

Volume XXV.

Number 9.

O.A.C REVIEW

JUNE



1913

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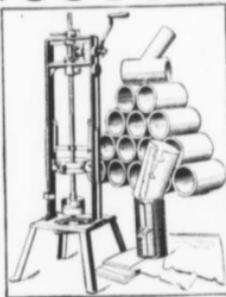
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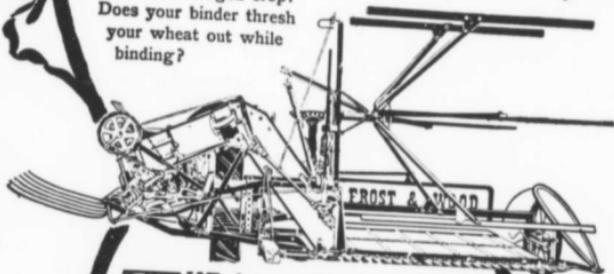
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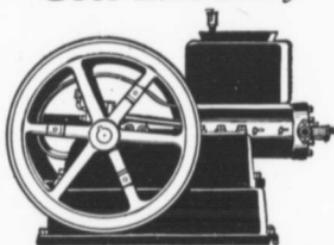
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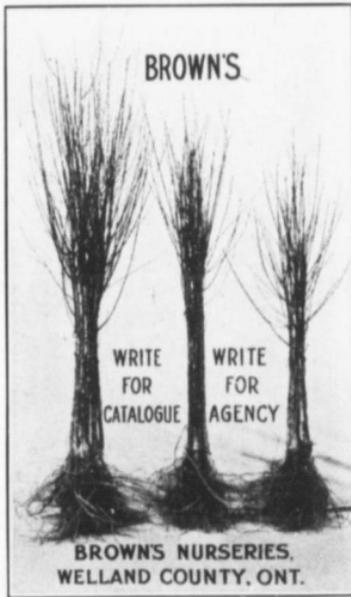
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THE O. A. C. REVIEW

THE DIGNITY OF A CALLING IS ITS UTILITY

VOL. XXV.

JUNE, 1913.

No. 9.

The New Agriculture

W. B. ROADHOUSE, Deputy Minister of Agriculture.

THE subject is not mine, but I readily accept it from the discriminating hand of the Editor. It is one of those phrases which have become more or less common in modern thought, intended to convey much in short compass, but which like many such phrases is perhaps more easily coined than explained.



W. B. Roadhouse.

From two standpoints the subject may be viewed—from the standpoint of the man on the farm and from the standpoint of the organized department seeking to help the man on the farm.

Recently I met a man in one of the counties of Ontario who declared that

in a very few years the district office of the Ontario Department of Agriculture had been worth to him just three thousand dollars in real money. That is the New Agriculture in striking and practical light—viewed from both standpoints mentioned above.

Let it be understood therefore that this is no mere fancy name for fancy farming. It is no glorification of the theoretical and scoffing at the practical. It does not mean that "book learning" will take the place of manual labor. It is not altogether substituting the self-binder for the cradle, though improved machinery has done much. My conception is that in its truest and best sense the New Agriculture is merely that harnessing of clear thinking and hard work which have made for success in all times and all occupations. Clear thinking and hard work—what a great team they do make! I lay the emphasis on clear thinking because that is the general fundamental principle. The application is individual, because local, dependent upon varying circumstances and a hundred and one conditions. In the illustration cited it meant O. A. C. No. 21 barley, it meant pruning and spraying the orchard, it meant careful breeding and feeding of his dairy herd by which the output was increased and the cost of production reduced. Through the local office of the Department of Agriculture in charge of a college graduate at whom perhaps at first both he and his neigh-

bors were inclined to smile, he had first been brought in touch with the importance of these three things. With his own intelligence he applied the information and the result was in a few years an addition of three thousand dollars to his bank account. With other men the application would probably have to be made in other ways and to different lines of farm practice. The beginning of wisdom is the realization that because a thing has been done a certain way for a generation it is not necessarily the best way, and from such a realization will follow a close study of local surroundings and opportunities and the adoption of a definite plan in which brains as well as brawn will be a factor.

In this brief survey I have space to refer in particular to only two subjects which necessarily receive attention in connection with agriculture at the present time. I refer to the conservation of soil fertility and the problem of marketing farm products, both of which are deservedly receiving much consideration. The question of soil fertility is naturally fundamental, including as it does drainage, rotation of crops, use of manures and commercial fertilizers, which latter should be used intelligently or not at all. The great increase in the mileage of tile drains being laid, the attention being paid to rotation, especially to the use of alfalfa, clover and other legumes, and the rapid increase in the demand for fertilizers, are all hopeful signs and give basis for the confidence that Ontario will maintain her proud position as the most fertile spot on this continent.

There are many signs too that the New Agriculture will give greater heed to the subject of marketing than

has been the case in the past. This is quite proper, but I am not sure that all the thinking and writing being done on this subject is entirely lucid. It is sometimes suggested that organized departments which seek to assist the industry should, especially in these days of labor scarcity, pay less attention to production and concentrate on marketing. There is just a danger here. Supposing a man has 30 cows and he learns by the test that many are not paying their board and that by breeding and selection he can make as much money from 15—is he not liable to be benefitted by information on production, especially with labor scarce and expensive? The same principle applies to other phases. The development of co-operation, which is progressing rapidly and promises even more rapid progress in the future, seems to offer the most practical solution of many of the marketing difficulties which confront the farmer. But the New Agriculture I take it will measure a man's success not by the number of acres he owns, but by the profit per acre, not by the number of trees in the orchard but by the profit per tree, not by the number of cows in the herd but by the returns per cow!

It may be urged that while this is true, it is not entirely new. Fortunately it is that the story of Ontario Agriculture is bright with the example of farmers who have ever been in the front with the most progressive methods and ideas, even as it is also luminous with the heroic work of the pioneers. Many of the underlying principles are as old as the hills, and so it should be understood that the New Agriculture consists not so much in new discoveries as in a more general application of recognized princi-

ples and the more general realization that science is not antagonistic to common sense.

Never before has there been so much demand for agricultural information in reasonably concrete form, either as bulletins, demonstrations, short or long college courses. Never before has there been such demand for college trained men either as farm managers, teachers or demonstrators. The man with a B. S. A. degree is in more ready demand as he leaves college than the man with almost any other degree. But perhaps more important than all else, never has there

been such a general, systematic and successful effort all over the Province to interest the boys and girls of the country in agricultural matters as is being made this year.

All this, it cannot be denied, is giving to agriculture a new interest and a new dignity. Anything which will bring to bear on farming those systematic business principles which apply elsewhere and give it the standing due an occupation which gives scope for the highest intelligence is full of hopefulness for the future,—call it the New Agriculture or call it what you will.



The Labor Problem

BY C. E. M.

FARMERS are complaining in every section of the country about the scarcity of men. It is becoming a very serious problem to secure help. In looking into the conditions about various farms, the present writer gained some information that clearly indicated the trouble and suggested a remedy which, if put into practice by farmers, would change conditions and insure greater profits.

One very competent worker, in speaking about leaving the farm, said that he was out at five o'clock in winter and four in summer, and that on many days the work ran into the evening, since he would keep at his tasks until they were done, and done right. He attended to things better

than the owner would—and received \$17 a month, house-rent and a garden. He worked hard, did not get a day off more than once in six weeks and was busy nearly half of Sunday. These conditions, except in small details, represent those on hundreds of farms.

This man moved into a nearby town of 2,000, and became a carpenter, receiving two dollars a day. He is paying \$12 a month house rent, but he says his wife has a good home, with heat, hot and cold water, a bathroom and electric light; and his children go to school without wading through snowdrifts.

On a farm where everything was run on business principles and the owner was making money, I found

a hired man of good family connections and well educated, who was contented. He said that he had a pleasant home; that the house had hot and cold water and a bathroom, and was in first-class condition, since the owner had spent \$500 to put in every convenience for the wife. This hired man was getting \$40 a month, together with house rent, a truck patch, all the fruit he needed or a share of everything grown. During the previous year he had saved \$250. The next year he was going to keep chickens. The owner had told him that he might use about an acre and a half for the purpose. His wife and children were going to care for them. This man was actually getting about one thousand dollars a year.

Value of the Right Man

The proprietor of the farm, he said, laughed when asked about it. "Oh, yes! John may have the farm if he wants it. He is boss round here; I do as he says. He has made me more money in five years than I made off the farm in fifteen years. John runs things and I am clerk. That man would make a success of any business. I do anything possible for him. If he wanted to get off for a month I would almost die to make sure of his going; and he would die before he would see work tied up. He has changed conditions with regard to the stock, crops and care. Everybody has

his work and does it, because John sees that no one is imposed upon. All get whatever assistance is needed and any one on the place would work half the night for him without complaint. Every one is treated as a human being; every possible pleasure is granted.

"John and four men are doing fully three times the work I could ever get out of the same help, and the profit from the farm, after all expenses are met, is five times what I ever made. Next year John gets a percentage of the net profits. The present condition was brought about through trying a better man than the average one. The way to keep such a man on the farm is to give him as good a home as he can get in the city and show him that you appreciate his ability."

The points in these two illustrations indicate that better conditions must be provided for the hired help, and that a better class must be kept on the farm. In order to get the best out of a man, treat him in such a manner as to win his confidence as well as to let him know that you respect his judgment and ability. Nothing will win a hired man so easily as to ask him his opinion on a farm problem, figure out the details, tell him to think it over, then in a few days ask him again, and confide to him your decision. This will get the best out of any man.



The Haunted Orchard

BY RICHARD LE GALLIENNE.

SPRING was once more in the world. As she sang to herself in the faraway woodlands her voice reached even the ears of the city, weary with the long winter. Daffodils flowered at the entrances to the Subway, furniture removing vans blocked the side streets, children clustered like blossoms on the doorsteps, the open cars were running, and the cry of the "cash clo'" man was once more heard in the land.

Yes, it was the spring, and the city dreamed wistfully of lilacs and the dewy piping of birds in gnarled old apple-trees, of dogwood lighting up with sudden silver the thickening woods, of water-plants unfolding their glossy scrolls in pools of morning freshness.

On Sunday mornings, the outbound trains were thronged with eager pilgrims, hastening out of the city, to behold once more the ancient marvel of the spring; and, on Sunday evenings, the railway termini were aflower with banners of blossom from rifled woodland and orchard carried in the hands of the returning pilgrims, whose eyes still shone with the spring magic, in whose ears still sang the fairy music.

And as I beheld these signs of the vernal equinox, I knew that I, too, must follow the music, forsake awhile the beautiful siren we call the city, and in the green silences meet once more my sweetheart Solitude.

As the train drew out of the Grand Central, I hummed to myself,

"I've a neater, sweeter maiden, in a greener, cleaner land"—

and so I said good-by to the city, and went forth with beating heart to meet the spring.

I had been told of an almost forgotten corner on the south coast of Connecticut, where the spring and I could live in an inviolate loneliness — a place uninhabited save by birds and blossoms, woods and thick grass, and an occasional silent farmer, and pervaded by the breath and shimmer of the Sound.

Nor had rumor lied, for when the train set me down at my destination I stepped out in the most wonderful green hush, a leafy Sabbath silence, through which the very train, as it went farther on its way, seemed to steal as noiselessly as possible for fear of breaking the spell.

After a winter in the town, to be dropped thus suddenly into the intense quiet of the country-side makes an almost ghostly impression upon one, as of an enchanted silence, a silence that listens and watches but never speaks, finger on lip. There is a spectral quality about everything upon which the eye falls; the woods, like great green clouds, the wayside flowers, the still farm-houses half lost in orchard bloom—all seem to exist in a dream. Everything is so still, everything so supernaturally green. Nothing moves or talks, except the gentle susurrus of the spring wind swaying the young buds high up in the quiet sky, or a bird now and again, or a little brook singing softly to itself among the crowding rushes.

Though from the houses one notes here and there there are evidently human inhabitants of this green silence, none are to be seen. I have often wondered where the country-folk hide themselves, as I have walked hour after hour, past farm and croft and lonely door-yards, and

never caught sight of a human face. If you should want to ask the way, a farmer is as shy as a squirrel, and if you knock at a farm-house door, all is as silent as a rabbit-warren.

As I walked along in the enchanted stillness, I came at length to a quaint old farm-house—"old Colonial" in its architecture—embowered in white lilacs, and surrounded by an orchard of ancient apple-trees which cast a rich shade on the deep spring grass. The orchard had the impressiveness of those old religious groves, dedicated to the strange worship of sylvan gods, gods to be found now only in Horace or Catullus, and in the hearts of young poets to whom the beautiful antique Latin is still dear.

The old house seemed already the abode of Solitude. As I lifted the latch of the white gate and walked across the forgotten grass, and up on to the veranda already festooned with wistaria, and looked into the windows, I saw Solitude sitting by an old piano, on which no composer later than Bach had ever been played.

In other words, the house was empty; and going round to the back, where old barns and stables leaned together as if falling asleep, I found a broken pane, and so climbed in and walked through the echoing rooms. The house was very lonely. Evidently no one had lived in it for a long time. Yet it was all ready for some occupant, for whom it seemed to be waiting. Quaint old four-poster bedsteads stood in three rooms—dimity curtains and spotless linen—old oak chests and mahogany presses; and, opening drawers in Chippendale sideboards, I came upon beautiful frail old silver and exquisite china that set me thinking of a beautiful grandmother of mine, made out of old lace and

laughing wrinkles and mischievous old blue eyes.

There was one little room that particularly interested me, a tiny bedroom all white, and at the window the red roses were already in bud. But what caught my eye with peculiar sympathy was a small bookcase, in which were some twenty or thirty volumes, wearing the same forgotten expression—forgotten and yet cared for—which lay like a kind of memorial charm upon everything in the old house. Yes, everything seemed forgotten and yet everything, curiously—even religiously—remembered. I took out book after book from the shelves, once or twice flowers fell out from the pages—and I caught sight of a delicate handwriting here and there and frail markings. It was evidently the little intimate library of a young girl. What surprised me most was to find that quite half the books were in French—French poets and French romancers; a charming, very rare edition of Ronsard, a beautifully printed edition of Alfred de Musset, and a copy of Theophile Gautier's *Mademoiselle de Maupin*. How did these exotic books come to be there alone in a deserted New England farm-house?

This question was to be answered later in a strange way. Meanwhile I had fallen in love with the sad, old, silent place, and as I closed the white gate and was once more on the road, I looked about for some one who could tell me whether or not this house of ghosts might be rented for the summer by a comparatively living man.

I was referred to a fine old New England farm-house shining white through the trees a quarter of a mile away. There I met an ancient couple, a typical New England farmer and

his wife; the old man, lean, chin-bearded, with keen gray eyes flickering occasionally with a shrewd humor, the old lady with a kindly old face of the withered apple type and ruddy. They were evidently prosperous people, but their minds—for some reason I could not at the moment divine—seemed to be divided between their New England desire to drive a hard bargain and their disinclination to let the house at all.

Over and over again they spoke of the loneliness of the place. They feared I would find it very lonely. No one had lived in it for a long time, and so on. It seemed to me that afterwards I understood their curious hesitation, but at the moment I only regarded it as a part of the circuitous New England method of bargaining. At all events, the rent I offered finally overcame their disinclination, whatever its cause, and so I came into possession—for four months—of that silent old house, with the white lilacs, and the drowsy barns, and the old piano, and the strange orchard; and, as the summer came on, and the year changed its name from May to June, I used to lie under the apple trees in the afternoon, dreamily reading some old book, and through half-sleepy eyelids watching the silken shimmer of the Sound.

I had lived in the old house for about a month, when one afternoon a strange thing happened to me. I remember the date well. It was the afternoon of Tuesday, June 13th. I was reading, or rather dipping here and there, in Burton's *Anatomy of Melancholy*. As I read, I remember that a little unripe apple, with a petal or two of blossom still clinging to it, fell upon the old yellow page. Then I suppose I must have fallen into a dream, though it seemed to me that both my eyes and my ears were

wide open, for I suddenly became aware of a beautiful young voice singing very softly somewhere among the leaves. The singing was very frail, almost imperceptible, as though it came out of the air. It came and went fitfully, like the elusive fragrance of sweetbrier—as though a girl was walking to and fro dreamily humming to herself in the still afternoon. Yet there was no one to be seen. The orchard had never seemed more lonely. And another fact that struck me as strange was that the words that floated to me out of the aerial music were French, half sad, half gay snatches of some long-dead singer of old France. I looked about for the origin of the sweet sounds, but in vain. Could it be the birds that were singing in French in this strange orchard? Presently the voice seemed to come quite close to me, so near that it might have been the voice of a dryad singing to me out of the tree against which I was leaning. And this time I distinctly caught the words of the sad little song:

*"Chante, rossignol, chante,
Toi qui as le coeur gai;
Tu as le coeur a rire,
Moi, je, l'ait-a pleurer."*

But, though the voice was at my shoulder, I could see no one, and then the singing stopped with what sounded like a sob; and a moment or two later I seemed to hear a sound of sobbing far down the orchard. Then there followed silence, and I was left to ponder on the strange occurrence. Naturally, I decided that it was just a day-dream between sleeping and waking over the pages of an old book; yet when next day and the day after the invisible singer was in the orchard again, I could not be satisfied with such mere matter-of-fact explanation.

"A la claire fontaine,"

went the voice to and fro through
the thick orchard boughs,

"M'en allant promener,
J'ai trouve l'eau si belle
Que je m'y suis baigne,
Lui y a longtemps que je t'aime,
Jamai, je ne t'oubliai."

It was certainly uncanny to hear that voice going to and fro the orchard, there somewhere amid the bright sun-dazzled boughs—yet not a human creature to be seen—not another house even within half a mile. The most materialistic mind could hardly but conclude that here was something "not dreamed of in our philosophy." It seemed to me that the only reasonable explanation was the entirely irrational one — that my orchard was haunted; haunted by some beautiful young spirit, with some sorrow of lost joy that would not let her sleep quietly in her grave.

And next day I had a curious confirmation of my theory. Once more I was lying under my favorite apple tree, half reading and half watching the Sound, lulled into a dream by the whir of insects and the spices called up from the earth by the hot sun. As I bent over the page, I suddenly had the starting impression that some one was leaning over my shoulder and reading with me, and that a girl's long hair was falling over me down on to the page. The book was the Ronsard I had found in the little bedroom. I turned, but again there was nothing there. Yet this time I knew that I had not been dreaming, and I cried out:

"Poor child! tell me of your grief—that I may help your sorrowing heart to rest."

But, of course, there was no an-

swer; yet that night I dreamed a strange dream. I thought I was in the orchard again in the afternoon and once again heard the strange singing—but this time, as I looked up, the singer was no longer invisible. Coming toward me was a young girl with wonderful blue eyes filled with tears and gold hair that fell to her waist. She wore a straight, white robe that might have been a shroud or a bridal dress. She appeared not to see me, though she came directly to the tree where I was sitting. And there she knelt and buried her face in the grass and sobbed as if her heart would break. Her long hair fell over her like a mantle, and in my dream I stroked it pityingly and murmured words of comfort for a sorrow I did not understand. . . . Then I woke suddenly as one does from dreams. The moon was shining brightly into the room. Rising from my bed I looked out into the orchard. It was almost as bright as day. I could plainly see the tree of which I had been dreaming, and then a fantastic notion possessed me. Slipping on my clothes, I went out into one of the old barns and found a spade. Then I went to the tree where I had seen the girl weeping in my dream and dug down at its foot.

I had dug little more than a foot when my spade struck upon some hard substance, and in a few more moments I had uncovered and exhumed a small box, which, on examination, proved to be one of those pretty old-fashioned Chippendale work-boxes used by our grandmothers to keep their thimbles and needles in, their reels of cotton and skeins of silk. After smoothing down the little grave in which I had found it, I car-

ried the box into the house, and under the lamplight examined its contents.

Then at once I understood why that sad young spirit went to and fro the orchard singing those little French songs—for the treasure-trove I had found under the apple tree, the buried treasure of an unquiet, suffering soul, proved to be a number of love letters written mostly in French in a very picturesque hand—letters, too, written but some five or six years before. Perhaps I should not have read them—yet I read them with such reverence for the beautiful, impassioned love that animated them, and literally made them “smell sweet and blossom in the dust,” that I felt I had the sanction of the dead to make myself the confidant of their story. Among the letters were little songs, two of which I had heard the strange young voice singing in the orchard, and, of course, there were many withered flowers and such like remembrances of bygone rapture.

Not that night could I make out all the story, though it was not difficult to define its essential tragedy, and later on a gossip in the neighborhood and a headstone in the churchyard told me the rest.

The unquiet young soul that had sung so wistfully to and fro the orchard was my landlord's daughter. She was the only child of her parents, a beautiful, wilful girl, exotically unlike those from whom she was sprung and among whom she lived with a disdainful air of exile. She was, as a child, a little creature of fairy fancies, and as she grew up it was plain to her father and mother that she had come from another world than theirs. To them she seemed like a child in an old fairy-tale strangely found on his hearth by some shepherd as he returns from the fields at even-

ing—a little fairy girl swaddled in fine linen and dowered with a mysterious bag of gold.

Soon she developed delicate spiritual needs to which her simple parents were strangers. From long trancies in the woods she would come home laden with mysterious flowers, and soon she came to ask for books and pictures and music, of which the poor souls that had given her birth had never heard. Finally she had her way, and went to study at a certain fashionable college; and there the brief romance of her life began. There she met a romantic young Frenchman who had read Ronsard to her and written her those picturesque letters I had found in the old mahogany work-box. And after a while the young Frenchman had gone back to France, and the letters had ceased. Month by month went by, and at length one day, as she sat wistful at the window, looking out at the foolish sunlit road, a message came. He was dead. That headstone in the village churchyard tells the rest. She was very young to die—scarcely nineteen years; and the dead who have died young, with all their hopes and dreams still like unfolded buds within their hearts, do not rest so quietly in the grave as those who have gone through the long day from morning until evening and are only too glad to sleep.

Next day I took the little box to a quiet corner of the orchard, and made a little pyre of fragrant boughs—for so I interpreted the wish of that young, unquiet spirit—and the beautiful words are now safe, taken up again into the aerial spaces from which they came.

But since then the birds sing no more little French songs in my old orchard.

The Status of the Ontario Bacon Industry

G. L. WOLTZ.

THE swine industry occupies a rather peculiar position in many localities. Swine multiply rapidly and come into use for breeding at an earlier age than other farm animals; consequently it takes only a short time for farmers to increase or decrease their stock, as the case may be. When, owing to scarcity in the supply of hogs, the price goes up, we find farmers increasing the number of breeding sows, and in a very short time the supply of hogs coming into the market increases to such an extent that the price is likely to break. If the decrease in price is very severe, the farmers become disgusted and the chances are that they will sell their breeding sows and go out of the business. This unloading process adds to the burden of the market and general demoralization is apt to follow. By-and-by, after the market has absorbed the excessive supplies thrown upon it, a scarcity occurs again owing to so many having gone out of the business and the history of the hog market hitherto mentioned repeats itself.

The facts in the preceding paragraph are not mentioned for the purpose of acquainting the Review readers with any new condition of affairs, but as a factor that has been more detrimental to the upbuilding of the bacon industry in Ontario than any other known practice. The demoralizing influence was felt in two ways; firstly, if we would procure a good, staple market across the seas for our

bacon exports, we should endeavor to produce a steady supply in order to satisfy the demands of our own market abroad; secondly, the constant changing of our breeding stock is detrimental to the upbuilding of a type of hog that would produce the best Wiltshire side. In addition to this many producers have the fanciful idea that the fat type of hog is a more economical gainer than the bacon hog, and as there is more or less of a local demand for the fat hog, there is a tendency for it to dominate.

The demand for such a hog, however, must be local. We cannot hope to produce a fat hog in Ontario as economically as the Americans can. It follows then, that, while the Canadian feeders cannot compete in the production of the thick, fat hog, the Americans are not likely to produce the finer classes of bacon; therefore, it is necessary for us to secure a market in which we will not be brought into competition with the cheap though inferior product of the American corn fields. This is found in the English demand for prime, lean bacon in the form of the Wiltshire side. London is the centre of this market, which, although willing to pay liberal prices, is exceedingly fastidious. This is a discriminating market for a fancy product, and the competition, which is practically limited to Canada, Denmark and Ireland, is not so much a matter of facilities for cheap production as of skill in the production of a high class article. In this we are materially deficient whe-

ther through lack of knowledge or in pure carelessness.

It has been said that Canada found a splendid market in England for prime, lean bacon in the form of a Wiltshire side, but it is certain that this trade is rapidly falling off from year to year. This is undoubtedly due to the facts that our exports are not steady, the quality of our bacon is not the highest, and that some of the other countries were underselling us. Let us then see where in we are wrong and devise means for the stimulation of our methods.

Breeding Centres.

In order to develop swine to the greatest possible degree of excellence, the establishing of breeding centres throughout the province would be a step in the right direction. To supplement the work being done at the Guelph and Ottawa experiment stations, the province might be divided into districts, each district having a central breeding station under the supervision of a commission appointed by the Government. These centres would simply be breeding farms so stocked and managed as to insure the production of only high class breeding stock. A commission in charge of each district would make a careful examination of the stock from time to time, noting the vigor, uniformity and breed type of the pigs, having in mind always the production of large litters of strong pigs capable of making first class bacon at low cost. The owner or manager would keep accurate records of the breeding, number of pigs born, number weaned, and the disposal of each. If at any time the commission found sows or boars used for breeding that were not up to the standard it would have the power to forbid the produce

of such being sold for breeding purposes. The Government would assist in the work by granting subsidies to enable these centres to sell to farmers young pigs of high quality at reasonable prices. Thus, having solved the means whereby we might establish a standard type of bacon hog, let us now review the conditions of the packing industry.

Co-operative Bacon Packing.

It is regrettable indeed that there is not more harmony of feeling between the producers and packers of bacon in Ontario. The writer is loth to say, openly, which people are to blame, but this we all know, the packer has been a little too dominating. While we appreciate, the fact that he does a noble and necessary work in preparing the raw products for the market, yet, after all is said and done, his work is only for a secondary nature in comparison to that of the producer. It is the old story again, "all for self," and as a means of relieving the trouble we must resort to the influence of co-operation.

We learn in those old fables of Aesop that "union is strength." Co-operation or working together, enables us to accomplish things out of all proportion to our individual ability; as the bundle of sticks resisted all efforts to break it, so a body of people working together can defy and overcome all obstacles. This is directly applicable to the bacon industry. If the producers and packers would co-operate instead of continually stimulating a feeling of enmity between one another, both would reap greater harvests. As an illustration of how such a co-operation industry might be organized refer to the procedure of the Danish people, as Denmark is the home of co-operation.

Two main factors have been responsible for the success of co-operative packing associations from the first. No capital had to be supplied by the shareholders and each pledged his entire output of fat hogs to the co-operative association.

On the joint guarantees of shareholders, the banks provide the necessary money for the erection and equipment of the factory and working capital. The working fund is increased in the beginning by holding back a small part of the value of the hogs slaughtered. When this has reached an amount sufficient to carry on the work, the capital sum provided by the bank is reduced year by year. As a rule the principal is paid off at a rate to clear the whole debt in twenty to thirty years. The following is a usual form of guarantee:

"We, the undersigned, hereby pledge ourselves to deliver to the co-operative bacon factory which it is proposed to establish, all the pigs of weights between 150 and 200 pounds, which we may produce for sale. Such pigs will be delivered on conditions decided by the shareholders of the society, and that we shall receive such amount in payment of such delivered swine as may be realized for them by the factory, less preliminary expenses incurred in the organization of the society, and the annual instalments on loan for building and plant payable during a period of about twenty-five years, together with current working expenses."

The penalty for violation of the agreement to deliver all marketable pigs to the co-operative factory is \$2.70 per pig sold to any other concern or person. The further penalty of expulsion from the association may also be exacted.

Shareholders who live within six miles of the factory as a rule deliver their pigs free, but those living at a greater distance deliver to the nearest railway station, and the association pays the freight from there to the factory. In some associations a bonus of about seven cents per hog is granted the shareholders who deliver their own pigs. The packing plant agrees to accept every sound hog delivered. The pigs when delivered are unloaded into a small car and a metal tag is put into the ear of each for identification. If the owner so desires, the pig may be weighed alive. Immediately after being dressed they are weighed and classified. An advance covering a portion of the value based on the current quotations and the class to which the carcass belongs, is made at once. About one-quarter of a cent per pound is withheld until the end of the year, when the final premium is paid on the basis of weight of pork delivered during the year.

Where associations of this nature are prevalent, the producer is also the packer and no exorbitant price is paid to any packing concern for their share of the work in putting bacon on the final market. If any exorbitant profits are to be derived from any line of produce, the producer is rightly entitled to his share of the returns and is no wise obliged to accept directions from any private bacon-packing industry that will eventually develop the profits of the packer exclusively.

The Marketing End.

We are glad to know that there are many Ontario farmers that know how to breed and feed bacon hogs, but up to the present time no means have been devised for bridging the gulf

that is fixed between the feeder and the consumer.

Then there is the grievance about buyers paying at the flat rate for all kinds, light, ideal and heavy. Much pains have been taken to produce the long, fleshy singer which brings the producer no more than the cheaper fat pig that is produced in the corn belt. The packers again get the credit of reaping the fine returns from the superior hogs after purchasing them at the same rate as the less valuable kind. The packers blame the buyers and the buyers keep on as they have been doing while no concerted effort is being made to bring about a satisfactory solution of the problem. The farmer is following his inclination, but what is to become of the bacon industry?

Here, again, is a chance for mighty work to be done through co-operation. By co-operating the farmers might engage an experienced salesman and trust him to find a market. There is no doubt that his wages could be remunerative enough to permit him to drive in an automobile up and down the road and still give the producers satisfactory results.

Can co-operative bacon packing and curing in Ontario succeed? Some say "No, it has been tried and failed." Even though it failed here, was it not a poor kind of co-operation, and has not the failure taught us some valuable lessons? A successful co-operative society requires a strong leader and a faithful membership. Unless a community is made up of such a class, who will bind themselves for a term of years, to supply all their marketable hogs to their own factory and

stand loyally and faithfully by the interest of their organization, it cannot hope to be successful.

Suggested Remedies.

Realizing what appears to be the chief barriers to a prosperous bacon industry in Ontario, let me suggest the following remedies:

1. The adoption on the part of the packers of an attitude of sympathetic co-operation between themselves and the producers whereby every possible encouragement would be given farmers to increase the quantity and improve the quality of their hogs. This would involve a constant, earnest desire and readiness to afford every facility on their part in co-operation with the producers, to investigate and solve problems which may give rise to dissatisfaction. It would require the adoption of a careful grading of the price of hogs through the year, guarding against discouraging low levels. It would require the control of buyers and the recognition of quality in the prices paid for hogs.

2. The co-operation of farmers in engaging a salesman for their hogs, as is carried out by the Eastern Counties Farmers' Association of England.

3. The adoption of the system of selling swine on the open market as applied to cattle and sheep. By the co-operation of neighbors car loads could be sent forward at regular intervals.

4. The establishment of co-operative packing houses as conducted in Denmark and in Ireland.

Hydro-Electric for the Farmer

From a speech delivered by Hon. Adam Beck at the Winter Fair in Guelph

(See Report of Live Stock Associations)

IT WAS a great honor that the management of the Guelph Winter Fair paid me when they invited me to address you this evening. You have come here to receive instruction and to see the best that the farms can produce, and in a social way, to see each other and talk matters over. My duty to-night is to have a heart to heart talk with you in reference to Hydro-Electric (applause), or what I might term "Electricity for the Farm."

If I could choose my own subject, I would choose the horse. While Hydro-Electric is somewhat near to my heart, I must say my first love, the horse, is very much nearer and dearer. (Applause.) You have an exhibition this year that has probably never been excelled in the Province of Ontario. We are gratified and proud of what the heavy horse is doing and of the magnificent exhibits you have at this Fair, but there is another horse that has done credit to the fair name of the Province of Ontario within the last month or so, and that is the thoroughbred, crossed with the trotter or hackney, the general purpose horse so far as riding and driving and military purposes are concerned. I speak of the horse that met in competition with the world's best at the National Horse Show in New York in November last — the hunters and jumpers and chargers. We may some day be called upon to furnish military horses for the Mother Land and if so, we should be ready when that time comes. It must be gratifying to us to know that in

the twenty-three classes at the New York Show, where we were in competition with the Belgians, the best that Holland could produce, the best that England could produce; yes with the best that our cousins to the south of us could produce, Canada won twelve firsts, including two championships, nine seconds, seven thirds and eight fourths. (Applause.) In fact, the Canadian exhibitors carried away more than half the prizes in twenty-three classes in which they exhibited.

Now as to my subject, Hydro-Electric Power. Let us see for a moment what has been accomplished in this movement. The people of the Province of Ontario have appropriated for all time to come one of the greatest assets, one of our wealthiest heritages when they conserved through this movement the water powers, "the white coal mines," of the Province of Ontario. What would the citizens of the United States say if an announcement were made from a public platform that the coal mines of the United States belonged to the people of that great Republic for all time to come. Such is the condition of affairs to-day in the Province of Ontario. We have retained the great "white coal mines," the water powers of the Province of Ontario, for the people for all time to come.

Now that we have finished with political strife, we should strive to make this country of ours more ideal to live in, more prosperous and more uplifting to the people. This movement was a movement of the people of the Province of Ontario, the suc-

cess of which depends on the people and upon the management that would be accorded to this great undertaking by the people.

In 1900 a movement took place in the City of Toronto, which was supported by the Board of Trade, and in joint action on the part of the City of Toronto, the Council and Board of Control solicited ways and means to generate electricity for the usages of the people. Little headway was made for the first two or three years, but in 1902, a meeting was held in the City of Berlin, of the Manufacturers' Association, the councillors and representative bodies from all sources and the idea was conceived that not one municipality but many should undertake the development of power and the transmitting of electricity to the different municipalities for the benefit of the people. Why was this desire created on the part of the people? They knew well that this Province was devoid of coal; they knew well they were depending upon a foreign nation for their supply of coal, and if at any time that nation should place an export duty on coal, it would be a calamity to the industries of this Province. The fact is that nine-tenths of the coal required in the Province of Ontario comes from a foreign nation, and is subject to the control of the coal trusts of the United States, controlling as they do four-fifths of the coal area in the United States. It means that there is no limit to the cost of it, and no limit to the inferior quality that they may send us, and no limit to the charges the transportation companies may place on it. More than that, the coal fields of the United States will some day become depleted. We all admit that the coal is inferior to what it was, and is four times more ex-

pensive than it was originally. Silver mines we have in abundance in the Province, and copper mines and pulp wood, and they will all become depleted some day, but the water powers of the Province of Ontario, the Falls of Niagara, and of the Ottawa, and of the St. Lawrence, and the inland rivers, will go on forever, if we but conserve the forests and the storage that is created by these forests in the north land. What a heritage, what an asset for our children and our children's children.

Niagara Falls has come back into the possession of the people of the Province, and we can develop electricity 75 per cent. at the falls cheaper than it could be developed by any means known to man to-day; I care not whether you do it with wood or coal or benzine or coal oil.

Electricity through the telegraph brought us in close touch with the world's market. We use electricity for the telephone and for lighting our homes and for transportation, for operating our waterworks, lighting our streets, and it is now used on the Continent of Europe to relieve the burden of the household, yes and to relieve the burden of the farm, to make farm life more pleasant and less burdensome. What will it be in Ontario if it is of such great value on the farms on the Continent of Europe where labor is cheaper than it is here.

In a short way, I will explain to you the purpose of this undertaking. The municipalities desired assistance from the Government of Ontario and asked for the co-operation of the Government. Seven years ago, I had the honor of introducing the Bill in the House which enabled the municipalities to secure information at the cost of the Province of Ontario so as to assist them in this undertaking. A

subsequent bill was put through which enabled the Government to assist the municipalities financially on a 4 per cent. basis with a sinking fund which would retire the loan at the end of thirty years. Seven municipalities first undertook the securing of information for this purpose, and the Royal City of Guelph was one of them, and has been a constant and loyal supporter of this great undertaking. (Applause.) After spending a considerable amount of money, the municipalities felt that Provincial co-operation must be secured, and I have told you that the Province finances the scheme and the municipalities provided the interest and the sinking fund. It was never proposed, and I do not think it ever will become, a direct tax upon the people, either of the Province or the municipalities who have undertaken this great work, the intention being that the consumer should pay for it and the Government should finance it, and at the end of thirty years, the municipalities should own the water powers and the transmission systems.

The first object of the Commission was to transmit electricity at a very high voltage. We realized if we were to keep pace with the industries of the world and with agriculture and bring back the young men and the young women to the farm we had to have cheap electricity, and I feel justified in saying that we have succeeded in helping the municipalities to compete with the industries of the United States, so far as light and power are concerned at least. The voltage undertaken was 110,000 horse power, a voltage never attempted before in the world. We secured the best advice of the best engineers in the world. It was not our purpose to

secure lucrative positions for friends, political or otherwise. Our duty was to secure the best advice and the best information in regard to this project. Suffice it to say, we have not failed, nor have we been misled.

Never before has a line been built or works been constructed and equipped such as we have equipped in the Province of Ontario. We began on a solid foundation. Three corporations develop power at Niagara Falls and there was no necessity for further development. Our first purpose was to secure a supply of power. We secured an offer off hand at \$12.40; an engineer made a statement that \$12.00 power would never be an accomplished fact; it was a commercial impossibility, and an economical impossibility, and could not be produced and we had no right to base our estimates on \$12.00 power. I can only say that after eighteen months' negotiations, we are able to offer today, electricity at \$9.00 per horse power, and we have 100,000 horse power available. (Applause.) The lines and works have been built within the estimate.

As to the operation, we have had a few interruptions, but nothing compared to what we anticipated when we undertook this project. I think we can say the operation is satisfactory to the municipalities, the cost is satisfactory, and the whole project has been satisfactory. There is no controversy between the supplier of power and the user of power.

What have we done in the way of saving to the people? You know that electricity has been sold at a price equal to the price of that which was generated by steam; it was no advantage to the people of Hamilton or Ottawa to have it generated by water

power. At Ottawa with the river going through the heart of the city, they were paying 15c per kilowatt hour, while we in London were paying 10c; and Hamilton, right at the door of the great DeCew Falls, the cheapest power development on this continent, were paying 10c and 12c, while we in London were only paying 10c, and our power was generated by steam. It was reduced in Ottawa to 7 1-5c, and power is reduced to \$25 and \$30 per horse power, and lights were reduced from \$65 to \$45 per lamp.

The surplus for the first three years was \$18,000; the second year \$23,000, and the last year \$31,000—over \$70,000 of a surplus in three years. (Applause.) The saving to the user in Ottawa is over \$270,000 a year. The City of Toronto has made a saving to the users of the power of over half a million dollars per annum. In Hamilton they save from two to three hundred thousand dollars per annum, and the City of London has saved \$150,000. If you take the thirty different municipalities that we are supplying, I am safe in saying that the \$4,000,000 invested by the Province, with \$4,000,000 or \$5,000,000 invested by the municipalities, has saved the users of power \$2,000,000 dollars per annum—or say ten millions in five years. The whole of this investment will have been made out of the savings of the people in the reduction of rates. What does that mean? The Toronto Globe, editorially, a short time ago, said, "The reduction effected in rates will more than pay the whole investment in a very few years," if not one horse power was transmitted over the line, so we can at once say this project is a success. (Applause.)

While we have saved such an enormous amount to the people of the Province, we have also conserved the water powers in the Province for the people. This power is sold to the people at cost price, and it means power, not only to the cities, but to the village and to the unincorporated village, the police village; yes, and it means power to many of the farmers of the Province of Ontario.

We come now to the matter in which you are most directly interested and that is electricity on the farm. Let me say in the beginning that I am not prepared to say that all the farms in the Province will have electricity sufficiently cheap to take the place of the gasoline engine, but we do know that with the development of the local water powers, that we will be able to supply power to many farmers of the Province, and I could not begin to tell you the great benefit it is going to be. (Applause.)

I had the pleasure of visiting the continent of Europe in connection with this project, six months ago. I was accompanied by our engineers, and one of the experts of the Agricultural Department of the Province of Ontario, and we saw how the people in that land made use of everything. How they conserve everything, and how they deal with everything from an economical standpoint. On their farms, weeds are almost in unknown quantities. The thrift and economy which they practice is not practiced in this country. I had occasion to suggest to some of the people over there that they should come to this country and acquire large tracts of land. I suggested this to many of the people in France, Belgium, Switzerland, Austria, Italy and Germany, but you could not convince them that

it would be a benefit. They had ingenuity and the business thrift, and the mechanical education to enable them to succeed in the work they are doing over there. It is the machinery that makes the farm a paying undertaking to-day, the same as it is with any other industry. It is business methods that makes farming one of the finest and most paying industries, and over in Europe, we saw it in its full bloom and we want that here, and I believe you are acquiring it with such institutions as the Agricultural College, presided over by Dr. Creelman, and such institutions as the Women's Institutes and the Farmers' Institutes, educating the people of the Province of Ontario and carrying this education to the farm houses. I say "Help the industries, help the manufacturers and give them protection, but do all you can for the greatest industry of all—and that is the agricultural industry of the Province of Ontario." (Applause.)

What can you do with power on the farm? You may cook, you may heat, you may operate all the machinery on the farm, whether it be a plow, a harrow, a reaper, a mower, or the modest cream separator, the washing machine, the iron, the sewing machine, to light up your farm, or to do the milking. We saw plowing done by electricity. We saw twenty-three acres plowed in a day. It was very simple and not too expensive. We saw cooking in the household in all its features, and I am glad to tell you that we are more advanced in this country in cooking appliances than they are over there. We are very much further advanced than they are in the method of supplying electricity to the people. In Germany, the principle is that the company generate

electricity and power, and bodies of farmers and communities of farmers form associations and finance the undertaking themselves. They have to build the transmission line to the village and they have to operate it.

In Germany the farmers live in small communities and villages, and it makes it less expensive to distribute electricity. We have electricity at half the cost to begin with, but our labor is double the cost that it is there. If we save a man, it is like saving two, and I cannot see why this country should not have as great a benefit so far as the farmers are concerned as they do in Europe. I am not prepared to say that you will be able to plow by electricity in the very near future because your fields may not be as large as they are in Europe; yet electricity is cheaper here than there and I cannot see any reason why you should not get plows and apparatus necessary to do the work. I saw threshing by electricity in all its stages. In Germany in one village, we saw a large threshing machine under cover, and attached to it was a fanning machine. The farmers there have from twenty-five to thirty acres and they have not a large enough threshing to have it done on their own farms and they take their barley or rye or wheat to the threshing machine which was owned by them in a co-operative way. They bought the power from a large manufacturer and brought their grain from the fields to this machine and had it threshed, and took home the straw and grain.

Near Dresden, I saw on one farm of fifty-three acres twenty-one cows milked by electricity. This same farmer pumped his water by electricity for the use of his cattle, and he had a

fire pressure. He had a motor to do the threshing, and he cleaned all his grain by electricity, and the chopping of it was done by electricity, his house and barns were lighted by electricity. He made a splendid livelihood from his farm and said he could sell it at any time for \$300 an acre.

How do we proposed doing it in this country? We have 281 miles of high voltage line at present and 180 miles of low voltage line running from one village to another, and there is no reason why the farmers cannot connect with these lines and have power cheaper than can be generated by the gasoline engine or oil or coal. We must first look to the low voltage line. We now have 180 miles and we are building thirty miles more, and the applications that we now have on hand will mean the building of four or five hundred miles more, so that in the course of a year or two, we should have a thousand miles of low voltage lines and the main arteries from station to station and from village to village for eight miles wide can be served. That means one thousand miles eight miles wide that can be served, and in that area every farm can be served with electricity. The electricity will be sold for twenty-four hours in the day, and the success of the scheme will depend entirely upon the way in which you can use it upon the farm.

Let us see what a three horse-power motor can do. A one horse-power motor will drive separators, churns, water pumps, fanning mills, washing machines, sewing machines, vacuum cleaners, horse clippers, electric fans, cream freezers, grinding machines, milking machines, ice machines, sheep clippers, drills, lathes, and dish washing machines. A two to five horse-power motor will drive food

cutters, laundry mangles, laundry dryers, brine pump, small threshing machine, irrigating pumps, wood saws, straw cutters, refrigerator plants, hay hoists, grist mills, elevators, conveyors and cleaning machines. A ten to twenty horse-power motor will drive large threshing machine and baling presses. A sixty to eighty horse-power motors are required for plowing. If you can take a three horse-power motor and do your work at a certain time of the day, you can use all these appliances.

The Government's policy is to build all the lines for the municipalities; the township will be required to build the lines from the roadway into the farmer's house or barn, and they must collect the dues and compensate the Province. That means a small investment for the township, but it means that there should be no hesitancy on the part of the township to make electricity available for the farmer. Provision has been made in the Hydro-Electric Bill last session that upon application of one or more farmers, the township council must apply to the Commission for an estimate of the cost of the undertaking. When the report is made, the township must have a special session and ask the farmers to meet them and discuss the rate, and if they desire electricity, they (the Township) shall undertake the project. It may seem arbitrary, but the Commission will never undertake to bind a township council or a village council to an undertaking unless they are absolutely sure that the undertaking is going to be a success.

What will the farmer do with \$150 worth of electricity per annum? I have a letter from Mr. Prouse, the man who owned one of the silos that was filled by Niagara Power at In-

gersoll. He had one filled by a steam engine and the other by Niagara Power, and he tells us that he filled the silo by electricity for \$32, or \$33 less than the one he filled by steam, and they are both about the same size. If you can save only \$20 a silo that will go a long way in paying for \$150 worth of electricity. You will have less danger to your building and it will be less expensive.

A portable engine costs from \$1,200 to \$1,800, and the electric apparatus will only cost from \$600 to \$800, and it will last twice as long, and will not cost one-quarter the up-keep of a steam engine and boiler. It will be of enormous advantage to the farmer in threshing his grain and filling his silo.

How will this be operated? The farmers jointly will own the apparatus, or a company or some one man will own it. It means a small investment, but it will not amount to a great deal. If you have ten or twenty farmers on a line using 70 or 80 horse-power a day, when the threshing takes place on that concession, the farmers can cut out the use of their power for every purpose to a certain extent and they will not increase the total rate on that line, and you will be able to do your threshing and heavy work of this kind for practically nothing. You can use the power for cooking in the household. The present range is expensive in price and expensive in the way power costs, but with the new cooking apparatus, the fireless cooker, with a small current, it will decrease the cost very materially, and will mean quick and economic cooking, and uniform cooking in the household and for heating as well. You can have a small heater in a room you do not use continually—you can get a radiator at from \$6

to \$12 and you can use it when you want it.

Three horse-power will cost you 1.8c per kilowatt, as compared with 5c on the Continent of Europe. I do not wish to decry the gasoline engine. We know that one concern in the United States turned out thirty thousand last year for the use of the farmers, but when we have electric motors in use, they will do away with a lot of the danger of fire, and we will do away with the coal oil lamp, which will no longer be required. We will be able to do everything, even to warming the beds, by electricity. It is a revolution, a commercial possibility, an accomplished fact, and when we secure the battery that is promised us by Mr. Edison, we will have still greater advantages.

We know there are great advances being made in the storage of electricity. Mr. Edison says he has a battery that weighs less than half the weight of the old battery, and he says he has a battery that will propel a vehicle for 200 miles and is much more economical. When that comes you will have a traction engine for your ploughing, your reaping, and your harrowing and the sowing of the land.

We have begun right. We have the product of our water falls, and the application is coming by rapid strides, but we have not yet run the zenith of the use of electricity. The success of this project is an accomplished fact, and you will be, I trust, much relieved of the burden of farm work. The highways of the country will be lighted, another inducement to the young men and women to go back to the farm and remain on the farm, and their lives will be less burdensome, more happy and pleasant.

Training of the Colt

DR. H. G. REED, Georgetown.

Halter Breaking

THE colt should be broken to the halter very early in life. During the first month or six weeks of his life he will yield readily to the restraint of being tied up, neither is he strong enough to offer any serious resistance, nor break the halter by which he is tied. Foals broken at this age rarely or never acquire the habit of halter smashing, as is too often the result if the training is not done till they are big, strong young horses.

Bridle Breaking

Before he is two years old the colt should be broken to the bridle. This will require time and patience on the part of the trainer if the best results are desired. Many a colt is more or less spoiled for life by rough handling during his first experience with the bridle. The mouth of the young horse is very tender and sensitive before it becomes hardened by the friction of the bit. When the bridle is put on for the first time great care should be exercised to avoid putting the slightest pressure on the bit. Simply adjust the bridle nicely and at once let him go in a box stall or paddock to run for a few hours, in which time he will become more or less reconciled to the presence of the bit in his mouth. After a time take the bridle off, using equal care to not bruise or injure the sensitive lips or gums. Repeat this operation every day for a week and you will have made considerable progress in your training. In the first place your colt will never have been either frightened

or hurt by the bridle, which is a matter of great importance, and in the second place his lips and gums will have become considerably hardened by the friction of the bit. Next put reins on the bridle, put a surcingle and crupper on the colt, check him up slightly and let him go for a few hours every day for a week or so. A piece of strong elastic on each side of the rein is a very useful adjunct. The colt will stretch out his nose, the elastic will give a little bit, and at the same time has a tendency to draw the nose backwards towards the chest and no colt should ever be driven with lines before he has been taught to turn his nose in towards the chest upon pressure on the lines. In this way the colt's mouth becomes gradually hardened and he is trained not to fight the bit, but to yield to its restraint, and the chances are he will have that nice, sensitive, tractable mouth, so very desirable in any horse, more especially in the case of the gentleman's driver.

It too often happens that in the training of the colt the bit is forced into his mouth—a good strong rein—often a piece of rope is fastened to it, and the creature is lunged from side to side by a stout trainer till his mouth is all bruised and lacerated. Such treatment usually causes the lips to form a callous growth, renders the mouth hard and has a tendency to develop an animal which will "lug" on the bit and render it almost impossible for him ever to become a good-mannered horse.

Harness Breaking

Colts should never be driven to

any kind of vehicle till they have been well trained to drive with only the harness or the trainer walking behind. They should be taught to turn to either side on pressure of the lines, to stand still when told to do so, to go forward at the word, and even to back up at the wish of the

driver. When broken to this stage they may be hitched either single or double—preferably double—if a good reliable horse is available to hitch him with, and with few exceptions they will drive off without any trouble or danger to either themselves, the driver, or the rig.



ONLY A HORSE

Only a horse, and an old horse, too, working from day to day,
Only a worn out nag, 'tis true, plodding his weary way.

A horse that works and works in vain for his master's word of praise,
A slave that bows to the tightened rein; a beast that the master flays.

Only a horse; but a horse with a heart—A thin worn out old bay;
But with spirit strong, he plods along with an uncomplaining neigh.

A beast of burden by man abused, tortured with lash and with goad;
But a lesson in faithfulness, courage and truth is this worn out nag of
the road.

Only a horse—not a brute—but a horse, a patient, tired old bay,
The brute is the one who applies the lash, not the one who receives the flay.

He labors hard for his master's greed, he endures the toil and the pain;
But the look of despair from his eyes is a prayer—an appeal to be humane.

—Maritime Student Agriculturist.

Seed Inspection in Canada

E. D. EDDY, CHIEF SEED INSPECTOR, OTTAWA.

THE passing of the Seed Control Act by the Parliament of Canada in 1905 paved the way for many changes in the seed trade. Prior to that there were no restrictions. Dealers could sell seed of any quality, either in respect to germinating capacity or freedom from noxious impurities, and were accountable to no one. They were not required to be able to tell purchasers that their seed did not contain over a certain proportion of weed seeds, nor that a certain per cent. would grow. Those who were trying to build up a permanent trade through satisfied customers did their best to secure good, pure seed, but others collected the cheapest obtainable and sold it regardless of the succeeding crop of weeds that would be a pest to the farmer for years. As purity of seeds was not forced upon dealers, very few took the trouble to become familiar with even the commonest weed seeds. Seed dealers who could distinguish half a dozen kinds were rare. In the clover seed producing districts some could tell Ribgrass and Foxtail, but few could extend the list, and many had not got that far advanced in weed seed identification. Under such conditions it was inevitable that much very dirty seed would be distributed, some of it without the knowledge of either the dealer or purchaser.

The way in which the seed trade is now conducted is a striking contrast to the conditions which prevailed eight years ago. This season twenty-six seed inspectors are engaged who call on the seed dealers throughout Canada to see that the law governing the sale of seed is be-

ing observed. Each permanent officer of the Seed Branch is responsible for the inspection work in his district. Temporary seed inspectors are employed who act under the direction of the Seed Branch officers. In the clover and timothy seed producing sections, where many retail dealers secure their stocks direct from the growers, more inspectors are required in proportion to the area, as the stock carried by dealers changes often, which necessitates several visits in the season. Where the dealers secure their stock from wholesale firms, fewer visits are necessary as stock is not renewed so frequently and there is less danger of dirty untested seed being offered.

Detailed reports are made out by all of the inspectors showing the places visited, the names of the dealers, and kinds and quality of the seed carried. These reports are sent to the head office at Ottawa at the end of each week, and the temporary inspectors send duplicate copies to the district officer under whom they are working. Through these reports the district officers are able to tell where questionable seed is being carried and arrange to revisit any places that seem to need special attention. At the Ottawa office reports of the permanent officer and the temporary inspectors are filed according to electoral districts and the place visited checked on a map. This makes it possible to see at a glance what inspection work has been done in any particular district, and the character of the seed in stock. In case of a violation a dealer's previous record in respect to the quality of seed car-

ried is readily available and is taken into consideration when recommendations for prosecutions are made.

When an inspector finds seed which he suspects is being offered for sale in violation of the law, a sample is taken and forwarded to the seed laboratory at Ottawa with a complaint. If the analysis confirms the inspector's suspicion, a letter is sent to the person or firm from whom the sample was taken, with the certificate of analysis, demanding an explanation for the sale of seed contrary to law. If a reasonable one is given and the dealer shows any inclination to try to conduct his business in conformity with the Act, no further action is taken, but if there is clear evidence of repeated carelessness or willful attempt to disregard the Act, the offender is prosecuted. This is necessary in only a few cases as the policy of the department has always been to solicit the co-operation of the dealers in trying to improve the trade, and with a few exceptions the dealers both wholesale and retail, are making an honest effort to comply with the Act.

Since the Act was amended requiring timothy, red clover, alsike and alfalfa seed to be graded according to fixed standards of quality, there has been a heavy increase in both seed testing and inspection work. About thirteen thousand samples are received for test in a season at the Ottawa laboratory. Wholesale dealers, when they have a lot of seed cleaned, send a sample for test and they are required to mark each bag with the grade in accordance with the certificate of analysis before sending it out to the retailer. Many of the wholesale dealers now give the laboratory test number with the grade,

which is a further guarantee and protection to the purchaser. Occasionally an inspector finds seed wrongly graded with a test number given as authority. In such cases the sample taken by the inspector is compared with the one tested under the number given. Sometimes the comparison shows the sample to be the same in general appearance but somewhat different in weed seed content. This may be accounted for by the natural variation between different samples from the same bulk lot, or if the difference is very marked, it indicates that the original sample on which the grade was given did not accurately represent the bulk lot, which was probably not thoroughly mixed. When the variation is not too wide, and there is evidence that the seed has been tested and marked in good faith, the original grade is confirmed. In some cases it is clear that the inspector's sample is from a lot entirely different from the one for which the test number is given. This indicates gross carelessness, or worse, and is considered a serious violation of the Act.

When first introduced the Seed Control Act was vigorously opposed by the wholesale seedsmen.

Retail dealers, especially in districts where seed is not produced, have welcomed the inspection system, as they look upon it as a protection to themselves and their customers. In the area where clover and timothy seed is grown there are some dealers who would still like to collect and sell the cheapest and dirtiest seed available, if there were no restrictions, but they are very scarce compared with those who try to comply with the law and give their customers seed that has been tested and properly graded.

A Tight Place

SIR HUGH CLIFFORD, in Blackwood's.

THEY were sinking the fifth big cylinder of the Periyakulum railway bridge, when Bruce, the engineer in charge of the job, passed the word shore-ward that he was in need of divers.

The cylinder—a great iron tube, twelve feet in diameter, coated inside with a layer of solid concrete a dozen inches thick, and bolted together in lengths of eight feet each—had already sunk down through the mud and ooze of the river-bed to a depth of over five fathoms below the water-level. For days the heavy grab had been busy plunging down through the cylinder into the soft bottom, grasping huge mouthfuls of dirt in its steel jaws, lifting them clear, and dropping them overboard; and all the time the big metal and concrete pipe, held erect by stays and scaffolding, had subsided slowly, inch by inch, into the slime. But now, though nearly a hundred tons of rails had been stacked, spelikin-fashion across the mouth of the cylinder to add artificially to its already tremendous weight, it could not be induced to budge. Hard bottom of a sort had been struck, but at too shallow a depth to satisfy Bruce as to its permanency. He knew from the borings that the cylinder must be sank through this stratum and another layer of mud before the rock-bed below would be finally reached.

After a short delay two of the divers, Bunny Fitch and Tom Mair, came off in a dug-out.

They belonged to a class by no means numerous in the East—white men who perform hard manual la-

bor for a wage; but they were further distinguished from the majority of their fellow-workers by the fact that the craft they plied is one which, even in temperate latitudes, must be reckoned among the dangerous and unhealthy trades. East or West, the element of danger remains more or less constant; but in a tropical climate the unhealthiness, discomfort, and strain of a diver's work are raised to the power of n.

Fitch and Mair had worked together as mates for the best part of a decade, travelling up and down the world from one engineering job to another; varying the monotony by doing a spell of salvage work here and there on sea-bottoms that were like gigantic artificial aquaria; or by putting in time at some garish tropical seaport, where they groped their way among mooring-buoy anchors in the fouled waters of the harbor.

They were not only mates, but pals, close pals, as men who live and work together in fair weather and rough, are bound to become if the enforced comradeship does not breed sheer, unreasoning hatred.

Fitch was a big, heavy fellow, slow in his movements and his thoughts, steady as a rock, and grudging of his few words. He had saved a good part of his pay, month in and month out, more because he never contracted the habit of spending money than he cherished any ultimate ambition which his slow economies were designed to gratify. He drank sparingly and never touched tobacco, not even when the eye-flies made life well nigh unendurable to a non-

smoker. He was reputed never to have been in love, not to have so much as looked sideways at a woman.

Mair, on the other hand, was a short, dark, wiry little fellow, marvelously strong for his inches, active as a cat, and as volatile as a drop of quick silver. His black hair grew low down upon his forehead, and his wide mouth and blunt features had in them the energy of a bull-terrier and the vivacity of a London street Arab. He had little voice in him, but much intemperate wickedness, bred of high spirits and an overflowing vitality which sought blindly and crudely for some means of self-expression. His pleasures were few and primitive, and he wallowed in them shamelessly when the opportunity served. Fitch, panting in his wake, sought clumsily to mother and chaperon him. He had nursed him through bouts of fever and other ills, had shielded him frequently from the logical consequences of his manifold evil-doing, and had got him out of more scrapes than either cared to count.

"There's no booking-off for me," Fitch used to grumble to himself. "Not when Tom's about. It's a twenty-four hours' shift all the time, and hard at that."

Yet he took a certain vicarious pride in the other's excesses—things for which he himself had no taste; laughed with grim, slow appreciation of his mate's quickness, cunning and ingenuity; and respected him as the better craftsman of the two. Much of their work was necessarily done in pitch darkness, the sense of touch, not the sense of sight alone guiding them; but Mair seemed to carry an eye at the end of each nimble fingertip. Working blindly with chisel and hammer under water, he wrought as

surely and almost as quickly as if he were performing his task unhampered. Fitch knew himself to be a good, careful and skilled workman, but he knew also that for all his plodding steadiness he was a child beside his small, mercurial mate, who could do more in a four hours' shift than he could accomplish in a shift and a half.

Arrived at the wooden staging the two divers prepared for business. They cast aside their overcoats, kicked off their shoes, and stood revealed clad in thick worsted sweaters, drawers and stockings which divers always effect. Such wear for a tropical climate was appallingly heavy and warm, and both men were already sweating freely. When inside the diving dress the temperature of the air they breathed would soon run up to well over 90 degrees Fahrenheit, in spite of the water coolers on the air-pumps, and their work would be done in an atmosphere resembling that of a hot-room in a Turkish bath. They would, of course, be unable to wipe their faces or bodies, and while the worsted clothing would absorb most of the moisture from the latter, the red head-cap of the same material, which Bunny Fitch now proceeded to put on and to pull down low over his eye-brows, was designed to keep, at any rate, some of the perspiration out of his eyes.

With Mair's help he got into his diving dress, fixed his helmet, and opened the valve. Lifting his laden-soled feet painfully, he began to descend into the cylinder. With his strange globular headpiece, ungainly bulk, and slow movements, he resembled a gigantic automaton worked by reluctant and ineffectual clock-work. His bare hands, red and slight-

ly congested by the tight rubber bands about the wrists, alone retained the mobility which we associate with the alert vitality of man. Presently the muddy waters closed over him, and a little later the air-pipe ceased to pay out. He had reached bottom, and the ladder was withdrawn to give him more room in which to move and work.

One and the best part of a second hour crept by, and Tom Mair, his back resting against the side of the cylinder, sat smoking his pipe on the staging above water-level, while his invisible mate toiled silently nearly forty feet below him, Mair's duty was merely to stand by on the chance of his mate needing his assistance. The space at the bottom of the cylinder, where Bunny Fitch was slowly chipping away the rock round the edges with chisel and hammer, was too confined to admit of more than one man working there at a time.

The hour was nearly midday, and the sun, soaring high in the heavens, was a white hot disc upon which the eye could not rest for more than a fraction of a second. The sky was white-hot, too—colorless, yet vivid with heat. The slow waters of the river, purring around the stays and staging-piles, refracted the suns-rays with a blinding intensity. There was not a square inch of shade anywhere, and the palmyra palms on the river banks, standing ankle-deep in rank, parched underwood, lifted ragged clusters of fronds that stiffened and cracked in the dry and quivering atmosphere. Bruce and most of the coolies had gone to attend to work on one of the neighboring cylinders. Mair could see the former moving about the staging and directing the men, clothed only in a big sun-hat, a flannel

jumper, and a pair of canvas shorts. Even at that distance his face and his bare arms and legs showed black where the sun had tanned them to the hue of confluent freckles. Mair was alone, save for the linesman—Fitch's only remaining link with the outside world and the two tamil coolies who had charge of the air-pump.

Even through his thick sweater, the metal of the cylinder, against which his shoulders rested, was almost unbearably hot. The sweat had dried on his face, and he could feel his eyebrows stiffening and lifting as the last minute drop of moisture was sucked out of each separate hair. The sun smote down upon him mercilessly. The refracted heat from the river struck upwards with even greater intensity under the brim of his sun-hat. It seemed to him that, beaten upon by the breath of two raging furnaces, he was slowly grilled alive. The heat was something which had to be endured actively and consciously, like pain. Sleep, in such circumstances, was an impossibility. The brain, though cruelly alive, seemed to have become fused into a vapour too volatile for thought and capable only of registering impressions. Every sense was dazed and reeling, yet combining with every other to appreciate the intensity of their collective suffering. Even blasphemy—Tom Mair's most ready outlet for emotion of any kind—proved comfortless. He could only sit and gasp, like the dusty crows perched with gaping beaks on the fronds of the palmyra palms.

Then suddenly, something happened. Mair at first failed to realize what that something was; but an instant later it flashed upon him that the cylinder had sunk abruptly and

rather a matter of, it might be, a couple of feet, and then as abruptly had stopped.

He leaped to his feet and craned over the edge. The circle of muddy water within the great iron ring was strangely agitated, its surface disturbed by swirling eddies which laped wave-like against the sides.

At the same moment came a signal from Fitch—a signal of distress—and the linesman gave tongue lustily.

Mair, already feeling for his diving dress, sent a thin cry through the immensity of the burning daylight, calling frenziedly upon Bruce. He hardly knew, and Bruce barely heeded, the words he used. The tone of his reiterated outcry was sufficient in itself to awaken dismay; and in a few minutes Bruce and a party of his coolies were racing towards him in a dug-out.

"Here! Help me into those damned things!" Mair cried in high excitement, fumbling the while with his diving dress. "My mate's in trouble. What sort of trouble? Gawd knows! Careful with that ladder. No. Better let me go down without it. You may do him a hurt. The cylinder sunk—sudden-like. He signalled for me. Twice he signalled. No. He ain't signalling now. Hold on, old mate, I'm coming."

Then, still calling encouragement to Fitch, oblivious of the fact that the latter was out of earshot, he clapped on his helmet over his red cap, and his voice died away in a sort of sobbing murmur.

Bruce and the coolies helped him over the edge of the cylinder, and he sank rapidly from sight, engulfed by the muddy waters.

Bruce stood looking downward, vainly straining his eyes to pierce

the opacity of the surface, and speculating in an agony of suspense as to the nature of the tragedy which was hidden from him by those jostling waters. The coolies crowded together, exchanging furtive whispers and fearful glances. In the tense stillness of the noontide, over land and water the heat haze danced like a company of mocking wraiths, as though it shared with this little knot of waiting men the restless anxiety which thrilled them.

Tom Mair sank downward through the water in the cylinder, watched the wavelets wash against the eye-glasses of his helmet, and the light become obscured, fade and disappear. He was now in dead darkness, and only his outstretched hands, touching the concrete wall to right and left, and thereby guiding and steadying his descent, kept him in contact with the outside world against which his diving dress hermetically sealed him. Henceforth, until he regained the surface, he had the use of only one sense—the sense of touch. For the rest, he was blind, deaf and dumb.

He felt his right foot touch presently a loosely packed heap of stones; slither on it, and come to rest against the side of the cylinder. Almost simultaneously his left foot found a resting place, and stooping quickly with groping hands outstretched, he discovered that it was planted upon the prostrate body of his mate. This filled him with astonishment, and his first thought was that Bunny Fitch had fainted. He began to close the valve in the latter's helmet, so that the inflated dress might make him buoyant and easy to carry upward to the surface; but immediately a hand Bunny Fitch's left hand—flew to his,

grasped it, and resisted it passionately. He at once left the valve alone. Then he took up a standing position, straddle-legged across his friend's recumbent body, and began rapidly running his fingers over it.

The whole of the bottom of the cylinder, to a depth of nearly three feet, was filled with rocks and chips—the debris of Fitch's chisel work—and on this Mair found that Bunny was lying awkwardly on his right side.

"What the devil ails him?" thought Mair. "And why won't he let me raise him?" But these were questions which his nimble fingers alone could answer for him.

Fitch was making frenzied, unintelligible movements with his left hand, but Mair's own fingers were too quick for the other to be able to seize them. Rapidly they ran down each side of Bunny's legs; then up his body to the left shoulder, along the neck, over the surface of the helmet, and squeezed themselves between the loose stones and the side of the cylinder, exploring the right shoulder and forearm. Then Tom Mair's heart stood still in his body.

In spite of his complete blindness, his sense of touch had now given to him as accurate a picture of the position in which his mate was lying as if the sight had been burned in upon his brain. The cylinder, in its sudden and unexpected descent had pinned Fitch's arm to the rock below. He was lying on his side, tethered to the river's bottom by his hand and wrist, with the whole colossal weight of the cylinder serving as a fetter.

The thought of the agony he must be enduring scarred Mair's imagination like a red flame cauterizing his

brain, and the silence, which should have been rent with screams, became in an instant a well nigh unendurable oppression. Yet his mind was working rapidly, and his nervous, sensitive hands were already busy searching for the hammer and chisel with which Fitch had been working. Before many seconds had elapsed he had found the latter; but the hammer, which had been in Fitch's right hand at the moment that the catastrophe befell, eluded him. It had probably been embedded by the sudden subsistence of the cylinder.

At once Mair stood erect, closed the valve of his helmet, signalling all the while for a ladder, which, when lowered to him, he placed with care, so that no part of his mate's diving dress should be pinched by the foot of it. Then he ran up it, his body buoyant with air, and was unscrewing his front glass before the rim of the cylinder was reached.

Breathlessly he told Bruce what had occurred, bade him send for the doctor and his tools, seized a hammer, refixed his glass, and climbed down again into the cylinder.

His idea was to try to chip away the rock beneath Fitch's imprisoned arm, and thus perchance to set it free; but at the first blow he felt his mate's whole body plunge and vibrate, even through the diving dress, with the agony occasioned by the shock. Another blow, and Mair's arm was seized in the iron grip of Fitch's left hand. With a groan of sheer despair, the former dropped his tools. If he could only speak to old Bunny, he thought miserably, perhaps he could nerve him to endure the pain which alone could bring him release. He shook himself free, and picking up his hammer and chisel, again

chipped at the rock, but he felt his blow to be nervous and half-hearted, and at once Bunny grabbed him anew. Clearly the task was hopeless. The trammels set upon all his senses save that of touch—the blindness, deafness, dumbness that beset him—raised the horror of the position to a nightmare intensity. Unheard he was crying upon his Maker as lost soul may cry from the depths of Tophet. Tears mingled with the sweat that, escaping from the cap on his forehead, was pouring down his face. His whole body was tingling and quivering with an almost insanity of rebellion against the impotence that held him powerless to aid his mate. He lacked the nerve to resume the slow chipping and chiselling of the rock which would be rendered doubly slow by his own appreciation of the agony he would be causing, and his mate's unconquerable resistance; yet upon him and upon his unshaken nerve depended, he knew, the life of his friend, aye, and his own reason.

It was a wild-eyed lunatic who presently rushed upward from the depths of the iron well, unscrewing his glass, and calling upon Bruce with inarticulate ravings and curses. The doctor was coming off, paddled by excited coolies; but though he travelled swiftly over the dazzling waters, Tom Mair, pinned to the staging by his leaden-soled boots, rocked in his diving dress, like a maddened elephant at its pickets, shook hands with writhing fingers above his head, and blasphemed with horrible vehemence, entreating him to hasten.

An idea had come to him, had taken possession of him. He knew now what he must do; had appraised the heavy risks, and felt as if each one of them were a red-hot goad driven

deep into his naked soul. A cowardly demon within him was screaming to him that his idea was impossible—that he could not carry it out—that he lacked the nerve—that it was foredoomed to failure—that it was asking more of him than could fairly be asked of any man—that he could never muster the resolution to penetrate again into the silence and the darkness wherein his mate lay in mortal, dumb agony. He dreaded every second of delay lest this devil should gain the mastery of him, and drive him into headlong flight from the spot where, hidden by the untroubled waters, Bunny Fitch lay tethered awfully to the river's bed.

The doctor took him roughly by the shoulder and shook him vigorously. "You've got to steady yourself if you are going to be of any use," he said angrily. "Steady yourself, do you see? And here—drink this."

He helped Mair to pour a stiff tot of brandy down his throat, gripping his shaking hand with calm, capable fingers.

"There's nothing for it," Mair sobbed out. "I've got to cut his blooming arm off. O Gawd. That's what I've got to do, Gawd help me!"

The doctor made some rapid inquiries in a businesslike, professional manner, very soothing to Tom's lacerated nerves.

"Yes, my man," he said, when he had assured himself as to the position, "Amputation is the only chance, and you must try it; but remember, you've got to be quick—mighty quick—and you've got to be sure. As soon as you cut the rubber of his diving dress he'll begin to drown if you bungle the job. Now, let me feel your pulse. Galloping like a race-horse. Here! Take another drop of brandy

and pull yourself together. You're a good workman they tell me, and you've got an uncommon ticklish job in hand. Don't bungle it. Remember your mate's life depends upon your skill and pluck. Is that the sharpest axe you've got Bruce?"

Bruce nodded silently. He handed a short wood axe to Mair, who felt its keen edge gingerly with his thumb. He too was silent, but as he began to screw on his glass his face was working convulsively, and tears were pouring unheeded down his cheeks.

Again the big automaton—a figure robbed magically of all outward expression of emotion—began to climb down the ladder, and presently was swallowed up again by the disturbed water. Bruce, the doctor, and the coolies stood craning their necks to gaze into the baffling depths below them.

Mair, usually so quick, moved with slow, reluctant deliberation down the ladder. The wild excitement of a few moments earlier had died down in him, and had been succeeded by a kind of cold despair. The brandy had steadied him. He was bracing himself conscientiously against the ordeal which awaited him down there in the place of horror whereof the terrors presented themselves every instant more and more vividly to his imagination. Vicariously he seemed to be enduring every pang that was torturing the mind and rending the body of poor Bunny Fitch in his long agony. His own arm throbbled and tingled in sympathy. In fancy he could feel the cruel shock which each blow of the chisel on the rock had dealt to his mate. Already it seemed to him that the still more fierce pain, which the first stroke of the axe upon yielding rubber and flesh would inflict upon

Bunny, was stabbing him—that and the panic fear of death by drowning. Yet now his will was set upon the task awaiting him. It was the only chance. He gritted his teeth together, drew his muscles taut, and nailed himself to his duty. The cowardly devil was subdued and silenced; only Mair moved slowly, seeking thereby to delude himself into the belief that he had regained his calm.

Arrived at the bottom, he once more explored with his fingers the precise position of the tethered arm. The cylinder and the rock had gripped it with a vice-like clasp a couple of inches above the wrist. The hand beyond the cylinder's edge must be lying palm downward. Tom Mair, of course, could see nothing; but touch with him had become a sense almost as accurate as that of sight. At the end of three or four minutes of careful and minute groping, during which the very soul of him seemed to have passed into his finger-tips, he had obtained as exact an appreciation of the relative position of the arm, rock, and the cylinder-edge as if he had examined them with his naked eye. For the rest, he was used to hitting the top of a hidden chisel with an invisible hammer for hours a day with force and accuracy.

He drew in his breath, and bit his underlip hard; poised the axe, lowered it slowly, measuring his distances and then brought it down upon Bunny's arm. He felt the blade eat deep into flesh and bone, and was conscious of the insuck of the water through the rent in the rubber casing. Also he felt Bunny quiver and flunder beneath him as the diving dress filled with water, but he had taken the precaution to grip him with his knees to prevent active interference. Quick as

light, he struck again, and yet again; knew that he had severed the arm; signalled wildly to the linesman, and felt Bunny Fitch's body suddenly snatched away from him, as the man at the cylinder's mouth drew him and his water-logged prisoner swiftly to the surface. The doctor, aided by Bruce, was busy tying the arteries of Bunny's arm by the time Mair had succeeded in scrambling up the ladder and had unscrewed his glass.

"A very clean bit of surgery," the doctor remarked cheerfully, a few mo-

ments later, "though I'll make a better job of it presently when I get him ashore. Well done, young man! You saved this fellow's life."

But Tom Mair did not hear him. Still in his diving dress and looking like some strange mechanical toy which had strayed out of a giant's nursery cupboard, he was sitting on the staging with his big head between his bare hands, rocking his body to and fro, and weeping as little children weep.



CANADIAN BOAT SONG

Listen to me, as when ye heard our father
Sing long ago of other distant shores;
Listen to me, and then in chorus gather
All your deep voices as ye lift your oars.

Where Scur-na-Gillean braves the wind and rain,
Where round Ben Mohr the mad Atlantic laves,
Where grey Iona's immemorial fane
Keeps solemn ward on unforgotten graves.

No more the lovers on the shore are meeting,
No more the children paddle in the stream;
We hear no more the pibroch's stirring greeting
Nor see the moon on royal tombstones gleam.

No more the slogan echoes in the valley,
The deer unchallenged roam across the glen,
No more around the chieftain's banner rally
The fairest women, and the bravest men!

From the lone sheiling on the misty island
Mountains divide us, and a waste of seas!
But still our hearts are true, our blood is Highland,
And we in dreams behold the Hebrides!

Tall are the trees that gird this surging river,
Green are the prairies sloping to its strand;
But we have left our native glens for ever
Sunder'd for ever from our father's land!

The authorship of this poem, which is found with one or two variations, notably in the last verse, is a matter of doubt, but has been attributed to the twelfth Earl of Eglinton, who was in Canada for some years. It was published in 1849, as a translation from the Gaelic.

Beekeeping--A Woman's Avocation

ANNA B. COMSTOCK.

TIME was in America when the house was considered the country woman's only legitimate place. To be sure, she might go to the barn to help milk, but there was a strong American sentiment against her doing farm outdoor labor. However, sometimes during the great stress of getting in hay or oats before a rain, it was considered proper, and even virtuous, for the women to lend a hand at the easy end of the job. It was perhaps allowable for a woman to make a flower garden, and sometimes she might even help weed the lettuce-bed, but undoubtedly the New England sentiment against field labor for women finally prevailed in the North from the Atlantic to the Rockies.

Now all this is changing. The change has come, not from the bottom upward, as would be the case if our peasant women from Europe had set us an example in field labor, but from the upper crust downward. It is our rich city women who become students in our agricultural colleges and in the agricultural courses given in the cities, with the purpose of training themselves to manage their own country places. And when it comes to practical work we find that they are not above taking a hand at farm labor themselves. They realize that outdoor labor brings health and a zest to life, and why should their sex debar them from these blessings? To-day many feminine eyes are scanning closely all sorts of agricultural pursuits with the single thought of finding profitable work within the scope of the strength of feminine

hands. Thus beekeeping is being regarded eagerly as a pursuit eminently fitted to meet the needs of women in such conditions.

Making a Right Start on a Small Scale

Beekeeping requires too much experience of many varieties for the novice to undertake it on a large scale. Counting your chickens before they are hatched is a safe financial venture compared with counting on honey before it is made. It is always better for the woman beekeeper—as indeed it is for the man—to begin the work at the small end and let it gradually enlarge. From experience and observation I believe that one colony of bees is enough for the novice to begin with. Let her buy the colony of some reliable apiarist who can assure her that it is strong and will be ready for work as early in the spring as the red maple blossom. If she learns how to take care of this colony it will give her at least two good swarms in addition, and she may then begin her second summer with three colonies. If she begins in this way she may make the start by herself with the aid of a book, supplemented by the study of some beekeeper in his apiary now and then. If it is imperative that the business begin to pay as soon as possible, there are only two wise paths to follow: One leads to a course of beekeeping in some agricultural college, and the other to some apiary where the novice may spend a summer as an apprentice and learn the business from the practical apiarist.

In many ways beekeeping is an

especially fit avocation for women. For instance, the brood frames and the sections for the supers may be easily made ready for use by a woman who has only a small amount of skill in using tools. Also the putting in place of the starters of the foundation comb is a delightful test of skill if it be done just right; and running the power foundation fastener is far easier and much more interesting than running a sewing ma-

and putting it in handsome glass jars.

In only two ways does the woman fall short of accomplishing the work of the apiary. When swarms insist upon settling on a limb high up in a tree, even though she extend her reach with the aid of a swarm-catcher on a pole, she may still be unable to dislodge the swarm and get the queen. But in hiving the swarm, ordinarily she is quite efficient. I remember several occasions in my own experience when, owing to the predilection of bees for swarming on Sundays, I have had to hive a colony when I was just ready for church. This I did without injury to my Sunday attire or to my Sabbath frame of mind. The other exigency where female strength falls short is in lifting and moving hives. A hive-cart is a great help in moving, but it does not entirely solve the problem of lifting. However, a little aid from the masculine members of the household at convenient seasons will tide over this difficulty.



Unpacking the Hives.

chine. There is surely no part in getting hives ready for occupancy that a woman cannot do easily and well. And when it comes to preparing the honey for market it seems to be woman's natural work, whether it be scraping and cleaning the well-filled sections and thus making this most beautiful of all products for the table attractive and appetizing, or whether it be extracting the honey

When it comes to the actual care of the apiary we must take it for granted that our woman has learned not to be afraid of the bees. No creature in the world senses and punishes fear more cogently than the bee. The woman need not be afraid, however, for the hot end of the bee is to be coped with much more easily than is the hot top of the cook-stove; and if there is a lurking fear in her mind let her visit her hives first in full bee-armor, consisting of veil, gloves and bloomers, the last fastened securely round her shoetops. After working thus protected for a few weeks she will become accustomed to her bee-folk and they to her, and soon the armor will be laid aside except for

certain late seasons when the bees will not brook interference from even their best-known friends. The gloves will be thrown aside first, then the veil, and soon the woman apiarist will be as much at home with her bees as with her flowers.

It requires skill, patience and steadiness of nerve to examine a brood-frame boiling over with a seething mass of disturbed bees, but not any great amount of strength. And when it comes to catching the queen and clipping her wings with the aid of embroidery scissors, it is certain that feminine hands can administer this service with greater delicacy and with less ignominy to her Royal Highness than can the larger, more blundering fingers of a man. One of the most trying things for the man apiarist is the necessity of keeping watch of his hives during the early summer months. His work at this period takes him far afield; and it does seem as if bees were possessed of a sense that realizes on what days in the week and in what hours of the day it is safest for them to get into mischief. The woman's apiary can be near the house where her eye, soon trained to bee manifestations, will take in at a glance any unusual happenings among the hives.

The financial results from apiculture furnish the chief reason for undertaking the business. Taking it year in and year out, the money yield from an apiary is reasonably sure, and is large for the amount of money and time invested. However, the honey crop, like other crops, is subject to fluctuations, depending as it does upon that interminable factor, the weather. Care should be taken to establish the apiary at some distance from other apiaries so that the bees

will have a sufficiently large territory for their harvest. Even with the same care, there is a difference in colonies as to the amount of honey yield. One of our colonies this year would have netted us \$6.50 had we been selling honey, while another colony, fairly strong, would scarcely have yielded us a dollar.

There are already a number of women apiarists in America. I number among my own friends several who are successful and happy in the work; and whether in Maine, Virginia or Ontario, they all write me the same story of keen enjoyment in caring for their bees. In my opinion, apiculture should be an avocation for both men and women; but perhaps the woman needs it most, for she should have something to take her out-of-doors and lift her from the ruts of household cares; and this something must be of money importance or she will not give it attention. Household work in its eternal routine is likely to get on a woman's nerves, unless she be one of those spiritually refreshed and strengthened by the enthusiasm permeating domestic science schools. Just to drop all thought of housework and go out into the orchard or some other airy place and attend to these little workers of the field and garden is a life-renewing process. It brings about a complete change in the mental landscape, for a person would be rash indeed to go wool-gathering when examining a bee-hive. There are no ruts in bee-keeping; the bees look out for that and are eternally ready with their surprises.

If a woman feels she must make a vocation of apiculture she should combine it with some other interests. It goes very well as an adjunct to the

poultry industry, and forty or fifty colonies may be cared for without in any way interfering with the care of the fowls; and where alfalfa and sunflowers are raised for chicken food the bees profit quite as much by these crops as do the fowls. In most localities it is quite impossible to keep more than seventy-five or at most a hundred colonies of bees in one apiary, for in the field reached by

bees in their daily flights there would not be enough food for a larger number. So apiculture in most places is necessarily a supplementary business rather than a principal one. But where can the woman find a supplementary business that will in the end yield her more satisfaction? The returns from beekeeping are threefold: some money, much pleasure and a continual assurance of good health.



The Deacon's Masterpiece;

Or, The Wonderful "One-Hoss Shay."

A Logical Story.

Have you heard of the wonderful one-hoss shay,
That was built in such a logical way
It ran a hundred years to a day,
And then, of a sudden, it—ah, but stay,
I'll tell you what happened without delay,
Scaring the parson into fits,
Frightening people out of their wits—
Have you ever heard of that, I say?

Seventeen hundred and fifty-five.
Georgius Secundus was then alive—
Snuffy old drone from the German hive
That was the year when Lisbon-town
Saw the earth open and gulp her down,
And Braddock's army was done so brown
Left without a scalp to its crown.
It was on the terrible Earthquake-day
That the Deacon finished the one-hoss shay.

Now in building of chaises, I tell you what,
There is always somewhere a weakest spot—
In hub, tire, fellow, in spring or thill,

In panel, or crossbar, or floor, or sill,
In screw, bolt, thoroughbrace—lurking still,
Find it somewhere you must and will,
Above or below, or within or without,
And that's the reason, beyond a doubt,
That a chaise breaks down, but doesn't wear out.

But the Deacon swore (as Deacons do,
With an "I dew vum," or an "I tell yeou,")
He would build one shay to beat the taown
'n' the keounty 'n' all the kentry raoun';
It should be so built that it couldn't break daown:

—"Fur," said the Deacon, "'t's mighty plain
Thut the weakes' place mus' stan' the strain;
'n' the way t' fix it, us maintain,
Is only jes'

T' make that place uz strong us the res'."

So the Deacon inquired of the village folk
Where he could find the strongest oak,
That couldn't be split nor bent nor broke—
That was for spokes and floor and sills;

He sent for lancewood to make the thills;
The crossbars were ash, from the straight-
est trees,

The panels of white-wood, that cuts like
cheese,

But lasts like iron for things like these;
The hubs of logs from the "Settler's ellum"
—Last of its timber—they couldn't sell 'em,
Never an axe had seen their chips,
And the wedges flew from between their
lips,

Their blunt ends frizzled like celery tips;
Step and prop-iron, bolt and screw,
Spring, tire, axle, and linchpin, too,
Steel of the finest, bright and blue;
Thoroughbrace bison-skin, thick and wide;
Boot, top, dasher, from tough old hide
Found in the pit when the tanner died.

That was the way he "put her through"—
"There!" said the Deacon, "naow she'll
dew!"

Do! I tell you, I rather guess
She was a wonder, and nothing less!
Colts grew horses, beards turned grey,
Deacon and deaconess dropped away,
Children and grandchildren—where were
they?

But there stood the stout old one-hoss shay
As fresh as on Lisbon-earthquake day!
Eighteen Hundred; it came and found
The Deacon's masterpiece strong and sound.
Eighteen hundred increased by ten;
"Hahnsun kerridge" they called it then.
Eighteen hundred and twenty came—
Running as usual; much the same.
Thirty and forty at last arrive,
And then come fifty, and fifty-five.

Little of all we value here
Wakes on the morn of its hundreth year
Without both feeling and looking queer.
In fact, there's nothing that keeps its youth,
So far as I know, but a tree and truth.
(This is a moral that runs at large;
Take it—You're welcome—No extra charge)

First of November—the Earthquake day—
There are traces of age in the one-hoss
shay,

A general flavor of mild decay,
But nothing local, as one may say,
There couldn't be—for the Deacon's art
Had made it so like in every part
That there wasn't a chance for one to start
For the wheels were just as strong as the
thills,

And the floor was just as strong as the sills,
And the panels just as strong as the floor,
And the whipple-tree neither less nor more,
And the back-crossbar as strong as the fore,
And spring and axle and hub encore.
And yet, as a whole, it is past a doubt
In another hour it will we worn out!

First of November, 'Fifty-five!
This morning the parson takes a drive.
Now, small boys, get out of the way!
Here comes the wonderful one-hoss shay,
Drawn by a rat-tailed, ewe-necked bay.
"Huddup!" said the Parson—Off went they.
The Parson was working his Sunday's text—
Had got to fifthly, and stopped perplexed
At what the—Moses—was coming next.
All at once the horse stood still,
Close by the meet'n'-house on the hill.
—First a shiver, and then a thrill,
Then something decidedly like a spill—
And the parson was sitting upon a rock,
At half-past nine by the meet'n' clock—
Just the hour of the Earthquake shock!
—What do you think the parson found,
When he got up and stared around?
The poor old chaise in a heap or mound,
As if it had been to the mill and ground!
You see, of course, if you're not a dunce,
How it went to pieces all at once—
All at once, and nothing first—
Just as bubbles do when they burst.

End of the wonderful one-hoss shay.
Logic is logic. That's all I say.

—C.E.

Dynamite on the Farm

C. E.

THIS subject has for some little time past been holding the attention and causing much discussion amongst many of our readers, and we think it for the public welfare that we should in a few brief lines and as clearly as possible let our readers know what can be done by dynamite on the farm. In the first place do not be confused by the word dynamite. We have known people's

and at a moderate cost. Whereas it took months to clear a few acres of land by the old method of chopping and use of stump pulling machines and dragging boulders off the land by horses and chains, etc., the same area of land can be cleared in a few days by stumping powder. This means that crops will be raised on the land much earlier and quicker returns for labor received. After



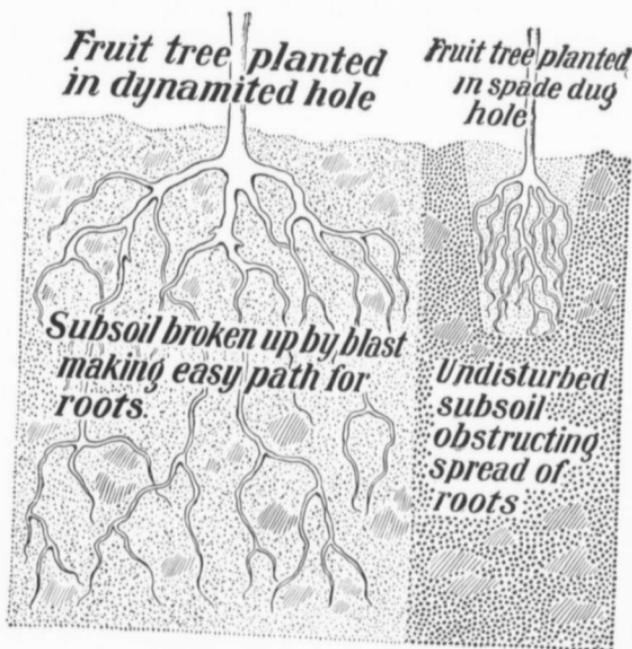
Time and Labor-Saving Blasting Stumps.

hair to raise at the mention of dynamite. But to-day powder companies are manufacturing a dynamite known as stumping powder, which is a low grade dynamite, and can be handled with a much greater degree of safety than the dynamite we usually have in mind.

Stumping powder, as its name implies, is used for blasting out stumps, but this is only one of the uses it is put to on the farm. It is also used for breaking up boulders, and by its agency land can be cleared quickly

clearing land with stumping powder the soil is left in a pulverized condition, thus all the advantages of deep plowing is gained while clearing the land. This means the soil is well ventilated and sweetened, therefore it is conducive to quick and robust growth of any crop that may be planted or sown upon it.

To blast out a stump, take an auger or crowbar, make a hole under the stump, and, according to size, place two or more sticks of stumping powder in the hole. Having placed a



cap and fuse in one of the sticks, fill in the hole, light the fuse and get to a safe retreat and watch the stump fly into the air.

Boulders embedded in the soil are broken by the same procedure. Boulders lying on the surface of the land are broken by laying a stick or two on the top of them with fuse and cap attached, covering the same with a few spadefulls of earth. There is no stump or rock too big or too heavy on your land to be removed by stumping powder. So by its agency you can turn every inch into account.

It is widely believed that trees planted with dynamite grow quicker and more robust than those planted in spade dug holes. To make holes

for trees, take a crowbar and make a hole about eighteen inches deep; place therein half a stick of stumping powder with cap and fuse attached. Light the fuse; retreat about 100 yards and watch results. It is astounding the number of holes that can be dug in this way. Stumping powder is also used for ditching, road making and subsoiling. Enterprising explosive companies are now sending demonstrators through the country to show the usefulness of this brand of explosives on the farm, and we would advise all our readers to visit one of these demonstrations, which we have no doubt will prove not only interesting, but of valuable assistance to them.

Alfalfa Growing

HENRY GLENDINNING, MANILLA, ONT.

ALFAFA was introduced into Ontario about forty years ago. At first its progress was slow, but it has made rapid advancement during the last five or six years. By those who have given it a fair trial on suitable soil it will be placed as the greatest forage plant ever introduced into this Province. The principal reason for its slow introduction was that it was introduced as the greatest pasture plant that ever grew. A good field of alfalfa will give more and better pasture than any other clover or grass, but if pastured close in the fall as most pasture fields are treated in Canada there will be very few plants left for the next year unless the winter and spring have been exceptionally favorable. On account of this weakness it was condemned by most of the farmers who gave it a trial in the early days of its introduction. With increased knowledge of the plant, its weaknesses and its strong points are better known. Possessed with this information we can grow it with as much certainty as a crop of red clover.

Soil.

It can be grown upon about as great a variety of soil as can red clover; but like red clover, to do its best it will exact certain conditions. The soil should be dry, that is free from dead water, to a depth of at least three feet. The field upon which alfalfa is sown should have sufficient roll to carry off readily the water from heavy rains or melted snow. Water that stands and freezes around the crowns in the wintertime is in-

jurious to the plant. If the soil has not good natural underdrainage it should be tilled to a depth of three feet so as to draw off the water quickly from beneath. This will do much to prevent heaving out of the plants in the spring. The soil should contain a good supply of lime. Most of the soils in the older sections of Ontario possess a good percentage of lime. The land should be clean and full of available plant food. A field that has grown a crop of roots the previous year and been well manured and attended to, is a desirable preparation. If the land is clean I prefer not to plow it either in the fall or spring after the root crop is taken off, but to use the disc or spring-tooth cultivator in the spring and make a very fine seed bed.

Seed.

Canadian grown seed that traces its parentage back to the first alfalfa that was introduced into Ontario about forty years ago is the hardiest and best strain of alfalfa for this country. The seed should be clean from foul weeds; rag weed and buck-horn are common weed seeds in much of the alfalfa seed that is offered for sale; it should be strong, plump seed with a high percentage of germination

Inoculation.

The first growers of alfalfa in Canada were under a disability compared with those who start today. At that time nothing was known about the inoculation of the soil with the proper kind of bacteria

for nitrogen gathering. No doubt but many of the failures of those who tried the growing of alfalfa years ago resulted from a lack of the little germs in the soil that are so essential to the successful growing of the alfalfa plant. This bacteria can be obtained from taking soil from an old alfalfa field and sowing it at the rate of a couple of hundred pounds per acre and cultivating or harrowing it in as soon as sown, or it can be obtained from the Ontario Agricultural College in a small bottle. The price is twenty-five cents for enough to treat one bushel of seed; treat according to directions and be careful that the seed is covered as soon as it falls upon the ground. If exposed to the sun for a few minutes the germs are killed and our labor is lost, which will probably be followed by a crop failure. Most Canadian farmers prefer to sow alfalfa with a nurse crop of grain, not because that it is the best plan, but because they do not care to loose a crop for one year. As a rule a better stand will be obtained by sowing the alfalfa seed without any nurse crop. If a nurse crop is sown, barley is the best, sow about a bushel to the acre

and from 15 to 20 lbs of alfalfa seed per acre. Sow the alfalfa seed to fall in front of the drill. This will keep the most of the seed between the rows of grain where they will not be shaded so much and the strong roots of the grain plants are not so likely to rob the small alfalfa plants of the soil moisture until they get a good start. On account of the barley maturing in a shorter time than any other grain, it takes less soil moisture from the land and removes the shading which gives the young alfalfa plants a better chance to grow than if sown with any other grain. In cutting the grain leave a high stubble and let the young plants make all the growth possible in the fall so as to retain the snow in the winter and protect the plants in the spring from the strong frosty winds that are common in March and April. We have had the young alfalfa plants two feet high in the fall when winter came and always found that where they were the highest they came through the winter the best. The old stalks in the hay will give no trouble the following year if the field is rolled in the spring.

IN LOVE

I'm in love—in love with the world!
 It's a beautiful thing to be
 In love with the earth and air and sky,
 And the boundless, limitless sea.
 I love the weed at the roadside,
 The green of a leaf unfurled—
 The shadows and shades of the mountains
 I love! I'm in love with the world!

Now, which of you having a lover
 Can ever with mine compare?
 Beauty she has in abundance,
 Most richly, surpassingly fair.
 And now she is coy, now tender,
 Now laughing 'mid pleasure whirled—
 But whatever her mood, she is charming
 My lovable, wonderful world!

A. C. H.

The Useful and Beautiful White Wyandotte

The variety deserves its popularity. Its quick maturity, its docility, pure white plumage and prolific egg-laying make it truly a great utility fowl—Some of the "Fads" that at times threatened the welfare of the White Wyandotte—Adhere to Wyandotte shape, avoiding extremes—Breed for increased vigor, which means higher fertility, stronger chicks and more rapid growth. How to raise hardy birds—First White Wyandottes "Sports" from the Silver Laced.

JOHN S. MARTIN, DOVER, CANADA.

OF ALL the varieties in our Standard of Perfection, there is none more popular than the White Wyandotte, and it deserves its popularity. While the Wyandotte breed includes eight varieties, the Whites have easily taken the lead, and on many poultry farms all over America they are bred by the thousands. The popularity of the White Wyandotte has been of gradual growth, which is as it should be. Whenever a breed or variety is boomed by means of excessive advertising, there is always a reaction, which is harmful to the welfare of that breed or variety. It creates an abnormal demand and fictitious values prevail. The amateur who pays a large price for birds is apt to think that he will be able to command the same prices for the birds he raises. Just as soon, however, as the supply equals the demand, the prices go down and the small breeder is discouraged by not being able to sell his birds at any price. White Wyandottes, however, have made satisfactory progress right from the beginning, and to-day their position as utility fowl is unquestioned.

It would be impossible to discuss the good qualities of this variety without mentioning its origin. The first White Wyandottes were "sports" from the Silver Laced, hence they are pure Wyandottes in origin. The breeds most largely used in the formation of the Wyandotte were the Cochin and the Hamburg, and strange to say, the resulting breed combined all the good qualities of the parent breeds, but has none of their defects. This is not stretching the truth, as I will show you. The Cochin is a fine table fowl, but very slow to mature. The Wyandotte is a better table fowl than the Cochin and it matures very quickly. The Cochin is gentle in disposition and not given to flying. The White Wyandotte inherits this docility and is easily confined by a five-foot wire fence. One of the greatest objections to the Cochin is, of course, the feathered shank; the Wyandotte is clean-legged. The Cochin has a single comb, which is liable to freeze in cold weather, but the rose comb of the Wyandotte I have never known to freeze, although the wattles are occasionally frosted. The Cochin is a splendid

winter layer, and this quality is also transmitted to the Wyandotte.

The Hamburg, the other important ancestor of the Wyandotte, is entirely different in its make-up from the Cochin. Years ago they were extensively bred in America, and they are known as most excellent layers. True, they lay a small egg, but they are a small bird, and they certainly make up for the smallness of the egg by the large number they lay. They have that excitable, nervous

As a Utility Breed.

Now, there is a question that White Wyandotte breeders may well ask each other. Is the breed living up to its original standard of utility, and is it making satisfactory progress? There can be only one answer. The White Wyandotte has made good in every particular. In the two egg-laying contests, just closed, White Wyandottes came out with flying colors, and in the English contests they have made wonderful



Humble, but Happy.

disposition common to Mediterranean fowls, and, of course, cannot qualify as a market fowl. Another characteristic of the Hamburg is the rose comb and the dark leg. The Wyandotte inherits the wonderful egg-laying propensity and the rose comb, but nothing else. Its beautiful yellow legs and beak come from the Cochin.

No doubt the originators of the Wyandotte had an ideal in view, and with patience and perseverance they worked steadily toward its attainment. The American fancier may well feel proud that this grand breed is strictly American in its origin.

records. In a recent contest reported by the London Times, White Wyandottes won three out of six gold medals for the six highest laying pens. These three medals included the first and second.

Now, in order to increase egg production, we must work along natural lines. Some years ago certain fanciers had a craze for a very short body and at important shows the ribbons were placed on birds with almost no back and with the hackle resting on the saddle. This was entirely wrong, and I am satisfied that if it had been persisted in, the utility

qualities of the breed would have been ruined.

Then there was the craze for color, and a bird with one or two creamy flight feathers would be thrown down for a bird that had white plumage, but was inferior in shape. Some judges placed so much importance on color and so little on shape, that all sorts of artificial means were resorted to in order to get that very white plumage. Understand, I do not wish to disparage good white color, but I have found that it is difficult to hold leg and beak color if the breeding for pearly color is followed too strongly. The birds with the richest leg color very often show a certain amount of creaminess, which, of course, disappears as the feathers mature.

Another fad that was followed some years ago was breeding for excessive length of feather. This was simply going back to the Cochin and could not be anything but a step backward. The White Wyandotte is a business bird, and the ideal of the fancier should be the type that will lead itself to the greatest possible development along utility lines. The illustrations of the White Wyandottes in the 1905 Standard of Perfection should never have been changed, as they were safe models to breed to. We must have a medium length of body and enough length of feather to bring out the typical Wyandotte shape above everything.

The shape of the White Wyandotte puts it in a class by itself. It is always ready for market from the time it is six weeks of age up to maturity. At six weeks it makes a splendid Wyandotte broiler, and at two months it is as plump as a partridge and can easily be made to weigh two pounds. At three months, four months, five

months or six months of age, it may be marketed, as it is always plump and tender.

In order to increase the popularity of the Wyandotte as a broiler and table fowl, we must strive for increased vigor. This means higher fertility, stronger chicks, and consequently more rapid growth. Although we have a cold climate in Canada I do not believe in pampering the birds. As soon as the snow comes we turn the water dishes upside down and compel them to eat snow until spring. They prefer snow to water and the egg production is not affected a particle and we have no frozen wattles. In front of each pen the snow is shoveled back for six or eight feet, and a pile of straw is placed there. Grain is thrown in it and they are induced to stay outdoors as much as possible. Making them eat snow also encourages them to go outside. The front of the house is a combination of curtains and glass, and even at night I very seldom close the small holes through which the birds pass in and out.

This may seem rather harsh treatment, but the birds thrive and the fertility is very strong. With the breeding stock in good, healthy condition, there is no difficulty in getting all the January and February chicks you want. The broiler man, in order to make his profit, must have eggs for hatching that will produce a good percentage of livable chicks. If the hatches are small and the chicks weak, away go his profits.

I am firmly convinced that there is another factor most important in producing high fertility, and that is heredity. The sons of males that fertilize 90 or 95 per cent., are much more likely to be strong breeders

than are the sons of males that would not fertilize over 40 or 50 per cent.

Finally, the White Wyandotte must be kept to the front as a layer, and there is only one way to do this, i.e., by selection. White Wyandotte breed-

ers should do more trap-nesting, as it is the only way to pick out the producers. This is a practical age and the public does not demand to know what a breed or variety looks like, but what it can do.



The Farmer's Idle Wife

(Editorial Note.—Recently the United States Department of Agriculture made an enquiry into the question of help on the farm. The report (with very little comment, if one would be perfectly fair) pointed out that the U. S. farm home workers had discontinued many labors formerly performed by the farmer's wife and her daughters, and that now much more time than was formerly the case is given by the farmer's wife to social affairs. Perhaps not altogether fairly, but certainly very cleverly, James J. Montague, writing in the San Francisco Examiner, attacks the government official's presentation. Perhaps the writer of the report is put into a false position in the following verses, but whether or not that is true, the general affirmation made by the poet, that the farmer's wife was not meant to be simply a work-machine, is correct.)

The farmer's wife, in early days, got up at half-past two
And shined the plows and milked the cows and put the prunes to stew.
The breakfast for the hands she'd set upon the stroke of four,
And then she'd bake her bread and cake and scrub the kitchen floor.
But nowadays the farmer's wife has time to call her own.
"Good gracious!" says the Government, "how idle she has grown!"

The farmer's wife, in times gone by, brought up the calves and lambs.
And sacked the oats and fed the shoats and smoked the hickory hams.
And when she'd cooked three great big meals she cheerfully arose
And with her churn sat down to earn the money for her clothes.
But now she often visits 'round and gossips, like as not.
"My goodness!" says the Government, "how worthless she has got!"

The farmer's wife, some years ago, was wholly free from nerves;
Twelve hours a day she'd slave away at putting up preserves.
Six children dangling at her skirts, a seventh on her arm,
She'd gamely set herself to get the mortgage off the farm.
But now she sometimes takes a rest, like city women do.
"Great Heavens!" cries the Government, "what is she coming to?"

The farmer's wife departed from this vale of toil and tears
For happier climes, in those old times when under thirty years.
The farmer got another mate, he somehow always found
The ideal wife who toiled through life and rested—underground.
But now sometimes her years add up their full allotted sum
"Great Scott!" exclaims the Government, "how shiftless she's become!"

THE O. A. C. REVIEW

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Editorials

It has become the fashion to rail against initiation as a relic of barbarism, a piece of inhuman cruelty, or as a dangerous and sometimes deadly piece of folly perpetrated upon an innocent Freshman Class by their wiser seniors. To us, however, it seems that initiations have many compensating virtues, which, except in extraordinary instances outweigh their defects.

This seems to be the case at least at the O. A. College. Here we have every year a large Freshman Class entering and immediately competing with the other three much smaller (numerically speaking) classes in various sports. Should the Freshmen prove victorious, as they often do, on the track or at football or hockey, it is but natural that their opinion of themselves should rise by leaps and bounds, like

“* * * vaulting ambition which oft o'er leaps itself,”
 and there would inevitably be some friction with the upper classes in the school. A striking example of this was furnished at the school last term

when the feeling ran so high that a general fight was imminent. It is safe to say that had this scrimmage commenced, more blood would have been shed than in a score of initiations and hazings. And, as many members of the Freshman Class admitted, the fault lay in the fact that in the previous fall the first year boys had been too leniently treated.

So, judging from this experience and from previous years' events, it appears to be the wiser plan, in spite of all the wails of protest from adoring parents and daily newspapers, for the Sophomores next fall to thoroughly convince the incoming class that they are in good truth but Freshmen, and by so doing ensure harmony in the school for the remainder of the year.

As mentioned in a previous issue of *The Review*, the competitions which were held last

Review Competitions

year will again be conducted this year. The rules applying to the four departments are as follows:

(a) Entries must all be submitted

under nom de plume, the name of the contestant being handed to the Editor together with the nom de plume.

(b) Needless to say, all work must be original.

(c) Entries in short story and poem departments must be in Editor's hands by Oct. 15th, photos and cartoons by Oct. 7th.

(d) Short stories must not be over 2,500 words in length, and may deal with any subject.

(e) Poems may be of any length, and there is no restriction as to theme.

(f) Photos—a set of three photos of any outdoor Canadian scenes must be submitted, the films of the winning photos to become the property of The Review.

(g) Cartoons—set of three illustrating some humorous aspects of College affairs.

The awards will be made by a Committee of Judges selected from the Faculty and from Guelph, and the winning entries published in the Christmas Review. We reserve the right to withhold prizes, if, in the opinion of the judges, not sufficient merit is shown in any class. The competition is limited to subscribers. The prizes allotted in each class will be \$10.00 for first and \$5.00 for second place, and we invite everyone to compete.

This society, known as the Students' Supply Co., organized the last term at the College, is making preparations for the coming year. The capital has been secured by student subscriptions, (every student receiving interest on the amount sub-

scribed) and any further sum needed temporarily will be borrowed from the Students' Publishing Association. The Review office has been fitted up with shelves and lockers, and a large amount of stock is already purchased. The society is buying the major portion of the supplies previously held by the Cosmopolitan Club, thus relieving that organization, which paved the way for the Co-operative Society.

Every student should be a member of this society, and should support it through thick and thin. As well as being a financial gain, it should be of great value, especially to the directors, in giving an idea of how co-operative concerns can be conducted. If there should be active competition from other supply houses next fall, we hope that every fellow will be farsighted enough to see that the co-op. is the most economical plan in the long run, and will purchase from the society even though at an apparent temporary loss. Help to make it a success and a credit to the College and yourself.

Perhaps the evils of party politics in Canada have never been presented so strongly, though unwittingly, as by the House of Commons in the past session. After months of costly discussion, long-winded speeches from budding Gladstones, and interminable repetitions, the debate on the Navy Bill was finally closed by the adoption of closure on the part of the Government majority. But the queer fact seems to be that the greatest interest was taken in the proceedings by the newspapers, the vast body of Canadian citizens

**The
Co-operative
Society**

**Party Politics
and
Party
Newspapers**

and duty-payers being apparently apathetic and indifferent.

One reason for this indifference is the party newspaper. It is in Canada almost impossible to obtain a fair, unbiased view of the navy question. The ordinary individual has long since given up the problem of trying to decide whether the present policy of contribution is wise or unwise. All he looks for in the daily parliamentary reports is something unusually amusing or ridiculous, to emphasize the farcical nature of the proceedings. And then when the Bill was finally passed by the House, he looked forward with relief to the thought of this controversy being over, and wondered what next great national question would be tortured and twisted out of all resemblance to truth by Canada's "great" dailies and weeklies and monthlies.

Just at this juncture, however, the Upper Chamber, that hoary body of legislators known as the Senate, awakens, shakes itself after its long slumber, and proceeds to squash the Bill that had required such an expenditure of labor and ingenuity to pass in the Lower House. The Senate was originally instituted to look after Provincial rights, but has long since degenerated into a straight partisan body, supported of course by our party papers. So now, after months of wrangling and dispute, misrepresentation and abuse, the Navy Bill, thanks to our system of party politics, is in much the same position as it was months ago.

We have firmly decided that when the next national question is being fought out by the learned politicians at Ottawa and the more learned scribes filling space in the party papers, we will read only the sporting

pages and the classified advertisements. They, at least, are non-partisan.

Last year the President of the Athletic Association, Mr. W. H. J. Tisdale, suggested that

Alumni Rally and Field Day

the annual sports day at the College be a rally day for graduates and ex-students of the College. It would be a very suitable time for our Old Boys to gather round the old hearth-stones and swap stories of their student days. One sees the campus at its best in early autumn, and if some festivities were arranged for the evening to round out the day's sport on the track, it would surely be worth a five-hundred-mile journey. Nothing was done about the matter last year, and we would be very glad to hear from ex-students voicing their opinion on the matter.

Several papers in this province blossom out occasionally with an editorial advocating a reduction or total abolition of the duties on food products imported

Food Taxes

into Canada. It is an envied country which is in such a position that it can import food free of duty, but to talk of admitting agricultural products into Canada duty-free while retaining protection on all other commodities at present protected, is nonsense. How many manufacturers are there who would hear unmoved, proposals to reduce duties on products similar to theirs, entering the country? It would be manifestly unfair to them, or at least unfair to the infant industry argument, to attempt to lower duties on manufactured

articles. But yet little or no consideration seems to be given in some minds to the fact that Canadian farmers are just as much in competition with foreign producers as are our manufacturers. The Canadian Government is endeavoring to stimulate agriculture, but it is surely not common sense to endeavor to do so by means of lower prices which would result if import duties were lowered.

It should not be forgotten that the National Policy, to which most of

Canada's prosperity is due included the protection of agriculture as well as manufacturing industries. There is little enough profit in farming at present prices, and it may even be said that without the rise in rent farming would be a non-profitable industry in the majority of cases. It is a very popular cry to call for a reduction of duty on food, but it does not appear to be a feasible doctrine for Canada to adopt at present.



THE LOVERS

(From the German of Hugo von Hofmannstahl.)

She bore a brimming glass to him.
Her ruby lips dismayed its hue—
So light her step, so firm and true
No sparkling droplet leapt the brim.

So mild yet masterful his rein,
He seems with careless hand to hold,
His quiv'ring charger's pride controlled,
It's fiery nature to restrain.

Yet, strange to tell, when he essayed
To take the goblet from the maid,
Then neither hand the other found,
But crimson wine-drops stained the
ground;
Malicious tongues, methinks, had said
Their trembling hands their hearts
betrayed.

L. C. S.



ALUMNI



John Bracken, '06, received his early education in the public schools of Leeds County and Brockville Collegiate Institute. He managed the home farm for four years, then joined class '06 of the O. A. C. In '04 he was awarded Governor-General's Medal.

Y. F. Patterson, medalist of '95, was a Oxford County boy. He taught school in Bruce County from '88 to '92. After a trip to British Columbia he entered the Ontario Agricultural College with the class of '96.

His ability as a journalist, as well as a financier, were demonstrated



Jno. Bracken.

In his final year he was a member of the stock judging team at the International Exhibition at Chicago.

After graduating he became Manitoba representative of the Dominion seed branch. In 1907 he was appointed Superintendent of Fairs and Institutes for the Province of Saskatchewan. In 1910 he accepted the position of Professor of Field Husbandry in the University of Saskatchewan, at Saskatoon, which position he still holds.

here, as under his dual management as both editor-in-chief and business manager the O. A. C. Review during those years showed its first credit balance.

He was employed by the British Columbia Department of Agriculture to deliver a course of lectures on the formation and maintenance of farmers' institutes.

After touring the province in company with the Deputy Minister of Agriculture he joined the staff of

"The World" as proof-reader and assistant editorial writer.

Then came his entry into the lumber business, an industry in which he is to-day one of the foremost figures of the province.

In 1902 he formed the Paterson Timber Company, and since has presided over the destinies of this venture as president and managing director.

He is now officially connected with the Federal Trust Co., Ltd., the Forest Mills, Ltd., of British Columbia, the Colonial Pulp and Paper Co., Ltd., and the Burrard Publishing Co., Ltd.

Faternally his interests are those of the A., F. and A. M., and although inclined to the old school of Presbyterianism he finds many hours pleasure "after kirk" driving the latest model "Napier."

G. C. Butler, medalist in '85, is now farming at Hatfield Pevel, Essex, England. Mixed farming is followed to some extent. The chief production, however, is fruit, and Mr. Butler's aim is to try and show that the Old Land can produce apples and cherries that compare favorably with that imported from Canada. He says Canadians keep him hustling to do this, which, he believes is, perhaps, a good thing.

Wm. A. Kennedy, '95, was one of the "men from Glengary." He was awarded a medal in '94 and was graduated in '95. He spent three years as assistant in chemistry laboratory at the Ontario Agricultural College. The next year and a half were spent with the Electrical Construction Company, London. Indifferent health necessitated his return to the country and a "section" of Saskatche-

wan's fertile soil is now the scene of his activities.

No better proof of the success of the gold medalists of the College is needed than a publication of a list of those at present on the College staff.

The present heads of the Departments of Dairy, Animal Husbandry, Horticulture and Botany have won the medal for general proficiency in the first two years' work.

Professor H. H. Dean won the medal in 1888.

In 1892 Professor G. E. Day was the winner of the coveted trophy.

Professor H. L. Hutt won the medal in 1890.

In 1903 the medal was won by Professor J. E. Howitt.

Mr. L. H. Hopkins, Dean of Residence for the past two years and Lecturer in English, won the medal in 1911.

L. H. Gandier, '11, was awarded the medal by his class in his graduating year. The duties of secretary and the Rugby team make "Cap." a very busy man during the rugby season.

Mr. F. M. Logan writes: "I am a fairly respectable member of Class '05, and had for a room-mate one H. H. Ledrew."

Journalism must be contagious for we learn from the Morning Albertan, of Calgary, that Mr. Logan will in the future edit three Calgary papers.

After he was graduated, Mr. Logan spent one year with the Dominion Department of Agriculture. Later he became live stock and dairy commissioner for British Columbia. He is now leaving the Pacific province to pursue his chosen vocation in Calgary.

Through the kindness of G. I. Christie, '02, we have received a report of a very successful sale of cattle of Mr. Ezra Summers, an old O. A. College boy.

Forty-one head of Holsteins realised Mr. Summers the handsome sum of \$6,779.00, an average of \$165.35 per head.



The Life Cycle of the O.A.C. Meristematic Cell

TURNING then from requests, admonitions and mandates, let me briefly outline so much of my academic career as may be appreciated. In order that you may more clearly understand the setting of this semi-monthly autobiography I shall as well as I am able depict the atmosphere and conditions under which I am writing. Call upon your imagination, picture to yourself a cell fourteen feet by eighteen feet containing two nuclei, viz.: Mr. N—and your humble servant. Around the walls and on the furniture, which shall be described later, are likenesses of other nuclei, but wholly inanimate objects. This role is for reflection and for inspiration. On the long cell wall and midway between the two extremities are laminae containing much food for thought, and upon which the two nuclei feed grossly, gregariously and almost everlastingly in order that they may become specialized and finally graduated. A strong solution of illegitimate English may cause plasmolysis of the nuclei at this stage. These two nuclei irritated by the presence of numerous nuclei of another sex outside of this cell move rapidly to the window

and ejaculate variously. In this sclerenchymatous cell are two vacuoles in which are stored the sloughs of the nuclei, which sloughs are donned or rejected according to the demands of the existing social conditions. The turgidity of the nuclei is maintained by a series of processes beginning with ingestion and ending with assimilation of various foods such as carbohydrates, proteids and fats. When these nuclei escape they are generally prone to be attracted to nuclei of a different sex. These two nuclei, one of each sex, form, or set up, a mutual attraction which is sufficient to withstand the centrifugal force produced when going in a circle on the ice at a very great speed. They also move harmoniously to music on floors covered with a waxy exudate. About the last of June or the first of July these cells pass from the meristematic region and form annular rings called Class '13. The life history of such a cell covers a period of at least four years after which they function as specialized cells. Thus you have in a nutshell the life cycle of a cell during its growing stage.

—G. W., '13.



ATHLETICS



The Beginning of Modern Rugby

Article II.

S. H. GANDIER.

THE invention of modern rugby must be credited to the secondary schools of England, such as Eton, Rugby and Westminster. At Oxford and Cambridge the ridiculous idea that sports were incompatible with the life of a scholar, and that the pale, stooped-shouldered youth was the physical ideal for a student, had been maintained from the Middle Ages. In the secondary schools, each school developed a game of its own, as inter-collegiate contests were not played.

At Westminster the crowded conditions of life in the heart of London caused the development of an indoor game of foot-ball, played in the cloisters of Westminster Abbey where a stone pavement lay underfoot, pillars, walls and gates surrounded the playing space and a low arched ceiling extended overhead. Here, John Dryden in 1646 and Joseph Addison in 1684 led the school-boy forces. The game in Cloister waxed extremely boisterous, so much so that the Dean of Westminster was compelled to appoint a beadle to keep the boys quiet during divine service.

But the scene of the greatest advancement towards modern rugby was Old Bigside at Rugby. What boy is not conversant with Tom Brown's prowess at foot-ball when he saved the goal in the second half at Rugby?

Over seventy years have elapsed since that event and rugby foot-ball long ago outgrew the Close and is now played wherever the English tongue is spoken. The origin of organized foot-ball at Rugby has passed into oblivion. In the early part of the nineteenth century, foot-ball, pure and simple, was played, there being strict rules against carrying the ball; but one November day in 1823, when over a hundred boys were playing foot-ball on Old Bigside, an event occurred, quite by accident, which determined to a large degree, the future history of the game. On the stroke of five, the hour at which the game terminated, no score had been made. A long sailing punt was sent down the field, the last effort of one side to effect a score. Suddenly, from out of the mass of players on the other side, sprang a school-boy by the name of William Webb Ellis. With arms out-stretched and eyes keenly on the spinning ball he swiftly took position to catch the punt. If he caught and heeled it, he might, according to the rules, fall back behind his mark and try for a goal by a free kick. By a violent effort he stooped and caught the ball just as it was about to touch the ground. The opponents checked their speed in order not to interfere with the catch and heel, but Ellis, with the in-

spiration of desperation, contrary to all rules, with increased speed leaped forward. Five o'clock was now pealing on the air. With the ball tightly held beneath his arm he dashed into his opponents, who, angered by his violation of the rules, roughly seized him and endeavored to bring him down. Ellis, with his free arm warding them off, and zigzagging in and out, cleared the whole field and crossed the line just as the last stroke of five rang across the field.

This exploit was the cause of much controversy at Rugby, the more conservative condemning it as a flagrant violation of rules, whilst others recognized the possibility of a faster and more interesting game. After a time the idea of carrying the ball was supported by a majority of the school. At first players were allowed to carry only balls obtained from a fair catch. Later the privilege was extended to balls caught on the bound, and finally, the right to run with the ball without restriction, was incorporated.

From 1823 to the time of the great game of School House versus School, described in "Tom Brown's School Days," is a space of twenty years, but in this period, Rugby built about the run of Ellis a finished and technical game. In an ivy-grown wall at Rugby has been placed a tablet preserving to foot-ball prosperity the name and exploit of this school-boy genius. The inscription runs—"This stone commemorates the exploit of William Webb Ellis, who with a fine disregard for the rules of foot-ball as played in his time, first took the ball in his arms and ran with it, thus originating the distinctive feature of the rugby game, A. D., 1823."

Early Foot-ball in America.

A foot-ball was kicked about promiscuously at Harvard as early as 1830. A few years later some genius devised a contest between the Freshmen and Sophomores. To-day such a battle would be called a rush, but it must be accredited as the progenitor of the fully perfected game that is played to-day upon Soldiers' Field. In these encounters a generous number of blows were exchanged and were permissible. The games eventually became so boisterous and rough as to merit the faculty's displeasure and in 1860, such encounters were absolutely forbidden under pain of extreme punishment. The student-body bowed to the decree but celebrated the event by organizing a great funeral, the funeral of "Football Fightum." The loudest voiced orator at Harvard was chosen to deliver an eulogy. This heroic effort was rescued from oblivion years after and preserved in the columns of the "Crimson," Oct. 14th, 1881, and was worded as follows:—

"Dearly beloved, we have met together upon this mournful occasion to perform the sad office over one whose long and honored life was put to an end in a sudden and violent manner. Last year, at this very time, in this very place, our poor friend's round, genial appearance and the elasticity of his movements gave promise of many years more to be added to a long life, which even then eclipsed that of the oldest graduate. When he rose exulting in the air propelled by the foot of the valiant Ropes we little thought then that to-day he would lie so low. Exult, ye Freshmen! The wise men who make big laws around a little table have stretched out their arms to protect



O. A. C. SENIOR BASKETBALL TEAM, 1912-13.

Rear Row—Munro, forward; White, guard; Wilson, forward.
 Front Row—H. P. Horobin, guard; W. L. Horobin (Capt.), guard; Culverhouse, Mgr.; Baker, forward; Culham, centre.



O. A. C. THIRD YEAR BASEBALL TEAM, INTER-YEAR CHAMPIONS, 1912-13.

Standing, left to right—B. Bergcy, r. f.; Creelman, 1b; Culverhouse, 2b; Duff, 3b.
 Sitting, left to right—Good, spare; Neelands, l. s.; Winslow, l. f.; Jackson, c; Hales, p.; Forsythe, (Capt.), r. s.; Strong, spare.

your eyes and noses. For us there is naught but sorrow, the sweet association and tender memories of eyes bunged up, of noses wonderfully distended and of battered shins, and the many chance blows anteriorly and posteriorly received and delivered—the rush, the struggle, the victory—they call forth our deep regret and unaffected tears. The enthusiastic cheers, the singing of "Auld Lang Syne," as each stands grasping a brother's hand, all, all have passed away, and will soon be buried with the foot-ball beneath the sod, to live hereafter only as a dream in our memories and in the college annals.

"Brothers, pardon my emotion. If I have kept you already too long, pardon me this also. On such an occasion as this few words can be spoken; but they must be spoken, because they are the outcry of grieved spirits and sad hearts. What remains for me to say is short, and in the words of a well-known poem:—

" 'Tis time our heavy task were done,
And I would advise our retiring,
Or we'll hear the voice of some savage one
For the ringleader gravely inquiring."

The resurrection of Football Fightum occurred twelve years later when the classes of '74 and '75 played on Boston Common. From that year to this he has been an extremely active figure at Harvard.

Yale foot-ball history is similar to that of Harvard. In 1840 class contests began between the Freshmen and Sophomores. In 1841 a battle of this character was being waged when a firemen's parade was passing. The war-like instinct of the young collegians became directed against the firemen. The game was abandoned

and the parade was disrupted. Upon one student who had fought most valiantly was imposed a fine of twenty dollars with eighty dollars costs by a New Haven magistrate. But the class contests at Yale led to undue bloodshed, and broken bodies, and were prohibited by the faculty in 1860. Twelve years later the game was resumed with a definite set of rules.

At Princeton in 1820, the English game of Ballown was adopted. A bladder was used and was batted with the fists. The transition to the feet soon followed and a set of rules devised. Rutgers College was only twenty-five miles from Princeton and the proximity led to the first Inter-Collegiate Foot-ball Match. This was played in 1869 and was won by Rutgers. The second game of the series went to Princeton; but the third game was never played, owing to the objection of the faculties at both colleges on account of the distracting enthusiasm and the extreme interest aroused.

Rugby in Canada had followed closely the game as devised by foot-ball enthusiasts at Rugby, England. In our present Canadian game may be recognized many features of the present day English Rugby. It is not popularly known, however, that the Canadian game has given to the universities of the United States the general rules and principles which govern their game. In 1874 the McGill rugby team visited Harvard and a series of two games was played, the first game under Harvard rules, which were devised somewhat after the old rush system, the second under the All-Canada code, which allowed a more open game with more individual and spectacular play. The sec-

ond game proved so much more exciting than the first encounter and the spectators and Harvard players became so enthusiastic over the Canadian rules and style of game, that they at once set out to devise a new

American game. Following this development, Yale, Harvard, Princeton and other American Universities organized Inter-Collegiate contests, which were the foundations of the present American game.



The Ballad of the Oysterman

It was a tall young oysterman lived by the river-side,
His shop was just upon the bank, his boat was on the tide;
The daughter of a fisherman, that was so straight and slim,
Lived over on the other bank, right opposite to him.

It was the pensive oysterman that saw a lovely maid,
Upon a moonlight evening, a sitting in the shade;
He saw her wave her hankerchief, as much as if to say,
"I'm wide awake, young oysterman, and all the folks away."

Then up arose the oysterman, and to himself said he,
"I guess I'll leave the skiff at home, for fear that folks should see;
I read it in the story-book, that, for to kiss his dear,
Leander swam the Hellespont—and I will swim this here."

And he has leaped into the waves, and crossed the shining stream,
And he has clambered up the bank, all in the moonlight gleam;
O there were kisses sweet as dew, and words as soft as rain—
But they have heard her father's step, and in he leaps again!

Out spoke the ancient fisherman—"Oh what was that, my daughter?"
"Twas nothing but a pebble, sir, I threw into the water."
"And what is that, pray tell me, love, that paddles off so fast?"
"It's nothing but a porpoise, sir, that's been a swimming past."

Out spoke the ancient fisherman—"Now bring me my harpoon!
I'll get into my fishing-boat, and fix the fellow soon."
Down fell that pretty innocent, as falls a snow-white lamb,
Her hair drooped round her pallid cheeks, like seaweed on a clam.

Alas for those two loving ones! she waked not from her swoond,
And he was taken with the cramp, and in the waves was drowned;
But fate has metamorphosed them in pity of their woe,
And now they keep an oyster shop for mermaids down below.

“Diggings”

As every schoolboy knows, diggings are of various types—gold, grave, good, bad and indifferent. But what every schoolboy does not know is the inner side of those diggings which constitute the last three varieties. It is not till a little later in life that this knowledge dawns upon him.

What confirmed old bachelor does not recall with a smile those first few months when the lady of the next house used to refer to him as “that nice, quiet young gentleman as lodges with Mrs. Jones?” How he chuckles to himself as he remembers the bashful way in which he asked the said Mrs. Jones if he might trouble her for a spoon, instead of a fork, with which to eat his soup. She, honest woman, probably thought the soup thick enough to require a knife as well as a fork, without mention of a spoon, as she shook her head whilst complying with his request. What a wealth of meaning he attributed to that shake of the head, and how he trembled next time he had a similar request to make. And so it went on for a few months, during which time he often sighed for his home, with half a dozen people ready to wait on him, hand and foot, almost regretting that he had so far forgotten himself as to live in diggings.

But to return to our mint sauce. The centre and soul of all diggings, that point around which all else is balanced like weight about a centre of gravity, is the “landloidy.” The landlord, true lord and master of that celebrity, is rarely if ever seen. He plies some obscure trade, goodness knows where, and but seldom troubles the

“young gent” with a sight of his face. Doubtless he rises long before this weary young gent rolls out of his comfortable, if creaky bed, and probably retires to kip hours before the aforesaid weary individual thinks it manly, not to say gentlemanly, to betake himself to his upstairs apartment.

The baby, if it is a newly-married couple, of course, claims an hour to itself in the evening (or worse still, in the night) for the sole purpose of making itself a nuisance, and is only aggravated to still greater efforts of noise by its mother’s playful threats of what the lodger would do to it if it didn’t shut up. (Oh! what would he do to it if only he dare?—but he dare not, so he simply consigns it to perdition and takes a turn at the Club if it is not after midnight, or stuffs half a pillow in each ear in vain efforts to keep the row out, if it is during the early hours).

Fortunately this type of landlady is a “rara avis.” The majority appear to be either widows or ancient spinsters, with a sprinkling of the more staid married ladies whose husbands are never seen.

Of the first variety (should they be either young or grass widows with the least possible claim to comeliness) we would say to the unsuspecting and innocent lodger, “Sammy, becare of the vidders—becare of the vidders, Sammy.”) It is a strange fact that all widows ere losing the partner of their joys and sorrows were always wishing that some lucky chance might remove this clog upon their designs, and frequently allowed him to perceive their frame of mind; while

no sooner does decency allow them to doff their widow's weeds than they immediately proceed to take in lodgers. It is usually stated as a pretext that the late lamented was not a thrifty man, and so some method of replenishing the exchequer must be adopted. Personally we have other ideas on the subject. However, each must judge for himself as to the real motive, but a conclusion should not be arrived at before a nodding acquaintance with Mrs. Todgers or Mrs. Bardell (or, better still both) has been established.

The older widow, who has given up in despair all hopes of anything romantic, is a much safer investment for the digging hunter. Beyond an occasional tendency to crocodilism, accompanied by tender reminiscences of the good man (God bless him) the adventurer has nothing to fear. During such spasms, burnt potatoes and unsweetened rhubarb must be passed over with a sigh and a vigorous attack on the bread and cheese made in silence.

The spinster is less to be feared. Having had no experience in the art of seduction, her efforts are either too puny or too blatant to deceive even the weakest minded of men, and he pities rather than blames her somewhat natural designs upon him. One warning we would offer. If on the shady side of their prime, spinsters are inclined to become avaricious. Any attempts at "extras" should, therefore, be nipped in the bud lest they attain formidable proportions, and necessitate the staking out of a new claim. The delights and

horrors of a shift are too well known to require much comment. Oh! the awful nights of wakefulness trying to think of the best time, place and method of announcing the coming departure; the fear of the frown which you know will appear when you do mention it, and which often needlessly, and sometimes definitely, delays the critical moment; but oh! the joy, the delightful feeling of exhilaration when at last you are free—free to choose the new and so much preferable quarters you have in your mind's eye. Then the tantalizing job of packing, or rather tumbling your things together, when dirty boots will make smudges on your nice clean dress shirt, and cigarettes will fall out of their boxes into your socks; meanwhile, of course, a refractory ink bottle is adding yet another hue to your already variegated pyjamas. And last the half-smothered doubts as to what awaits you at No. 197a of a street whose name you have for the moment forgotten.

What a world of sentiment there is in it all. Yet these are thoughts which will dwell long in our recollections, when, slipped and cosy with a favorite pipe before the dying embers of a midnight fire, safely esconced in the diggings we have now inhabited for years, or perhaps before our own hearth, with the wife of our bosom asleep above, we look back upon those delightful days of our youth when content was a word we never knew.

From "The Mermaid,"
Univ. of Birmingham.



MACDONALD



Tennis.

In the spring the young girl's fancy lightly turns to thoughts of tennis. No other form of amusement seems as popular with Macdonaldites. From daylight until dark in all spare hours the courts are full. Perhaps the ball is missed, more often than hit, but who cares? We are improving. We will be having some tournaments later, and then we shall see some really good playing.

On Saturday, May the third, a very delightful tennis tea was given by the members of the "club," when the girls had an opportunity of playing on the clay court.

Speaking of clay courts, why can't we have one of our own? Two courts are insufficient for all the would-be-players. There is plenty of room, and we have money enough to equip one. But, alas! the powers that be consider a clay court a blot on the landscape, so Macdonaldites must continue to play on the lumpy grass. Can no one prevent this narrow-mindedness? Would not a well-conditioned clay court, with nymph-like maidens skipping merrily about, in the interests of Art and Physical Culture, be more picturesque than dreary stretches of plain green grass?

No wonder we become suffragettes! What else can we do when we come up against such stubbornness?

L. G.

Practice Teaching.

It is part of the training of the Normal Classes at Macdonald to teach certain classes which are sent up from the public schools of Guelph

for the purpose. This teaching is done under the observation of Miss Greenwood, the instructor in Normal Methods, and one or two other members of the Normal Class, and is intended to give the students a practical experience in presenting the facts of Domestic Science, so that the average public school pupil can grasp them readily.

It is needless to say that this training is most valuable to the Normal students, not only because of the valuable experience of the teaching itself, but also for the criticism which the pupil-teacher receives afterwards, and which is a great aid to her development.

The girls rather like this part of their course, and become quite attached to the bright wee maids who compose the classes. "Oh, my kiddies are dears! Don't you dare be cross with them!" is the remark often made by a girl who is finishing her turn to her successor. And the children seem to enjoy the experience also, as for them it is a pleasant break in the every-day routine of school life.

Farewell.

We have witnessed our last demonstration,

Our last requisition is in,
We have taught our last public school classes,

We've shished our last racket and din;

And now we go, tired and happy,

Far abroad, scattered wide o'er the land,

O, say, was it worth all our study?

All our labor of head and of hand?

Worth it? The question goes ringing,
 From ocean to ocean again,
 Far over the far-distant Rockies
 And back o'er Saskatchewan's
 plain,
 Down through the older Dominion,
 By the lakes and Saint Lawrence's
 shore,
 And the answer comes following
 after

In voices unthought of before.

Worth it? Our graduates answer,
 "Come, look at the immigrant lass,
 With her curious foreign opinions,
 In Winnipeg we train a mass
 Of such girls to be good wives and
 mothers

In our steady Canadian way,
 If you want reasons, why look for
 others!

This should answer for ever and
 aye.

Another voice calls from the country
 Where our institute lecturer
 works,
 "Come, look at these fine farmer
 women!

I teach them of danger that lurks
 In careless and thoughtless provid-
 ing,

And of our newer methods, and
 try

To help them far onward and up-
 ward

That they may progress, and not
 die!"

Worth it? The question is answered,
 And our hearts swell to think that
 we take

Our place in the army of women,
 Who go forth to lead and to make
 Old prejudice gives way to freedom.

That our country may prosper and
 grow,

Ours, ours is the joy of the leader!

Farewell, dear Macdonald, we go!

G. M. C.

The New Rest Room.

In the Review for December, we gave an account of the presentation of the portrait of Mrs. Hoodless to Macdonald Institute by the Women's Institute of Ontario. After the presentation was over, the problem of what to do with the picture, confronted the staff. There was no room for it in the reception room, and there was no other room good enough. So it was decided that a room would have to be redecorated to be a fitting background for the picture. Accordingly the reading room was chosen, and about February the work of re-decoration began.

The many ex-Macites who have bent weary backs above the magazines locked onto the tables, or stood in line at the newspaper stand, will be glad to know that the tables are now adorning the House-practice Kitchen, while the stands have disappeared from the sight of man. To be able to relax oneself in a cushioned wicker chair and hold a magazine quite independantly in one's hands—what more could a weary Macite ask?

The walls of the room are tinted a soft green with a dainty stencilled border in red and brown. This border is repeated in the curtains, which, by the way, are a monument to the skill of some of the Senior House-keeper Class, who spent long afternoons at work on them under the able direction of Miss Long. The wicker chairs are stained brown to match the woodwork, and the cushions are cretonne, which repeats the tones of green, red and brown of the walls. The little round tables are of fumed oak, and are just exactly the right height. To crown all, an archway has been cut in the north wall to the library proper, so that many steps are saved in hunting for books.

The portrait of Mrs. Hoodless occupies the centre of the east wall, and underneath it is the bronze tablet to her memory, presented to the school at the same time. Her gentle presence dominates the whole, and makes it spiritually, as it is physically, a Rest Room.—G. M. C.

The Normalites' Reception—F. S.

On Friday evening, April 25th, Mac. Hall gave her formal welcome to the new Normal students across the campus. True, we had occasionally

knights, and even the surly village churls as they passed by, but the most touching scene was where the Lady of Shalott slowly drifted across the platform in a clothes-basket, and the noble knights, lords and ladies stood on chairs and gazed silently on her lily face.

It has always been felt that the girls who didn't take educational sewing were missing a great deal. To make up for this distinct loss the "2 in 1" Normal Class gave a sewing lesson, and all were initiated into the



A Corner of the Rest Room.

caught glimpses of them, as net in hand they hurried and scurried after some new variety of bugs or flies, but this was our first opportunity of really making their acquaintance.

All the previous week mysterious meetings had been held in the gym., and students' sitting-room. Was it any wonder we were filled with curiosity, and could scarcely wait for the curtain to be drawn back? The B. and C. Homemaker stunt, "The Lady of Shalott," came first, while one of the class read the poem, it was given in pantomime by the others. No one could fail to admire the handsome

many mysteries of stitch forms and sewing positions.

The Associates and Junior Housekeepers gave two pretty dress scenes from Cinderella. It wasn't a case of fine feathers make fine birds, for despite their rich attire the three sisters looked far from handsome in comparison with poor Cinderella in her tattered apron.

The Friday afternoon concert in the country school when the handsome young inspector calls was very humorous, and showed the wonderful and varied talents of the Short Course girls.

The Senior Housekeepers gave us a glimpse into the future in their Housekeeper Convention and reunion held in Mac. Hall, 1923. Nearly all the former class were present, and of course, all were anxious to tell their many experiences. Most of the girls were still riding their pet hobbies—whether pure milk and sterilization or fly extermination. Only two of the whole class had

Even Tige, the pet dog, when he entered the magic machine, met his fate and came out a string of sausages.

The Junior Normal Suffragettes gave a grand parade, and afterwards held one of their stirring suffrage meetings. Each member expressed her private grievance, and all agreed it was time they got their rights, and had no more study hours, low-heeled shoes and stiff collars. Much damage



In the Laundry.

digressed and found happiness in cooking and working for a family of hungry boys.

The A. Homemakers gave an "old maids' convention," when each old maid had only to express her fondest wish and it would immediately be gratified—even if that meant a change from a fat, ugly old woman to a young, beautiful, slim maiden.

might have occurred but for the timely interference of the police.

Although the Senior Normals saved their stunt until the last, it was none the less appreciated, for who does not enjoy sandwiches, biscuits and coffee? After the refreshments the rest of the evening was spent in dancing and making the Normal students feel at home.



Much Ado About Nothing

Some Shakespearian quotations with illustrations:

1. "The glass of fashion, and the mould of form"—the tea-room brigade leaving Mac. Hall.

2. "Oh, what a falling off was there?"—a few Seniors marching past the main O. A. C. building and singing "Ship Ahoy!"

3. "More matter, and less art"—a lecture in Bacteriology.

4. "O, that this too, too solid flesh would melt!"—a poor Homemaker caught with high heels on.

In An Equipment Lecture.

"It is of the greatest importance that your stove shall have a reversible grate."

And the class wrote steadily on and never smiled.

She was at the telephone, and every word she said could be heard for yards around the postoffice.

The Senior—"She's speaking very loudly."

The Junior—"She's speaking to Hamilton."

The Senior—"Oh, is that his name? I didn't know there was a chap called Hamilton at the College."



Miss D.—"When is my class-room not my class-room? When the Seniors are there."



Prof. Jones—"The injured leg of lamb then stood around for several days—"

The Class—"Wonderful!"



AT PARTING

Although the strings are muted now,
And low and minor the refrain,
And all the lilting notes submerged
In wistful parting notes of pain—

Full glad and strong a symphony
Of hope and courage steals its way,
Until in true interpreting
The purest music holds the sway.

Past joys and sweet rememberings;
True friendships, golden years of gain;
All these to keep, and this to prove
The days have not been lived in vain.

Hints for Undergrads on Conversation

DO not mistake an automatic talking machine for a good conversationalist.

Be natural in your conversation, as in all else, but make use of it to enlarge your command of simple, forcible English.

Don't cultivate an "accent" nor use words intended to attract attention.

College slang expresses much in few words, but it is not intelligible outside of college circles—avoid the wholesale use of it for the reason that it destroys much of your workable vocabulary.

Profanity may not trouble your conscience, but even so be assured that it is not one of the distinctive properties of a gentleman.

Don't confuse profane "Bravado" with nerve. The man of real nerve is the man who can keep his mouth shut, but who is always **there** when needed.

Note the topics of conversation among your clubmates during a single meal. Acknowledge that they can generally be improved without any loss of interest or good fellowship.

You will never make a friend or gain an ounce of respect by foul talk.

However much of a sewer your life may be, kindly refrain from opening it up to public view.

Don't be afraid to talk about anything which you are dead sure ought to be brought to pass, just because doing so may not be the most popular thing.

Be careful, however, how you talk about things which may be good, but which you personally don't endorse with your life, lest your fellows call you a hypocrite for not practicing what you preach. Don't preach big things in a self-assertive way if you don't intend to try your best to live up to them.

In both your conversation and your actions do not hesitate to stand up for what you honestly believe to be right.

Remember the admonition of one who spoke with authority, "But I say unto you that every idle word that men shall speak they shall give account thereof."

—From "Not in the Curriculum."



Refreshments Served Within—June Excursionists.

LOCALS

CHESTNUTS

Bee Lecturer (to pupil who has just brushed off bee which stung him)—“Oh! you shouldn't do that; the bee will die now. You should have helped her to withdraw her sting, which is spirally barbed, by gently turning her round and round.”

Pupil—“All very well for you, but how do I know which way she unscrews?”—Punch.

Upton Sinclair tell this story about a school address he once made:

“It was a school of little boys,” said Mr. Sinclair, “and I opened my address by laying a five-dollar bill upon the table.

“I am going to talk to you boys about Socialism.” I said, ‘and when I finish the boy who gives the best reason for turning Socialist will get this five-dollar bill.’

“Then I spoke for about twenty-minutes. The boys were all converted at the end. I began to question them.

“‘You are a Socialist?’ I said to the boy nearest me.

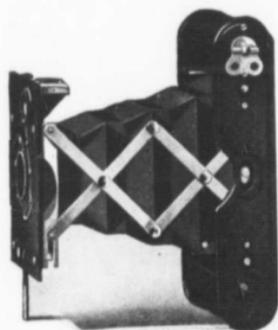
“‘Yes sir,’ he replied.

“‘And why are you a Socialist?’ I asked.

“He pointed to the five-dollar bill. ‘Because I need the money,’ he said.”
—Life.

“My grandfather,” said the old-timer, “used to put all his money in his stocking.”

“Waal, things hain't changed much,” said his old friend. “My grandson, who's takin' a course in modern department at one o' them eastern colleges, puts most all his money into socks.”—Judge.



Vest Pocket KODAK

Right as a watch in
adjustment and in
the refinement of
every detail.

Pictures, $1\frac{1}{2} \times 2\frac{1}{2}$ in. Price, \$7.00

*Catalogue at your dealers
or by mail. Free.*

CANADIAN KODAK CO., Limited
TORONTO

High Quality Builds Big Telephone Business

This business was organized to manufacture telephone equipment for independent local and municipal systems. Right from the start our equipment made records for efficiency. It did not take long for our goods to acquire a reputation for quality and reliability. As a result, our business has grown by leaps and bounds.

It is a well-known fact that we have been securing over 80 per cent. of the new telephone business in Ontario. The business, too, has been secured with less effort than business secured by competitors. The satisfaction our telephones and equipment have given under all conditions has paved the way for easy business getting.

To judge how fast our business is growing, you'll remember we stated in a previous announcement that our business last year doubled that of the year before. Well, this year the first two months' sales total more than twice the 1912 sales for the same period. More and more is it being recognized by those in the local telephone business, that we are the legitimate people to deal with. There are those in the telephone business who are interested in depreciating the success of the independent telephone movement, and the local and municipal systems. On the other hand, our business lies wholly and directly with these local and municipal telephone

systems, and it is to our own best interests to look after these systems well, as on their success depends the growth of our business.

If you would like a list of the large independent telephone systems built in Ontario during the last twelve months, just drop us a line. We would be glad to send you a list of the systems, with the make of the telephones they are using. In fact, if you'll name over the large independent systems built during the last year in Western, Northern and Eastern Ontario you'll find that nine out of every ten are using our telephones and equipment.

You are absolutely safe in equipping your system with our telephones. We guarantee them as regards material and workmanship. In fact, we guarantee all our equipment and materials. And in addition, we offer to send our telephones for FREE TRIAL so you can test and compare them with others right on your own lines before risking a dollar.

We have issued a new bulletin, which illustrates and describes our magneto telephones very completely. We will be glad to send you a copy on request. Ask for the No. 4 Bulletin.

Our famous No. 3 Bulletin, which tells how to build telephone lines will be mailed free to those who write for it.

Canadian Independent Telephone Co.

Limited

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You Can't Cut Out A BOG SPAVIN, PUFF
or THOROUGHPIN, but



ABSORBINE

will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. \$2.00 per bottle, delivered. Book 4 for free.

ABSORBINE, JR., liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments, Enlarged Glands, Gout, Wens, Cysts, Allays pain quickly. Price \$1.00 and \$2.00 a bottle at druggists or delivered. Will tell you more if you write. Manufactured only by
* F. YOUNG, P.D.F., 177 Lyman's Bldg., Montreal, Ca.

Wolseley, Sask.

March 28, 1907.

Dear Sir,—Have been using Absorbine for three months and I have great faith in it. I first tried it on a colt that had got his leg cut in a barbed wire fence. It healed up and began to swell. I applied Absorbine and it removed swelling in twelve days.

Yours truly,

F. O'Neill.

ASPINWALL *Potato Machinery*

Efficient Spraying
Outfits for Every Purpose

*Accuracy, Simplicity, and
Durability Characterize
the Aspinwall Line*

ASPINWALL MFG. CO.
JACKSON, MICHIGAN, U.S.A.

Canadian Factory, Guelph, Ontario.

*World's Oldest and Largest
Makers of Potato Machinery*



THE BUTTER-BUYER said—
“Your two lots of butter taste all right—but will they keep? What kind of salt did you use?”

THE FIRST FARMER said—
“I don't know—the storekeeper gave me what he had”.

THE SECOND FARMER said—
“I used Windsor Dairy Salt”.

THE BUTTER-BUYER said—
“I want your butter. I know all about Windsor Dairy Salt—and the man who is particular enough to always use Windsor Dairy Salt is pretty sure to be particular to make good butter.

I'll take all you make—as long as you use

WINDSOR DAIRY SALT

69D



M. J. RUDELL, D.D.S., L.D.S.

Dentist

(On the Corner)

Over Guelph and Ontario Investment
and Savings Society Bank

PHONE 16

**CANADIAN
PACIFIC**

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EXCURSIONS**

Each Tuesday, until October 28.

Winnipeg and return, \$35.00

Edmonton and return, \$43.00

Other Points in proportion. Return Limit, two months.

HOMESEEKERS' TRAIN leaves Toronto 2:00 p.m. each Tuesday, May to August, inclusive. Best Train to take.

UPPER LAKES NAVIGATION

Steamers Leave Port McNicol, Mondays, Tuesdays, Wednesdays, Thursdays, and Saturdays, for SAULT STE. MARIE, PORT ARTHUR and FORT WILLIAM. Connecting train leaves Toronto 9:45 a.m.

The Steamer "Manitoba," sailing from Port McNicol on Wednesdays, will call at Owen Sound, leaving that point 10:30 p.m.

STEAMSHIP EXPRESS

leaves Toronto 12:45 p.m. on sailing days, making direct connection with Steamers at Port McNicol.

AROUND THE WORLD via "Empress of Asia"

Leaving Liverpool June 14, calling at Madeira, Cape Town, Durban, Colombo, Singapore and Hong Kong, arriving Vancouver August 30th. Vessel remains 14 days at Hong Kong. "Rate for entire cruise, \$639.10." Exclusive of maintenance between arrival time in England and departure of "Empress of Asia," and stop over at Hong Kong.

Particulars from Canadian Pacific agents or write

M. G. MURPHY, D. P. A., C. P. Ry, Toronto.

J. HEFFERNAN, CITY PASS. AGENT, 32 WYNDHAM ST.



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Railway Between
Toronto and Montreal



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ELECTRIC LIGHTED PULLMAN SLEEPERS

Berth Reservations and full particulars from any Grand Trunk Agent.

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EXCELLENT OPPORTUNITIES FOR HOMESEEKERS

For rates, maps and all information apply to nearest Grand Trunk Agent, or write A. E. Duff, D.P.A., G.T.Ry., Union Station, Toronto, Ontario.

Official Calendar of the Department of Education

FOR THE YEAR 1913

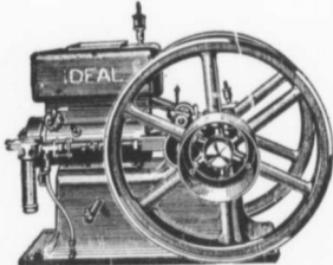
June:

3. King's Birthday. (Tuesday).
9. Senior High School Entrance and Senior Public School Graduation Diploma examinations, and the examination for Entrance into the Model Schools begin.
11. The Lower School examination for Entrance into the Normal Schools and into the Faculties of Education begins.
12. Upper School examination for Entrance into the Faculties of Education and Honour and Scholarship Matriculation examinations begin. Normal School Final examination begins.
13. University Pass Matriculation examination begins.
16. Junior Public School Graduation Diploma examination begins.
17. University Commencement.
18. Junior High School Entrance examination begins.

20. Provincial Normal Schools close.
21. Inspectors' report on Legislative grant due. (Not later than 22nd June).
23. Middle School examination for Entrance into the Normal Schools begins.
27. High, Continuation, Public and Separate Schools close. (End on 29 June).
30. Protestant Separate School Trustees to transmit to County Inspectors pupils' names and attendance during the last preceding six months. (On or before 30th June).
Trustees' Financial Statements of Continuation Schools and Fifth Forms, to Inspector due. (Not later than June 30th).
Report on inspectorial visit of City Inspector due. (Not later than June 30th).

Brantford Gasoline Engines

We manufacture the most complete and up-to-date line 1½ to 50 H. P.
Stationary, Portable and
Traction



We also manufacture complete lines of

WINDMILLS

Grain Grinders
Saw Frames, Pumps
Tanks, Water Boxes
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Limited
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The Underwood is used more extensively in Canada than all other makes of typewriters combined.

550 Underwoods are sold every day. The Underwood is the "aristocrat" of the typewriter world.

*United Typewriter
Co., Limited*

EVERYWHERE IN CANADA.

Head Office, Toronto.

A Garage of ASBESTOCEMENT

The walls of this Garage are of **Asbestos Corrugated Sheathing**. The strips run from roof to ground without a break.

The roof is of

ASBESTOSLATE Cement Shingles

laid in the diagonal or French style, finished with our regular Ridge Roll.

The advantages of this type of construction are many.

So far as the exterior is concerned the Garage is fireproof.

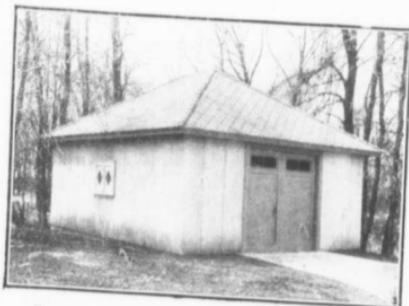
Walls and roof never need paint. The beautiful Newport Grey is absolutely permanent, and so are the Indian Red and Blue Black in which Asbestoslate Shingles are also made.

The building is permanently weather-

ASBESTOS MANUFACTURING CO., LIMITED.

Address E. T. Bank Bldg., 263 St. James St., Montreal.

Factory at Lachine, P.Q. (near Montreal).



Garage at Woodlands, P. Q., owned by Mr. W. G. Hess, Harbor Commissioner, of Montreal.

proof. The Asbestocement hardens and toughens with age.

The light-colored, non-conducting Asbestocement "sheds" the sun's heat and prevents extremes of temperature within. This is important.

The cost is less than that of any other permanent construction.

For Booklet G. R., giving full information about Asbestocement building material, write

The Royal Military College of Canada

HERE are few national institutions of more value and interest to the country than the Royal Military College of Canada. Notwithstanding this, its object and the work it is accomplishing are not sufficiently understood by the general public.

The College is a Government Institution, designed primarily for the purpose of giving instruction in all branches of military science to cadets and officers of the Canadian Militia. In fact, it corresponds to Woolwich and Sandhurst.

The Commandant and military instructors are all officers on the active list of the Imperial army, lent for the purpose, and there is in addition a complete staff of professors for the civil subjects which form such an important part of the college course. Medical attendance is also provided.

Whilst the College is organized on a strictly military basis the cadets receive a practical and scientific training in subjects essential to a sound, modern education.

The course includes a thorough grounding in Mathematics, Civil Engineering, Surveying, Physics, Chemistry, French and English.

The strict discipline maintained at the College is one of the most valuable features

of the course, and, in addition, the constant practice of gymnastics, drills and outdoor exercises of all kinds, ensures health and excellent physical condition.

Commissions in all branches of the Imperial service and Canadian Permanent Force are offered annually.

The diploma of graduation is considered by the authorities conducting the examination for Dominion Land Surveyor to be equivalent to a university degree, and by the Regulations of the Law Society of Ontario, it obtains the same exemptions as a B.A. degree.

The length of the course is three years, in three terms of 9½ months each.

The total cost of the course, including board, uniform, instructional material, and all extras, is about \$800.

The annual competitive examination for admission to the College, takes place in May of each year, at the headquarters of the several military districts.

For full particulars regarding this examination and for any other information, application should be made to the Secretary of the Militia Council, Ottawa, Ont.; or to the Commandant, Royal Military College, Kingston, Ont.

H.Q. 94—5.

9—09.

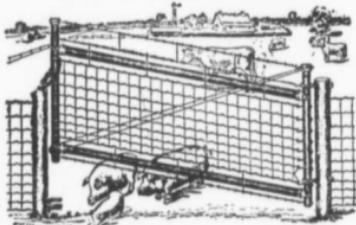
An Open Letter to Students of the O.A.C.

GENTLEMEN,—
You will be talking over many things this summer with your fathers and mothers, sisters and brothers, and with some to whom we only faintly refer.

If conversation ever lags, tell about the FARM GATES COMPETITION in which your comrade Jenkins won the prize.

And whenever you come across a farmer with a decrepit wooden gate, tell him about the

CLAY GATE



Perhaps you will come across some iron gates pretty badly run down at the toe, so to speak. Then think of "CLAY" GATES, which swing true from the first day to the last day—only the last day hasn't come yet for Clay gates set up in Canada, because Clay Gates last a life-time.

When cattle or horses break down common gates, and lead you or others a pretty chase to get them back where they belong; when they get into fields which are forbidden them, as the result of poor gates; then say out loud—very loud—

Why Don't You Have Clay Gates?

When you see gates that sag, or are bent, or broken, or which fire has injured, or which have gone down before the gale, or which have rotted to the point of final dissolution, think of CLAY GATES—and recommend them.

And lastly, when you listen to some ardent, eloquent, but deluded gate salesman cracking up a gate less good than the "Clay," say to him:

"Friend, why don't you sell the best of all gates—the "CLAY"?"

A happy, prosperous summer, boys, and a welcome when you come back in the autumn.

H. RALPH STEELE, Manager.

THE CANADIAN GATE CO., LTD.,
74 Morris Street - GUELPH, ONT.

LOCALS

"I guess I'll get out of business," said the salesman dolefully, "I'm too unsophisticated. I made arrangements with a firm for exclusive territory for the sale of Japanese art."

"What happened?"

"They gave me California."

"Never count your chickens before they are hatched."

"Of course!" sneered Mr. Crosslots. "You're another of these people who want to take the chief pleasure out of the poultry business."

"I never saw a girl that could hit anything she threw at."

"Why you ought to see Miss L— throw a hint."

"'Lo, Jim! Fishin'?"

"'Naw; drownin' worms."

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Are made by skilled Chemists, from the purest and best ingredients. Every package, bottle or can is sold with our ironclad guarantee to refund your money if it is not entirely satisfactory. Millions of Stockmen endorse the International Line.

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International Colic Remedy—Cures in 10 minutes, without bad after effects.

Silver Pine Healing Oil—Keeps wounds clean and heals them quickly.

International Antiseptic Healing Powder—Heals cuts, sores, wounds, galls, etc.

International White Liniment—The surest and most penetrating ever discovered.

International Hoof Ointment—Cures contracted heels, quarter cracks, corns and soreness.

International Honey Tar Foot Remedy—A remarkable foot grower and toughener.

International Pheno-Chloro—Kills microbes and germs of disease.

Dan Patch Stable Disinfectant—Its use insures pure air and hygienic conditions.

International Sheep Dip—An economical, non-poisonous Cresul and Sulphur dip.

International Hog Dip—Cures mange, scab, lice and all skin diseases.

International Louse Killer—A fine powder which destroys lice, ticks, fleas, etc.

International Louse Paint—For Roosts, nests and cracks around the hen house.

International Gape Remedy—Saves the chicks. Safe and sure.

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International Gopher Poison—Sure death to gophers, rats, squirrels, etc.

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Feeds, Prints, Counts, Checks, Stacks and Delivers Automatically
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*This Means—Your Work Done Quicker Than Ever,
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Before the Blast.



The Blast.



After the Blast.

Mr. Farmer:—

Can you answer these questions?

Do you intend to get rid of those unprofitable stumps? How are you going to do it?

Will you use a machine, which is the hardest kind of work, often injuring your horses, and requiring a great deal of work to get rid of the stump afterwards?

Or will you burn out the stumps—which procedure destroys the fertile elements of the soil all around the fire?

Or will you try the modern method which does the work at one-third the cost of pulling and chopping them up—a method that will remove fifty stumps in the time it would take to pull and chop up one or two—a perfectly safe and sure method?

Do you want to know all about this labor and time-saving method?

Then write for our free booklet, which is full of valuable information.

Send to-day before it slips your memory.

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Montreal, Que. Victoria, B. C.

Have The Louden Line On Your Farm

You will find most of the up-to-date farms throughout Canada are equipped with the Louden line.

You have to look no farther than the farms and dairies of the O. A. C. for a practical demonstration of its worth.

The Louden Barn Equipments

are recognized standard and leaders in their particular kind in the world.

If your barn is to have the most "practical" up-to-date equipment, you need to instal the Louden goods.

The Louden catalogue of perfect barn equipment is as good as a text book. Send for it.

Address your request for one to:

The Louden Machinery Co., Guelph, Ont.

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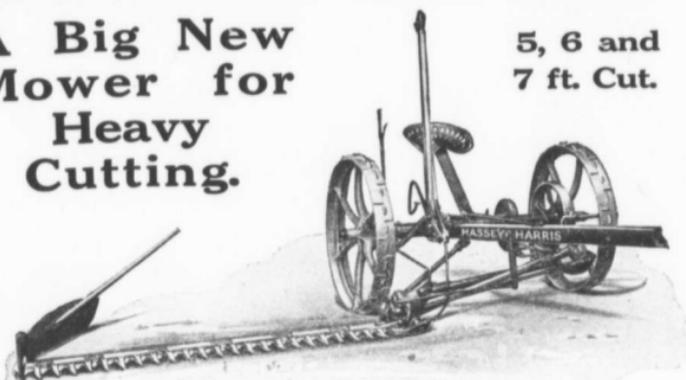
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A Big New Mower for Heavy Cutting.

5, 6 and
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Wide Tread—Wider than on any other Mower—ensuring steady running and overcoming side-draft.

Improved Clutch and Throw-out Device.

New Simplified Lift—(See Cut)—Attached direct to the Frame. Pole may be removed, without affecting the Lift or any other parts.

Push Bars are especially heavy and stiff, have Screw Connections at both ends and both ends are machine fitted.

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Hinged Coupling has long broad Bearings and heavy Pins, doing away with any looseness of the Bar.

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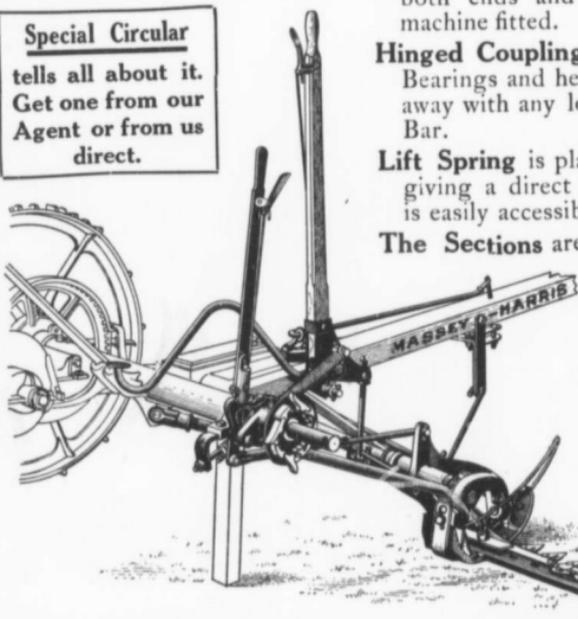
The Sections are longer than on any other Mower, giving longer cutting edges and greater clearance.

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Advise Your Friends to Come to
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Nowhere in the world are to be found so many and such
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FRUIT-GROWING, DAIRYING—WHAT YOU WILL!

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Do not neglect it. Think this over.
You can never do as well anywhere else.

Tell your friends to apply for further information
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DE LAVAL

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Cheapest As Well As Best

Every sensible person wants the best of everything, but in many things the best is beyond their means and they must necessarily be content with something less.

In the case of the Cream Separator, however, the best is fortunately the **cheapest** as well, and it is of the greatest importance that every buyer of a separator should know this.



Moreover, the best is of more importance in the case of the Cream Separator than in anything else, since it means a saving of a waste **twice a day every day in the year** for many years.

It is true that DE LAVAL Separators cost a little more in first price than some inferior separators, but that counts for nothing against the fact that they **save their cost every year over any other separator**, while they last an average twenty years as compared with an average two years in the case of other separators.

And if first cost is a serious consideration a DE LAVAL machine may be bought on such liberal terms that it will actually **save and pay for itself**.

These are all-important facts which every buyer of a Cream Separator should understand and which every local DE LAVAL agent is glad to explain and demonstrate to the satisfaction of the intending buyer.

If you don't know the nearest DE LAVAL agent simply address the nearest of our main offices as below.

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