantage.

All supplies had to be brought from rail-head by wagon, with donkey, ox and mule teams, which was a very precarious method when we consider the scarcity of pasturage, and lack of a sufficient water supply, and long distances over which they had to be transported. The result was that our force was pushed ahead with rations that constantly decreased until they finally reached a point when a quarter of a teaspoonful of salt, a dozen "tin tacks" and some fresh meat was issued to each man, which hardly constitutes a well balanced ration.

Finally after a 300-mile chase, enlivened only by a couple of skirmishes,

one force of the enemy was surprised at Gibeon, and given a blow which accounted for about 400 Germans in killed, wounded and captured, the remainder of their force escaping to Windhuk, where they joined their northern force, which was then being pushed north by General Botha.

In this northern territory conditions were much the same as the Central force had to contend with. Water was poisoned, and land mines laid by the score. The latter the Union forces managed to escape more by good luck than good management. The inefficacy of these mines was a source of great disappointment to the Germans who questioned us as to the damage they had done.

After several ineffectual attempts on the part of the Germans to obtain peace terms satisfactory to them, they were finally compelled to surrender unconditionally on July 9th.

Christmas in Many Lands

By M. L. D.

CHRISTMAS once again, that merry time of joy and forgiveness, of fun and frivolity. Christmas, that day of days for epicureans, the epitome of childish joys; Christmas, the best day of all the three hundred and sixty-five in the year! But where and why did Christmas originate?

Christmas was first celebrated in the second century of our era and was taken from heathen mythology. The pagan nations always had a tendency to worship the sun. Their festivals in its honor took place about the time of the winter solstice, the shortest day in the year. This holiday among the Romans was called Saturnalia and was

a time of much merriment. Even the slaves were allowed to take part. There was feasting and gifts and the houses were hung with evergreens. In the more uncivilized peoples of the north great blocks of wood were burned in honor of Odin and Thor and sacrifices of men and cattle made. From the sacred oaks mistletoe was cut with a golden sickle by the Prince of Druids. As Christianity replaced Paganism the Christians adopted these beautiful old usages, merely changing their spirit.

But Christmas is not celebrated alike in all lands.

In Rome Christmas is a time of dis-

sipated joy and religious emotion. Everyone goes to church, from the smallest child to tottering old age. On Christmas eve all citizens are supposed to fast instead of eating their supper. To avoid this contingency the simple minded population have transferred the meal till later in the evening and the so-called supper lasts from eight o'clock until midnight. At this meal are served the delicious "pangiallo and torrone" a kind of almond, dried grapes and honey cakes, for which this land is far-famed. At midnight all the populace go to celebrate mass. After mass they return home and eat their broth of capon and then to bed until the rising of the Christmas sun awakens them. This is the time when the boys celebrate the "Presipio" or the artistic representation of Christ's birth. This they do with a background of painted cannons and various toys. These works of art are admired and exclaimed over by admiring parents and relations. Little sister busily works securing donations in a little box presumably for church collections labelled "Funds for the Holy Bambino," which, translated in the original means "Contributions for sister's candy."

In Ireland joy and goodwill reign upon Christmas day. In every household the Christmas candle is lighted on Christmas eve so that no darkness may be upon the night when the Christ child came to make His home on earth. All attend early morning mass and the day is set apart as one of religious celebration.

The Scottish children have not celebrated Christmas since the days of John Knox and Mary Stuart but they do not need pity as their gala day is New Year's Day.

The Santa Claus myth came from Holland. From Belgium and France

comes the fashion of hanging up stockings. The Belgian children fill their little wooden shoes with carrots, oats and hay for the white horse which the Christ child will ride while bringing gifts. The Christmas tree has its origin in Germany, but how they originated the idea is shrouded in the mystery of the past. In Egypt the branches of the date palm are used to decorate the houses. The palm is looked upon as an emblem of immortality.

In Norway and Sweden preparations for Christmas are begun on the first of October by the killing of sheep and hogs and the curing of hams. The Christmas eve celebration is looked upon as sacred and is the time of family reunions. Early in the evening one of the younger children recites a Christmas hymn and this is followed by the serving of supper. The supper consists of rice porridge, spare ribs, sausages, fish and wild game, with plenty of cranberries.

After supper the doors of the parlor are thrown open and disclose to view a large tree lighted and gift-laden. The company enter two-by-two and circle round the tree while they sing a happy Christmas carol. Before retiring all the shoes of the family are placed in a long row and left there till morning. This is to show that during the coming year the family intend to live in peace and harmony.

On Christmas morning sheaves of wheat are placed outside for the birds. At ten o'clock everyone attends the church service and the merriment and enjoyment is continued until the thirteenth day of January.

In Switzerland the week before Christmas is fraught with excitement. The best room is closed and the key-hole is stuffed with paper. The children are told that the Christmas Angel

is preparing the tree for them. On Christmas eve the children mark their gifts and give them to their mother. A lady friend of the family is then dressed up in a golden wig, white gown and tulle veil to represent the angel. The children are then called in and the gifts are distributed by the Christmas Angel.

The Russian Christmas lasts for two weeks of fun and merry-making, from the twenty-fourth of December to the eighth of January. The tree is lighted every night and when the trees are on an estate the effect is very beautiful.

In the large Russian cities the streets are a riot of bewildering colors. The store windows are resplendent in their holiday dress. Merry crowds pass along the streets in the gala attire of the various races—Tartar, Russian, Circassian or Armenian. The streets are gay with booths and side-shows. The great bazaar "Gostinoor Door," in Petrograd resembles one dense forest because of the thousands of Christmas trees brought in to go to the homes of the people. No home is too poor to have a tree. The favorite decorations for the trees amongst the peasant class are bright colored beads, brilliant paper flowers and goodies.

On Christmas eve in the villages both old and young gather in the streets at sunset. They form a procession and march to the homes of resident noblemen, the mayor and other dignitaries. Here they sing carols and receive clappers in return. As in other countries the Christmas eve supper is a great feature of the celebration.

Among the Poles in Galicia it is believed that the heavens are opened at Christmas night, that Jacob's ladder is let down and that the holy angels of God descend upon it. Only the

saints witness the scene. The family sit with bowed heads after eating their supper of consecrated eggs and wait for the heavenly visitants to come and bear away their earthly sorrow.

A time worn custom is that of the blessing of the Danube. A scaffolding with a huge cross of ice was formerly erected in the river, but with so many crowds standing about and the weight of the ice cross wholesale drownings occurred so that at the present time the ceremony is performed on the bank of the river. The people dress to represent different biblical characters, Pontius Pilate, Joseph, St. John, etc. The priests bless a small wooden cross and throw it into a hole which is broken through the river ice. The crowd rush and scramble to secure it for whoever secures it is supposed to have good luck for the remainder of his or her earthly pilgrimage.

And now of Christmas at home. One scarce needs a description of that most merry of all merry times. Who amongst us does not enjoy the keen tang of the frosty air, the healthy exercise of skating, of snow-shoeing or tobogganing? And the Christmas dinner—who amongst us does not enjoy the Christmas turkey, the steaming plum pudding, the rosy cheeked apple and the luscious mince-pie? Who amongst us does not enjoy this day of extreme satisfaction to the inner man and a heart full of love to all mankind.

The British Empire has been called the "Plum Pudding Empire." Let us see that all our soldiers who are fighting so bravely for us have some little token of good cheer from us, first to prove that they really do belong to the "Plum Pudding Empire." And so we say with Tiny Tim: "God bless you everyone."

How to Store Apples for Winter

By Pro Bono Publico.

IF you are interested in the prosaic subject of buying apples below par for winter consumption, gentle reader, and wear to digest the thoughtful hints radiated by this story which, ten to one, you imagine this story bulges with, you have grossly misinterpreted the subject.

This story is not based on recognized economics or on science dealing with the selection and storage of apples. It is an interesting story. It is a story of initiative, originality, and success on the part of two poverty-stricken college men, who, when everything was dark, girded up their loins and laid in a winter supply of apples; free of charge.

It was a dark, but not a stormy night. Considering that the night was one of dark deeds, it was a decidedly disappointing night. The moon was out, the air was plentiful and balmy, there was no creepy sighings of divers zephyrs through the trees. In fact it was just such a night as we often enjoy the first three weeks after College opens.

About eleven o'clock on this undramatic night, seven O.A.C. students pulled their caps down over their profiles and walked leisurely from the Residence towards the Physic's building. The onlooker, had he been there, would at once have concluded that the men were biology students, on their way to a lecture or probably in search of night-flowering catchflies or other insects of nocturnal habits. The fact that they carried two neatly rolled

This story, written by J. H. McCulloch, '16, won first prize in the Review competition this year—Editor's Note.

linen bags lent to this impression.

But they didn't stop at the Biology building. They separated here and reached the main road in pairs.

There a strange thing happened. One of the slippery septette moved forward alone, walking silently along the edge of the road past the poultry palace, and on into the murkiness ahead. (All rights on last phrase reserved) Prof. Graham's dog barked, and a leghorn chicken with insomnia cried out petulantly.

At such a point in a story the plot usually thickens, but this one didn't. Nothing happened. There was no thud; only silence, and six men silently move down the edge of the road, past the Poultry building;—and on into the murkiness ahead.

Climbing a seven-foot fence in the dark is a hazardous undertaking and requires considerable diplomacy. Such a fence surrounds the College Orchard, and the rustic beauty of this hallowed hunting-ground is further defaced by sufficient barbed wire along the fence top to have caused Ruskin to commit suicide. But we must again summon the observer. Had he been there, (as he never really is,) he would have seen seven men proceed through the orchard fence. One man to save time, nimbly climbed over, leaving substantial evidence of his daring on the top strand, evidence which only a blizzard will wipe out. The rest of the party squeezed through a hole below.

Reports differ as to what subse-

quently took place in the orchard, but whisperings and tiny thuds and cracklings and sounds like trees being rudely shaken disturbed the tranquility of the night air.

Somewhere in the darkness a cricket croaked, here and there a clammy locust could be seen, and a drunken Puslinch farmer staggered homewards;—disappearing into the murkiness ahead.

CHAPTER II

Occasionally students who apply themselves vigorously to study clarify their thought and engender sleep, by a brisk walk before bedtime. Two such men, weary of Gallileo's absurd theories, qualitative analysis, and cryptogamic ramifications, set out one night about 11 o'clock, in the direction of Puslinch. It was a dark, but not a stormy, night, balmy and elevating, and as the two men approached the poultry building, the music of the night overpowered them, and silently they stopped to drink it in.

It was a large night. Somewhere in the darkness a cricket croaked, clammy locusts were about them everywhere, and a Puslinch farmer, Sorinitively happy, staggered homewards, disappearing into the murkiness ahead.

Over in the College Orchard whispering and tiny thuds and cracklings and sounds like trees being rudely shaken mingled with the dull roar of shooting stars.

CHAPTER III

A psychological moment for the plot to congeal had arrived. Attracted by a strange impulse, the two men silently crept to the orchard fence. Moments on such occasions drag, and after some chronological draggings the seven men in the orchard returned to the fence, carrying two linen bags well filled with apples. Before the last man had squeezed himself through, the two men in the grass alongside the fence jumped to their feet, rushed towards the seven orchard visitors, shouting; "Close in men, we've got them." Whereupon the seven "stood not upon the order of their going, but went at once," dropping their apples, and vanishing into the murkiness ahead. Nothing remained for the two men to do but to confiscate the apples and walk home. The night resumed its quiet.

EPILOGUE

As Shakespeare said long ago, in his *Paradise Lost*, "Be good, sweet youth, and let who will be clever."

Assuming, gentle, reader, however, that you cannot remain good, relinquish this quality only for cleverness, for the one may atone in part for the absence of the other. I mention this because apple-swiping is an art, not a profession, and because the use of linen bags adorned with the room number and initial of the owner is "prima facie" evidence of inadequacy on the part of a midnight marauder with designs on pomology.



Plant Improvement Work at the Ontario Agricultural College

By Prof. C. A. Zavitz.

THERE is probably no college on American continent which has done more effectual work in the testing and in the improvement of varieties of farm crops than the one at Guelph. Upwards of two thousand named varieties have been very carefully tested for at least five years in succession. A number of the best varieties have been improved by selection of both plants and seeds, and many hybrids have been originated.

The Ontario Agricultural and Experimental Union has been the medium through which a few of the choice varieties have been distributed throughout Ontario for different experimental work. This system of co-operative work has become very extensive in its operations and far reaching in its results. Not only does the co-operative work prove a medium for the introduction and dissemination of some of the best varieties but it encourages the farmers to experiment along definite and progressive lines. It is impossible to estimate the educational influence of the co-operative experimental work. Through the work of the College and of the Experimental Union the following varieties have been introduced, and some of them are now grown very extensively throughout the Province; Siberian, O.A.C. No. 72 and O.A.C. No. 3. oats, Mandscheuri and O.A.C. No. 21 barley, Dawson's Golden Chaff and Imperial Amber winter wheat, rye, buckwheat, common emmer, Mammoth white winter rye, O.A.C. No. 61 spring rye, Early Britain and New Canadian Beauty peas, Pearce's Improved Tree beans, Early Yellow soy

beans, Hairy Vetches, Salzer's North Dakota flint corn, Golden Bantam sweet corn, Yellow Leviathan mangels, Early Amber sorghum, Empire State, Extra Early Eureka, and Davies' Warrior potatoes, and Ontario Variegated and Grimm alfalfas.

Some of the varieties started at the college have been of decided advantage to the agriculture of this Province and of other places outside of Ontario. This article will be confined to a comparatively few of the varieties here mentioned.

MANDSCHEURI BARLEY.

In the spring of 1889 the Ontario Agricultural College imported forty-eight varieties of barley from England, Scotland, France, Russia, Germany, Sweden, Italy, and Hungary. The Mandscheuri was one of the varieties imported from Russia at that time and was tested at the College with numerous other varieties in 1889 for the first time. It has now been grown in the plots at the College for twenty-seven years in succession.

The Mandscheuri barley has a stiff straw of medium length, a six-rowed bearded head, and grain of medium size, comparatively thin in the hull, fairly plump, and which usually weighs about fifty pounds per measured bushel. It has been a heavy yielder and a very popular variety throughout Ontario.

The great majority of prizes at the leading exhibitions and in the Field Crop Competitions of Ontario were awarded to the Mandscheuri variety of barley from the years 1900 to 1910.

During the past five years the prizes have gone largely to the O.A.C. No. 21 variety.

In average yield of grain in the experiments conducted at the College for the twenty-five years from 1890 to 1914, inclusive, the Mandscheuri, in comparison with the common six-rowed variety, gave the following results:

Mandscheuri—69.3 bushels per acre.

Common six-rowed—59.2 bushels per acre.

The Mandscheuri, therefore, surpassed the common six-rowed variety by an average of fully ten bushels per acre per annum for the whole period of twenty-five years. For eighteen years in succession the Mandscheuri barley was distributed to farmers throughout Ontario for co-operative experiments and previous to 1906, when the O.A.C. No. 21 barley was introduced, it was the largest yielder and decidedly the most popular variety of barley in Ontario.

The Mandscheuri barley displaced practically all other varieties in Ontario previous to the introduction of the O.A.C. No. 21 variety.

O.A.C. No. 21 BARLEY.

In the spring of 1903 selected grains of the Mandscheuri barley were planted by hand at equal distances apart in the Experimental Department of the College. These grains numbered between nine and ten thousand. This method gave an opportunity for each plant to show its individuality. When the plants were ripe they were carefully examined and thirty-three of the most desirable ones were selected, harvested, and threshed separately. In 1904 these lots were sown separately in rows and these rows were carefully examined and the most promising ones were harvested and threshed. From that

time forward only the best strains were grown in the test as follows: 14 in 1905, 8 in 1906, 7 in 1907, and 3 in each of the past eight years. During the first year the different strains were designated by separate numbers, and the one which has proved to be the best is now known as the O.A.C. No. 21.

The O.A.C. No. 21 barley possesses a good length of straw which is particularly strong in comparison with most other varieties. The heads possess six rows of grain and are bearded. The grain is white on the outside but is of a bluish color immediately under the hull. The crop has been comparatively free from rust. The weight of the grain per measured bushel has been somewhat over the standard and the yield per acre has been heavy.

In the Field Crop Competitions in Ontario in 1910 no fields of the O.A.C. No. 21 variety were yet entered, and all prizes went to the Mandscheuri barley. In 1914, however, there were in all two hundred and seventeen fields of barley entered in competition. Of this number one hundred and seventy-two were O.A.C. No. 21, twenty-eight were Mandscheuri, eleven were other varieties, and six were unnamed. In this competition 91 per cent. of the prizes went to the O.A.C. No. 21. Within the past two or three years in the grain competition held in connection with the Canadian National Exhibition, Toronto, the Provincial Winter Fair at Guelph, the Eastern Winter Fair at Ottawa and Brockville, and other leading exhibitions, the O.A.C. No. 21 variety of barley received a great majority of the prizes as against all other varieties.

In the experiments at the College in each of the past years the following yields in bushels of grain per acre have been obtained:

Varieties.	1911	1912	1913	1914
Mandscheuri	37.6	47.8	41.8	67.4
O.A.C. No. 21.	38.4	49.6	47.5	71.8

In the co-operative experiments throughout Ontario the O.A.C. No. 21 surpassed the Mandscheruri in yield of grain per acre in fully 75 per cent. of the tests, and was the most popular variety with the experimenters.

It is now estimated that about 96 per cent. of all the barley which is grown in Ontario belongs to the Mandscheuri or the O.A.C. No. 21 varieties. According to the report of the Bureau of Industries for Ontario the yield of barley per acre for the past sixteen years as compared with the sixteen years previous has had an increase of about 23 per cent. This increase in yield per acre throughout Ontario for the last period as compared with the first period of sixteen years would amount to about thirty-five million dollars, or sufficient to maintain the Ontario Agricultural College at its present cost of maintenance for approximately one hundred and ninety years.

SIBERIAN OATS

Over one hundred varieties of oats were tested for the first time at the College in 1889. These varieties were obtained from many sources. Amongst the number was the Siberian variety of oats secured from Russia, through an English seed firm. This variety has been grown at the College continuously for upwards of twenty-five years.

The Siberian variety of oats possesses a medium length of straw of fairly good strength, a spreading head with a bright silvery chaff, and a white grain which usually weighs about the standard weight of thirty-four pounds per

measured bushel. The grain is of very good quality, the hull being somewhat lighter than that of a number of the other varieties. The Siberian is a little later than medium in maturing.

In the experiments at the Ontario Agricultural College and throughout the Province the Siberian variety of oats has made a good record, and in recent years it has been the second most extensively grown variety in the Province according to reports from farmers.

O.A.C. No. 72 OATS.

About ten thousand grains of the Siberian oats were planted separately at equal distances apart in a large nursery plot in 1903. This gave the separate plants an opportunity for development under fairly uniform conditions. At the proper time the plants were carefully examined and those which presented the most desirable characteristics were harvested separately and carefully stored. The selected plants were afterwards given a more critical examination in the Plant Breeding Laboratory, and those possessing the largest amount of the best seed were retained for future work. In the spring of 1904 a certain number of the seeds from each of the plants were sown by hand in separate rows which furnished an opportunity for a study of the characteristics of the progeny of the individual plants. A critical study was made of these different strains and only the best were continued in the test. From the seed obtained in the rows, plots were sown and the crops were compared with other selections, hybrids, and varieties. As a result of this careful investigation it was found that what is called the O.A.C. No. 72 seemed to possess the greatest combination of the most desirable characters. This variety had made a most excellent record.

The O.A.C. No. 72 variety of oats produces a long vigorous straw which is stronger than that of many of the other varieties of oats. The head is spreading in its habit of growth and the chaff has a slightly pinkish color. The grain is white with a slightly pinkish cast, and usually weighs a little over the standard of thirty-four pounds per measured bushel. The grain is of better quality than most other varieties of oats, possessing only about 27 per cent. of hull. The yield of straw is good, and the yield of grain per acre has been exceptionally high.

In 1913 only one field of the O.A.C. No. 72 oats was entered in the Field Crop Competition in Ontario. This was in Simcoe County, and it took first prize in a competition with nine other fields. In 1914 no less than one thousand nine hundred and ten (1910) fields of oats were entered in competition in the various Agricultural Societies, of which there were at least ten entries in each Society. Of this number sixty-five fields were the O.A.C. No. 72 variety. It is interesting to note that fifty of these fields took prizes, twenty-two being firsts, and eleven being seconds. No variety of oats has made as fine a record as the O.A.C. No. 72 since the Field Crop Competitions were started in Ontario in 1907.

The O.A.C. No. 72 variety of oats has been tested in the experimental plots in each of the past eight years. The following gives the comparative yield in bushels of grain per acre of the O.A.C. No. 72, and of the Banner variety of oats in each of the past eight years:

In the average of the eight year period the O.A.C. No. 72 produced 2.2 and the Banner 1.9 tons of straw per acre, and the former had 27.5 per cent. and the latter 30.4 per cent. of hull in the grain. The two varieties mature at practically the same time. These results show that the O.A.C. No. 72 surpassed the Banner not only in quality of grain but by an average of practically nineteen bushels of grain per acre per annum for the eight year period. In the co-operative experiments throughout Ontario the O.A.C. No. 72 has surpassed in yield per acre each of the other varieties with which it has been tested throughout the Province.

The value of the oat crop per acre now amounts to about forty million dollars annually. It is difficult to estimate the influence which the O.A.C. No. 72 oats will probably exert on the value of the oat crop of the Province as it becomes more generally grown by the farmers of Ontario.

O.A.C. No. 3 OATS.

The O.A.C. No. 3 variety of oats originated from a single plant selected from the regular variety plot of the Daubeney oats in 1904. The writer at that time selected a number of plants which apparently combined the most desirable characteristics. These were carefully tested out and the oat now designated as O.A.C. No. 3 is the one which has made the highest record.

The O.A.C. No. 3 variety of oats is exceptionally early, being about ten days earlier than either the Banner or the O.A.C. No. 72 varieties. It pos-

Years.	Banner.	O.A.C. No. 72	Years.	Banner.	O.A.C. No. 72
1907	65.9	76.4	1911	30.4	44.0
1908	83.5	86.8	1912	73.4	114.1
1909	70.4	102.9	1913	74.4	105.7
1910	73.6	93.6	1914	88.0	88.5

sesses a medium length of straw which is of fair strength. The head is spreading, the grain is white, of medium length, and of fair weight per measured bushel. The percentage of hull is lighter than that of any one of fully three hundred named varieties of oats which have been secured from different sources and which have been carefully tested at the College. The yield, as an early oat, has been comparatively heavy.

It is not likely that the O.A.C. No. 3 variety will become prominent in the Field Crop Competitions or in the grain contests at the exhibitions. It is an oat of rare quality, but as the grains are somewhat slender it will probably not win in many grain competitions.

In the average results of experiments at the College for a period of eight years the O.A.C. No. 3 has given an average of 83 bushels per acre in comparison with 74.8 produced by the Daubeney which is one of the most prominent early maturing varieties. In percentage of hull the O.A.C. No. 3 is lower than that of three hundred varieties of oats which have been

obtained from different sources and which have been carefully tested in the experimental grounds at the College.

The O.A.C. No. 3 variety of oats is particularly suitable for mixing with the O.A.C. No. 21 variety of barley when it is desired to grow the two grains in combination. A mixture of one bushel of each by weight has given very satisfactory results. In the experiments conducted at the College it has been ascertained that suitable varieties of oats and barley combined in the right proportions will give a yield of fully two hundred pounds of grain per acre more than either one when grown separately.

Probably sufficient has been said to show that it is possible to greatly improve the crop production of a country by the introduction of superior varieties which will yield heavily and produce crops of high quality. But few people realize the great improvements which can be secured by sowing the very best of seed of the best varieties. It is still true that good seed is at the very foundation of successful agriculture.



First Prize Photo, Review Contest

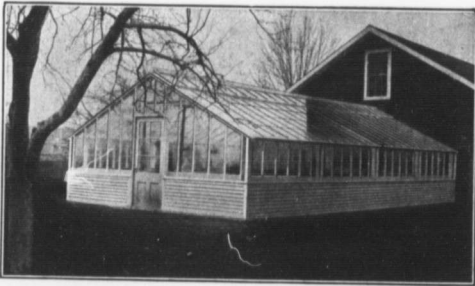
—By G. R. Wilson.

Winter Work for the Farmer.

TO the progressive young farmer of today has come the opportunity of engaging in one of the most interesting and paying lines of business—namely growing under glass. Many years ago men in the United States saw the importance of the greenhouse and today we see large ranges producing “out of season fruits and vegetables” and getting “out of season prices”. These men had first to educate the public to buy these out of season products, and their market was limited to the wealthy class to

this line of business in Canada have been more than repaid. It has been proved that a proper greenhouse will net the owner at least 15%, but probably more if sufficient intelligence is used in locating and running a greenhouse.

Now a farmer may say to himself why should this interest me? By having a greenhouse he can be producing, during the winter, crops that will bring in ready cash when the farm is dormant under its mantle of snow. It will encourage and improve the hired



whom price was no object. With the improvement of transportation these growers began to export their products to Canada and found a ready market. To such proportions did these importations grow that most people were able to enjoy, more or less frequently, the luxury of fresh vegetables and fruits out of season. As Canadians became more wealthy these luxuries became necessities, now we see the shops full of fresh lettuce, tomatoes, cucumbers, etc. during the winter. Why? Simply because the Canadian was slow to break into this field and grow for his own market. Those who were long sighted enough to engage in

help by giving employment the year round. Young men can go on a farm feeling that they can get employment for twelve months and not for the busy season only. To the farmer this will mean that he will always have help when needed. The work in winter is pleasant as the atmosphere is as near summer as it is possible to make it. In a greenhouse pleasant and profitable work can be carried on by both farmer and his hired help.

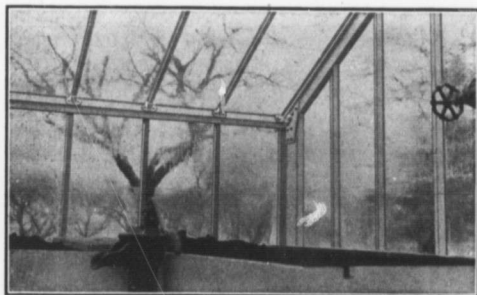
To many the cost of a greenhouse appears to be prohibitive, but in proportion to the returns this will be found not to be the case. Where failures have occurred they can generally be traced

to improper construction. Some think that a glass house is a simple thing to build and set about building one for themselves. The result is a house of low efficiency. There are Companies now in Canada who build nothing but greenhouses. They have had men make a study of the requirements for an efficient house, and have spent considerable money in finding out the best types of houses. They are experts in heating and ventilating. They are also capable of advising on the best location for a house, and any one contemplating taking up this work would be well repaid by consulting them.

heat as well as those with a good air space, besides the plants are not as liable to be drawn when they are kept well away from the glass.

The question of size depends very much upon what a man may want to grow, but in all commercial greenhouses there are two or more separate houses. This arrangement allows of a different temperature being maintained for different crops and makes the work of fumigation more easy.

To the man who is just starting, a little bit of advice may here be given which will save him many dollars in the future, that is if he has not already



The best greenhouses can be generally divided into two types, the flat rafter and the pipe frame. The flat rafter is more costly to build but is lower in up-keep and higher in efficiency and will last for many years if given ordinary care. The pipe frame house is less costly. The old style wooden structure is gradually being done away with and the more lasting metal frame buildings are being substituted. By the use of the metal frame less shadow is cast and the efficiency is thereby increased. The modern greenhouse is a bright, roomy, well ventilated structure, as it has been proved that the old style low houses do not keep the

bought his property. Get on a railroad so that coal and other supplies can be taken direct from the cars. If the coal bin can be built so that a siding can be run from the railway and the coal unloaded by gravity direct to the bins a big saving in labor is effected. Also the nearer one can locate to a large city the better so long as the cost of land is not too high. With modern transportation it would be better to locate say 20 miles from a large centre with land at a reasonable price than 5 miles and have to pay an excessive price for property. The water supply should also be ample.

Now that the winter is upon us and

the farmer has more time to think and lay his plans for the future, let him consider seriously whether he would rather be doing the chores about the stables and have nothing else to occupy his time or attention, or be working in a greenhouse and producing a paying crop. For at least five months out of the twelve he can make that greenhouse produce money and then can turn his attention to his fields again. Let every Canadian with an ounce of ambition in his make up get in line with his bro-

thers across the border and beat them out in the Canadian market which stands ready to absorb all he can produce. As Canada can produce wheat in competition with the rest of the world so can she produce other food products at profitable prices whether in season or out. "Made in Canada" has become the slogan of our factories, let the words "grown in Canada" shine forth from every box, barrel and shelf in our retail markets the year round.

War and the Poultry Industry.

By J. P. Hales.

SUCH a war as that now being waged, directly involving at least three Continents and indirectly every part of the civilized world, will undoubtedly leave its mark for generations to come. Whatever be the result great changes must follow, some of which cannot be anticipated. Our Vision is too limited, our imagination too circumscribed. We can but hope that out of the bloodshed, the chaos of devastation, there may emerge an accelerated progress for the human race. Unless this be true all these tremendous sacrifices will be in vain.

The future must be left largely to its own evolution. We are too near current events to appreciate their full meaning. But it is undeniable that so far as good production is concerned, the days to come will be greatly affected by the ways in which we set ourselves to prepare for them. Methods of production in many lines of endeavor will require radical changes.

To a large number of people interested in poultry husbandry the questions arising out of this war have been

vividly brought home. Poultry forms the class of live stock which can most rapidly be increased. Yet the period of reproduction is so short that this cannot be accomplished within a very short period of time. With the outbreak of war, poultry producers anticipated a severe rise in prices for feed. Their surmises proved to be correct but the plentiful crops of the past season have brought prices down to normal again. But the initial rise in price induced many producers to kill off large numbers of all kinds of poultry soon after the outbreak of war. The ground lost in this way has not yet been recovered.

A review of the past year or so shows that the effect upon poultry husbandry has been on the whole fairly good. The demand has increased enormously and the prices have advanced sufficiently to make the production of poultry profitable. One class of poultrymen, the exhibitors of show birds, have suffered. Large numbers of these exhibitors are now in active service or are engaged

in making supplies for the armies in the field; whilst others of them have simply given up their "hobby" for the time being. The market for exhibition birds has also been badly disorganized since the outbreak of war. The producer requires a dual purpose bird. So far endeavors to produce a combination of exhibition and utility qualities have been largely failures but many strains of good utility birds have been developed. This is a day of efficiency, and in all lines of endeavor, all must prove their worth or be lost in the daily grind of twentieth century progress. Many of our solely exhibition varieties have proven this inefficiency; the result being that they have fallen from popularity. Many failures have been made in the poultry business and failures will be made as long as the old world stands, but why the failures should be magnified and so little said of the successful men and women in the poultry business has always been a mystery to the man or woman interested in the advancement of the industry.

Efficiency in business includes all the details which goes to make up success. The early history of the poultry business stands as the exponent of lack of efficiency and consequent failure. Frequent failures led people to believe that success with poultry was impossible; the result of this being that the business partially lost its popularity. Experimental and investigation work along with successful business ventures are largely responsible for bringing the poultry business into popularity again.

Within comparatively recent times the tight, stuffy, heated house was the one most commonly used. But it was noted that the birds in this style of house were neither as healthy or as vigorous as those housed in cooler,

drier houses. The natural sequence of events being that the more satisfactory and cheaper type of house was adopted. The change to the present day type of house was comparatively slow. Heating systems were first discarded and simpler house construction followed. Today the open front house and the cotton and glass fronted houses are the ones most favored.

While there has been a remarkable change in house construction the changes in feeding have been no less marked. We find the early experimental feeding history replete with instances where standard cattle rations were fed to poultry and other methods of feeding almost as startling. Obviously a ration suitable for a cow is wholly unsuitable for a hen. From the failure of these "standard" rations we next come in contact with wet mash, the use of stimulants and very complicated formulas for feeding mixtures. Competition, high cost of labor and land have necessitated simplification of methods of feeding and also made cheapness a very desirable consideration. The wet mash proposition is largely falling into disfavor because it is expensive and sours rapidly and if not fed carefully may cause digestive troubles. Stimulants may secure a few more eggs than plain food materials but in most cases they are injurious to the bird's vigor; the natural consequence of this being that they are not extensively used for breeding birds. Complicated feeding formulas are popular in some localities but by the average man they are held in disrepute. Widely different rations fed to birds of identical breeding and housed and fed exactly in the same manner have been found to give fairly constant results. This would seem to indicate that the type of ration fed so long as it is palatable, is of less im-

portance than the individual bird. Thus the problem of feeding largely resolves itself into one of breeding. Recent work by at least two noted Colleges would seem to indicate that breeding is the mainspring upon which success or failure practically depends. History again repeats itself. Are not all noted strains of animals and poultry the result of careful breeding? No noted strain was ever produced by simply using a balanced ration. But on the other hand, one must not lose sight of the feeding side. However, it is easy to carry this to extreme and the result will be entirely unsatisfactory. In practice the grains grown on the average farm, supplemented with some form of meat food, green food and grit and shell, appear to give approximately the essential food constituents for egg production. For practically all cases of poultry feeding

the basic constituents remain the same while only their physical state is changed.

It is difficult to make accurate feeding trials with poultry but available data seems to bear out the conclusion that nutritive ratio cannot of itself be the feeding criterion; palatability obviously being one of the first essentials.

This article is not intended to convey the impression that nutritive ratio is to be lost sight of but it tries to make this point clear that for successful poultry feeding other factors have probably as great if not a greater bearing on the result obtained. Breeding work of the present time gives results indicating that the next phase of evolution in the poultry business will be in breeding rather than in feeding. If such a phase can be brought about the precariousness of the poultry industry will largely disappear.



Something To Be Thankful For.

Thar's sumthin' to be thankfull fur,
no matter how things go—

In summer time, fur fruit and flowers,
in winter time, fur snow.

Thar's sumthin' sort o' pleasant hap-
pens to us every day,

And life's a perfect picnic ef we look at
it that way.

Thar's always sumthin' purty fur our
weary eyes to see—

The glory o' the sunset or the blossoms
on the tree.

An' always sumthin' tuneful fur our
tired ears to hear—

The children's voices chirpin' or the
robin's music clear.

Thar's always sumthin' ready fur our
willin' hands to do—

Sum haltin' steps to help along, sum
job to carry through;

No chance to be a-kickin' when our
feet are busy goin',

No time fur idle growlin' when we're
plantin' seed and sowin'.

Thar's sumthin' to be thankful fur,
no matter how things go—

No end to all our blessins' ef we only
count 'em so.

An' even ef you're out o' sorts, or sick
or sad, or pore.

Jest thank the Lord you're livin' ef you
can't do nothin' more.

—Atlanta Constitution

The Ontario Provincial Plowing Match

By D. M. McLennan.

ONTARIO'S Provincial Plowing Match, held on November 5, was one of the most successful in the history of the organization over three hundred people being present. The success of the event was due to several factors. The match being held on the grounds of the Ontario Agricultural College gave many people the opportunity to visit the College and also see the match. The traction demonstration, which was the first of

the morning until late in the afternoon the work of the plowmen was watched with a great deal of interest. The greatest interest was taken in the first class. The contestants were men who showed by their work that they were experts, every one of them having had previous experience at matches of this kind. The boys' classes also came in for a large share of attention, and they deserved it for they did exceptionally good work.



The Plowing Match

its kind in Ontario, was held at the same time. The fine day and the good roads gave the increasingly large number of automobile-owning farmers with-in driving distance a rare opportunity to witness this very instructive event. Much of the credit for the success of this event, however, is due to the enterprising President, Mr. A. P. Pollard, Port Hope, and to the Secretary, Mr. J. Lockie Wilson, Toronto, who with the assistance of the directors kept things running smoothly.

From the time plowing started in

Altogether twenty - nine plowmen competed. York County was most largely represented. It is interesting to note that nearly every one of the York County representatives brought with them the long Scotch iron plows. This plow still holds its own in plowing matches but is not used to any extent in practical work. One of the iron plows used in the competition was imported from Scotland over sixty years ago. It is the same implement which Mr. Simpson Rennie used in the matches in which he competed

several years ago. In direct contrast to this were to be seen plows which were almost direct from the factory and with the paint still fresh and new.

There were several different kinds of furrows to be seen, narrow and wide and shallow and deep. The judges watched things closely all day and did not award the prizes without carefully examining every contestant's work. The prizes, which were on exhibition during the afternoon were valuable and handsome. The City of Guelph provided a banquet for the plowmen in the evening, at which interesting

- 1st—W. L. Clark, Ellesmere.
 2nd—Stewart-Baird, Woburn.
 3rd—P. Woods, Elmira.
 4th—Alex. Stewart, Guelph.

THIRD CLASS.

In Sod, Boys under 18 Years.

- 1st—Clifford Knuff, Minesing; only one entry.

FOURTH CLASS.

Jointer Plows in Sod, no wheels on shoe and share not less than 9 inches.

- 1st—H. E. Alton, R.R. No. 1, Rockwood.
 2nd—W. A. Gray, Rockwood.



The Plowing Match

speeches were delivered and the several trophies were presented to the winners.

Following is a list of the prize winners:—

FIRST CLASS.

In Sod, Open to All.

- 1st—Thos Shadlock, Agincourt.
 2nd—Thos. Swindle, Orillia.
 3rd—Wm. Orr, Maple.
 4th—Garfield Lee, Orillia.

SECOND CLASS.

Open to all who have never won a first prize in this class prior to 1915.

- 3rd—P. Wright, Galt.
 4th—Len Loree, O.A.C., Guelph.

FIFTH CLASS.

Jointer Plows, in Sod, Boys under 17.

- 1st—Wilfred Tolton, Guelph.
 2nd—Geo. Rogerson, Fergus.

SIXTH CLASS.

In Stubble, Boys under 16 Years.

- 1st—Wm. Eby, Berlin.
 2nd—Chester Lee, Orillia.
 3rd—Albert Habermehl, Hespeler.

SEVENTH CLASS.

Two Furrow Plows, 3 Horses.

- 1st—Leslie Vincent, Ayr.



First Prize in Sod Showing Land.

2nd—Norman Wallace, Galt.

3rd—E. A. Tolton, Guelph.

EIGHTH CLASS.

Best Team and Equipment.

1st—Thos. Shadlock, Agincourt.

2nd—Clifford Knuff, Minensing.

3rd—Geo. McPhee, Puslinch.

SWEEPSTAKES.

Sweepstakes for best plowed field and land—Thos. Shadlock, Agincourt.

Sweepstakes trophy for best work done by any plowman from York County—Thos. Shadlock, Agincourt.

Best Crown in First Class—Thos. Swindle, Orillia.

Best Crown in Sixth Class—Wm. Eby, Berlin.

THE TRACTOR DEMONSTRATOR.

Interest in the Plowing Match was not limited to the usual competitions. Many of the visitors were apparently more interested in seeing the large gasolene tractor draw a plow which would turn over ten furrows at one time. This large tractor, however, did better work with a six-bottom gang. The smaller tractors which drew either two or three bottom plows seemed to meet with more general approval as they were not so heavy as the large one and did not cost so much in the first instance and could be operated at smaller expense. They were still powerful enough to draw an



First Prize in Sod Showing Finish.

implement which would do a lot of work in a day and they would also drive a thresher or blower.

Ontario conditions may be such that the horse will be the most important source of power but there is a growing conviction that a light, economical tractor may sooner or later find a place. A machine which will be self-steering

while in the furrow, with levers handy to the driver and with sufficient power and speed to be able to handle a thresher or ensilage cutter will within a short time find a ready market. Judging by the progress which is being made in perfecting tractors it should not be long before such a machine can be purchased at a reasonable price.

War and Sociology

INTELLECTUAL

Unrest is one of the most characteristic features of our day. It is probably most marked in the realm of sociology and its subsidiary science, economics. The great variety of cures that are being advocated for the disease of war, and their apparent futility, is an illustration of the confusion of thought that prevails in this direction.

Socialists have held the church up to scorn because the disciples of the Prince of Peace, were not, so it was claimed, doing as much for the brotherhood of man as the propangandists of equality and material well-being. But the cold fact of war proved how illusory was their vaunted solidarity of labor. National patriotism completely triumphed over international class interest, yet socialism is still being advanced as the only force capable of abolishing war. The Norman Angell school of pacifists maintain that when people are thoroughly convinced that wars do not pay their abolition will take place automatically. True the thesis of Norman Angell's great book was not that the danger of war was an illusion but that its benefits, moral, biological and economic were. But his followers have laid special emphasis on the economic

This article is from the pen of J. R. Donaldson, now on active service with the Army Medical Corps.

factor and believed that if the prospect of immense loss of wealth would not prevent a big war at any rate the crumbling of the financial

fabric would soon force a cessation of hostilities. But that fabric, though wearing thin in spots, seems to be standing the strain of a prolonged conflict very well. The ubiquitous woman suffragist assures us that if women were allowed to assume their proper place in national life they would find means to prevent the awful waste of human material by the wholesale slaughter of men. Certainly they could not have made a much worse muddle of international affairs than their lords and masters. But we have the right to ask if they have flung all the influence they now possess against war and the makers of war. I fear that the great majority of women as well as the most of us, mere men assumed that because we did not want war that therefore we would never have to face it, and considered the matter settled. Free traders, too, are still maintaining that the awful international tragedy is a result of restricted trade. Like many other theorists that believe they hold the key of human progress, they greatly overrate the econ-

omic factor of men's inter-relations. Other types of propaganda that are being urged at present may be represented by the Union of Democratic control and, as the opposite rule, the "Citizenship of the World Movement." And in spite of all that is being said and written about the uses for war, the belief that this is the last big conflict is not as strong or widespread as it was a year ago.

The confusion of thought best exemplified by the general attitude towards war is by no means confined to that problem. We are suffering from an over sufficiency of theories and insufficiency of facts regarding

almost every sociological subject. We are told that we will have to prepare for the difficult period of reconstruction that will follow the war, by getting down to fundamental principles. But what are fundamental principles?

Where are we to find them?

We are in need of careful scientific investigation of the kind that Mr. Rowntree so ably pursues. Careful collection of data regarding industrial problems would greatly help in solving them, and would not a careful and more general study of man, from biological and historical viewpoints clarify our vision of present day difficulties?



Second Prize Photo in Review Contest.

—By A. C. McAdam.

Farm Beekeeping

By W. F. Geddes.

BEEKEEPING is practiced both in the cities and in the country.

That it is suitable for a city occupation has been widely debated, but there can be no question that the country offers suitable surroundings for the bees. There is, however, much to be said on whether the farmer should keep bees or not.

At the present time the greater number of bees in Ontario are kept by farmers. The apiaries vary in size from five to possibly fifty hives. With some, who understand something about the peculiar habits of the honey bee a fair revenue is obtained, but with many—the greater number of farmer beekeepers—the beekeeping industry and the farmer would be better off if this side-line were dropped.

The profits from beekeeping are obtained from the experience rather than the investment. The equipment and stock required are small and inexpensive compared with the other branches of farming.

Five hives, bees, supers, smoker, foundation, veil and hive tool will barely cost more than fifty dollars. Given average attention these five colonies would have increased to eight and given about 275 pounds of honey this past season. (The average yield of white honey for the Province this season was 55 pounds per colony). This gives a return in one season of practically the whole investment.

Lured by the immense returns many farmers invest small amounts in bees and oftentimes count their chickens before they are hatched.

As a side-line, when given proper attention, beekeeping will compare favorably with any other line of farm-

ing, but they must have proper attention. If neglected the profits soon turn to losses, the equipment deteriorates and the bees dwindle away, and finally either swarm out, are destroyed by the wax moths, succumb to disease, or do not survive the winter.

Such farmer beekeepers, who neglect the bees are not only keeping bees at a loss to themselves, but may also be a menace to their neighborhood. A neglected apiary may serve as a disease spreading centre for many years. The strong colonies from a neighboring apiary start robbing the weaker ones from the neglected apiary, but they do not stop robbing when their work of destruction is completed there, but, excited by the easily obtained stores they strive to overpower some of the colonies in the stronger yard and thus cause heavy losses to the home yard.

The neglected apiaries are frequently found in the neighborhood of a beekeeping specialist. His neighbors are anxious to secure some of the returns he is making from beekeeping, and they buy a few colonies and start in the business. At first they are very keen about their bees. They watch them carefully and often give them "mistaken kindness"; but the neighborhood is overstocked, the pasturage of nectar producing flora is not sufficient for the increased number of bees, and hence the honey crop per colony is small. Disappointed by their returns their enthusiasm is lost, the bees, once so kindly tended are neglected, and the list of undesirable beekeepers increased. Some farmers do not lose interest, but the pressure of other farm work limits the time given to the bees, and again the neglected apiary appears.

All such beekeepers are a menace to the honey producing industry. If bees are kept by a specialist—one with the necessary experience—more bees will be kept profitably within a given area than otherwise. The bees will pollinate the fruit blossoms and the clovers, resulting in a heavier setting of fruit and an increased yield of seed. Quieter bees are usually kept since the special-

ist pays attention to his stock. He selects his quieter queens and introduces blood of new industrious strains. Diseases are kept in check, and the specialist cannot afford to neglect his bees.

For many reasons the farmer should seriously consider everything before starting to keep bees and the losses he may cause if he neglects his bees.

Art in the Home

By Prof. D. H. Jones.

THE subject about which I have been asked to write a short article is a broad one. It has many branches stretching out in various directions. House planning, house decoration, pictures, sculpture, music, literature, all are involved in the subject to a greater or less extent; as a matter of fact to as great an extent as it is possible for the individual to apply them. The home is where our family life centers, where we are rested, nourished and fitted for performing our active duties in life. Art includes fitness, harmony, melody, beauty. This being the case we can readily see how desirable it is to have art pervading the atmosphere of the home; creating an environment such as it alone can produce, ministering to our well-being in the truest and best sense of the word.

Home usually centers immediately about and within a house. Sometimes, alas, it is a flat. It is not necessary for a house to be large or ornate to be artistic; to appeal to our sense of the beautiful. A log cabin can have a beauty and charm of its own quite as appealing to us as a ten thousand dollar house. In fact the odds are in favor of the humbler structure conforming more completely to the canons of art, rather than the more imposing

building as complexity in the latter may lead to confusion and discord in design.

Ruskin contends that ability to fulfill the functions for which a thing is produced is an essential of the truly beautiful. That being the case, a house that is to form a home should be an adequate shelter under all weather conditions, that is, it should be well built. As it is to be lived in, it should be sufficiently ventilated and lighted. Its interior appointments should be planned with convenience as a motto. These fundamental conditions being established we may pass to the decorative features. Whatever the scheme of decoration for the house as a whole, or for any room or section of the house as a separate unit may be, it is always requisite that harmony of color, of line, of mass, characterize the arrangement if we are to have the most attractive results. There are many schemes of color, many arrangements of line and of mass possible in the different styles and sizes of houses, a discussion of which is beyond the province of this article. There is scope for individuality of design in every house. Suffice it to say that whatever the scheme, harmony should be its fundamental characteristic.

With the house completed, attention is next drawn to the furnishings. Again we may state, that the cost is not necessarily the deciding factor in an artistic choice. Let us still remember one of Ruskin's fundamentals: that to be truly beautiful, a thing must fulfil the function for which it is intended. A kitchen may appeal to our sense of the beautiful quite as much as an elaborate drawing room. As a matter of fact, kitchen scenes have supplied our artists with more subjects for the brush than have drawing rooms. The furnishings in each section of the house should meet the needs of the particular section in which they are placed.

Of recent years great progress has been made in the design and manufacture of artistic house furnishings. And it is not by any means always the most expensive that is the most artistic.

Coming now to pictures. We cannot all afford original works of art—oil paintings, water colors, etc., even if they are produced by artists who are not in the front rank of their profession. But of late years the mechanical methods of picture reproduction, both in monochrome and color, have been so perfected, that most handsome copies of the masterpieces of art can be obtained practically for a mere song. There is no excuse, these days, for the poorest householder not having on the walls of his home some of the inspiring, soul-uplifting and peace-yielding pictorial creations of the world's great artists. Each artist's work has its own peculiar charm. The large conceptions of the old masters, Michael Angelo, Titian, Da Vinci, Raphael, and others, are perhaps somewhat out of place on the walls of the ordinary home, they having been planned for the interior of great public buildings or large private man-

sions. However, small reproductions of them for a few cents each can be obtained for keeping in portfolio that can be examined at leisure, giving us of their beauty and grandeur, revealing to us something of the soul of their creators and thus enriching our daily life.

The works of the modern masters, however, are well fitted for home decoration, as most of them were designed for such a purpose. Such are the landscapes of Corot with their soft and delicate coloring; those of Turner with their glory of sunrise and sunset, or brilliancy of noon-day sun; the simplicity and impressiveness of Millet's landscapes with their peasant figures in rhythmic motion of placid stillness; the joyous hurly-burly of Constable's cloud-swept fields, the pathos of Farquharson's highland-sheep-in-the-mountain pictures. Copies of the works of these artists and scores of others whose works have endeared them to lovers of the beautiful, such as Leader, Johnson, Landseer, Breton, Mauve, Israels and others may be had, suitable for wall decorations from twenty-five cents to a dollar or so each. Then, in addition to having worthy pictures on the walls brightening them and giving them a soul, as it were, pictorial art may increase its charm in the home through art books. Lives of artists with reproductions of their works and various histories of art, are all to be had at a price that is well within the reach of all. To read the lives of the masters helps us to understand their aims and to appreciate their works, and brings us in touch and close sympathy with them. Some of the beauty of their ideals thus finds entrance into our lives. Under their guidance we are able to see a beauty in the common aspects of nature to which we previously

had been blind. This is the mission of art in the home—to make us alive and responsive to the beauties of nature, to instruct us in searching for them and aid us in finding them.

A Letter from South Africa.

Clouave, Park Town,
Johannesburg,
13th June, 1915.
Dear Dr:—

As we are back from German West I thought I would let you know that we are all good for another kick and in the case of McLaren almost indecently fat. Mac seems to thrive the more he is deprived of his grub, because he certainly didn't lose any weight during our period of starvation during the campaign about which I will give you a few facts so, that you can save any one who may want to come to one of the most God-forsaken, God-forgotten countries on the face of the globe.

To give you a few facts in which you may be interested. We left Luedritzbuch on the 26th March and began to move inland across the "Wonder doons." They are sand doons, the smallest of which is about 80 to 100 feet high and about 100 yards to 200 yards long, up to about 1,500 feet high and a few miles long. They move in a night and appear in a different place quite without regard to any system or anything in order. A curious thing is that in a wind they do not all move but sometimes one will make a stand as it were and remain during quite a high wind, whereas a breeze will move it the next day.

To continue, these "Wonder Doons" are all along the coast in a belt about 50 miles broad, and we began our

The following letter was received by Dr. Creelman from A. C. Fitzpatrick, a South African student, who was called home last Autumn. He has again enlisted for active service in Europe.

march by getting through these in 29 hours (54 miles), which is good going, because we had to carry horse food besides full marching order, and your poor animal sank to the fetlock at every stride. After that we did the next 80 miles more or less leisurely because they had a certain amount of water for us along the line.

We halted at a place called "Ischaukaib," which means "the eye of the wind," and candidly speaking I have never seen such dust, and as I am safely out of the country, please God, I'll never see it again. When it came on to blow you had to turn your shirt sleeves down because the small stones hurt so. As for your face, you covered that with your helmet and waited for a lull to advance a bit, or else you guessed your way and went on, but you never took the helmet away—at any rate not a second time.

After a couple of days of that we advanced to a place Garub, which means "the beginning of the wind" (all Hottentot), and this was an immense improvement, especially as we didn't strike any bad days. After another two days we advanced on Aus, the finest natural stronghold in the country, through which it took the Germans four years to get during the Herero Rebellion, but owing to pressure from the southeast border being exerted by a column which had

crossed the strip of desert there, about 80 miles wide, by living on the water in hollow rocks which a recent rain had filled (the first for seven years), the Germans had to retire and evacuate the place but they left it mined, but the only thing we lost was four mules which went up, with the nigger driver coming a close second. I think they picked up a foot or so afterwards.

McLaren and I were out scouting and so we were the first to go through that nek, but more by luck than design we didn't strike any of them.

About ten days after that we found ourselves at Kuibis, about 150 miles inland, and we had to stay and fix up all the water sources because the Germans had added to the taste of the waters in the wells by putting in them the articles following, all of which I either saw or tasted, and in several cases was one of the unfortunates who had to go down the well and clear the mess.

FOUND IN WELLS AT AUS.

Dead donkeys and goats.

Goat skins.

Carbolic and sheep dip.

At Hubub two bags of human excreta and all along the line it was the same thing; anything to hand calculated to make the water undrinkable was thrown down the wells. All tanks bore holes and reservoirs were blown up and damaged. Up as far as Gibeon right along the line and also at Bethany, which is situated off the line about 40 miles due north of Brakwasser or Kuibis.

When we had been living like fighting cocks for some days we started at one o'clock on a Saturday morning, and unknown to us, we had started on the big night march, 12 consecutive

days. Barring one stop at Bethany (Bethanien) for 48 hours, and one stop at Bersheba for 24 hours, we marched for 12 days, and the longest halt was 4 hours in all that time. We marched every night with only as little sleep and rest as would land the men and horses alive at our destination, some 230 miles off. We did it, but I cannot give you any correct information on a large part after we had been going for 5 or 6 days.

When the word came to halt men almost fell off their horses and slept where and just as they landed.

Horses would gnaw at the sticks you collected for firewood.

My own horse could manage a stick about half an inch through and a foot long in about 6 or 7 minutes.

We would just go on until we came on either water or grazing, and often we had to stop without either.

But after twelve days we caught the Germans at Gibeon on the 27th April, and killed about 110 and captured about 400, thus getting about five-eighths of their force against us that day. We had 88 casualties and a good time—the only day I enjoyed since we left Kuibis.

We could go no further for some time as horses and men were alike done to the world. We had had half rations for the first two days of the trek, and half rations the next two, and so on in an ever decreasing ratio, until we eventually ended up by living on fresh meat and water, no salt. We were only reduced to this for five days but it was quite long enough. If I hear a sheep bleat now it makes me feel quite sick.

During a period of thirty-five days, i.e., from Kuibis to the line we started back from Gibeon home, we had twenty-four biscuits with less than one-twentieth of our other rations by

weight, i.e., sugar, coffee, rice, meal, etc., whereas we are nominally entitled to 8 biscuits a day.

When we left Gibeon our horses were all finished, so we started to go to railhead by ox waggon. On the day we left I weighed 178, pounds and when we arrived at the Cape sixteen and a half days later (coming back by rail and boat), I had arrived at my *status-quo-ante*—200 pounds, which

shows that we must have been pulled down quite a bit.

Hoping that these few lines will give you some idea of our doings during the campaign which was more a campaign against nature than the Germans and I am thankful that the Germans, are not as hard to overcome in German West as Dame Nature, or else we would still be scrapping.



Practical Drainage Demonstrations and Their Results

Prof. W. H. Day.

IN 1905 the Department of Physics announced its plan of making tile drainage surveys for farmers.

Up to the end of 1911 the total area surveyed for this purpose was 44,000 acres. The number of surveys included in this area is 1,075, and some had been made in every county in the Province. At the completion of every survey in a new locality a public meeting was held on the site of the survey at which drainage in all its aspects was discussed, special emphasis being laid on the increased yields caused by drainage. Yet in spite of this extensive campaign there were large portions of the Province where, for one reason or another, drainage had not been introduced. Notable among these was the County of Haldimand, in the heavy clay portions of which the people averred that drains would not work, because the water would not soak through the soil—although they admitted that it did soak through the soil into their cellars. As the survey campaign was not taking effect in these localities it was decided the only way to reach them was by practical drainage demonstrations. For this purpose, as well as for draining some portions of the College farm, the College ditcher was purchased in July, 1912.

During that autumn, after draining the new experimental plots and the "Puslinch Field," the first of our practical demonstrations was conducted on the farm of Neil McDougald, Tara, Bruce County. During the summer of 1913 several other demonstra-

tion plots were installed, also during 1914 and 1915, so that we now have all told twenty-four plots.

The plan followed with these plots is as follows: We select a field lying along a main travelled road, sloping toward it if possible so as to lend itself favorably to observation and then we drain half of it, leaving the other half undrained for comparison. The drained portion is divided into four equal parts. One of these is drained four rods apart and three feet deep, a second the same width but only two feet deep instead of three. In the other two parts the drains are placed only two rods apart, and the depth of one is three feet and on the other two. So that in reality we have five experiments.

1st—Drained vs. undrained.

2nd—Drained four rods apart and 3 feet deep.

3rd—Drained 4 rods apart and 2 feet deep.

4th—Drained 2 rods apart and 3 feet deep.

5th—Drained 2 rods apart and 2 feet deep.

During the summer the plots are observed at intervals of from two to four weeks, and the drained and undrained parts are harvested and threshed separately.

A number of practical difficulties have presented themselves. It is almost impossible to get a field with uniform conditions existing on the two halves of it. If we drain the higher side of the field we leave it open to the critic and skeptic to say: "O yes,

you drained the high side, which didn't need it much, and which gave the better crop before drainage." Besides if we drain the high side the main must, in nearly all cases, pass through the low portion thus partly draining the so-called undrained land. Again if we drain the low side then the drains must do double work, for the surface water from the higher undrained part runs down on the low land and soaks into the tile. If in spite of this double duty the drains produce large results, then the critic says: "O yes, you drained the low land which is better soil anyway than the high land." This last remark is probably true in most cases, but the objector overlooks the fact that before drainage the low land failed to give results even though its soil was better. He also overlooks the fact that the tile have produced results in spite of having to carry the surface water from the higher land. Our general practice is to drain the

portion of the field that needs it most, consequently the difference in yield is not quite so great as if we could compare the wettest land after drainage with the same land before drainage. But these diminished differences are quite satisfactory to us.

During 1914 we obtained our first reports from crops grown on our demonstration plots. Prior to 1914 we had installed eight of these plots, and we have reports from all of them for the season of 1914. Before giving the results it may be well to state that the precipitation for the crop of 1914, that is beginning with September 1913 and ending with August, 1914, is the smallest precipitation on record for any similar period, yet in spite of this the drained portion of our plots gave an average return of \$14.12 per acre more than the undrained portion. We have often claimed that drainage was almost as beneficial in a dry season as in a wet one—these figures are a

TABLE SHOWING COMPARISON OF YIELDS ON DRAINED AND UNDRAINED LAND IN SAME FIELDS DURING 1914.

Name.	Address.	Kind of Soil.	Crop.	Difference in dates of seeding	Yield Bus.		Gain by draining.		Value of increase in grain and straw.
					Un-drained.	Drain-ed.	Bus. of Grain.	Tons Straw.	
Neil McDougald.....	Tara.....	Clay Loam	Fall Wheat		11¼	29¾	18½	.785	\$24.05
Albert Snell.....	Hagersville	Heavy Clay	Barley..	0	27½	38	10½	.264	8.19
Harry Hunter.....	Napanee.....	Clay.....	Oats.....	11	12¾	28¾	16	.500	12.92
Beecher Matchett.....	Peterboro.....	Loam.....	Oats.....	7	31½	67¼	35¾	.750	26.66
Walter Carson.....	Dundalk.....	Loam.....	Oats.....	11	30.6	40.6	10	.333	8.20
A. N. Lapum.....	Centreville	Muck.....	Oats.....	Never sowed	before.		28	1.20	24.56
Sandy Matchett.....	Peterboro.....	Heavy Clay	Mixed Grain	7	923 lbs.	1,433 lbs.	510 lbs.	.333	8.37
Stephen Culver.....	Rainham Centre	No appreciable	difference in crop.						

Average increase due to drainage, including Stephen Culver's plot..... \$14.12

very striking demonstration of the correctness of that claim.

The prices of the different grains and straw were taken from the market reports on the day the table was made up last autumn, and are as follows: Oats, 62 cents per bus.; barley, 63 cents per bus.; wheat, \$1.05 per bus.; straw, \$6.00 per ton. In order to give a detailed idea of the results of these plots the following table is inserted.

This practical demonstration work is already producing a marked effect. In Haldimand, which was the county that more than all others impressed upon me the necessity of this work, tile are beginning to be laid in considerable quantities. At Cayuga two car-loads of tile were laid last fall by the farmers themselves, which is more than have been laid in that neighborhood for many years, or possibly more than ever laid there before. Mr. Albert Snell, of Hagersville, who, like many others in Haldimand, doubted whether the Haldimand clay could be drained, informed us at the Toronto Exhibition that he intends to drain the other half of his field as soon as his three years' agreement with us is completed.

Mr. Stephen Culver's plot, it will be noted, gave no appreciable increase in 1914. This plot is quite rolling. However, I fully expect results there later on.

Mr. A. N. Lapum's plot at Centreville was a complete reclamation, but owing to late frost it yielded only 28 bus. per acre. It never grew a crop before.

There is another point worthy of mention in relation to the yields in Ontario during 1914. Although the season was the driest on record yet in consulting the crop reports issued by the Bureau of Statistics, Toronto,

I find that of seventeen crops reported the yield was above the average in twelve cases out of seventeen. The only crops giving yields below the average in 1914 were fall wheat, peas, beans, carrots and hay (including clover and alfalfa). This unusual result is accounted for by the fact that the soil was in remarkably good condition for cultivation in the spring of 1914, and, consequently, did in a general way what drainage did, namely, conserve the moisture better than would have been the case if the soil had been in poor condition.

The season of 1915 shows smaller results from drainage than any year since this Department began its drainage campaign. With the excessive summer rains fresh in memory this may seem strange, but with a little reflection it is not so. The spring through seeding time was a dry one so that even the undrained land was sown in pretty good condition. And through the growing period rains were moderate so that conditions were favorable for good growth on both undrained and drained land. It was only at the beginning of harvest that rain became excessive. However, notwithstanding these facts there have been important differences in yield on many of our drainage plots, but for several the threshing is not yet done, and consequently, reports are delayed, so we cannot yet give any summary of results for the year 1915. However, the following particular cases may be mentioned:

Five reports which will show a difference in favor of the drained land are still to come. In three cases the reports show no difference, in two cases still to come the results are doubtful, and might show a small difference either way. So that although we are not able to give a definite summary

Name.	Address.	Crop.	Undrained. Bus.	Drained. Bus.	Difference Bus.
Mathew Barr.....	Beachburg.....	S. Wheat...	21.4	23.8	2.4
H. Hunter.....	Napanee.....	Oats.....	78.5	87.1	8.6
Thos. Kerr.....	Harrowsmith.....	Oats.....	65.4	76.1	10.7
S. W. Lloyd.....	Belleville.....	Corn.....	11.83 tons.	15.28 tons.	3.45 tons.
N. McDougald.....	Tara.....	Oats.....	47.4	64.7	17.3
A. A. McLennan.....	Lancaster.....	Barley.....	31.0	40.2	9.2
A. Snell.....	Hagersville.....	F. Wheat...	30.0	33.0	3.0

we are able to conclude that on the whole the yield on our drained plots will be substantially greater than on the undrained. Besides the increase in grain there is an increase in straw. Some experimenters in calculating the profit from drainage do not count the increase in straw, allowing it to offset the increase in labor due to harvesting the larger crop. This method leaves out one factor, viz., that the drained land usually requires less labor to cultivate, and we prefer to offset this against the difference in labor at harvest time, consequently, we always include the increase in straw with the increase in grain, the two together making the total increase in yield.

During 1915 the value of drainage in many cases was demonstrated in an unusual way. In many parts of the Province the ground was so wet it was impossible to cut the grain on

some fields with the binder. On many farms the mower had to be called into use, and occasionally the old-fashioned scythe. This was the case on the undrained portion of at least one of our plots. There was no trouble this way with the drained portion. The binder worked well in all cases.

Regarding different depths and widths of drainage we have not as yet observed any pronounced differences.

Besides the difference in yield on these plots, we have this year begun a study of the soil properties as affected by drainage, e.g., moisture content, porosity, temperature, texture, height of water table, etc., but so far we have been chiefly concerned with the problem of devising suitable methods of, and apparatus for, taking samples and making determinations. In a year or two we should have some valuable results as to soil properties.



THE O. A. C. REVIEW

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C. C. DUNCAN, Horticulture.

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H. H. SELWYN, Alumni.

C. M. NIXON, College Life

C. F. LUCKHAM, Athletics.

D. A. McARTHUR, Artist.

J. H. SULLIVAN, Locals.

MARGARET SAXTON, Macdonald.

Editorial

The spirit of Christmas is again abroad. There is something in the celebration of the Christmas festival which calls forth a fellowship, and good will among men more than any other time-honored day of the round year. The home fireside has a special attraction for the wanderer which brings him back to the dear old hearth again. It is a time for thankfulness for a year's blessing for retrospection, for greater beginnings, for hearty greetings and expression of sympathy and affection. What but the spirit of Christmas can tune the heart strings to such a pitch! The home where the family circle is unbroken strengthens the bonds of unity between its members at yuletide. But what of the broken family circle?—and there are many such in our land. War has exacted its toll and the end is not yet. Christmas will dawn on many a broken heart many an anxious, watchful mother, on many a stout heart trying bravely to cheer the aging parent in the absence of the soldier son. But even the conflict-shaken universe cannot obliterate all the joy of Christmas.

"Peace on earth! Good will to men!" Peace! May it come ere another Christmas when all the wrongs have been righted or atoned for. Good will! Yes! Good will and determination to help our cause to triumph in the home, on the sea, in the trenches. This stranger all, "God bless us everyone."

With this issue ye Editor vacates his chair. The Review has, we believe, been attended with success during the past year to great measure due, not to any single member of the staff but to harmonious effort on the part of all.

The Editor has found his work this year a real pleasure and a broad experience has been gained. Of course it needs no enlarging to anyone who knows the Review that the work of the editor is now too heavy for an undergraduate if done thoroughly and effectively. It is no light task to undertake the responsibility for the appearance of the right kind of college journal during each month of the College Year. The novelty wears off the situation

about the second issue and after that the editor must possess himself of seven virtues and settle to hard thankless work. He starts in enthusiastic on his opportunities through the editorial column only to find that few read these columns after all, adverse criticism is good for anyone but we are all human in that we like favorable comment on our work if it be deserving of such.

The Review is the foundation of much that goes to improve college life and we look forward to a time when

the new student building will bring the Review into its heritage—a proper office with a printing press, printers' devils, et al.

As we step out of the editorial office, we thank each one who has during the year helped to make the Review a success. Our successor, Mr. J. C. Neale is worthy of the same generous treatment and kindly consideration that we have received. To the staff, to the Review and its readers, all prosperity and success.



The Soldier

If I should die, think only this of me
 That there's some corner of a foreign field
 That is forever England. There shall be
 In that rich earth a richer dust concealed;
 A bust whom England bore, shaped, made aware,
 Gave, once, her flowers to love, her ways to roam,
 A body of England's breathing English air,
 Washed by the rivers, blest by suns of home.
 And think, this heart, all evil shed away,
 A pulse in the eternal mind no less,
 Gives somewhere back the thoughts by England given;
 Her sights, and sounds; dreams happy as her day;
 And laughter, learnt of friends; and gentleness,
 In hearts at peace, under an English heaven.

Athletics.

Rugby, 1915

By E. M. James

College tradition is the burying ground of College memories. Like every cemetery it contains the great and the commonplace. For the great there are monuments which keep them continually before us; for the others there are markers according to their deeds and importance. It is one of the sad features of life, that there must be the unimportant and the unsuccessful, who go unattended and unmarked to their graves. What a blessing it is that time, with a barrier of forgetfulness, soon hides these misfortunes from our sight! And it is with this last pleasant thought in mind, that we come to a memory called "Rugby 1915". This article is an obituary, for we are interring the past rugby season in the O.A.C. tradition, where its unpleasanties and mistakes will soon be forgotten.

College opened in September with only three of last year's team present and a fairly good turn out of green material, which was anything but a rosy outlook. The men were worked hard and handed out football in large quantities, which by the way, was one of the bad features of the football season. Not enough time was available to drill the men thoroughly in the rudiments of the game. Our time was short, and so we were forced to work at once toward a team unit, and then, later to try to find time for individual instruction. As a result personal attention was forced into the background.

Our first game was an exhibition with the Guelph Collegiate Institute, which we won easily by the score of

16 to 11. This was hardly a test of our ability, because we outweighed the Collegiate boys considerably. It served to show us however, that we were going to have many a worry over our rugby team ere the season closed.

Next came Balmy Beach of Toronto. They were scarcely good practice because we sort of had to "choose up sides," for they brought only six men with them. The O.A.C. majority won this tilt with a good sized margin.

So, without having played a real game, we went to Hamilton to start our championship play in the O.R.F.U. intermediate series, with the Rowing Club seconds of that city. This game was officiated in a very lax way, and naturally rough play ensued. Good football under the above conditions is almost impossible. It seemed to be a case of who could "put the most over," on the officials. Their ability along the above mentioned line, together with the loose play on the part of our outside wings and back division, gave Hamilton the game, 17-9.

The following week found our team in the best form, both in football ability and physically, that it had been all season. A few changes had been made after the Hamilton disaster, and we gave the Senior Med. of Toronto Varsity a rather rough handling, beating them by a large score. It was a pleasure to watch the team in this game for every man played football.

It is a rule that has often been proved, that a man cannot dance the night before a rugby game and expect to do himself justice in the game. still it seems that this same rule will have to be proved each year at the O.A.C., as long as the Hallowe'en Dance con-

tinues to be held on Friday nights. At any rate the team that took the field against Hamilton for the second game, was one with lots of football ability and little ambition. It seems too bad, indeed, to lose a district championship in rugby, because one night's society, with those who at the same time tend to inspire, could not be given up. Our play that day was inconsistent, and we were only able to tie Hamilton who had strengthened her team considerably since our previous game. This tie put us out of Championship competition, and except for two exhibition games with London, ended the season for the senior team.

On the same day that Hamilton was taking championship aspirations away from us here in Guelph, our juniors were being beaten in Woodstock for the district championship of Junior O.R.F.U. Our team went to Woodstock with a slight lead in points; but, owing to injuries some of the best players were unable to make the trip. This together with errors in judgment, enabled Woodstock to easily overcome our lead.

Mistakes and misfortunes are often good for us if we profit by their experiences. So we find that there are conditions, which can either be bettered or eliminated in the years to come, and it is only fair to those who follow us that these should be mentioned.

In the first place, the O.R.F.U. is not the place for a college team. There seems to have been no idea of fair play in our O.R.F.U. opponents this year. When fair play is taken out of any game it ceases to be a contest of skill and ability, and tends to develop the baser side of man. Next year we are hopeful that opportunity for cleaner competition will present itself.

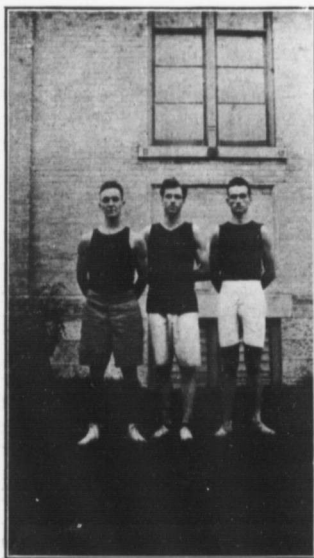
The other bad phase of the season

was the lack of a proper desire to win—a fighting spirit. The men were hard workers in practice and quick to learn, a fine bunch of fellows capably captained, yet when they were playing a game the majority were inclined to let some one else do his share. This no doubt was due to inability on the part of the coach to inspire them and make them fight, but it may have been due to other causes. At any rate it offers a problem for the future. Let me suggest, that, together with inability, the general lack of interest taken in the team by the student body had not a little to do with this absence of fight. One remedy lies in the organized rooting, this will develop a college spirit that will make tradition for O.A.C. There is good tradition for the first year men to live up to. A man is looked at scornfully if he disregards it. There ought to be a tradition that would disgrace a team that did not care enough about winning for O.A.C. to train conscientiously, and that did not let the fact that O.A.C. must win dominate them. To be fairly beaten, after one has done his best, is uplifting; but to be beaten, because one has not tried, is contemptible.

College spirit must be more highly developed—be proud that you are an O.A.C. man and help to make the O.A.C. more worthy of your pride! When every man does his part toward that end, then O.A.C. will begin to have real tradition. Then there will be fine accomplishments that mark themselves. There will be no need of out of the way places in our churchyard of memories. There will be no humble markings, and resting place of "Rugby 1915" will become covered with the moss of forgetfulness, and the earth worms of regret will have ceased to worry its lonely occupant.

CROSS COUNTRY RUN

The annual cross country run at the college was held Nov. 3rd and was wholly a first and second year competition. Only five men started the course—Raymond, Peters, Cook and Steckle of the first year and Lambert of '18. Cook and Steckle dropped out at the end of the first lap. When they crossed the line for the finish Raymond led by about five yards and apparently was good for more of it as he finished strong. He made the hike in 32:37 the record being 31:16. Peters crossed the line 2nd and Lambert 3rd.



WINNERS OF THE CROSS COUNTRY RUN

Left to Right, Raymond, Peters, Lambert.

FOOTBALL

Sophomores vs, Freshmen.

Judging from the clean inter-year game of Rugby put up by the Sophs and Freshies, Saturday, Nov. 6th, all ill-feelings which ever existed have already faded away and the under-years are on the best of terms. The game showed that real clean rugby can be made interesting.

At the first the Freshies were a little timid and by a couple of fumbles practically gave the Sophs two touches. The Freshies kicked for most of their points but a fumble by the Sophs gave them an additional five points in the last quarter. Cook and Cassels played the game for the Freshmen, while McEwan, Sullivan and Michael shone for the Sophomores.

Final score 16-12 in favor of the Sophomores.

O.A.C. vs. WESTERN UNIVERSITY

The College rugbyists journeyed to London, Saturday, Nov. 13th, to play an exhibition game with the Western University team and went down to defeat by a score of 18-11. The back division put up a poor game, probably the poorest work they have done this fall was that of Saturday: at any rate they didn't make any gilt-edged plays.

White and Cook fumbled regularly and McEwen has been known to play better rugby. But even at that the locals line was working so well [that at times it looked as if the boys would win out. On such occasions, however, Smith, of the Londoners, introduced his usual neat plays and time after time prevented O.A.C. from scoring. W. Elgie and Ritchie also played well

for Western, while "Husky" Evans, Michael and Carncross played the game for the College.

The first quarter closed by a score of 7-3 in favor of the Londoners. During the second quarter both teams scored touchdowns. Score at end of half time, 12-10. The third quarter was featured by a touchdown obtained by Western and in the last quarter each side kicked for a point leaving final score 18-11.

How they met

O.A.C.	POSITION	WESTERN U.
White.....	Halves.....	Smith
Cook.....	Halves.....	Kingswood
McEwen.....	Halves.....	Ritchie
Musgrave.....	F. Wing.....	Ireland
Carncross.....	Quarter Capt.....	Lee
Weld.....	Outsides.....	G. Elgie
Cassels.....	Outsides.....	Pardy
Evans.....	Middles.....	Miller
Surgenor.....	Middles.....	McClarty
Clare.....	Insides.....	Brickenden
Michael.....	Inside.....	W. Elgie
Springstead.....	Scrim.....	Kiser
Steckle.....	Scrim.....	Salmon
Begg.....	Scrim.....	Laughlin

INDOOR

Inter-Year Baseball

Up to date of writing only two of the fall inter-year practice games have been played. The first one was run off November 10th, and was between the first and third years, resulting in a 14-4 victory for the juniors. Two or three good men came to light in the freshman team and with practice during the fall, the first year will hustle the other years for the laurels of the winter series.

The Freshmen started and stopped their scoring in the second inning making the four runs while the third

year only had two to their credit; but the Juniors shut them out for the rest of the game as far as scoring was concerned. Atkins and Higgins looked good in the Freshmen team while Cudmore, Bisset and Gyle showed up for the third year.

2nd Year vs. 4th Year

The second game was played Nov. 12th, between the Sophomores and Seniors in which the "Sophs" made a 16-12 victory; so it now remains for second and third years to battle it out.

Of course these games are only practice and hence many experiments were introduced in the line of pitchers, each side trying out two or three different men in the box during the game. It gradually dwindled down to a pitcher's battle between Rowland for the Seniors and "Bud" Fisher hurling for the "Sophs". The second year had an advantage in catchers as Michael shows just as good form this year in that capacity as he did last season.

BASKET BALL

The inter-year Basket Ball games were commenced Nov. 9th at 4.30, when the Freshmen and Sophomores fought it out. The "Sophs" showed their superiority by taking a 21-16 victory. The second year has some good men for this sport and two of their best were not playing. Of course, as this was the first game, the Freshmen will likely take more interest in the game from now on and put up a real snappy team for the series this winter.

"Curly" Brown played a great game for the second year and Lambert also showed up well. Raymond and Zeigler look good among the Freshmen. Penalties were prominent features of the game.

SOCCER

First Year vs. Upper Years

A fast clean game of soccer was played on the College Campus on Saturday, Nov. 13th, between the first year and a picked team from

the upper years. Play was fast and close and not until the last few minutes did the senior team succeed in notching a goal. The first year boys are to be congratulated on their plucky and skilful exhibition of soccer as it should be played.



Rugby

Chill blue the sky; bright sun beyond the blue;
 White frost-rime glimm'ring 'neath the crimson'd trees;
 The crouching line awaits the quarter's cue;
 The taut nerves tingle to the biting breeze.
 Wild thud of struggling feet upon the turf;
 Tense stubborn swaying of that sinewy shield;
 The swirling shiver, as of shatt'ring surf,
 And then—the spiral sweeping down the field!
 ♣ mimic game of war!—whose stress and strain
 Builds sturdy self-reliance, void of fear,
 Builds stalwart men of muscle, brawn and brain—
 Where are thy "muddied oafs" of yester-year?—
 On fruitful farm, or far across the sea,
 They hold the line,—the line of liberty!

Cruschan.



Alumni

Lance-Corporal C. B. Nourse has returned to the college to recuperate from severe wounds sustained on the firing line and is the guest of Dr. and Mrs. Creelman.

On October 17th they reached Plymouth and went into camp on Salisbury plains where they were kept in training for three weeks. From Southampton the regiment embarked for Havre and



LANCE-CORPORAL C. B. NORRE

Who won the Distinguished Conduct Medal with P. P. C. L. I. wounded and now recuperating in Canada.

"Tubby" as he is known to his friends joined the Princess Pats at Toronto on August 18th, 1914, fourteen days after war was declared. After 6 days in Ottawa, his regiment left for England but was disembarked at Levis where they encamped for four weeks while the flotilla which carried the first overseas contingent assembled.

after a day's rest in France entrained for the "front". They left the train at Arques and marched to Blaringham where they were held as a special reserve until the 5th of January. On this date marching orders were received to advance to Meteron via Hozerbrouck and thence through Dickebusch to Vierstraak where they re-

mained about one week alternating between fire trench and supports. It was at this time Captain Newton was killed,—the first casualty among the officers. The regiment was next moved from Vierstraat to billets at Millkrouse, thence to Westoutre. After a two day's rest they again entered the front line trenches, at St. Eloi. In this position looking northward the lines at Ypres could be seen quite plainly. While maintaining trench warfare here, Lt. Colquhoun was taken prisoner by the Germans.

The regiment was next moved to Brasserie and was constantly on duty between there and St. Eloi until the 23rd of March. The country here is rolling agricultural land and fairly well wooded.

The first serious action in which Princess Pats engaged was on March 14th and 15th at St. Eloi, where the Germans carried a point in the line, and a continuous counter attack was necessary in which two British Regiments also took part. "Tubby" received his first wounds in this attack: one bullet passed through the upper part of his left arm, another scratched his right forearm and two passed through his clothing without inflicting wounds. After taking an advanced trench it became necessary for someone to hold about twenty Germans around a bend in the trench, while the balance of the "Pats" prepared to blow up the trench and retire to their own lines. "Tubby" volunteered to stay and continued firing until his rifle was hot. On signal he retreated and the German trench was blown up. For this and other bravery in reconnoitering he was awarded the Distinguished Conduct Medal.

Following this engagement the regiment was marched to Poperinghe where they were given ten day's rest.

From there they moved to Pologon Woods via Veamertinghe and Ypres. The famous battle of St. Julien was visible to them from this point and they hourly expected to receive orders to act as support to the hard pressed regiments amongst whom were the Canadians.

About the 3rd of May, the British retired from the Ypres salient to straighten out the line and better their position and the Princess Pats were moved to a point near the Bellewarde Woods where they had to dig in under constant fire. Here their famous stand was made but at terrible sacrifice only 153 remaining out of some 700.

"Tubby" relates a peculiar incident much appreciated by the soldiers at this place: In the woods of Bellewarde when the roar and din of battle would momentarily wane, there could be clearly heard above the woods the sweet music of the nightingale, marvelous contrast and one which caused the men to name the place Nightingale Woods.

Before the English regiments came to the aid of the "Pats", "Tubby" had been hit three times—two bullets passing through his cap and one his neck, which passed downward through shoulder and lung.

Some 15 hours later stretcher bearers found him and he was moved to the field dressing station and then to a clearing base where he was held for two weeks, his condition being so serious that he could not be removed from the stretcher. After a time in the English hospitals his recovery was satisfactory but his right arm above the elbow remained partly paralyzed and so he was given six months leave of absence.

His most daring deeds were accomplished in reconnoitering German positions at night, and later in leading detachments against these. "Tubby"

also did commendable work as a sniper.

Corp. Nourse was on the Hesperian along with other returning convalecents but with his usual good fortune managed to reach the rescuing ship in safety, although he left behind him a number of war relics which he prized very highly.

Dr. M. F. Cogan has been appointed as Acting Superintendent of the Kingston General Hospital, Kingston, Ont., in place of Dr. D. A. Coon who has resigned.

Dr. Cogan was a graduate from the O.A.C. in 1907. After graduation left for Mississippi Agr. College to take position of Assistant Chemist. His next move was to the Manitoba Agr. College where he served in the same capacity. He then resigned to devote himself to the study of Medicine at Queen's from which University he was graduated in 1914 and we now take pleasure in announcing his latest achievement as Acting Supt., General Hospital, Kingston.

The Review Staff take this opportunity of offering their sincerest sympathies to Mr. and Mrs. G. H. Clark in the bereavement caused by the loss of their eldest son who was accidentally killed by a motor transfer in Ottawa on November 3rd.

Mr. Clark is one of our old boys graduating in 1898 and is now Dominion Seed Commissioner at Ottawa.

D. M. Rose, B.S.A.

Not every graduate of the Ontario Agricultural College receives the call to go forth and spread the Gospel in foreign lands, and we take much pleasure in recording the ordination of Mr. D. M. Rose in St. George's Church on October 31st prior to his departure for the Mission fields of India.

Mr. Rose is a graduate of class 1908. He subsequently took the theological course at Trinity College and spent much time in fitting himself for this, his life work. We wish him every success in his undertaking.

Mr. Rose was editor of the Review in his senior year.

The following is part of an exceedingly interesting letter from Eric Hearle written in France at the time of the desperate fighting in the vicinity of Hill Sixty. Mr. Hearle was a member of year '16, but left to fight for his country shortly after war broke out.

"That affair round Ypres," of our company of 180 Hamilton men, 5 were left. I don't know if much was left through about the affair by the censor but to sum up, instead of going to the trenches as the rest of the Canadians did, our Battalion and two others were held in reserve to be rushed to Hill 60 as a very heavy attack was expected. Then the French broke from their trenches and left a big gap in the line undefended. They had a little excuse as the gas and shelling were fierce. All our fellows when they knew that there was some real work to do and that it was up to us to fill the gap, were laughing and happy as a bunch of kids. We moved from our billets in the dark and as the sun rose we heard the first shrapnel burst over us. We had finished digging small individual holes for the reserves to shelter in some 2 or 3 thousand yards from the German trenches. Then we started to advance and after the first few fellows had dropped everyone went fighting mad. The further we got the heavier the shrapnel and rifle fire grew until all the old pals were mown down like so much grass and there were very few left. At 400 yards from the German trenches we dug our-

selves in half of us keeping up a steady rifle fire to try and subdue the blizzard of lead coming over. It was surprising how cool and collected one is, far more so than on the ranges. Joe Thompson got hit in the ear just as he had almost finished his bit of trench. I had just got nicely to work when a bullet went clean through my arm into the back of the fellow next to me. I guess 3 out of 4 were hit within 5 minutes. I crawled to a hollow where several other wounded were, as my arm was bleeding like the deuce. By taking the best cover we could, dodging round trees and crawling down ditches we made the grade to the dressing station OK."

Driver S. E. Percival, First Canadian Division, Army Service Corp, in a letter to J. M. Creelman, has given such a pleasing account of his first experiences in England and France that we reprint it in full. Mr. Percival seems to have the faculty of hunting up things of particular interest and recounting them in a clever way.

Sept. 9th, 1915.

Dear Jim:-

This will, no doubt, come to you as a considerable surprise since we have done so little, in the way of correspondence, to keep in touch with the fellows at the college. This is due largely to our desire to satisfy demands from home and partly to the fact that when the day's routine is finished we seldom feel in a mood for writing.

However, a letter which Western received from his mother, enclosing one from you, has reminded me of your kindly interest in us and of our old ties with the college.

We often think and talk of our days there and look fondly forward to a time when we may chance to return.

While our life here demands, of us much that is unpleasant and disa-

greeable, all our experiences since leaving Guelph have not been so. Particularly pleasant was our stay in England and when on leave there for nearly nine days we had a really jolly time. We spent three days in London and the remainder of the time in Devon where we thoroughly enjoyed their Devonshire "Crame," "Starberries" and "Rarbit," as well as places of interest in Blackmore's and Kingsley's countries. One evening as Clarry and I climbed the hill from Clace Church and descended into the Doone Valley we came upon a small hut called "Lorna's Bower" where we stopped for tea. The lady, seeing by our badges that we were Canadians, asked what part we came from, and when I answered that Clarry came from near Toronto and that I came from near Ottawa she said, "Ottawa! Is that anywhere near the Isle of Wight?" Much as we desired to spare her feelings we enjoyed a good laugh at the expense of her knowledge of Canada. At Ilfracombe we spent an interesting time. One morning we engaged a fisherman, Sam Ley, to row us on a fishing expedition in the British Channel. He proved to be a very interesting character. In past years he had taken the Kaiser on many a fishing trip.

Our interest in Clovelly was pretty evenly divided between the natural beauty of the village and surrounding parks, and the natural beauty of the lasses whose pleasing Spanish form and feature are supported by the perfect complexion induced by the kindly climate of North Devon. Please do not think, because of my alluding to the latter interest, that we are not perfectly immune to anything more than distant admiration.

Bideford, we found quite interesting and suggestive of Kingsley's writings.

In Exeter we visited the ancient

Cathedral, a very interesting place; the Guildhall, and last, but not least vaults where we secured English Beer forty years old.

Since coming to France our interests have centred in a study of the French language as well as French and Belgians system of government, education, etc. In most respects the Belgians seem to be the most progressive of the two. Their education is compulsory while the French is not. In the tenure of land the Belgian government has made it possible for the middle class to acquire and own their own land. This is accomplished by a system of government loans. In France no such system obtains and the poor man must always remain poor and dependent.

We have not gone through much of Belgium, but wherever we have gone we have been surprised by the enormous crops, even up to within a mile of the firing line.

Since leaving England we have lost touch with the other fellows of the Princess Pats but shall, no doubt come across them again soon.

Now, I should like to have more time to tell you of our life here but must go on duty in a few minutes and must finish this letter before going. By the way, this letter may appear to you as being the result of a single effort but it really has occupied the spare moments of two days.

We wish to be remembered to your people and to all kind enquiring friends at the O.A.C. Please tell your mother I still have the chamois pouch she made for my drinking cup and we still are glad to possess the socks, she so kindly furnished to us. We are enjoying the best of health, eating and sleeping in the open. When on the march we sleep under our wagons and so, as a pre-

cautionary measure, prefer to sleep outside all the time.

Last week we had a taste of what winter will be, in three days of chilling cold and constant rain. We were glad to take to the tents for that time. You would laugh to see us, one after another, trying to pluck up courage to pull on cold wet clothes in the morning but we make the best of things and when our pipes are lighted and a few jokes passed around we really make ourselves believe that we are quite happy and comfortable.

Now this epistle is assuming quite alarming proportions so with due respect to your patience in trying to read it I must close.

With very best wishes from Clarry,
Western and myself, Eldon.

ENLISTMENTS

Rolf Holmden, of Ottawa, Ont., who was a Freshman with year '17, has enlisted with the 73rd Highland Battalion, Montreal. Mr. Holmden has two brothers in the war and upon the receipt of news of the death of one in the battle of Langemarke, felt he had an account to settle with the Germans, threw up his work in Nova Scotia and immediately joined the Highlanders. Those who remember "Rolf" will vouch for his ability to attend to the needs of at least several of the enemy.

E. L. Davies, B.S.A., '13, has enlisted with the 29th Field Battery, C.E.F. at present located at Guelph.

Mr. Davies after graduation from the O.A.C. went to Massachusetts Agr. College as Assistant in Bacteriology and also to carry on post-graduate work for his Ph.D. degree.

In the spring of 1915 he returned to the Ontario Agricultural College to join the staff of the Bacteriology Dept.

We regret exceedingly his departure, for in Mr. Davies the College loses a "Hail fellow well met," a man popular with the student body and anxious to impart to those coming under his instruction, the best that he had.

We can only wish him good luck and trust that he may return and resume his duties at the O.A.C.

From the Horticultural Department of the O.A.C. we have to report the resignation of Mr. G. J. Culham, B.S.A., to join the ranks of the 29th Field Battery, C.E.F.

Mr. Culham was graduated with the Class of 1913 and for a time acted as Assistant Representative for Lambton County, from which position he returned to the O.A.C. to take charge of Experimental Fruit Work in the Province.

It might be noted here that the 29th has as second in command, Capt. Andrew Cory, B.S.A., '14.

CHARLES CAMPBELL NIXON

It is unusual for an agricultural

college to graduate men who afterwards turn their thoughts to editing a magazine exclusively for women. But such is the case of Charles Campbell Nixon. He is at present the senior member and Vice-President of the Continental Publishing Co., Ltd., publishers of "Everywoman's World."

At college he was a good student. He excelled in stock judging and in his fourth year led the team at Chicago by a big margin.

Nixon was graduated in '07. His first nine months out of college were spent on his father's farm in St. George. Then along came the "Farm and Dairy," inducing him to edit that journal, which he did for over four years. He was later made Advertising Manager of the same publication, where he proved himself a most proficient business man. He remained two years in this capacity.

The Review is proud of the many leaders who have gone out from the O.A.C. into the various lines of endeavor. We extend to Nixon our best wishes for continued success.



CHARLES CAMPBELL NIXON

College Life

Ever since College opened, in September, a feeling of unrest has pervaded our halls. Scarcely a week passes without the O.A. College contributing its quota of volunteers in defense of the Empire.

During the past few months the activities of the great war have claimed many of our best students—not lured by the glories' of war and tales of heroic deeds, but following the stern path of duty, even though it "leads but to the grave."

The Universities and Colleges of Canada have given fifty to seventy-five per cent. of their students, many of them having already paid the price of their devotion to their country.

As we think of the war in its relation to Canada, we can readily see the necessity of heroic sacrifice, not only by those who go to the far off battle front, but by those who must remain at home indefinitely.

The students who remain at the College, only do so after subjecting themselves to a rigid self-examination as to the responsibilities that prevent them from heeding the call of King and Country.

Canada's mobilization has turned many thousands of men from producers to consumers who are, to a great extent dependant upon the country's agricultural population for sustenance. It is obvious, therefore, that far greater sacrifice, and effort, must be made to increase the agricultural output of our country during the coming year.

Let those of us who intend returning to the farm, at the end of the college year, start to plan now for a larger acreage with a greater yield. In the meantime let us give generously from

what we have to aid the noble work of alleviating the sufferings of those who have gone to fight for our homes and national liberty.

The President of one of the leading American Colleges, is reported to have said:

A college is a place where young men and young women study great subjects under broad teachers in a liberty which is not license, and a leisure which is not idleness—with unselfish participation in a common life, and an intense devotion to minor groups within the larger body, and special interest inside the general aim; conscious that they are watched by friendly eyes, too kind to take unfair advantage of their weakness, yet too keen to be deceived.

LITERARY

The second of a series of inter-year debates was given at the regular meeting of the Union Literary Society, in Massey Hall, on the evening of October 30th.

The first number on the programme, was an address by Honorary President Prof. R. Harcourt.

The debate, Resolved: "That single tax should be adopted", was won by the First Year.

President W. P. Macdonald is to be commended for the excellent work done by the Society during the past term. He has, by his earnest efforts, awakened new literary interests in the meetings held from time to time.

The final debate of the Inter-year series was held at the regular Literary Society meeting on the evening of November 30th.

As this was the debate for the champ-

ionship excitement ran high. The "who is she's" were much in evidence, while the pathetic little carols sung by the Sophomores were not altogether lost on the audience.

The subject of the debate was; "Resolved: That the suffrage should be restricted by an educational standing." Messrs. J. B. Munroe and C. A. Clive of the First Year presented the affirmative, while Messrs. E. G. Rowley and F. A. Wiggins supported the negative.

A very interesting programme had been prepared as follows; Solo, Mr. P. Valey; Solo, Miss Laura Nixon; Debate; Solo, Mr. W. Walker; Reading, Miss A. Fairclough. After hearing the critic's remarks and the judge's decision in favor of the negative, the meeting adjourned with the singing of the National Anthem.

THE DIVIDING OF THE EARTH

"Come, take this World which I have made, so fair;"

Cried Jove to men, from his imperial throne.

"A heritage and a perpetual loan,
Divide it justly, giving each a share.

Men came from East and West to voice their claim,

The stir of expectation filled each breast.
Some took the fields and all they possessed,

And some took the forests with beasts wild and tame.

The merchants had their fill of costly wares,

The priests chose for themselves the finest wine,

The Kings cried, "Roads and Bridges all are mine,

Pay me one tenth of all, refuse who dare".

Late, late, when everything was given away,

The poet came, he came from distant lands.

No gift was left to put into his hands;
For King and Priest and Husbandman held sway.

"Oh woe is me," he cried, "am I alone,
"Alone of all men to be thus forgotten."
"I, I, the truest of thy sons begotten."
He flung himself before Jove's awful throne.

"While you in dreams were wandering far and wide,"

Replied the God, "I gave the Earth away,

"To Priest, Prince, Husbandman and Huntsman gay."

"Nay" said the Poet, "I was at your side."

I fixed my gaze upon thy godlike face,"

"Thy heavenly harmonies filled my raptured ear,

"Pardon thy son, who, drunk with holy fear,

"Hath forfeited upon the Earth his place."

Spake Heaven's King,—"The Earth away is given,

"Harvest and Market are no longer mine;

"But since no place on Earth thou findest thine,

"Come when thou wilt and share with me my Heaven."

—Schiller, translated by N. M. Leckie.

Macdonald

STUNT NIGHT.

Our annual stunt night took place in the Hall Gymnasium, on Friday, November 12th, at 8 o'clock. This was the first time for some years that every class was represented in the programme, so it added greatly in making the evening such a huge success.

The fun began with a game of Basketball between the Seniors and the Homemakers, in which the Homemakers defeated the Seniors 14-13.

The first stunt put on was a Kinetophone, or Talking Moving Pictures, by the Junior Normals. This was presented in four scenes:

I. Breakfast at Mac. Hall at 7.30.

II. Educational Sewing Lesson by Miss Watson (Miss E. Wallace).

III. A Cooking Lesson on "Dressing a Chicken," by Miss Roddick (Miss J. Grant).

IV. Macdonald Hall, after 10.30 p.m.

We are sure this gave our visitors from Ayr and also those from across the Campus, a better idea of our life here, than they had before.

The second stunt was by the B. & C. Homemaker Classes, and was in the form of a Japanese Vaudeville. This was one of the prettiest stunts of the evening, the platform being darkened except for the Chinese lanterns carried by the prettily attired Japs.

Then came the Senior Normals, "Macdonald Hall in 1935," which carried off the much coveted box of chocolates, which Mrs. Fuller so kindly gave as a prize to the class presenting the best performance. We all hope to take a trip back to Guelph in 1935, to see what a much better standard the College has after the rules the Normals

revised, have been enforced. It ought to be a model place!

The Senior Housekeepers were next. There was an Indian scene in which Miss Kathleen Stevenson sang an Indian ballad, while the other girls danced around the campfire.

The Senior Associates showed us what the first meal in the apartments is like. To the new girl, who goes in for her five days as housekeeper, it was most amusing.

In the Short Course stunt, Miss Gladys Fairclough was the heroine in "Old Sweethearts of Mine," in which we saw her as a bachelor, sitting before his fireplace on the eve of his wedding-day, recalling to memory all his old sweethearts.

The Junior Housekeepers followed the short course, with "Memories of Mac Hall." Here we saw our Faculty, the President of the Students Council, and others, as others see them.

The Homemakers' class showed us some of the things, of which a "Mac Girl Dreams," beginning with her early days—of her "mother," her "Darkey Mammy," up to the present time—"High Heeled Mac Girls," "Mutt & Jeff" in movies, or "Pavlowa," the graceful dancer, and of a 4th year O.A.C. man!

The last but not least in amusement was the Suffragette Band, presented by the Junior Associates, which caused peals of laughter, by the effective dress of the Suffragettes and the wonderfully sweet harmony of their musical band.

Professor Day then presented the prize to the winning class, and the programme closed with the singing of the National Anthem.

Everyone then went down to the

dining room and partook of the refreshments so ably served by the executives of the Mac and O.A.C. Athletic Associations.

LITERARY

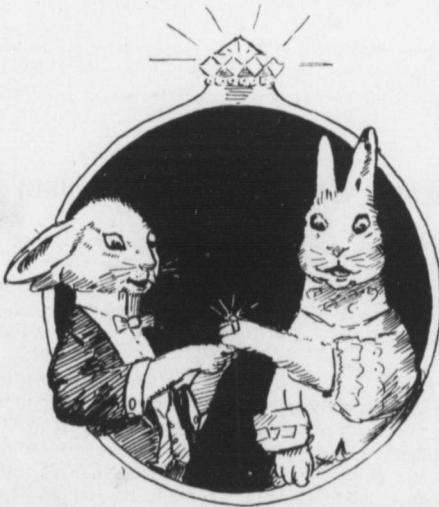
On November 6th, the Girls Lit. held a meeting to choose two representatives to debate against the boys of the Alpha Literary.

Four of our best debaters debated on, Resolved, "That Country Life is better than City Life." Miss M. Williams and Miss E. Elliott took the af-

firmative and Miss B. Birkett and Miss J. Grant the negative.

The affirmative won, but Miss J. Grant scored the highest number of points, Miss Williams came in a close second.

Thanks to the opportunity given them by Miss Watson the Mac Girls were able to contribute to the Xmas boxes for the O.A.C. boys at the front. Seventy-five Xmas cakes were made and iced by the girls with the help of the teachers. Miss Watson kindly provided covered cans in which to send the cakes.



"Bunny" '14—(In the West) "The Jeweler says this is a twenty-two karat ring."

Macdonald Locals

WANTED TO KNOW

1—Why Marshall is looking so brightly lately.

2—Why the Fourth Year particularly disliked the Senior Normal "Stunt" at Mac. Hall.

3—Why there was such a delay in the Chapel Service on the 14th of November.

Answer—Because Mr. Lowell failed to arrive.

4—Why Rowland will never come to the point.

Answer—Because he is always beating around the "bush".

5—If enlisting proves a healing balm to a man disappointed in love.

6—Why the Junior Normals are looking forward to practical Chemistry next year.

Because they have discovered that "Mr. Iveson is a dear."

Note—Some of these were unanswerable.

WAKE UP FACULTY

Mr. Kendall uses you as an illustration of mistakes when drilling the girls. Ask him for an exhibition of the windmill "Right About Turn."

The girls have decided to postpone Rugby practice until Spring.

P.S.—Mr. Carncross says it would be as much as a man's life is worth to coach them.

Cook—"What's the matter with the President's eyes?"

Cassels—They're all right as far as I know. Why?"

Cook—I had to go into his office to see him yesterday and he asked me twice where my hat was and it was on my head all the time."

1st Macite—"He's a self made man."

2nd Macite—"I know. He surely made a mistake in not consulting an expert."

Local Editor's Query Column

Dear Editor—Will you kindly tell me how this war will be paid for.

Ans.—We'll either have to "hock the Kaiser" or sell the "watch on the Rhine."

Local Editor, Review—

Dear Sir: I am a country boy and am thinking of going to the city to earn my living as a chauffeur. I know how to run a car, but do not know what to do if it breaks down. Kindly advise.

Hanxious Hiram.

Ans.—Get out and get under.

Dear Sir: A peculiar incident hap-

pened this morning at breakfast. I found a dog collar in the sausage. Would you advise me exactly what to do in the matter

Miss Construed

Ans.—By all means, madam, return the dog collar to the owner. It would be criminal negligence not to do so.

Welton—"I don't want to sign my name to this article. I think I'll sign Cognosco."

Wilson—"Why no, if you don't want it to be known, sign it, Incognosco?"

RESULT OF COMPETITIONS

Following are the prizewinners in Review Competitions which closed Nov. 15th.

SHORT STORY

1st—J. H. McCulloch, "Pro Bono Publico."—"How to Store Apples for Winter."

2nd—Marjorie Davis, "Langdon,"—"The Dirty Mess of Politics."

POEM

1st—H. C. Mason, "Cruachan,"—"Rugby."

2nd—C. M. Flatt, "Optimist,"—"Langemarke."

CARTOON

1st—D. C. McArthur, "Romeo."

2nd—Ken Welton.

PHOTO

1st—J. C. Roger, "Paul Stahr."

2nd—G. R. Wilson, "Pat. 1st."

The first prize story, photo and cartoon appear in this issue.

"PINKIE" WALLACE, ATTACKED BY A BEE
ON FIELD DAY ———



"NOW, BOYS, I AM ENTIRELY CAPABLE OF HANDLING THIS ANIMAL MYSELF!"

