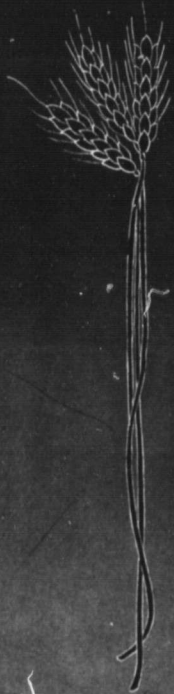


VOLUME XXII



NUMBER 2.



THE
O·A·C·
REVIEW

November
1909

U.S. U.S.

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February	20	August	12
March	23	September	21
April	16	October	21
May	20	November	22
June	21	December	16
	120		92

Total.....212

[Note.—Christmas and New Year's holidays (23rd December, 1909, to 2nd January, 1910, inclusive), Easter holidays (9th April to 18th April, inclusive), Midsummer holidays (for High Schools and Collegiate Institutes from 30th June to 6th September inclusive and Public Schools in cities, towns and incorporated villages, from 30th June to 31st August, inclusive; Rural Schools, 30th June to 15th August inclusive), all Saturdays and Local Municipal holidays, Dominion or Provincial Public Fast or Thanksgiving Days, Labor Day (1st Monday, 6th, of Sept.) and Victoria Day, the anniversary of Queen Victoria's Birthday (Monday, 24th May), are holidays in the High, Public and Separate Schools, and no other days can be deducted from the proper divisor. The above named holidays are taken into account in this statement, so far as they apply to 1909, except any Public Fast or Thanksgiving Day, or Local Municipal holiday Neither Arbor Day nor Empire Day is a holiday.]

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THE O. A. C. REVIEW

THE DIGNITY OF A CALLING IS ITS UTILITY.

VOL. XXII.

NOVEMBER, 1909.

No. 2

The Canadian Seed Growers' Association

BY L. H. NEWMAN, B.S.A.

IT is presumably safe to say that the majority of the Review readers are familiar with the aims and objects of the Canadian Seed Growers' Association and know something of the work that is being accomplished throughout Canada by that organization. Others may not be so well informed. For the sake of the latter we desire to restate as clearly and as briefly as possible the exact position of the Association in respect to the place that it occupies in Canada in the general propaganda making for the betterment of rural conditions through the use of better seed.

To the "man on the road," the improvement of seed is a work associated almost exclusively with the experiment stations where expert treatment is available. The possibilities which lie within the easy reach of the average farmer to develop improved strains on his own farm have not occurred to him. Indeed it may be fairly said that this failure to recognize the far-reaching importance of even the comparatively slight attention which the average farmer is able to give to the systematic improvement of his seed has cost the country millions of dollars. Let us in dulge for a moment in a mathematical

calculation of our losses. Last year the value of the grain crops of the Dominion was placed at \$245,939,000. This amount of wealth was produced on an area of 18,249,100 acres. To sow this area in the spring, approximately 30,000,000 bushels of seed were required. This seed came almost exclusively from the ordinary farms throughout the country. A comparatively small proportion up to the present, has enjoyed any special treatment or care other than that given by the fanning mill and, too, often this attention is denied. A good deal of the seed doubtless came originally from or through the experimental stations and was of very fair quality when secured. Neglect and exposure to conditions which vitiate, however, has weakened it and reduced its yielding capacity by several bushels per acre. These are conditions which the average farmer has it within his power to correct. He can not only maintain high standards but by a simple process of systematic selection can aid his seed in quickly adapting itself to the conditions peculiar to his farm, and in reaching the maximum of its power to yield under those conditions. Had this 30,000,000 bushels of

seed been capable of yielding only one bushel per acre more than it did yield, the added wealth resulting from such increase would have been so much clear profit.

How are we to encourage farmers to give greater attention to the producing of a better class of seed for use on the farms of this great agricultural country? This is a problem which the Canadian Seed Growers' Association has been and is still trying to solve.

At the outset, be it understood that we do not wish to minimize the importance of the work of the stations for we are fully aware of the splendid work they are doing and quite realize the fact that theirs is a work which can not be conducted to any great extent elsewhere. The aim of the Association is rather to extend the work of these institutions by inducing as many as possible to secure pure foundation stock therefrom, propagate the same as rapidly as possible, and by a simple system of systematic selection maintain or even improve upon the high standard of the said stock.

Every farmer is aware of the rapidity with which his seed will depreciate in productiveness and how mysteriously and quickly it becomes mixed when no attempt is made to provide against these contingencies. The reasons for this condition are obvious. In the first place seed secured from the bin will have been taken from a comparatively wide area and possibly from an uneven surface—conditions which tend to encourage lack of uniformity in quality, maturity and general vigor. Seed of this sort cannot be expected to give best results.

In the second place, we find that every crop produces a greater or lesser proportion of inferior or 'scrub' plants;

the seed from which cannot be all removed even by the most severe fanning.

The mixture of different sorts referred to is often difficult to account for. Perhaps the itinerant threshing outfit is the most active agent in carrying grains of other varieties from one farm to another.

A consideration of the above conditions emphasizes the importance of the exercise of great care on the part of the individual farmer himself lest serious loss be sustained and any advantages from the importing of high-class seed be sacrificed.

The improvement of the crops of any country is fundamental, not only to the prosperity and well-being of the individual who grows them, but to the country as a whole. Because of this fact, the question of crop improvement is one of material concern and one in which all public spirited people should take a deep interest.

In the opinion of those who have given this question special study for many years, and who have carefully considered the various theories regarding plant improvement, heredity, changing of seed, etc., the simplest and most effective system for the average farmer is that which is recognized by the Canadian Seed Growers' Association. This system is briefly as follows:

1. Choose carefully the variety to be used as foundation stock. To do this it is often advisable to test a few of the best recognized varieties in small plots side by side before making the final choice.
2. Having decided upon the variety, the next step is to set aside a special plot of at least one-quarter acre in size to be sown with the best possible seed of that variety.

3. Just before harvesting the crop on this plot, a hand selection of seed from specially desirable plants is to be taken in sufficient quantity to sow at least a quarter acre plot the following year. In the case of wheat, oats and barley, about 60 lbs of heads should be chosen, and 30 pounds threshed out and cleaned for sowing the plot, the balance to be kept in reserve for use in case of crop failure.

This plot is given a special place on the farm each year and serves two distinct purposes, viz.:

(a) It affords a medium through which the strain may be built up in yield and quality and maintained in purity.

(b) It furnishes an annual source of seed for the main crop since the balance of the plot is threshed and kept separate for this purpose after the hand selection has been made.

On this smaller area such factors as productiveness, hardiness, ability to resist disease, strength of straw, quality, purity of the strain, etc., can be considered in a way which is absolutely impossible where the whole field or crop has to be taken into consideration.

While any grower may apply this system on his farm independent of the Association, yet there are certain advantages associated with an affiliation with this organization which few growers can afford to ignore. Briefly speaking, these are as follows:

1. It enables him to keep in touch with his fellow worker, and thus to profit by the successes and failures of the latter.

2. It keeps him in touch with the best thought of the times in all matters pertaining to crop raising.

3. It fixes approximate standards of registration for pure-bred seed.

4. It makes a careful study of the results obtained by the different members as well as by professional investigators, and offers direction and guidance accordingly.

5. It keeps the record of all work done along these lines by members, and issues certificates of registration.

6. It assists members as far as possible in the disposal of their surplus stock of pure bred seed at reasonable prices.

7. It gives publicity to the work of worthy growers who have succeeded in producing stock of real merit.

At the present time we find many reliable and successful growers working independently of the Association, yet producing seed of a high order. Their work, however, is, for the most part, unknown and only a comparative few are able to profit by their labors. By working in affiliation with the Association and in accordance with its rules, much greater publicity might be given their work, while at the same time an opportunity would be afforded a greater number to secure a supply of their seed.

The country to-day is rapidly coming to demand only the best seed available, and prices are readily paid which, a few years ago, would have been thought exorbitant. By keeping closely in touch with the work of the individual grower, inspecting his stock right in the field and keeping careful records of results realized, the Association is able to give out reliable information which should be of great value both to the prospective purchaser of seed and to the grower producing it. Space will not allow us to deal with the scientific aspect of the

work of plant improvement or to show to what extent it is based on scientific and therefore sound principles.

Special publications dealing with this phase of the question are available

for distribution at the office of the Secretary of the Association, Canadian Building, Ottawa, and will be supplied free of charge to those who desire to look into the question further.

PEACE.

The veil of night had cast its thickening folds
O'er earth's broad face. The troubled sky
Its pent up fury shed by thunderous shocks,
Of mountain rifting sound, which cleft the air
In loud, continuous, reverberating rolls.

Athwart the sky the forked lightnings sped;
Their tortuous course the writhing folds cleft deep,
And loosed the pent up floods,
Which downward swept in sheets of driving rain.

The mountain stream its purling whisper hushed
One fleeting space; from heights above
The mighty torrent roared, now lost
In foaming whirls and dark unfathomed caves,
Now bounding forth o'er jagged rocks, or seething precipices.

The misty spray which left the troubled stream,
With balmy fragrance kissed the dewy plume,
Of a dark brown thrush,
Which nursed its young in peaceful solitude
On the swaying branch of an overhanging tree.

Unmoved it sat; the flood below awoke
No nervous dread,
No blanched eye, no sign of fluttering wing.
The winds might blow,
With blackest fury sweep the tortured skies,
The lightning flash might launch its fiery bolts
In swift accompaniment to thunder rolls.

The earth might quake, and mock the skies
With subterranean alarms. 'T were vain.
I know the charm,
And bid my doubting cease.
The war of nature
Forms its song of peace.

—W. C. Owen.

Modern Socialism

BY W. C. GOOD, B. A.

THAT the world is getting better is a proposition open to dispute.

Some who dispute it are, of course, guilty of either deliberately or unconsciously idealizing former times, and comparing the best in the past with the worst in the present. But, quite apart from such unsound reasoning, a good case can be made out against the general assertion of progress. It can be pointed out that many things, both large and small, have been done better in ancient than in modern times. In literature and philosophy, in building and architecture, in various industries, and in art, ancients have excelled any moderns. And yet the admission of a decline from the standard of the past in several particular things does not invalidate the argument that the lot of the average man is steadily becoming better. In the diffusion of useful information, in the suppression of cruelty, in the relative abolition of famine, pestilence and slavery, and in the general augmenting of individual liberty the world shows continuous improvement.

And, yet, despite it all, the wastes, inequalities, insufficiencies, and curiously complicated oppression and parasitism of modern times profoundly affects all sympathetic and thoughtful people, and provokes that "divine discontent" which is ever the precursor of progress. The Socialist Movement, in all its various manifestations, arises out of this perception of evil, misery, and inadequacy in our present life, and is given definite form by the temper,

education and ideals of those who, from time to time, are its exponents. In a recent work,* Mr. H. G. Wells gives a very comprehensive survey of the development of Socialism, and a very sane and moderate defence of what he calls Modern Socialism. Mr. Wells is an Englishman, living in London, and naturally the conditions with which he is most familiar are those of the great metropolis. His arguments are nevertheless applicable, to a greater or less degree, to all modern civilized peoples.

He finds, amidst all the glory and beauty of modern civilization, a substratum of misery and vice which he thinks can be largely remedied by deliberate planning and organization. The fundamental idea of Socialism, according to Mr. Wells, is the denial that "chance impulse and the individual will, and happening constitute the only possible methods by which things may be done in the world." Just as the belief that "knowledge is power," has led men of science to organize for research, so the faith of the Socialist that society ought to be orderly and systematic leads to endeavors to organize for collective action in the overcoming of chance. One of the secrets of success in modern science is its cooperative character, the fact that each new discovery is published. Scientific research is, in a sense, a triumph over natural instinct,—the mean instinct that leads to concealment for selfish

* "New Worlds for Old," by H. G. Wells
Macmillan Co., 1898.

purposes, the dominating motive of the quack. The laborious, unselfish and, in a sense unrequited, lives of all great investigators have made possible the splendid successes of modern physical and biological science; and the Socialist demands the same frankness, veracity and unselfishness in social and economic relationships as the scientist does in the field of thought and knowledge. The self-seeking man is the common enemy of the Socialist and the Scientist.

In modern society the Socialist finds a great lack of constructive design. In the production and distribution of food, in the begetting and rearing of children, in the prevention of disease, and in a hundred other ways, things are chaotic. There is enormous waste;—excess and degeneration on the one hand, privation and death on the other. Society in these respects follows the methods of a mob, not those of a disciplined army. Planned, organized effort, instead of disorderly, individual effort, is what the Socialist aims at.

The first main generalization of Socialism, according to Mr. Wells, deals with that side of life which is turned towards the birth and education of children. This, he believes, is a supremely important consideration, for "the whole measure in which the children improve in physical and mental quality, in moral co-ordination, in opportunity, upon their parents." In this respect how do matters stand now? Mr. Wells answers by quoting typical items of a most distressing character from the London Education Committee's report, and from that of the Charity Organization Society of Edinburgh, and adds: "Now to the Socialist, as to anyone who has caught the tinge of the modern scientific spirit, these facts

present themselves simply as an atrocious failure in statesmanship." What is the remedy? After some discussion of possibilities, Mr. Wells contends that the remedy lies in the supplementing and controlling of parental effort by the state, and he finds this in harmony with the best educational thought and practice of the last hundred years. Parentage can be regarded no longer as an isolated, private matter: it must be one of collective concern; and Mr. Wells goes on to point out how far the power of legislation, truancy acts, public health inspection and so forth. But he regards all this as being but a beginning of the nation's organization for the welfare of the nation's children. Something positive should be done. What of motherhood under conditions that force women to work in factories? "A good mother," says Mr. Wells, "is the most precious type of common individual a community can have, and to let a woman on the one hand earn a living as we do, by sewing tennis balls or making card board boxes or calico, and, on the other, not simply not to pay her, but to impoverish her because she bears and makes sacrifices to rear children, is the most irrational aspect of all the evolved and chancy ideas and institutions that make up the modern state. It is as if we believed our civilization existed to make cheap cotton and tennis balls instead of fine human lives."

Mr. Wells finds the same indifference towards the children of the average member of the middle class, and finds cause for this largely in the economic pressure brought to bear upon such members by recent economic changes. Some sort of endowment or help should be forth-coming for the Socialist "deems it not simply unreasonable

but ridiculous that in a world of limitless resources, of vast expenditure, of unparalleled luxury, in which two-million-pound battleships and multimillionaires are common objects, the supremely important business of rearing the bulk of the next generation of the middling sort of people should be left almost entirely to the unaided, unguided efforts of impoverished and struggling women and men."

One state-subsidized family, the Royal Family, Mr. Wells finds supported beyond all necessary requirements, and the British Aristocracy threatened with demoralization from plethora of sustenance, while among the American Plutocracy "artificially sterilized spenders of money upon frivolous ends" are conspicuous.

The proposition to educate and support in decency all the children at once raises the question of "How?" and this leads to a discussion of the "Economics" of Socialism. The Socialist proposes changes in the industrial system, and the conventions of property that will, in his opinion, insure cheaper production, more equitable distribution and wiser consumption. In matters of housing, for example, there is much to be done in the direction of cleanliness and sanitation. Why is it, therefore, that unemployed people cannot get to work at "unemployed" material and house the whole population fairly and well? Upon examination Mr. Wells finds the trouble to be mainly in the modern exaggerated idea that there must be an individual *owner* for every thing, and, in particular, for the land. Private property in land he holds responsible for the failure to realize a collective dealing with the housing problem. Similarly the veto of this or that private *owner* prevents the de-

velopment of almost every public service. Not only is there obstruction, there is also waste in unrestricted private enterprise; witness how it distributes milk along our city streets. Mr. Wells maintains that universal private ownership is an extreme development from the breakdown of the Feudal System in alliance with a dogmatic church, and that it is already on the wane; in fact, that in many respects the nineteenth century had seen a quite astonishing interference with the so-called "rights" of owners. Private ownership, as a phase in human development has contributed to human progress, just as autocratic kings have been useful in ending private war, establishing law, etc., but it is destined to be replaced more and more by public ownership.

Mr. Wells then considers the social effect of modern private ownership in the supply of food and fuel, and in the Drink Traffic, and sums up with a concise statement of the Socialist's claim for public ownership of the land and all raw materials, and all resources accumulated from the past.

The next chapter Mr. Wells devotes to a discussion of "The Spirit of Gain and the Spirit of Service," and states that the proposed changes involve a replacement of the former by the latter. The idea of property, run wild, has become a weed, and chokes the best of human nature. Mr. Wells holds that "it is only quite abnormal people, people of a narrow, limited specialized intelligence, Rockefellers, Morgans and the like, people neither great nor beautiful, mere financial monomaniacs, who can keep themselves devoted to and concentrated upon gain." Nor in modern

times are such men necessary to "create" great business. Their activities are largely anti-social, and were it not for the spirit of service prevalent among the majority, the peculiarly acquisitive individuals would soon perish "in a campaign of mutual skinning." As a matter of fact, even now, most of the good enterprising industrial work is done by salaried individuals whose interest is in the work itself. Socialism does not seek to abolish competition; it would substitute competition in service for competition to get and hold property.

And now, with the propositions before us there arise a host of difficulties and questions as to their practical working out. Mr. Wells is disposed to take these difficulties very seriously, and he devotes fully half his book to a discussion of them. His general contention is that while the ordinary exposition of Socialism does not solve these difficulties, they are unsolved at present; that in fact we can never more than approximate to a solution. How shall we get "the right man in the right place?" How is latent ability to be detected and developed? How are the state services to be efficiently and honestly administered? One of the most important questions is, would Socialism destroy the home? Preliminary to a discussion of this Mr. Wells bids us not imagine that every home is like that pictured in Burns' "Cotters Saturday night." The actual Scotch home of to-day, that is among the poorer classes, he describes by quoting ten successive entries in the report of the Edinburgh Charity Organization upon some 800 homes. Therefore, before considering the possibly baneful effect of Socialism upon home life one should get an accurate idea of what

the average home is like *now*. Not only the homes of the poorer classes, but the homes of the well-to-do also, where neglect of children, and their relegation to boarding schools and the like, are by no means uncommon: Hence what sort of homes would Socialism destroy? As for a number of allied questions—marriage and divorce and the like, Socialists differ, as do others.

Another question to which Mr. Wells devotes a chapter is that of the alleged abolition of property. He maintains that Socialists could not, even if they would, abolish personal property altogether. Modern Socialists, he says, do not aim at such abolition. Absolute private property, in the sense of unlimited right of disposal, does not exist at present; and Mr. Wells holds that the State is legally and morally justified in still further restricting it. For loss in property there will be compensation, he thinks, in the conferring of *rights*. In the struggle for property a man seldom gets what he is really entitled to, and Mr. Wells thinks that the abolition of private property in land and natural resources will confirm the individual in the enjoyment of personal property. In this he agrees with Henry George.

Mr. Wells then examines what will become of the savings of the "virtuous small man," and answers the question mainly by showing what does become of them now-a-days through financial manipulations and the concentration of mercantile industries; and he devotes a chapter to the fate of the modern middle-class man in England, who is fast disappearing. In regard to the great public services Mr. Wells thinks there are only two alternatives, Plutocracy or Socialism; and the State he

thinks a much better employer than a combine of millionaires.

Mr. Wells next discusses a number of stock objections to Socialism, one of which is distinctly worth mentioning. It is that Socialism would open the way to political corruption on a grand scale. This charge, he says, "is flatly opposed to the experience of America, where local administration has been as little Socialistic and as corrupt as anywhere in the world." Those who have kept informed as to municipal politics in San Francisco, St. Louis, New York and elsewhere in America cannot but feel the force of this statement. It is when there are "vested interests" outside the political system that bribery is rampant. The socialising of the public services promises a reduction rather than an increase in "graft" and "bribery." Other objections that Mr. Wells discusses interestingly are "Socialism would destroy Freedom"; it "would reduce life to a monotonous dead level"; it "would arrest the survival of the fittest."

Socialism, according to Mr. Wells, is not a cut and dried scheme, but rather a developing doctrine, changing with the passage of time. Beginning with the vague, utopian, experimental schemes of the first half of the nineteenth century, the doctrine was greatly extended and enriched by Karl Marx and his followers, and in that form has produced important political changes in Europe. In England, however, another and later influence has been at work, that, namely, of the Fabians. The Fabian Society has concerned itself with ways and means of disseminating and realising Socialism, and has had great influence upon the London County Council, and generally upon English thought through their

publications—the *Fabian Tracts*. The next step to be taken, according to Mr. Wells, is the elucidation of social psychology, for the socialisation of our economic life necessitates great changes in intellectual conditions and political institutions. Collective control implies a collective will, and means for developing and expressing a collective mind; it implies enlargement of circles of ideas and new mental associations. Such changes depend upon education, and nowadays for the first time appears what may be called the collective mind of the world, fed largely by literature of various kinds, by organised propaganda and by political campaigns. In respect to the collective mind the Socialist movement is an effort to develop the collective self-consciousness of humanity, and it is therefore international. In fact in modern times it is impossible to maintain any national or racial self-consciousness; every national mind is fast coming into the common melting pot of thought.

In order to insure the continuity of the collective mind, three principles, Mr. Wells thinks, must be clearly recognized: (1) Freedom of speech, (2) Freedom of writing, and (3) universality of information. And Mr. Wells' programme of constructive Socialism consists of (1) The enrichment of the Socialist idea; (2) political reform—or the scientific reconstruction of our representative and administrative machinery; (3) resumption of the land by the community; and (4) the gradual socializing of the main public services.

Mr. Wells continues with a chapter giving his own conception of life under a Socialistic regime, and concludes by discussing the advancement of Socialism by education, propaganda and practical, social and political effort. He

maintains that Socialism is essentially a moral and intellectual process, only incidentally swaying the world of politics, and that there cannot in the nature of the case be any official or pontifical Socialism. It is no panacea; it illuminates the path of human progress but does not remove obstacles and difficulties; it is hope, not assurance.

Whatever opinions one may enter

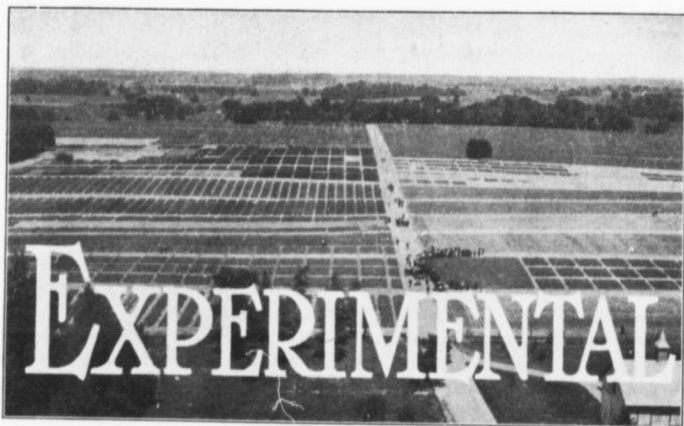
tain regarding the details of Mr. Wells' argument, one cannot but commend its spirit. It is a hopeful sign that a movement which has been so maligned and misunderstood and so often brought into disrepute by ignorant or rabid advocates, has won the attachment and commanded the services of a man of Mr. Wells' attainments, and has been reinterpreted by him. His book is worth careful study.

MOONLIGHT.

So tremulous the flame of thinking burns
 Beneath mine eyelids, that I may not keep
 My restless couch; I watch the still moon sweep
 Through starry space, like some white soul that spurns
 Earth-life, and to the sunlight ever turns;
 In her cool beams my burning eyes I steep—
 Oh, that my spirit thus may rest in sleep
 When my pale ashes mother Earth mourns!

And as the moonlight quieteth unrest,
 Changing thought's scorching glow to truth's pure light,
 So Thou, who art my heart's most holy guest,
 Dost make its ruddy flame glow spirit white;
 And like pure-hearted child 'mid happy dreams,
 I rest my heart and soul in Thy love-beams.

William P. McKenzie.



Some Successful Methods of Growing Potatoes

BY MR. T. G. RAYNOR, B.S.A.

[The author's name, H. T. Macoun, was inadvertently omitted from the article "Experimental Shipment of Tomatoes to Great Britain," which appeared in the October number of The Review.—Editor's note.]

THE potato (*Solanum tuberosum*) was discovered about three centuries ago growing wild on the table lands of Chili, Peru and Mexico. Its value as a food was not generally recognized until the middle of the eighteenth century. Since then it has been developed wonderfully in quantity and quality. It is estimated that the world's annual production is about five billion bushels. It is of very great value as food for both man and beast. In the manufacture of starch it is used very extensively. In consideration of the above the successful production of the potato is very important.

Recently it was my privilege to visit

the farm of Mr. William Naismith, who is a recognized successful grower of potatoes and who has carried off the lion's share of the awards at the leading exhibitions for a number of years.

This year he has about three acres of potatoes, and his exhibition stock came out of the main crop. It must be noted that Mr. Naismith has first-class soil for growing potatoes; a sandy loam containing quite a lot of vegetable mould and situated between granite ridges from which more or less wash has been incorporated. Mr. Naismith has grown some of his very finest potatoes on new land, but he usually follows one of two courses. The first

method, which he likes the better, is to plough a piece of timothy sod in the autumn, sow peas on it the next spring and plough again after harvest. In the following spring disk up thoroughly and apply some fairly well rotted stable manure to the surface. Then, he cuts his sets to one eye from good sized potatoes, leaving a fair amount of substance to support each eye, and has them dropped close to the shoulder of the furrow which is about four inches deep. He plants in every third furrow, thus making the rows about 30 to 36 inches apart and places the sets 18 inches apart in the row. He likes plenty of humus in the soil, not only to give richness but also looseness. Just before the potatoes come through he runs the harrow over the patch not only to kill the small tender weeds but to let the young shoots through. Afterwards he cultivates enough to keep the weeds down and to stir the soil sufficiently for an earth mulch until the blooming stage.

Mr. Naismith lays most emphasis on knowing how and what to select. As the art of breeding in stock is epitomized by the word "selection," so, also in plant life, it plays a very important part. Not only does Mr. Naismith make his selections carefully of well matured, shallow eyed, even seed, but stores his potatoes in a way that the greatest vitality seems to be maintained.

Along a ravine on the bank at one side may be seen a number of old trenches, 10 or 12 feet long, $2\frac{1}{2}$ to 3 feet wide, and 4 or 5 feet deep, which allows for two feet of soil on top of the potatoes, when the trenches are filled to the level with the surrounding surface. The trenches are filled with potatoes, then a covering of small

boards or poles are laid across, some coarse grass put on these and then some earth. More earth is applied as it begins to freeze hard until it is level with the ground around about. Snow makes the rest of the covering. The potatoes come out beautifully every year. Mr. Naismith can, and doubtless will, make better selections in the future by staking out the promising hills while growing, from which to get his seed instead of making his selection from the pit as in the past. He will likely adopt the C. S. G. A. method.

Of all the potato growers I have met during the last few years while judging in the "Field Crop Competitions" and in discussing potato growing at Farmer's Institutes, only five have been selecting and growing the same variety for a period of 25 years. Three of these were working with the White Elephant variety, one with the Early Rose and one with the Empire State. All these men are very careful in their seed selection.

I have also observed a number of plots where the growers were experimenting with special fertilizers in co-operation with the Experimental Union. So far the experiments favored the application of a liberal dressing of stable manure. I have no doubt but that some special fertilizers mixed with stable manure would give satisfactory yields. In many places their application is almost a necessity, and where a complete fertilizer is used, mixed in proper proportions, it will much more than pay for its application in increased yields of good quality potatoes. Almost any soil may be put in proper condition to grow potatoes if it is drained properly. The average yield of 100 bushels per acre is capable of

great expansion; it should be 150 bushels and upwards.

Perhaps the most successful potato growers, throughout Canada at least, prefer, if they can manage it, to plough down clover as a preparation for potatoes on a light loamy soil. Quite a large number use the following plan with some modifications: Clover lea, which has been allowed to grow until the last of May or along in June, when the bulk of the potatoes are planted, is treated with a top dressing of about 15 to 20 loads of mixed stable manure. Potato ground can scarcely be made too rich. The potato seed is ploughed in about four inches deep, every third furrow, one set in a place about eighteen inches apart in the row. The plot when planted is rolled, followed by the harrow to pulverize the surface and prevent the too rapid evaporation of water. The after cultivation is harrowing until the potatoes are up three or four inches, and then the single horse hoe is used, at first quite deep, then shallow, simply to kill weeds and keep the dust blanket intact. At the last cultivation the potatoes are hilled enough to prevent the tubers from being sunburned.

The philosophy of this system will be seen in that if the seed has been well

selected, then spread out in the light for some time until the sprouts have started a little, then cut to one or two eyes and placed close to the shoulder of the furrow, that it at once starts to grow under such hot-bed conditions. The sets lying on a solid bottom get the capillary water readily. The loose clover and manure, fermenting, furnish heat and plant food as well as making suitable conditions for the tubers to develop in all directions. Rapid growth and good strong vines seem to help in combating blight and bugs.

In Prince Edward Island, where potato growing is quite a specialty, a preparation of the soil, which is growing deservedly popular, is to plow timothy sod quite shallow about the beginning of harvest, work it well, and the next spring manure and plow in the seed.

There are a number of sections here and there throughout the country where it would pay to make the growing of potatoes a specialty more than is being done. Co-operation in selecting varieties, in the use of up-to-date machinery, as sprayers, planters and diggers, and in marketing the products should make potato growing one of the most interesting as well as a most profitable line of farming.

Prairie Tree Planting

BY NORMAN M. ROSS, B. S. A., INDIAN HEAD.

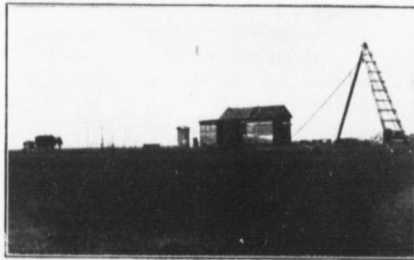
ONE living in the east who has never visited the prairie provinces and is therefore unacquainted with the natural conditions in the middle west cannot very well fully realize either the necessity for the

farmer planting large shelter groves or the comparative difficulties to be overcome before such plantation can be successfully established. To the easterner, who finds it necessary for some reason or another to plant trees, the opera-

tion does not appear of much importance. The climatic conditions are so favorable that very little care in the planting need be exercised, and practically no preparation of the soil in a special way is needed. On the prairies, however, things are very different. At least one year, and very often two, are required to properly prepare the ground before any planting can be done. After the trees are planted, surface cultivation must be given for at least two, but generally three, and frequently four seasons before the settler can be assured that the plantation has become

ing prairie winds quickly evaporate what little natural moisture there is.

The temperature may vary from over 100° Far. in summer to 60° below zero in winter. These temperatures, if succeeding each other gradually, would not in themselves be of very great consequence. Frequently, however, in the spring of the year especially, very sudden changes are experienced. For a few days the weather may be warm, melting the snow, thawing out the ground and inducing a flow of sap, then suddenly, in less than 24 hours, the thermometer may drop to



AVERAGE PRAIRIE HOMESTEAD WITHOUT ANY PLANTING.

well established. The chief natural obstacles to be overcome are: (1) The comparatively high altitude, (2) a minimum amount of rainfall, (3) sudden change of temperature and extreme weather conditions generally.

At Winnipeg on the eastern borders of the plains the elevation is about 750 feet. This rises in a gradual slope in the extreme west along the foothills of the Rockies, to about 3,000 feet. The rainfall varies from perhaps 18 inches in eastern Manitoba to 11 or 12 inches further west—less than half the average rainfall of Ontario. The atmosphere is extremely dry and the sweep

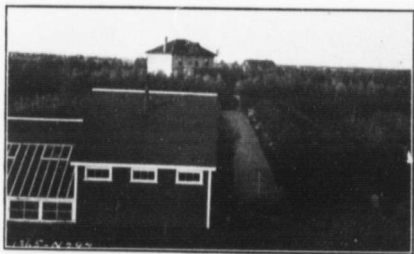
several degrees below zero. Such conditions are almost fatal to any but the very hardiest varieties of trees. Those then who are more or less familiar with silviculture can readily realize that a combination of the above conditions makes the work of the forester by no means an easy task.

In the early years of settlement, before the effect of the natural conditions was fully realized, a great deal of unsuccessful tree planting was done. In fact the failures were so general that eventually the opinion was popularly held that tree planting was no use, "one might just as well not waste the time

and money, because trees wouldn't grow on the prairies anyway." However, there were fortunately a few exceptions; in some rare instances trees did miraculously survive. To those few who refused to be discouraged these rare plantations held out a certain degree of hope. On closer investigation it was found that success was due in all cases to the same factors, viz., the selection of native varieties and a proper preparation of the soil. This knowledge, however, could not be very widely circulated, as private individuals, as a rule, have neither the time nor

annually increasing numbers, and it has become generally recognized that to ensure success it is only necessary to observe certain rules and follow certain methods of cultivation.

The Experimental Farms have, during the last 20 years, tested more or less thoroughly, practically all varieties of possible hardiness. Comparatively speaking the list is small. It is still further curtailed owing to the difficulty of obtaining any quantity of stock of certain of the varieties. For general shelter and windbreak planting there are probably six kinds available. These



WAS ABSOLUTELY BARE PRAIRIE IN SPRING OF 1905, WHEN FIRST PLANTING WAS DONE

the money necessary to disseminate the results of their experiments. Not until the Government Experimental Farms had become well established, and their reports, together with small lots of tree seed and seedlings had been distributed throughout the prairie provinces, was there any general progress made in tree planting. Great difficulty was found in overcoming the now firmly established opinion as to the impossibility of growing trees, and although a few farmers planted on a small scale the work was not taken up at all generally till nearly 1900. Since that date trees have been planted everywhere in

are Manitoba maple, or box elder, green ash, American elm, willow, cottonwood and Russian poplar. Of these the maple and ash are the ones most in use. Many others are hardy and perhaps more suitable, but owing to difficulty in securing any quantity of the young stock have not been planted to any great extent. Among the best of these are tamarac, white birch, white spruce, Colorado spruce, native jack pines and Scotch pine.

The evergreens when well established will undoubtedly afford the best shelter and will be largely used as soon as the nurseries can put out young

plants at a reasonable cost. In the meantime the demand for planting stock is increasing enormously and naturally the nurseries turn out those varieties which can be most easily and cheaply propagated.

In a country where one can often look over the plains for 20 miles or more in any direction without encountering a sign of shrub or tree it is not necessary to point out the advantages of tree planting. Above everything else the farmer requires some protection from the fierce windstorms, so the first

the third year. As a rule one year seedlings of maple, two year ash and cuttings of willow and Russian poplar are planted. In three years the average height should be about eight feet and the annual average growth after that about two feet; so that it is not very many years until the trees afford a very effective protection.

As soon as a good shelter belt is formed the farmer will undoubtedly turn his attention to raising his own fuel and fencing material. That this is not only possible but profitable can



SHOWING TREES SET OUT SOME YEARS AGO.

move is the establishment of a good plantation around the farm buildings and gardens. The quickest growing varieties are selected and set out chiefly on the north and to the west, as the prevailing winds are from these directions. The trees or cuttings are set closely, four feet apart each way is the distance now usually advised, and well out from the buildings in order that in convenience may not be caused later from snowdrifts which pile up many feet high on the inside of the belt.

If proper cultivation is given to the trees the farmer should have a well established belt formed at the end of

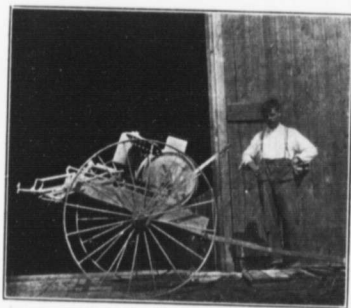
easily be seen from the results of the older plantations on the Experimental Farms and elsewhere. It will be some years, however, before planting for these purposes becomes at all general.

As tree planting is such a necessity and as it is of such general benefit to the country as a whole, the Dominion Government is doing everything possible to encourage the work and create, if possible, a more widespread interest. The encouragement is of a most practical nature. If a farmer wishes to plant and does not have the means or inclination to purchase from com

mercial nurseries, he will be supplied with seedlings and cuttings, under certain conditions, by applying to the Tree Planting Division of the Dominion Forestry Branch. The headquarters of this division are at Indian Head, where a forest nursery of 320 acres was established in 1904. On this nursery immense numbers of seedlings are propagated for free distribution. Last season over two and a half million seedlings and cuttings were sent out and it is hoped to increase this output as soon as the nursery is in proper running condition to between three and four million. Besides the actual nursery work, experiments will be carried on at this station in further testing promising varieties and in comparing the economic values of the varieties already in common

use, when grown pure and in different mixtures.

Very valuable results cannot be hoped for except after a period of several years owing to the nature of the prospective crop, so that the benefits from this branch of the work may not just now be very apparent. There is, however, no question as to the results of the free distribution of trees. This distribution has now been carried on since 1901, and has resulted in the establishment of thousands of thriving plantations all over the west, and has created a stimulus to general tree planting which could be attained in no other way, and is bound to be of inestimable benefit not only to the individual farmers who have availed themselves of this distribution, but to the community as a whole.



THIS SHOULD BE A FAMILIAR SCENE ON EVERY FARM



What Ontario Offers the Young Man in Horticulture

Fruit Growing in Lambton County

BY D. JOHNSON, FOREST, ONT.

THAT all kinds of fruit commonly grown in the Province of Ontario can be successfully grown in the north part of the County of Lambton is freely admitted by all those who have visited the orchards and have investigated the conditions that are found existing there. In fact we make bold to say that there are few districts in the whole Province that will compare with it as a place for the commercial production of apples, peaches, plums, grapes, pears, or berries, and I also believe that there is no place in Ontario that offers the same advantages to young men who are desirous of planting an orchard of their own. This may be a surprise to some who, perhaps, have always believed us to be too far north to grow the peach successfully, but if you will look at the map you will find that we are in the same latitude as the famous Niagara district and that

we have also Lake Huron to the north and west of us which protects us from the frosts of spring and moderates the winter as well. It is well known to all that our severest spring frost comes from the north or west, but never in the remembrance of the writer has a north or west wind brought a frost that has in any way proved destructive to the foliage or blossom of even the tenderest peach. The soil which is largely composed of a rich gravelly clay is splendidly suited to the production of all kinds of fruit.

As an apple growing district North Lambton is well known. The fruit grown and shipped by the "Forest Fruit Growers and Forwarding Association" is known as one of the best packs for quality and appearance in the Province. This fruit was comparatively unknown before the organization of the Co-Operative Association, but by

its assistance the growers have been assured of a good market and have been able to devote all their time to their orchards, which many have brought to a high state of perfection. Many of the orchards which are today making their owners a handsome income were a few years ago neglected and deserted, not for the want of a market, but for the want of a proper marketing system; but by united efforts this has been overcome, and any grower who now produces good fruit, which is only possible by the application of intelligent care, need have no fear but that he will obtain the best possible prices at the least possible expense through the Co-Operative Association.

The orchards of William Fraser will this year produce a crop of some one thousand barrels of apples of fine quality. John Johnson's orchards will produce some one thousand five hundred barrels, R. Macken's about five hundred barrels, while our own orchards will have a crop of nearly three thousand barrels of the finest quality and made up almost entirely of such varieties as Spy, Baldwin, King, G. Russet, R. I. Greening, etc. In this orchard it is not uncommon to see trees producing from fifteen to twenty barrels of apples each. Two years ago one Baldwin tree produced twenty-six barrels of good commercial apples, and this year will have a load almost as great.

There are still, however, a great many orchards which are neglected, the owners having lost faith in the fruit growing business in the dark days that are passed, and having centred their interests on some other line of agriculture cannot be persuaded to give their orchards the required attention in cultivation, spraying, etc. Many of these orchards are being rented for a term of

years by parties interested in fruit growing, who are giving them the required attention and are receiving the most astonishing results.

I would like to draw the attention of my readers to this particular line of fruit growing, the renting of neglected orchards, as I am convinced from the experience of others, as well as my own, that there is nothing that offers better returns for the expenditure of a little money than this. Young men starting out in life with but little capital will find in Ontario thousands of acres of neglected orchards which are nothing but an eye sore to the farms on which they stand, but with proper cultivation, spraying and pruning, will give back 100%, and often 500%, for time and money spent. I have carefully investigated the growing of various fruits in California, Oregon, Washington and British Columbia, and do not hesitate to say that in my opinion the renting for a term of years of neglected orchards in Ontario gives twice the opportunities for young men that are to be found in the west.

But while Lambton produces the finest of apples, yet the possibilities of peaches offer even greater advantages. As I said before, our situation is quite as good as Niagara, and we have beside the practical demonstration of men who are yearly producing the finest of peaches. Nor is it only of late years that peaches have been grown here. Some forty years ago the writer's father had a peach orchard of some ten acres that for many years in succession produced the finest of peaches. When this orchard by old age passed off the scene, another orchard of the same size was planted and for a number of years produced heavy loads of peaches, but at last it and many other orchards fell

a victim to "leaf curl," and not knowing how to overcome it, they were practically driven out of the business and not until four or five years ago was planting of peach orchards again under taken.

It was found that by spraying with Bordeaux the leaf curl could be controlled and the result was excellent crops of fruit. Only this last year are the people waking up to the value of peach growing here, and during the last spring many thousands of trees have been planted; next year will see a much larger area planted, until finally we expect to see the whole country bordering on the lake producing "Lambton peaches." This is no fairy tale or dream, but the honest expectation of the writer. Farms here are worth about \$60 per acre at the present time, but in a few years I expect to see land quite as valuable as it is in Niagara. Here, then, is an opportunity of getting good peach land at about one-quarter of what has to be paid in the well known peach district. The writer is not making this statement for the purpose of a real estate boom, but with the sole desire of attracting the attention of young men to this district in the hope that they may help us build up one of the very best fruit growing districts of the Province. Fruit growing here is attracting the attention not only of farmers, but of all kinds of business and professional men, many of whom are already planning for the planting of orchard and looking forward to the

day when they will be able to devote their whole time to the delights of fruit growing on the south shore of Lake Huron. One of the greatest enemies of the fruit grower, the San Jose scale, is unknown here, all the orchards being perfectly free from it. In fact there is not one farmer in twenty who has ever seen it, and that not closer than a hundred miles from home.

Lambton has long been noted for its plums. Many thousands of bushels are shipped from here every year up the lakes. Pears and grapes, although grown on a small scale, have been produced in sufficient quantities to prove that there is no place that can produce better quality or greater quantities. Strawberries and cane berries have for many years been grown in large quantities here, particularly around Arkona, about fifteen miles from the lake.

The American Railways are already offering a four-day refrigerator service from here to Winnipeg. The opening up of towns and country in Northern Ontario, as well as the rapidly growing lake towns, are offering markets which are easily and quickly reached by water and which, because of our situation, naturally belong to us.

The possibilities of the fruit growing industries in Ontario are tremendous. We are only playing on the edge of our opportunities, and with proper transportation conditions, which up to the present have been worse than the present methods of production, we can look forward to great things in the future.

Fruit Growing in Algoma

BY A. M. SHAW, '09.

[This article, by Mr. Shaw, is from personal observation, made by him in the capacity of Agricultural Representative for Algoma, during the summer of 1909.—Editor's note.]

In dealing with this subject my remarks will be confined to that part of the country situate along the Ste. Marie River, the north shore and on St. Joseph Island.

The idea of growing fruit successfully in Algoma would seem perhaps at first thought to be out of the question. One thinks of that north country as a rough and rugged region, only suitable for lumbering and mining, but on closer inspection we find that it is in many respects much like old Ontario.

As is the case in all new countries where the settlers are busily engaged in clearing up their land, fruit growing has not received nearly as much attention as other lines of agriculture. Enough, however, has been done along this line to demonstrate that it can be carried on successfully. Of course there are drawbacks to contend with. For instance the length and severity of the winters, the short growing season and the tendency of trees to sunscald in the spring. All these can be guarded against. The first two by selection of hardy and early maturing varieties, and the last one by proper pruning and protection from sun's rays at the proper time.

Among the tree fruits, the apple is practically the only one which is being grown to any extent and only certain varieties of it. A few of the harder varieties of plums are growing and bearing fairly well. On St. Joseph Island I found the sour cherries doing nicely, the common variety perhaps making the best growth of tree, but

both the Early Richmond and Montmorency are to be seen in full bearing. Not many pears are grown, although odd trees which have been planted years ago in sheltered spots near the buildings are to be found in good condition and bearing well.

The varieties of apples grown are limited, some of the following being best adapted to the conditions: Yellow Transparent, Duchess of Ogdensburg, Wealthy, Longfield, Makintosh Red and all the varieties of crabs. These last are the hardiest of all and bear tremendous crops of a much better quality than in old Ontario. The Duchess and Wealthy also are very heavy bearers, and it is by no means uncommon for farmers to keep their Duchess apples until late in the fall and their Wealthies till well toward spring because of their superiority in firmness and keeping qualities over southern grown apples.

A very interesting point in connection with apple growing in the north is the marked difference between the low and high headed trees. The former in variably carry more fruit, have fewer broken limbs and present a much healthier and hardier appearance, indicating that the rigorous climate does not affect them to the same extent as it does high headed and upstanding trees. They also are practically free from sunscald, due to the protection given by the low branching head and the elimination of several feet of useless trunk.

We come now to the brush fruits, and

it is in these that Algoma excels. The quality of this northern grown fruit is above the average, and the yield obtained will compare very favorably with the yield in the older fruit districts of Ontario.

Black, red and white currants make a very rapid growth, producing strong healthy bushes, which bear large crops of the very finest sample. The goose berries are practically as hardy as the currants, although there are not so many of them grown. A few bushes, however, are usually found in each garden which is sufficient evidence of their hardiness to warrant us placing them along with the currants.

Raspberries are not quite so hardy, and hence do not do so well as a rule. However, many people are growing them with more or less success. If they are at all sheltered by a belt of trees or a rocky bluff they are no trouble to grow, and bear well; but if in an exposed position a certain percentage will kill back each spring. Of the two common red varieties the Marlboros are the hardier and give best results.

Strawberries are grown perhaps more than any of the other fruits, the soil and climatic conditions during the growing season seeming to suit the needs of the strawberry perfectly. At several places on St. Joseph Island and on the mainland at Ekoba and Karah, strawberries are being grown quite extensively. The berries surpass the ones sent up from the southern sections in size, firmness and keeping qualities. The growers differ somewhat in their methods of culture. In several cases where the beds were sheltered no mulch was used, the snow lying evenly to a depth of several feet all winter. Others whose fields were more exposed and from which the snow was apt to

blow used wild or marsh hay, which they cut on the flats along the river. Some used the hill culture, some the hedge row, both seemed equally successful in growing large crops of fine berries. As to varieties, one finds all the standard kinds grown, but the later ones are preferred, yielding better and coming in at about the time the southern berries are done.

A large per cent. of the arable land in Algoma is sand or sandy loam, and admirably adapted to the growing of small fruits and vegetables. It is to a great extent rich new land and is capable of producing very large yields, which yields may easily be maintained by proper management and cultivation.

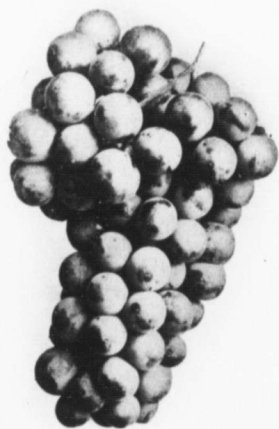
The market for fruit in Algoma is exceptionally good. This summer at Sault Ste. Marie strawberries never at anytime sold for less than two dollars and forty cents per crate of twenty-four boxes, and all other fruits in proportion. There is not nearly enough produced to supply the demand even in the smaller towns, and consequently large consignments of fruit are brought in from outside points. This need not be. Algoma has sufficient small fruit and vegetable land to produce all that is needed at home, and besides she is in a position to compete successfully with the southern growers for the western trade. This has been done to a limited extent, strawberries being sent from Ekoba to Winnipeg, which arrived in first-class condition without refrigeration being used.

With the ever increasing demand for fruit made by these growing northern towns, it seems strange that more attention is not paid to this line of farming. But we firmly believe that the time will come when much more attention will be paid to it than at present. Just

one more point; we must not forget Al goma's native fruits. Her good rich soil grows the cultivated varieties of fruit and on her rocky bluffs and down in the marshes grow in great abundance huckleberries, blueberries and cranberries. Go farther inland to the lands that have been "burnt over" and you will find acres and acres thickly covered with wild raspberry and black berry bushes, among which, if you are

lucky, you may chance to find a fat black bear lazily feeding upon the clusters of bright red raspberries, which hang in profusion all about him.

It is quite an ordinary occurrence to see a score or more "berry pickers" from the towns out in these natural "berry patches" with pails and baskets diligently harvesting nature's bountiful crop.



THE O. A. C. REVIEW

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S. H. GANDIER, Associate Editor.

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W. R. REEK, Experimental.

S. E. TODD, Horticulture.

F. M. CLEMENT, Athletics.

H. A. DORRANCE, Alumni.

W. DAWSON, Locals.

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Editorial

Some years ago, before the Winter Fair came to be held annually in Guelph, the Experimental Union meetings were held in January. When the Winter Fair was brought to Guelph permanently it was decided to hold the meetings of the Union during the week of the Fair. It was then thought that it would work well to allow ex students, members of the Union and visitors to attend both the Fair and the Union at the same time. This arrangement has not met with the success which the directors hoped for it, and the condition of affairs obtaining to-day, as far as the attendance at the Union is concerned, is to say the least very unsatisfactory.

It would seem, therefore, that a

change of date of the meetings of the Experimental Union would be very advisable for many reasons.

Two days, the time now taken for the meetings, is too short to comprehensively cover the work carried on by the Union. Not only is the time too short but on account of so many counter attractions many of the members of the Union who come to Guelph at this time never get near the meetings at all, but spend their time at the Fair or renewing old acquaintances in the City.

From the students' point of view it is getting too near their examinations for them to fully appreciate the advantages obtainable from attending these meetings.

Many of the Professors who would like to attend these meetings are en

gaged at the Fair and are prevented from attending and assisting as they otherwise could.

Again, the Field Husbandry Department has not time to properly arrange and present the results of the co-operative experimental work carried on throughout the Province at so early a date as December.

Many other arguments could be advanced showing that the date in December is unsatisfactory, but these will suffice to substantiate the fact that a change is by all means advisable.

We believe that the best time for the Experimental Union meetings would be during the Short Course; just which days of the Course is a point to be decided later. Many of the Short Course men would be very glad indeed to attend the meetings. There would be nothing else going on and ex-students could be better looked after by the officers of the College. There would be much better accommodation in the City and just as cheap rates on all railroads. Farmers have more leisure time in January to attend the meetings and examinations would not be staring the students in the face.

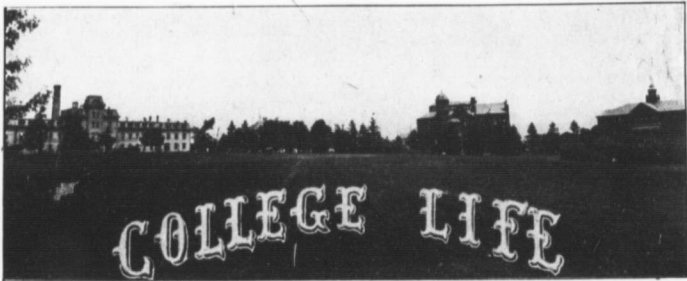
It could be arranged to have the Conversat or the Public Speaking Contest held on one evening during the meetings which would be an added attraction.

In looking at this question from all

sides we cannot but be convinced that some time in January during the Short Course would most decidedly be the best time for the Experimental Union meetings. We hope to see the members of the Union take up the matter and make this most necessary change. We believe it would mean a greater attendance at the meetings, a greater interest being taken in the work, and a greater widening of the influence of this movement which has done so much and which is destined to do still larger things for the farmers of the Province of Ontario.

We are pleased to note the appearance of a new book, published by the Department of Agriculture, Canada, entitled "Farm Weeds of Canada." The authors are Geo. H. Clark, B. S. A., and Jas. Fletcher, L. L. D. It is a book of 192 pages and 76 cuts. It deals in an exhaustive manner with the most troublesome weeds of Canada, and methods of eradication. The cost of the book is so great that it cannot be used as a free bulletin, but the price is \$1.00, and taking into consideration the usefulness of the publication it is very reasonable at this price, and should be found in the home of every progressive farmer in Canada.

A New Book



The cold winds of the north are blowing across the College campus. November is fast approaching. This month will mark the closing of our door College Life, except, of course, the winter sports, and it is to the best interests of the student to familiarize himself with the indoor life at his Alma Mater. This suggests studies, and it is a suggestion which cannot be lightly treated. In a few short weeks, the examinations will be upon us, and the examiners are no respecters of persons. There is, however, another phase of "College Life" in which the student must interest himself, and that is the Literary Societies. These must not be neglected. The student must be a man of parts, and to be this, he must identify himself with his Literary Society. The College expects it of him, the Society needs him. The plea, that "I have not the time," has become hackneyed. Every man attending this institution has time to educate himself, and this is as much a part of his college course as are his studies. To make such a plea as the former, is to acknowledge oneself a man of lesser intelligence than one's classmates, who do find the time. Get busy!

Don't forget the exams., at the same time don't neglect your "College Life."

We have at last reached the College year when "silence reigns supreme" in study hour. This is a good sign. It is silent testimony to the fact that the students of this institution have realized the truth of the saying, that "there is a time for everything." College days are the flood-tide of men's lives, and as Shakespeare intimates, they lead on to fortune, to success, when taken advantage of. Therefore, the College men must grasp every opportunity at the right time. Many students make the fatal mistake of doing necessary things at the wrong time. We repeat that "there is a time for everything, and the time for recreation is in recreation hours, just as the time for studies is between half-past seven and a quarter to ten. Either of these, out of its right place, makes the student's life a burden to himself, and a source of an annoyance to his classmates.

Let us find the right groove for every hour of our College Life. Let us have system to our work and play. In no other way can we hope to become first class men in first-class departments.

The Fire Brigade.

In September of last year a fire brigade was organized under the able management of Mr. Friar, then Dean of the Residence. The brigade was made up of men of the first, second and third years, and was well chosen. The apparatus consisted of hose and reels, ladders, pails, and all the paraphernalia necessary to make a perfect system of fire protection. Although the brigade had no serious conflagrations to deal with, they showed considerable ability in the many practices.

The brigade has been reorganized for the present College year, and is fast shaping into an efficient fire-fighting system, under the leadership of Mr. Unwin, Dean of Residence. Great interest is being taken in the work by the members, and practices will be begun at the earliest opportunity.

It is not necessary to comment upon the value of such a system of fire protection, when we recall the many serious fires which have occurred around this institution. We trust that every member of the student body as well as the members of the brigade will give Mr. Unwin their hearty co-operation in this important step in aid to the safety of our Alma Mater.

Union Debate.

The first Union debate of the College year was held in Massey Hall, Oct. 19. The programme rendered was excellent in every respect and was fully appreciated by a packed house.

The musical programme was among the best that have ever been offered by the Society, and delighted the audience from start to finish.

Mr. D. H. Jones, B. S. A., gave an interesting and clever address on literary societies in general, and the benefits to be derived therefrom. He also

touched upon the subject of art, and finished his address with many fine quotations from the world's best poets. Miss Hilda Freeland delighted her audience with her vocal talent. Miss Freeland has fine expression and has perfect control of a splendid voice.

The debate was a good one, the participants being men of sound, logical reasoning. The speeches were above the average and held the attention of the assembly throughout. Mr. E. S. Hopkins, as leader of the affirmative, made a very clever speech, which showed that the speaker had considerable knowledge of the subject, "The Asquith Budget." Mr. H. W. Newhall, as leader of the negative, proved himself a pleasant, if not a very forceful speaker. Mr. A. J. Galbraith next occupied the platform and, without doubt, made the cleverest speech of the evening. The last speaker, Mr. J. Spry, also spoke well. The judges' decision was in favor of the affirmative.

The meeting was undoubtedly the best of recent years, and on the whole a very enjoyable evening was spent by those present. We are looking forward to many more equally as good, and it is to be hoped that every student will do his or her part to make them so.

Programme—Selection, College Orchestra; address, D. H. Jones, B. S. A., Hon. President; vocal solo, Miss Hilda Freeland; debate, Resolved, "That the Asquith budget is in the Best Interests of the British People;" piano duet, Mrs. Fuller and Miss McKay; presentation of Governor-General's medals, President Creelman; Judges' decision; critic's remarks; selection, Orchestra; "God Save the King."

Y. M. C. A.

As time goes on education progresses, the former interpretations of

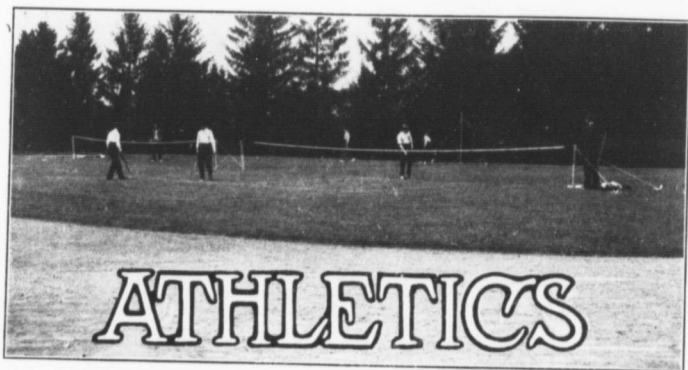
scripture have become inadequate for thinking people. None realize it more than those who have gone through college and are actively engaged as leaders among men. In recognition of this fact we were lately made the recipient of a valuable addition to the Y. M. C. A. library, in the form of several large reference volumes, presented by the following ex-students: Hon. W. R. Motherwell, Hon. W. J. Rutherford, Professor J. A. Bracken, Professor L. L. Klink, Mr. F. H. Reed,

and Mr. J. A. Mooney. We are greatly indebted to these men for their generous gifts. Let everyone show his appreciation by using them.

It is also worthy of notice that, through the efforts of Professor J. B. Reynolds, a number of reference books in connection with the Bible study course have been recently placed in the Massey library. They will be found invaluable as an aid to this year's course.



JOHN.



Field Day

BY VERNON KING.

AFTER the unsettled weather which prevailed prior to Wednesday, Oct. 6th, it was a welcome change to see on the day appointed for our 18th Annual Field Day such ideal autumn weather. The campus, a beautiful spot at any time, looked especially picturesque at this time, enclosed as it is by trees and shrubs so artistically laid out. The maples, most conspicuous with their varying shades of red and yellow and gold, and here and there in contrast the clumps of pines and spruces wearing their coats of deepest green.

Not many hours after sunrise groups of willing workers were to be seen on the green turf, so fresh from the recent rains, making preparations for the forthcoming sports. Here a group erecting tents for the participants; and there a little band cutting the sod in order to prepare a soft bed for the jumping contests. Others were erecting seats for the visitors and marking

off the courses for the running events.

The day had been eagerly looked forward to by all students from the bashful Freshies to the dignified Seniors, many of whom might have been seen from the first reopening of College training hard in leisure hours for this important meet.

The first events were commenced promptly at 10 a.m., and it was soon evident that many of the students were well rewarded for their previous hard training. A. A. Smith, one of our all round athletes made a splendid exhibition. In the short runs he broke two records lowering the previous time in the quarter-mile by 2-5 seconds, and the half-mile by 13-5 seconds. C. E. Petch also broke the previous records in the long distance runs by reducing the time for the one-mile by 83-5 seconds, and the 2-mile run by 1 minute and 1 second. One of the most fascinating exhibitions of the day was the pole vault; this is always a popular

event, especially among the ladies. Here again the College record was broken by A. A. Toole, whose skill at clearing 9 feet $5\frac{1}{2}$ inches, $2\frac{1}{2}$ inches higher than the previous record, was very laudable. Most of the preliminary heats took place in the forenoon, before a squad of spectators, composed chiefly of students. After lunch the campus wore a gayer aspect, with the advent of the young ladies from Macdonald Hall, wearing their ribbons of red and blue, and a large number of visitors from the City; the scene became one of animation and beauty. Needless to say, the

and faculty retired to a sumptuous repast in the dining hall. After the inner man had been duly satisfied the ribbons were presented by Miss Watson, Director of Home Economics at the Macdonald Institute. President G. C. Creelman presented the championship medals. The College crest engraved in brass was won by A. A. Smith, who was grand champion of the day. The championship medal of the weight events fell to R. B. Cogan, and the medal for the jump and vaults to A. A. Toole. It is chiefly due to these three men that the Third Year owe the



DOUGALL IN THE HIGH JUMP.

afternoon events were participated in with the greatest enthusiasm, for great is the influence of the visitors in spurring the contestants on to do their utmost. The most amusing event in any sports is the obstacle race, and for pure fun this one was no exception to the rule.

Kyona, the Jap, well earned first place, having conquered the ladders, nets and tubs, and having swallowed his soda biscuits and eaten his buns and molasses in less time than anyone else. This event concluded the outdoor programme, when the students

honor of gaining the highest number of points for the day. C. E. Petch won the medal for the long runs. J. Pope, a very promising young athlete, gained the medal for the Freshman making the highest number of points.

At the close of the distribution of the medals, speeches were delivered by the Hon. President, Professor W. H. Day, and Mr. J. Howard Crocker, referee. Musical selections were also rendered by the Mandolin Club, whose assistance is always highly appreciated by the student body.

A. M. Shaw, President of the Ath

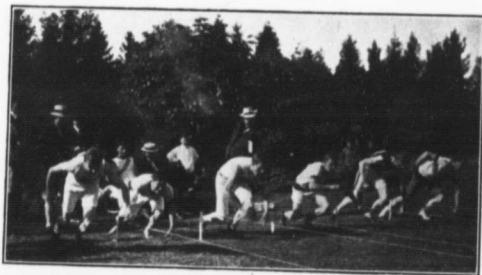
letic Association and his committee, together with the members of the faculty, whose untiring efforts did so much to make every detail of the programme successful, deserve a word of commendation.

Let us hope for many more such delightful days in the years to come, and may sports' day ever be one of the most important of our College functions.

Following is a list of the events and winners:

1. 220 yards dash—1, A. A. Smith; 2, E. W. White; 3, H. S. Ryrie.

9. Half-mile run—1, A. A. Smith; 2, J. Miller; 3, C. Petch.
10. 100-yard dash—1, A. A. Smith; 2, R. Dougal; 3, A. R. Cooper.
11. 1-mile walk—1, C. J. Spencer; 2, P. E. Light; 3, A. R. Cooper.
12. Running broad jump—1, A. A. Toole; 2, J. Pope; 3, A. McMillan.
13. Pole vault—1, A. A. Toole; 2, J. Pope; 3, A. W. Pate.
14. Putting 16-lb. shot—1, J. E. Preasant; 2, R. B. Coglan; 3, J. Pope.
15. 1-mile run—1, C. Petch; 2, A. A. Smith; 3, J. Miller.
16. Throwing 16-lb. hammer—1, R.



START OF 100 YARD DASH.

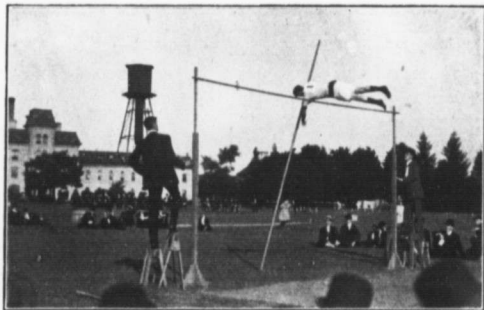
2. Standing broad jump—1, R. B. Coglan; 2, J. Pope; 3, C. Webster.
3. Throwing discus—1, R. B. Coglan; 2, F. Munroe; 3, W. W. Emerson.
4. Quarter-mile run—1, A. A. Smith; 2, E. W. White; 3, J. Miller.
5. Run, hop, step and jump—1, A. A. Toole; 2, R. B. Coglan; 3, C. Webster.
7. 16-lb. shot (under 140 lbs.)—1, J. M. Shields; 2, C. A. Webster; 3, A. Ward.
7. Standing high jump—1, J. Pope; 2, R. B. Coglan; 3, A. A. Toole.
8. Running high jump—1, R. Dougal; 2, A. Cooper; 3, J. Pope.
17. 120-yard hurdle — 1, A. A. Smith; 2, A. A. Toole; 3, W. Wright.
18. 1-mile (Inter-Year) relay — 1, Third Year; 2, Second Year.
19. 2-mile run—1, C. Petch; 2, J. Miller.
20. Obstacle race—1, J. Kyona; 2, A. Pate; 3, A. M. Campbell.

Trinity at O. A. C.

The first foot ball game of the season was played with Trinity College, Toronto, on our own campus, on the afternoon of Oct. 9th, before a large

crowd, many of whom had come up from the City. The game was O. A. C.'s from start to finish, the issue never for a moment being in doubt. The score, O. A. C. 34, Trinity 7, indicates quite clearly the class of ball played. Many muffs were made by both sides, all of which were quickly taken advantage of and usually ended in a score. The visitors made a good effort, but our heavy line and the quick work of the wings soon weakened them. Their only score was the result of a fumble by one of our men. The College was represented by Madden, Bourke,

score, O. A. C. 19, Trinity 6, indicates, this game was much more strongly contested than the first. Trinity was strengthened at centre and showed much improvement in play, while O. A. C. though doing better team work, did not show the same vim and enthusiasm as on the home campus. But what was lacking in vim was made up by the spectacular play of Knauss, who interrupted a Trinity pass and broke away for a try. Webster also did good work, securing a loose ball in Trinity's goal for another try. The high wind which blew all morning was taken ad



TOOLE IN POLE VAULT.

Moorehouse, Campbell, Knauss, Cleverley, Webster, Jackson, Kennedy, Palmer, McAleer, W. Toole, Emerson and Dawson.

O. A. C. at Trinity.

On Saturday, Oct. 16th, O. A. C. went to Toronto and repeated the performance of the previous week. As the

vantage of by Trinity at every turn, while O. A. C. neglected to do so, but our superior weight and greater speed proved easily too much for the Toronto boys.

The College was represented by the same team as on the previous Saturday, except that King and Clark replaced Campbell and Cleverley.

Alumni

The following members of previous classes have returned to complete the B. S. A. Course with Class '11: H. K. Revell, '10; P. E. French, '10; W. A. Middleton, '10; H. Wearne, '10; W. J. Robertson, '10; E. W. Heurtley, '10; J. Steckley, '09, and H. F. Webster, '09.

B. Barlow, who up to 1908 was connected with the Bacteriological Department of the College here, has received the appointment of State Botanist at Raleigh, N. Carolina.

It may be of interest to those who attended the College during the time that Mrs. Craig was matron to know that at present she is holding a similar position at Whitby Ladies' College, and doing very well.

Howard Leavens, '06, took his Associate Diploma and returned to the farm to put into practice much of the practical College training. Howard is now successfully handling the old home stead, a two-hundred acre farm, and is engaged in mixed farming with special leaning to the production of first quality canning crops and choice fruits. His parental home is near Chisholm, in Prince Edward County, Ontario, just seven miles from the prosperous County Town, Picton. Howard still retains a deep interest in his Alma Mater, follows closely her every move, and always welcomes any innovation for the betterment of agriculture.

In connection with President Creelman's recent visit to the Massachu-

setts Agricultural College, at Amherst, The College Signal, of Oct. 19th, has the following:

"Mass: Rah: Rah: Rah: Creelman. His intensely interesting speech on Wednesday was surely appreciated by the students and the long yell that followed his talk can only partially express it. His broad scope of knowledge and his grasp of essential ideas appealed to the men of M. A. C. as no other speaker in our remembrance has done. We have men like President Creelman to thank for putting Agriculture where it is, to-day, in the world of science."

J. Artemas Clark, B. S. A., a native of Bay View, P. E. Island, has been appointed Superintendent of the new Banck Experimental Farm on Prince Edward Island. Clark received his agricultural education at Cornell and at Guelph, being a graduate of the latter institution. The appointment is considered a good one, as Mr. Clark is a practical farmer, having worked on the farm since his boyhood, and for a number of years has owned and successfully managed one of the largest and most productive farms on the Island.

R. E. Mortimer, B. S. A., who has been District Representative of the Provincial Department of Agriculture at Collingwood, Ont., has resigned, to return to practical farming at the old home near Honeywood, Dufferin County. His position is to be filled by T. F. Metcalfe, B. S. A., who was formerly Mr. Mortimer's assistant. It will be

Mr. Metcalfe's business to get into and keep into as close touch as possible with the farmers of Simcoe County to help them study out their various local problems. He will also conduct a class in agriculture at the Collingwood Collegiate Institute, taking up the rudiments of agricultural education along with the regular High School work.

Malcolm Geddes, at one time Farm Foreman here, and later with the Farmers' Advocate, is now conducting a successful real estate business in Calgary.

W. J. Reid and Robert Innis, associates of '09, have gone to Macdonald College at St. Anne de Bellevue to complete their degree course.

V. W. Jackson, B. A., who a number of years ago was connected with the Botanical Department at the College, and who for the past three years has been in New Zealand, has returned to Canada. While in that country Jackson occupied the position of Director of Agriculture and Nature Study.

F. R. Martindale, who spent a year at the College in '08, is now engaged in practical agriculture. Ross is managing his father's farm, at York, near Caledonia, where he is endeavoring to follow his profession along scientific principles and up-to-date methods. He is making a specialty of high-grade Shorthorns.

G. A. Vickers, who spent the winter of '08 with Class '11, is now engaged in farming near Heathcote, Grey County.

M. G. Stock, '09, is running a fruit farm at Summerland, B. C. He is doing well and is in love with the country.

After long years of weary travel from the cold and barren crags of Old Cape Breton to the wind-swept shores of the Pacific, Mr. Colin M. McRae, '04, has at last found his way through the great canyon of doubt and misgiving



GEO. E. SANDERS, B.S.A.

Geo. E. Sanders, B. S. A., a graduate of '07, since leaving the College has been engaged as Field Entomologist in charge of the insect breeding plant and experiments in Northern Illinois under Dr. S. A. Forbes, at Urbana. Sanders has been very successful in his work, and is steadily forging his way to the front.

into the flower-clad valley of Cupid's chosen land. Like that of Peary, Mac's last dash was a wild and desperate one, full of determination to secure that for which he had sought so long. When we realize that most of his work had to be done by Knight, his achievements are all the more remarkable. We trust however that his claim to the prize will not be challenged as has that of his contemporary adventurer, and that he will not be asked to submit proof for public approval of the various stages through which he passed.

The happy event took place, Oct. 16, at the home of the bride, Miss Gertrude McKnight, Stratford, Ont. Ow-

ing to sickness in the family, only the immediate relatives were present. After indulging in a flight into unknown lands for an indefinite period, Mr. and Mrs. Mac will nest in Ottawa for a time at least. The best wishes of The Review are extended to the happy couple.

Married—At the Parish Church, Half-Way-Tree, St. Andrew, on Wednesday, 7th July, 1909, N. A. Nadin Rudolf, eldest son of H. J. Rudolf, Esq., of The Hall, Hampstead, to Freda A. Solomon, youngest daughter of Geo. Solomon, Esq., of The Retreat, St. Andrew.

AT HUSKING TIME.

At husking time the tassel fades
 To brown above the yellow blades,
 Whose rustling sheath enswathes the corn
 That bursts its chrysalis in scorn
 Longer to lie in prison shades.
 Among the merry lads and maids,
 The creaking oxcart slowly wades
 'Twixt stalks and stubble, sacked and torn,
 At husking time.

The prying pilot crow persuades
 The flock to join in thieving raids;
 The sly raccoon with craft inborn
 His portion steals; from plenty's horn
 His pouch the saucy chipmonk lades
 At husking time.

—E. Pauline Johnston.

"Doc."

"Gore Robert Lyster" was the sim ple legend embalmed in the archives of the President's office, but it is as "Doc" that the subject of this sketch is best remembered by the boys of '87-'88. Just why he came to the College no one ever discovered. That it was not through any intellectual thirst was soon apparent, for his draughts of the Pierian Spring were both brief and in frequent, and of all the nimble side steppers of the onslaughts of wisdom, he certainly bore the palm of his period. Of his age very little was known unofficially. He was prema turely bald in spots, and he once start ed in to grow a whisker. The latter succumbed, however, to the sarcastic attentions of his colleagues, but as he seriously affirmed that early piety—his father was a clergyman—was re sponsible for the thinness of his thatch, he could not conscientiously correct this deficiency. He did not look old, but he had acquired an air of mature precocity and delighted to tell of his experiences. According to his own story he had been about everywhere, had seen about everything, and had worked in every avenue of human en deavor from lay reader to cattleman on a tramp steamer. He would regale us by the hour in the smoking room with tales of danger at sea, and heroic es capes on land. He was equally at home in discussing the laxity of social ethics in Mayfair, and in condoning the absence of chivalry towards the ladies of the South Sea Islands. He was graphic in detail always, whether of his misadventures in the fogs of London or of his trip across the Andes as chef to an Hungarian Count. His first fall from popularity came when some doubtful cynic kept tab of his

meanderings during a recital, and at the end calmly said there was a mis take somewhere, as the time consumed in the recounted adventures, by actual figures made a total of 44 years. Add to these the time it took to grow the narrator up to the starting place, it brought his years to a point where a man should engage in something more serious than polite fiction. "Doc" won his title through his natural love of the untrue and it has to do with this that this sketch is written. In those dear days we had no hospital. When a chap got under the weather, and the College doctor was not sure of his diag nosis—which by-the-way was about always—the patient was given a whole flat to himself, and some friendly stu dent was installed as nurse. In one or two cases the City Hospital got its own, but usually youth and vitality won with no more serious conse quences than lost lectures.

Diphtheria was epidemic that year in Guelph, and a case of sore throat was occasion for considerable alarm. A young student from Toronto was re ported sick one day and was promptly popped into a room on what is now Upper Hunt Street. The medical man shook his head, so volunteers were called for and the first to respond was Lyster. With great outward concern at losing the much prized lectures he retired to his asylum to fight Death to the last trench over the Torontonion. Orders were given the matron to sup ply such dishes as were required for the sick room and be placed on the top step, which was the dead line between the outer and inner worlds. Just what the physician ordered no one ever knew, but the kitchen was worked overtime to prepare the delicacies de manded by Lyster for his patient. For

upwards of six weeks the choicest viands were sent upstairs, and Lyster displayed a facility of invention that was limitless. When word came from below that the cook never heard of a certain dish, the receipt was promptly dropped over the banisters. He afterwards admitted to me that one night he skipped to his room and got some menus he had picked up while traveling with his friend, the Count, and a cook book he had once used as cook in a shanty up the Ottawa and so made up his bill-of-fare for the day. The end had to come however. One day the matron took one of his "orders" to the office to complain. The College doctor happened to be there and exploded the whole scheme by saying he had discharged the patient three days after he first saw him. This was more than official dignity could stand and Lyster and his patient were suspended. Later "Doc" was readmitted, but his prestige had flown. After a period of

constant disregard of rules and failure to pass examinations he was formally and finally expelled.

Forwards of five years he moved beyond the ken of any of his old friends. One day in 1893 he walked in on one of his old colleagues in a little New Brunswick town. He was ragged, unkempt and a hobo. The old vivacity was gone, and the song he once sang so gaily had dropped to a minor key. Sick and penniless he wanted only a small loan to get to his home. He was taken to an hotel, kept until he was fit to travel, given a ticket and he went.

* * * * *

Away down on the north shore of Bay Chaleur, where the first warm breath of the southern winds bring out the earliest violets and the eternal roar of the grim old ocean is heard forever, there's a little grey granite slab. That tells the rest of the story.

P. A. T.

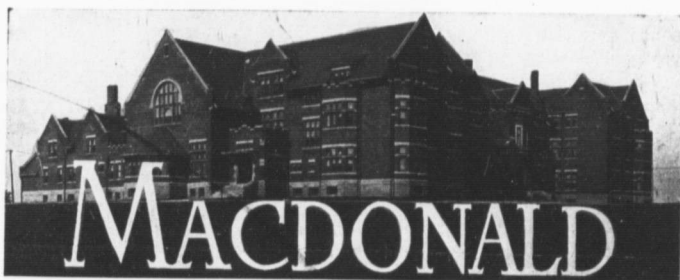
AN ETCHING.

A harvester throws up the sheaves,
And hums a merry old refrain;
Some thistles show their prickly leaves,
Among the swaths of yellow grain.

The brier bushes soft and green,
Quite hide the zig-zag fence away,
And all the space that lies between,
Is carpeted with new-mown hay.

The heat of noonday presses all
To rest and silence, full and deep,
And still the cheery robins call
To show that they are not asleep.

—Jean Blewett.



The Summer Conference at Muskoka

BY A DELEGATE.

Y OUR delegates with eager hearts left Guelph by G. T. R. on July —, bound for the far famed Muskoka—"The Highlands of Ontario." Much interest attaches to such a journey. Especially for a Canadian born in Ontario, it is impossible to travel so far and not find the mind stirred to admiration for our native land. Few finer stretches of agricultural country can be found anywhere than that through which our journey took us; and it is only one of Ontario's many rural gems. It is, first of all, a land of comfortable and happy homes. The natural beauty of the rural scenes through which we passed would have charmed but little if amongst it all there moved a people who are eking out a miserable existence, and who live in ignorance and vice. For nature's charms are always dimmed when haunted by the thought that underneath them all there is human suffering or human sorrow.

But no such gloomy thought was possible as we sped along through the beautiful country scenes. Now it was

a scented meadow, now a field of waving grain, now a clump of gay, green woodland, now a broad sweep of orderly fields. Everywhere among the maple groves and meadows and uplands and valleys and streams could be seen the comfortable farm buildings cosily set among the orchards. This calm beauty was intensified by the sight of a distant village, with its church spire as well as by the more pretentious town at the railway line. Not to mention the great City of Toronto, so splendidly situated on Lake Ontario, our course took us through such large and thriving towns as Brampton, Aurora, Newmarket, Barrie, Orillia and Gravenhurst. At Barrie we first sighted the beautiful Lake Simcoe. The town, resting on the commanding height overlooking the pretty Kempenfeldt Bay, which stretches miles away to the south-east before it reaches the broader waters, is picturesque. We skirted the shore of this fine lake for over twenty miles until we reached Orillia, one of the finest towns in Canada. It lies on a fine

slope covered with a profusion of splendid trees and looks out to the south upon Lake Simcoe about a mile away, while right at its feet to the east murmurs the gentle Couchiching with its wooded shores and its green islands; beyond all the spire of the mission church on the Ramah Indian Reserve throws a spiritual suggestion which gives a beautiful completion to the picture.

It is at Muskoka wharf, 112 miles from Toronto, where we left the train for the steamer, that the average traveler will begin to thrill with the quiet charm of Muskoka. One forgets amidst its beauties that right here is waged an increasing fight with death. The great white plague has driven its victims up into these wilds and here they have decided to make their last stand in the awful struggle. They have built their fortress, a large up-to-date sanatorium, to conquer death; and the unending fight goes on. But the charms of hill and woods and sky and lake makes us forget the grim fact of death's dark shadow, or inspires thankfulness that we are not in the grasp of the great "white plague."

And we turn away, the living to live and forget; the dying to die and forget.

Our steamer was very comfortable, and she sailed out upon Lake Muskoka, carrying a happy company.

One has to see the Muskoka lakes to appreciate them. It is impossible to describe them. All that one can say is that their clear, sparkling waters dancing in the summer evening sun light fills the heart with laughter and song, and dispels all tendency to gloom. They are literally dotted with islets, all of which are owned by wealthy people in the cities, and especially by Americans who come to

spend the summer there. They have made the lakes a veritable fairy-land. Beautiful cottages with all the necessary adornment and equipment for summer residence are to be seen everywhere as if rising out of the placid waters. Scores of swift yachts and launches decked with gay colors glide to and fro among the island homes, making the lake an animated scene, suggestive of "The Enchanted Land."

As the low, declining sun casts long shadows from the western shore and mingles them with the jewelled surface of the water, one beholds a picture which will long linger in the memory like a happy dream. It is a sail never to be forgotten, and the intensity of it deepens as the gay steamer carries us forward. Passing Port Carling, through the winding course of Indian River, we touched the foot of Lake Rosseau, and swerving to the left soon entered the charming bay, on whose shore stands the Elgin House, the chosen spot for the convention. If one could discriminate between the charms of different places it would not be far astray to say that this spot even surpasses all. The same maze of islets, the same animation, the same gayety, to all which has to be added the happy but not frivolous company of delegates to the convention. All around us are typical Americans. They are Americans in display as well as in name. They bring lots of money into this lake region, whose soil does not bring great returns to the inhabitants. They therefore get liberty to do pretty much as they like, and they certainly take full advantage of their privilege. The Stars and Stripes are everywhere, and it is tolerated as the Union Jack and Maple Leaf would not be in any part of the United States. But we were not there

to trouble ourselves about national distinction, but to cultivate national womanhood, and we paid no attention to the innocent little bits of foreign bunting fluttering around. And so our convention proceeded. The utmost harmony, good will and Christian fellowship prevailed. We all felt that we knew every one else, and some friendships were formed that will probably last. Your delegates were objects of some curiosity and are in possession of a photograph which may illustrate that fact.

The daily programme began with Bible study in group classes from nine till ten o'clock. These were under three leaders who discussed Earlier Prophets, Social Teachings of Jesus, St. Mark's Life of Christ. After a brief intermission, mission study classes gathered, and from ten till eleven the following courses were given: Japan, the Moslem World, the Strangers Within Our Gates, the How and Why of Missions, and the Christian Conquest of India.

In addition to the study classes splendid addresses were given, morning and evening, by various speakers, among whom were President Mc Kenzie, of Hartford Theological Seminary; Rev. Canon Cody, Rev. John Mac Neil, of Toronto; Rev. W. T. Herridge, of Ottawa; Rev. J. Graham, of Victoria College, and others, among whom were several returned missionaries.

The afternoons, as far as the association programme was concerned, were kept free for recreation. Two afternoons were given up to two of the most important events of the conference from the recreation point of view,

namely, "Association Day" and "Sports Day." On "Association Day" the college and city associations each gave what is called a "stunt." In this each delegation wore a special costume and gave some short performance. It was very exciting, as each delegation came forward to do its stunt. It was certainly a pretty scene, and one which we shall always remember—the green sward, surrounded by the groups of performers, each making a bright spot of color as it stood waiting its turn. Beyond could be caught glimpses through the trees of beautiful Lake Joseph, deep blue stretching away on either side, while in front on the lawn and galleries sat many spectators, their faces showing enthusiasm and much appreciated kindness. It was a gay scene, and a very happy afternoon.

Two days later the same spot was the scene of an interesting sport contest between the delegations. On account of the cool day some of the water events had to be replaced by land features, but these were received with equal favor, and the field rang in merriment as the girls started on their three legged race, tug of war and other contests of like character. "Sports Day" was as successful as "Association Day," and together they did much to bring the girls into that more intimate friendship in which ideas could be exchanged, advice given and taken, and much help gained by all for their work in the coming year.

When the meeting was over we parted with a measure of sadness and wondered if ever again such a privilege would fall to our lot.

Household Science in Illinois

On October the 16th, 1905, the Woman's Building of the University of Illinois was formally opened, fully equipped with a department for Household Science. The building itself is of red brick, with stone trimmings, and the north wing is given up entirely to the activities of this department. In the basement is the diet kitchen and dining-room adjoining. The first floor contains two class rooms, a seminary room, an office and cloak room, together with illustrative material for work in house construction and textile fabrics. On the second floor is found a well equipped kitchen, pantry, laboratory, office and dining-room, in which the practice meals are served. The third floor contains an office and two large rooms, which are supplied with sewing machines, tables for drafting and cutting.

In 1900 this department was organized and opened with an enrollment of twenty, but the numbers increased so rapidly that building after building had to be used, and the three courses offered the first year grew to seventeen and the attendance to one hundred and ninety seven.

A natural division of the work falls under three topics, shelter, food and clothing, and these are dealt with practically and thoroughly. To emphasize the difference between high school and university work, food is studied in the same way as chemistry, other than cooking. As the demand for teachers of this work grew two new courses were designed especially for their training.

The Experimental House in Illinois is a new departure and will likely be of

interest to the readers. This house is situated very near the Woman's Building, and the different classes carry on various experiments here. The house is by no means a model dwelling, but affords an excellent opportunity in studying the cost of equipment. At present it contains two kitchens, three bedrooms, dining-room, sitting-room and parlor, finished in different ways and furnished at different costs. It also contains different household appliances, such as electrical appliances for cooking, vacuum cleaners, fireless cookers and many smaller articles. One kitchen wall is painted, another covered with sanitas; one kitchen has hard pine floor, the other linoleum over the existing soft pine floor. In the expensive kitchen the sources of heat are electricity, gas and fireless cookers; in the inexpensive one, coal and gasoline.

The present kitchen has some very undesirable features in the shape of a corner cupboard and a sink so near the range that the usefulness of both is greatly impaired. The range was set and the undesirable corner left just as it was until, by actual experience, the girls realized the difficulties, then they were expected to provide plans for their removal. The room was dark and had a dull gray paint on it. It was made much lighter and more attractive by its color scheme being changed to a light yellow.

The house afforded an excellent example of bad floors. They were of soft pine, badly slivered with wide cracks and some of them painted borders. Those on the lower floor were in such bad condition that it was decided to lay three new floors and finish them in

different ways. A quarter-sawed oak floor was placed in the parlor and treated with wax. The floor in the dining-room is part quarter-sawed and part plain sawed, and has been finished with varnish. The floor in the sitting room is plain sawed and has been treated with shellac. In order to give different lines to the reception-room the woodwork was changed. In the dining room the varnish was removed from the soft pine and the wood then stained to resemble oak. The sitting-room walls were unchanged, as it seemed they would make a suitable background to illustrate a badly-furnished room. New furniture has been placed temporarily in these three rooms. The sitting-room furniture was selected of a type that is very frequently found, fairly expensive, with bad lines and bad colors. The Morris chair has a very staring green covering, an arm chair is remarkably carved and the table has glass balls for feet. The chairs and tables are of good lines, mahogany and about the same price as those in the reception-room.

Up stairs the attempt has been made to show finishing and furnishings for three different types of bedrooms. In the south room the walls have been

tinted, the wood work stained and the floor grained. In the north bedroom the walls were papered with a fifteen cent paper, the floor painted. In the east room the floor was covered with linoleum, with a pattern resembling flooring, and the walls papered with a thirty-five cent paper. Each of these rooms has a different exposure, and therefore demands a different color scheme. In the east room the prevailing color is blue; in the north bedroom yellow and tan to make up for the deficiency afforded by north light. The furniture in the south bedroom is oak; in the north imitation mahogany, and in the east bedroom real mahogany.

In each case students have watched the process, have known the prices of everything and discussed the color schemes. The house has been open to the general public for six months, and there have been as many as eighty visitors in one day. Some of the students have had house practice in preparing meals and caring for the house, so that it has afforded a very valuable laboratory in which to work. To be sure it is only a beginning, but it seems to be a very valuable one in a very important subject.





Among Ourselves

The At Home.

The first social event of the College year was the At Home, given by the Literary Society, at Macdonald Hall, on the evening of Sept. 24th. A large number of the students availed themselves of this opportunity of becoming acquainted or renewing old acquaintances.

From seven-thirty until eight o'clock the introduction committee was kept busy endeavoring to help all fill their programmes, a rather difficult task, owing to the large number of gentlemen present, before the signal for the first promenade. With this signal the crowd dispersed to walk through the halls or find seats in a cosy corner. Music during the promenades and some pleasing vocal numbers in the gymnasium were much appreciated by all present. Refreshments were served during the evening at the west end of the lower hall, the tables being prettily decorated with asters.

Eleven o'clock brought the close of what was decided by all a most pleasant and successful evening.

Ground hockey this fall promises to be a greater success than ever. The girls have entered into the sport with more enthusiasm and vigor than in other years, and promise to do well.

Mr. Phillips, from the College, who understands the game thoroughly, has kindly given his assistance in acting as referee and has been able to give the girls many little pointers, of which they would otherwise have been ignorant. Many thanks are due him for his trouble, and all are looking forward to a match before long with the prospect and hope that our own team will win.

We regret very much that Miss Carrie Mowbray, who was vice-president of the Macdonald Y. W. C. A. last year, and who would therefore be president this year, was unable to return for her senior year. The Seniors overcame the difficulty, however, by electing Miss

Maebelle Stuart to that office. Although it is early in the year, Miss Stuart has already shown her ability to fill the position, and there is no doubt whatever that the right girl is in the position.

The opening meeting of the Y. W. C. A. was held on Sunday evening, October the 3rd. Miss Mowbray, who was a Macdonald delegate at the Y. W. C. A. conference in Muskoka this summer sent in her report, which was read at the first meeting by the President.

Sunday evening, October 10th, Professor Reynolds gave a talk on "Why We Should Attend the Bible Study Classes." He gave some very good reasons, and also spoke on the part of the Bible which is being studied in the classes this autumn. Mrs. Fuller kindly consented to play the hymns and was assisted by Miss Flavelle on the violin. Miss Freeland's solo was much enjoyed by everyone present.

Miss Maud Clappison, who for the past year has been studying at Macdonald, left us on October the 2nd to take up more arduous duties in the Mount Sinai Hospital in New York, where she enters to train for a nurse. Her bright disposition has won for her many steadfast friends at the Hall, by whom she is greatly missed, and who

all join in wishing her every success in her new undertaking.

Miss Helen Bankier, who attended the College last year as a Homemaker spent the week-end of October the 8th, with her aunt, Mrs. Fuller, at the Hall. Miss Bankier arrived just in time for the last half of an exciting game of ground hockey in which she joined, thus bringing back pleasant memories of last year's games. Wherever she was present might be heard snatches of last year's doings, and we are sure all the old girls were greatly pleased to see her back again.

Miss Maud Davidson, a graduate of the Housekeeper Class of '09, and who returned this year to take up a special course under Miss Purdy, left on Thursday, October the 14th, to take a position as Housekeeper and Dietitian in the Epworth Hospital, South Bend, Indiana. All her old friends join in wishing her every success in her new work.

Miss Anita Hill, a graduate of the Normal Class of '09, and a resident of Guelph, left town on Thursday, October the 14th, for Dubuque, Iowa, where she fills the position of Dietitian in the Finley Hospital. Miss Hill, though not in residence, has many close friends at the Hall who will follow her work with great interest.

Much Ado About Nothing

A Play of Five Acts—Presented Friday, Oct. 1st, '09.

Act I.—At the telephone.

Mr. H. A.—May I call tonight, Miss S.—?”

Miss S.—I am sorry I have an engagement.

Act II.—Five minutes later.

Mr. H. A.—May I call tonight, Miss F.—?”

Miss F.—I am sorry, but I am going out to tea.”

Act III.—Ten minutes later.

Mr. H. A.—May I call tonight, Miss H.—?”

Miss H.—I am sorry, but I am too tired to receive tonight.

Act IV.—Ten minutes later.

Mr. B.—May I call tonight, Miss G.—?”

Miss G.—Why yes, come early.

Act V.—Ten minutes later.

Mr. B.—May I bring a friend, Mr. A.—d?”

At 7:30 p.m.—Mr. A.—d and Mr. B.—come up the steps and Miss G.— and Miss C.— go down. They spend a pleasant evening at one end of the corridor.

~ ~

A lady Vet from the States who was spending a day at the College, on being asked if she would not like to visit the Institute in the afternoon, to see the girls at work, quickly replied, “No, I would rather visit the stock.”

At the Prom.—And what is your name?

She—Miss —, and what is yours

He—Darling.

~ ~

At the Prom.—Miss G.—Why, have you your programme filled so soon.

Freshman—Yes, yes, I don't know what it's for, but I'd like awfully to have one with you.

~ ~

Wonder if that new cure for sleeping sickness would be any help in getting down to breakfast before the doors are locked

~ ~

Before the Prom.—Miss C.—Do any of you girls know Savage at the College.

Miss K.—Which one do you mean—there are loads of them there.

~ ~

Group of girls studying physiology with the Manikin.

Mrs. S.—I believe it is proper that those girls have a chaperon.

~ ~

Friday's lesson—Preservation of grapes.

Teacher—Girls, if you don't wish your hands all stained for tonight, provide yourselves with a lemon.

~ ~

At prayers—Do none of you know this tune? Then we will sing that old familiar hymn, “Hold Thou My Hand.”

Schools' and Teachers' Department

Devoted to those interests of the Ontario Agricultural College which pertain particularly to the training of teachers for giving instruction in the schools of the Province along vocational lines—in Home Economics, Industrial Arts, Elementary Agriculture and Horticulture.

Prospects.—From the ready responses received from many teachers and inspectors it may be assumed that this Schools' and Teachers' Department will be gladly welcomed as a help in their work. It must be remembered, however, that to make it of the greatest use the active co-operation of all is necessary. Suggestion and criticism will be welcomed but positive help, as well, is desired. In order to carry out the plan of having the work represented in every number of *The Review*, and a monthly Bulletin issued, there must be much outside assistance forthcoming. *Let us have something from you to pass on to others.*

Summer School for Teachers, July, 1909.



The class attending the Summer School for Teachers in July of this year was the largest that has entered for this work during the six years it has been carried on. This increase in numbers marks in some measure a livelier interest amongst the teachers of the Province in the necessity for giving instruction to children along manual and vocational lines.

The work was carried out by the Agricultural College with the support and direction of the Department of Education. The Department officially encourages teachers to undertake this special training by granting certificates to successful students. No tuition fees were charged, except to teachers non-resident in Ontario. For the four weeks' board at Macdonald Hall, a charge of \$15.00 was made. The cost of the course, compared with that at many other summer schools is very small.

Instruction was given in five distinct Courses, viz.:

I.—*Nature Study.* II.—*Elementary Agriculture and Horticulture.* III.—*Art and Constructive Work.* IV.—*Woodworking and Mechanical Drawing.* V.—*Household Science.*

The names of the students will be found listed below:

Industrial Arts.

July Course.—Twenty-six teachers comprised the classes taking Industrial

Arts. The work was divided into two Courses, viz.: (1) *Art and Constructive Work*. (2) *Woodworking and Mechanical Drawing*. A certificate in Elementary Industrial Arts is awarded by the Department of Education on completion of the work in two Summer Courses. The work covered is accepted *pro tanto*, too, towards the securing of a Specialist's Certificate in Manual Training. A number of the teachers in this summer's class were working to this end.

Mr. J. E. Chambers, Guelph.	Miss M. Long, Brantford.
Mr. W. H. Flumerfelt, Guelph.	Mr. H. L. Ingram, Belleville.
Mr. W. G. Ward, Guelph.	Mr. D. N. Cornell, Cornwall.
Mrs. J. Lyon, Guelph.	Miss H. L. Martin, Waterloo.
Miss E. Macmillan, Guelph.	Miss T. Smith, Lindsay.
Miss M. R. McCallum, Guelph.	Miss M. C. Davidson, St. Catharines.
Miss F. V. Carter, Guelph.	Miss L. J. Smith, St. Catharines.
Mr. W. R. Beattie, Toronto.	Miss A. E. McKowan, Avonton.
Mr. W. F. Darroch, Toronto.	Miss I. H. Breakill, Madoc.
Mr. J. Slaughter, Toronto.	Miss N. Feeney, Madoc.
Miss M. F. MacKenzie, Toronto.	Miss M. Neelands, Forest.
Mr. H. S. Macpherson, Simcoe.	Miss A. Neelands, Forest.
Mr. T. T. Carpenter, Brantford.	Mr. J. T. Curtis, Seaforth.

Home Economics.

July Course in Domestic Science.—Eleven teachers entered for this Course. Instruction was given in Cookery, Laundry, Hygiene and Home Nursing during the four weeks. No special certificate was granted for this Course; the time required to obtain a regular certificate in Domestic Science is one or two years, the shorter period depending on the teacher's being a graduate from a Normal School.

Miss E. A. Darragh, Niagara Falls Centre.	Miss M. MacLachlan, Arthur.
Miss F. L. French, St. Catharines.	Miss H. K. O'Donoghue, Stratford.
Miss M. R. Hanna, Toronto.	Miss L. A. Price, West Toronto.
Miss A. Hopkins, Buffalo.	Miss M. Reyburn, North Hamilton.
Miss L. Howson, Campbellford.	Miss F. G. Ryan, Selkirk.
	Miss O. H. Turner, Goderich.

Agriculture and Nature Study.

July Course in Nature Study.—Fifty-three students took the Course in Nature Study. Most of them were from city and town schools, but the country schools were well represented too, there being more rural teachers in the class than in any previous year. The work was arranged so as to be an introduction to a second year's course in Elementary Agriculture. It included practical instruction in School Gardening, Plant Propagation, the Identification of Weeds and Weed Seeds, Trees, Birds, Insects and Garden Plants. Lectures and demonstrations were given on farm animals and poultry, dairying and soils. Some members of the class plan to continue special lines of the work in subsequent years.

Miss L. F. Babion, Ridgeway, Welland	Miss E. Harmer, Toronto.
Miss N. A. M. Banting, Toronto.	Miss W. Hogg, Toronto.
Miss E. Bruce, Toronto.	Miss F. L. Knowles, Toronto.
Mr. J. P. Cassidy, Toronto.	Miss A. A. Malcolm, Toronto.
Miss L. Cheer, Toronto.	Miss M. D. Moffatt, Toronto.
Miss L. Laton, Toronto.	Miss G. Robb, Toronto.
Miss L. A. Fawcett, Toronto.	Miss M. Robb, Toronto.
Miss E. Fuller, Toronto.	Miss J. Sharpe, Toronto.
Miss G. Gunn, Toronto.	Miss E. Tedd, Toronto.
Miss S. Hardy, Toronto.	Miss E. Winn, Toronto.

- Miss M. J. Dalton, Toronto.
 Miss J. R. Brown, Toronto.
 Miss H. Barmby, Caledon East, Peel
 Miss L. G. Black, Rockwood, Wellington Co.
 Miss A. Card, Marden, Wellington Co.
 Miss I. Card, Marden, Wellington Co.
 Miss M. Chapman, Campbellville, Halton Co.
 Miss L. Clyde, Eberts, Kent Co.
 Mr. J. Corrigan, Elmira.
 Miss M. Fowler, Oakwood, Victoria Co.
 Miss M. Hawkins, Canton, Durham Co.
 Miss A. Hayes, Trenton.
 Miss A. M. Kyle, Colquhoun, Dundas Co.
 Miss L. J. McKenzie, Glenarm, Victoria
 Miss H. McLennan, Hamilton.
 Miss H. Savage, Hamilton.
 Miss A. Shier, Sunderland, Ontario Co.
 Miss E. Shillinglaw, Sarnia.
 Miss E. Smith, Acton, Halton Co.
 Miss L. Smith, Brantford.
 Miss M. C. Squair, Bowmanville.
 Miss H. Stanley, Balderson, Lanark Co.
 Miss E. Taylor, Norfolk, Virginia, U. S. A.
 Miss C. Watt, Barrie.
 Mr. D. Whyte, Forest.
 Miss M. Eberhardt, St. Catharines.
 Miss L. McCutcheon, Thorndale, Middlesex Co.
 Miss E. McGill, Bowmanville.
 Mr. E. C. Robinson, Bluevale, Huron Co.
 Miss E. McGill, Bowmanville.
 Mrs. E. C. Grider, Louisville, Kentucky, U. S. A.
 Mr. L. Might, B. A., Simcoe.
 Miss Wilson, Washington, D. C., U. S.

July Course in Elementary Agriculture and Horticulture.—Six teachers took this Course this summer. With the completion of a Winter Reading Course they will be entitled to a Departmental Certificate similar to that granted to the Normal teachers who take the ten weeks' Spring Course. Their work included practical instruction in Chemistry, Bacteriology, Physics, Entomology and Botany, following up the work of a previous course in Nature Study.

- Miss J. Lush, Berlin.
 Miss M. M. Reid, Erin, Wellington Co.
 Miss E. Sann, Virgil, Lincoln Co.
 Miss M. Stewart, St. Catharines.
 Miss L. Waterman, Bensfort, Peterboro Co.
 Miss V. Watson, Goderich.

General Notes.

Professor Reynolds lectured before the West Grey Teachers' Association, in Owen Sound, on October 22nd. His subject was "Nature Literature."

Professor Hutt took part in the City of Stratford and Perth County Teachers' Convention, in Stratford, on October 22nd, dealing with the subject of "The Improvement of School Grounds." He spoke on the same subject at Niagara Falls, on October 29th, before the Welland County Teachers' Association.

Professor McCready attended Teachers' Associations in Dufferin, Ontario and Brant Counties during October, speaking on the subjects of "School Gardening," and "The Training of Teachers at the Ontario Agricultural College."

Mr. A. N. Scarrow, '08, Manual Training Instructor at the Peterboro Normal School, attended the South Ontario Teachers' Institute, at Oshawa, on October 21 and 22, and gave three addresses: (1) "The Plan and Purpose of Manual Training"; (2) "Manual Training in Junior Classes"; (3) "Manual Training in Advanced Classes."

Miss Pearl VanValkenburg, '09, of Port Whitby, read a paper at the South Ontario Teachers' Institute on "My Impressions of the Ontario Agricultural College."

Miss Emma Batterman, '09, of Williamsford, took up the subject of "School Gardening," at the West Grey Teachers' Convention, at Owen Sound, on October 21st.



Elementary Agriculture and Horticulture

This is to Certify that

Miss L. K. Patmore

having attended the special session of the Ontario Agricultural College, Guelph, from April 27 to June 27 1909, and having passed the examinations prescribed by the Department of Education, has been awarded a certificate in **Elementary Agriculture and Horticulture**, valid during good behaviour.

Dated at Toronto this

30

day of

July 1909.

Registered Number 55

R. W. Anglin, M.A.

Registrar

R. C. Rymer
Minister of Education

John G. Smith
Superintendent of Education

The above cut is a *fac-simile* of the certificate granted to teachers who complete satisfactory Courses at Guelph. Up to the time of the Special Normal Class of last spring, the certificate was granted to only four other Ontario teachers, viz.: Mr. W. W. Pettapiece, North Gower, Carleton Co.; Mr. E. W. Howes, Macdonald Consolidated School, Guelph; Mr. P. H. Buchanan, Marden, Wellington Co., and Mr. F. J. Newhouse, St. David's, Lincoln Co. All of these had attended Special Courses at Guelph and afterwards carried on successful school gardens.

General Notes.

Mr. George P. Keys, '09, of Horning's Mills, read a paper on "Industrial Training for Elementary Schools," before the Dufferin County Teachers' Association, at Shelbourne, on October 15th.

The industrial committee of the A. F. of L. recommends vocational Manual Training in the public schools.

Mr. Joseph Slaughter, Toronto, having completed the full Course in Manual Training, was awarded a certificate as Specialist in Manual Training by the Department of Education. He also received the certificate granted by the College to full Course students.

Mr. H. S. Macpherson, Simcoe Public School, was granted an Interim certificate in Woodworking by the Department of Education.

Messrs J. E. Chambers and Wm. Flumerfelt, Guelph Public School, have entered upon their Manual Training Course in Forging.

Miss Nina Gibbons, Spring Course '09, is on the occasional staff, Toronto, and is shortening the evening hours by taking wood-carving lessons at the Technical High School.



The Freshman's Dream.

Last night as I lay sleeping,
There came a dream so tall;
I stood in old O. A. C.
My back against the wall.

I heard my Seniors singing,
And ever as they sang;
Methought my ears were ringing
Like bells resounding clang.

And then—methough my dream was
changed,
Those Seniors no longer sang;
Hushed were the throats—in laughter;
And then—I felt a—bang.

The air was thick with mystery,
A smile gave place to frown;
And smothering—I realized
My bed was upside down.

And once again my dream was changed
I sailed the mighty sea,
And glistening waves in frolic
Were rolling over me.

But suddenly the scene was changed,
The door was open wide;
No need of moon or starlight,
To show them where to hide.

The dean was there—and shivering—
I looked a dripping sight;
Well watered will my cranium be
With memories of that night.



Miss—Do you live on a farm?
Ellis (the Freshie with the sweater)
—Yes, and say, are the crops good
down your way? They are awful home.



Millar—Say, fellows; I have my
thesis all written.

Davis—Yes, but how much did you
pay for it?



Mr. Le Drew—Why do animals liv-
ing in Polar regions have heavy coats
of fur?

Underhill—Why! To keep the mos-
quitoes from biting them.

Millar (at the prom.)—Would you tell me where the girls' residence is?

Young Lady—This is the girls' residence.

Millar—And where are the rooms?

Mr. Slater, strikes bell in dining room—All bow heads and he begins—A bunch of keys. (Then somebody laughed).

Mr. Goise (ghost) (to his partner at promenade)—You'll have to tell me what to do.

She (astonished)—Why?

He—I haven't been out for a long time.

She—Where have you been?

He—Down in the dark room.

McCullough (speaking at Lit: subject, "The Experimental Plots")—Mr. Zavitz told us there were over 2,000 plots, and I suppose we will have to believe him.

Lost—While surveying, a fountain pen in field north of Dairy Buildings, E. Packard. Finder will please return to O. A. C.

Senior to Freshman—Are you going to make the necessary arrangements, and take a girl over to Union Lit.?

Freshman—I would like to, but it is impossible.

Senior—What's the matter?

Freshman (sorrowfully) — You know, the Sophomores won't let us.

Pres. C. to Johnston, of Class '12—Well sir! What is the height of your ambition?

Johnston—To grow cucumbers, sir!

Mr. Samson (in chem. lecture)—Professor, may I call your attention to this youth; he has been ignoring me continually this period, and I can't understand it.

Fulmer—What is the formula for milk?

Johnston—C. O. W. and that breaks up into carbon, oxygen and whey.



ABRAHAM
LINCOLN
of the
Chemical Dept.

Jerow (to Senior, on Thursday night)—Have I got to go to Y. M. C. A.?

Senior—Oh certainly! That's one of the unwritten laws.

Freshman inquiry—We are told to have nothing whatever to do with the dimpled darlings of Macdonald Hall. Please tell us what to do with our own "Darling."

Three Stages of Paradise.

Bachelor—Paradise.

Married—Paradise lost.

Widowed—Paradise regained.

Brown—Please, Mr. Jarvis, is the feminine of cockroach henroach?

Professor—Mr. K, what do we mean by polarization?

K.—When a man hungers and thirsts after polar honors, he is polarized.

A sow and a cow, and a good laying hen,

Provide financial salvation for men;

And if in addition you have a good wife,

There's nothing to hinder your enjoying life.—C. A. B.

Freshie—I wonder if Macdonald girls are all back yet.

Mr. Buchanan—Well, Clark, did the second team beat you last night?

Clark—No, sir.

Mr. B.—Well, they did last week.

Clark—Yes, but I was on the seconds then.

Professor — Mr. Hutchinson, complete the equation, please.

H.—One, two, three, fifteen, buck— Oh! I beg your pardon, sir! It's sulphuretted ammoniacal hydrogen.

1st year—What's the matter with the Freshmen?

2nd year—Ask the veterinary surgeon.

**THIS IS THE
SHEET
METAL AGE**

Galt "Classik" Steel Ceilings and Walls are the most sanitary interior finish, because of the accurately made, close-fitting, invisible joints. No dirt, germs or vermin can find a lodging place in Galt "Classik" Ceiling. So easily and quickly washed that very little time or expense is required to keep them clean, fresh and new-looking always.

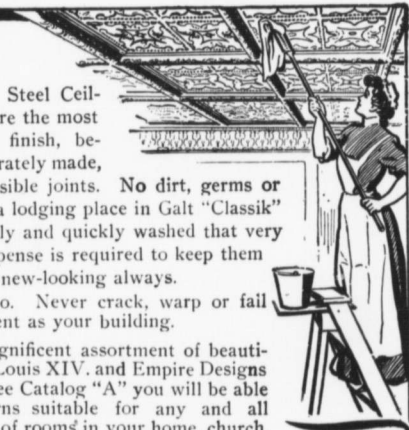
Fire-proof, too. Never crack, warp or fall off. As permanent as your building.

From the magnificent assortment of beautiful and artistic Louis XIV. and Empire Designs shown in our free Catalog "A" you will be able to select patterns suitable for any and all styles and sizes of rooms in your home, church, school or store.

THE GALT ART METAL CO., LIMITED, GALT, ONT.

Sales and Distributing Agents: Dunn Bros., Winnipeg and Regina.

Galt "Classik" Ceilings





Let me tell you how
to save money

"METALLIC"

will make your house and barn **Absolutely Fireproof** and **Weatherproof**—reduces your insurance rates and practically eliminates the annual repair bill.

A FIREPROOF ROOFING.

"Eastlake" **Metallic Shingles** are made from the finest quality galvanized steel—only the **Best** and **Toughest** will hold the bold, clear "Eastlake" pattern. The patented telescopic side lock and gutter make it the **Easiest** and **Quickest** to lay, and the **Countersunk Cleat** insures a **Perfectly Weather-tight** roof.

FOR THE CEILINGS AND WALLS.

"Metallic" is the **best** interior decoration. It gives a handsome appearance to any room—is **sanitary** and **will last** a lifetime—never cracks like plaster and wood. Unequalled for offices, store and residences.

THE BEST SIDING FOR THE HOUSE.

"Metallic" **Rock Faced Siding** in either brick or stone design gives a house a genuine brick or stone appearance. It is **Weather** and **Fireproof** and very durable. An artistic, economical siding for implement sheds.

PROTECTION FOR BARN AND ELEVATORS.

Our **Corrugated Iron**, galvanized or painted, is of the **highest** quality material. The corrugations are **pressed**, one at a time, not rolled, thus insuring a **perfect fit**. Our "**Manitoba**" Steel Siding for large buildings, elevators, mills, store-houses, etc. Over 900 elevators in the Western Provinces are sided with **Manitoba Siding** and roofed with "**Eastlake**" Shingles—a proof of the superiority of "**Metallic**."

Our illustrated booklets "Eastlake Metallic Shingles" and "Interior Decoration in Metal" will interest you. Write for them.

MANUFACTURERS

The **Metallic Roofing Co.**
Limited
TORONTO & WINNIPEG

1984

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USE

VANCO

BRAND
CANADIAN MADE

Spray Chemicals

Lime Sulphur Solution

(Concentrated)

Lead Arsenate

Sixteen per cent. Arsenic Oxide, 40 per cent. moisture average.

THIS IS THE INSECTICIDE TO GIVE RESULTS ON ALL LEAF-EATING
INSECTS, POTATO BUGS, ETC.

Bordeaux Mixture

In Paste Form

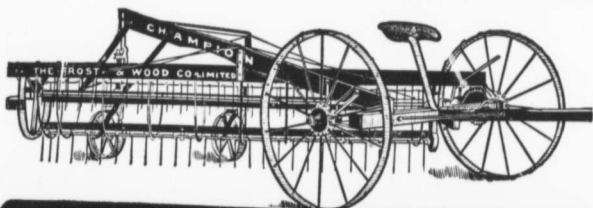
All our products are made from the Purest Chemicals, under the supervision of
Expert Chemists.

MADE IN CANADA BY

CHEMICAL LABORATORIES
LIMITED

148 Van Horne Street

TORONTO



BETTER HAY PRICES

"Well-cured, half-sold," is a true hay-proverb. Sweet, clean, well-dried, even-colored hay brings a high price in every market. You can shake newly cut hay and rake it all in one operation, and save the price of a sulky-rake and a tedder—if you own a

Champion Side Delivery Rake Used in connection with the Champion Hay Loader

below illustrated, you have a combination that will do your haying up "to the King's taste." We can't go into detail here about these high-grade haying machines, but we have done so in our free catalog. In it you'll find answered the question you're most liable to ask, Capacity of Loader is easily 2 tons in ten minutes; no break-downs, either; no getting off wagon to detach loader. With the Side Delivery Rake you can shake and rake a 20-acre field easily in four hours and leave it in good shape for the loader. It works so smoothly—no threshing or hard-hitting—that it will rake clean a bean-field and not waste any. Better send for that catalog. **BOTH FREE.** We have an agent in your vicinity who will gladly answer your questions. Call on him and ask about these two machines.



**Frost &
Wood
Co., Ltd.**

Smith's Falls, Can.

**Here We
Are Again!**

Ready for season '09 and '10, with a full range of the best lines of Footwear. We have the Heavy Tan Shoes that are so popular with the College Boys. Try us, The New Shoe Man.

**J. D.
McARTHUR**

The Store around the
corner, Market Square.

Please mention the O. A. C. REVIEW when answering advertisements.



There is hardly a farmer's daughter in Canada who does not know Windsor Salt.

It has been the universal standby for years.

Practically all the prize winners at the fairs have used Windsor Salt—last year, 95% of those winning cash, medals and premiums, made their prize butter with Windsor Salt.

If you have not been using Windsor Salt for butter making, get a sack and try it. You will then see why the prize butter makers use it.

Royal City Mineral Water Works
 Manufacturer of
HIGH-CLASS CARBONATED BEVERAGES
 247 BROCK ROAD.
 Phones—Works 582A
 Residence 582B

A. REINHART
 Proprietor.

FREDERICK SMITH,
PLUMBER, STEAM
AND GAS FITTER,
 Sanitary Appliances. Estimates Furnished.
 GUELPH.

Please mention the O. A. C. REVIEW when answering advertisements.

ONTARIO PROVINCIAL WINTER FAIR

WILL BE HELD AT

Guelph, Ontario, Dec. 6th to 10th, 1909

Exhibits of Horses, Cattle, Sheep, Swine, Poultry and Seeds. Students note the Live Stock Judging Competition. Ask your friends to come to the Fair.

OVER \$13,000 IN PRIZES

A \$50,000.00 Addition Has Been Made to the Fair Buildings.

A Splendid Program of Lectures Has Been Arranged.

SINGLE FARE RATES ON ALL RAILWAYS

For Prize List, Entry Forms, or Program, apply to the Secretary

LIEUT.-COL. R. McEWEN,
President.

A. P. WESTERVELT, Secretary
Parliament Bldg., Toronto.



We are making a new departure this season, and have arranged to sell wheels *direct by mail*, saving to our customers all intermediate profits. By this plan we can offer

**Regular \$50
Hyslop Bicycles
for \$25**

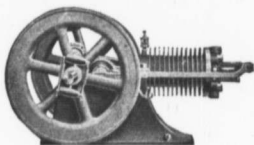
This surprising value in first-class wheels will be an important help to the restoration of their popularity. We have planned for a big bicycle year, and are ready with the best machine for the money ever offered in Canada.

Send for Illustrated Folder

HYSLOP BROS., Limited

High-Class Automobiles and
Bicycles TORONTO, ONT.

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CHOOSE A GILSON ENGINE
GOES LIKE SIXTY

is the advice of experts, authorities and users
 —“THE MEN WHO KNOW.”

For **QUALITY COUNTS**, and the **GILSON GASOLINE ENGINE** is the **ENGINE of QUALITY**—The highest type produced at any price.

Positively guaranteed, all sizes, all styles, for all purposes.

Send for large catalogue and pamphlet by Prof. Ocock, University of Wisconsin, “HOW TO CHOOSE A GAS ENGINE.”

GILSON MFG. CO. LTD.
GUELPH, ONTARIO.

MACDONALDS'
OVERCOATS

Every Student wants to be smart and prosperous looking, every man can be so if he buys one of our overcoats.

Our Coats are fashioned on those correct lines that instantly add a well-dressed, gentlemanly appearance to the wearer, ours are not the ordinary cut, far above that, and there is assured you a fine measure of comfort owing to the aptness of the fit and the goodness of the new fashion fabrics, from which our coats are made.

Everything new and good, not an 1908 overcoat in our stock, from the Chesterfield to the College Ulster, our showing is complete.

It will cost you merely a visit to the store to prove our statements, and we do not expect you to buy unless you really believe that we merit it.

Cloths—Cheviots, Meltons, Beavers, Tweeds and fancy Ulsterings, prices from \$8.00 to \$28.00.

Selling agents for Christy's English Hats, and Fowne's English Gloves.

D. E. MACDONALD & BROS.
 “THE GOLDEN LION”

Please mention the O. A. C. REVIEW when answering advertisements.

**FINE
Tailoring**

O. A. C.

**FINE
FURS**

We would like the boys to visit our store—UPPER WYNDHAM STREET. Civility being part of our business, and business to us is a pleasure, you are not called on to buy, but should you require anything in our line you will surely get value at THE GOLDEN FLEECE. Style and endurance is what we aim at in Fine Tailoring, and we rarely miss the mark.

KELEHER & HENDLEY

MODEL MERCHANT TAILORS

Fine Furs.

Fur-lined Coats a Specialty.

The Guelph Mercury

As an Advertising Medium has few equals. It thoroughly covers its own district—one of the best agricultural and stock sections in the Province of Ontario. It has a weekly circulation equal to all other weekly papers in the County of Wellington.

∴ THE JOB DEPARTMENT ∴

Is up-to-date and can turn out the best work on the shortest notice.

Please mention the O. A. C. REVIEW when answering advertisements.

IF YOU APPRECIATE GOOD VALUES

You will be sure to buy your

SHIRTS, TIES, COLLARS, HATS AND FURNISHING GOODS

Here. The Choicest stock in the city.

My Tailoring Department is one of the most reliable in the trade. First-class, stylish clothing made to fit perfectly, and satisfaction always assured. See my stock of fine up-to-date goods. Only one price. Goods marked in plain figures. Be sure and give me a call

R. E. NELSON

Next Traders Bank.
Just above the Post Office.

Men's Furnishings.
Hats and Fine Tailoring.

Farm Power

Is the most important topic

Nothing Cheaper

than a

CANADIAN AIRMOTOR



At your service all the year around (wet or dry, summer and winter.) The lightest breeze and the fierce gale at your disposal. **No up-to-date farmer pumps by hand.**

Pumps, Steel and Wood Tanks, Grain Crushers, Gasoline Engines, Watering Devices, etc.

Ontario Wind Engine and Pump Co., Limited, Toronto and Winnipeg

INTERNATIONAL STOCK FOOD

THREE FEEDS FOR ONE CENT

Will save you money over the ordinary way of feeding.
Will keep your stock in better condition.
Is equally good for horses, colts, cows, calves, hogs, pigs, sheep, lambs, etc.
Is absolutely harmless even if taken into the human system.
Is sold on a cash guarantee by over 125,000 dealers.

COLORED SPEED PICTURE OF
DAN PATCH, 1:55. CRESCUS, 2:02 $\frac{1}{4}$.

MAILED ABSOLUTELY FREE.

We have just published a large colored lithograph showing Dan Patch and Cresceus in a fast finish down the stretch. It was made from life, and shows both of these magnificent animals in their natural colors. If gotten out in a small edition it would sell for \$2.00. We will be glad to mail it to you free, postage prepaid by us, if you will write us at once, answering the following question:

1st—Name this paper. 2nd—How many head of live stock do you own?

Picture will not be mailed unless you answer these questions.

International Stock Food Co., Toronto, Canada

The Manufacturers Life

has some extremely advantageous plans of insurance to offer young men—plans which, by the way, are not offered by any other Company in Canada. They are worth looking into.

Apply to W. E. BROLEY, Elora

HEAD OFFICE: TORONTO, CANADA

Please mention the O. A. C. REVIEW when answering advertisements.

Freshie to Junior—Say, what does initiation mean, anyway?

Junior—Don't worry, my son; you'll find out later.



Mr. Jarvis—How many classes of men are there?

Weir—Just two—Sophomores and Freshmen.



Freshie's first impression of College dining-room—

Like a grate, full of coals, my heart doth glow.

This great full house to see,
And if I were not grateful too,
What a great fool I would be.



Auld (bringing camera from Alden verelt)—Say John, how many explo-
sions can you take on one film?

M A P S GLOBES CHARTS

Educational Supplies
OF EVERY DESCRIPTION

Write for Catalogue of the
line you are interested in.

The Geo. M. Hendry Co.
LIMITED

20 TEMPERANCE ST., TORONTO, ONT.

THE WHITE HOUSE

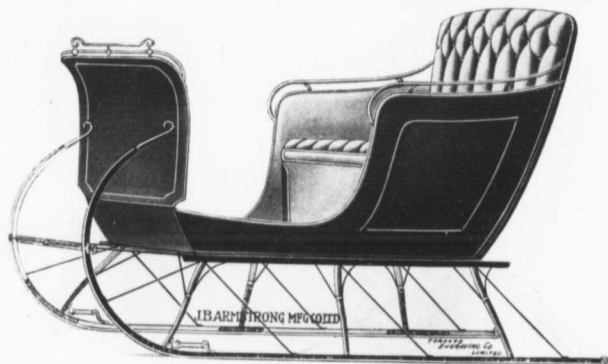
LADIES' FINE SHOES AT \$2.50

In our Ladies' Shoe Department we have shoes at one price only, \$2.50. These are quite the equal of shoes sold at \$3.00 and \$3.50 elsewhere. They come in all Leathers, and only the very newest styles.

JAMES RAMSEY

Please mention the O. A. C. REVIEW when answering advertisements.

ARMSTRONG SLEIGHS



NO. 42—LIGHT PORTLAND.

We make a nice assortment of Portland and Piano Box Cutters, also Stanhope, Trap and Surrey Sleights. Great variety in design and finish. Catalogue mailed on application. Students invited to call at factory.

J. B. Armstrong Mfg. Co. Limited, Guelph, Canada

G. B. RYAN & CO., Guelph

General Dry Goods Store

Noted for **STYLE & FINISH**

In General Dry Goods, Millinery, Ready-to-wear Clothing, House Furnishings, and Ladies' Shoes

Character and Exclusiveness are the Two Great Features of Our Merchandise



Buying Offices in London, Paris and Glasgow, keep us right in line with the very newest fashions and fabrics.

G. B. RYAN & CO., Guelph

MEN'S CLOTHING STORE

A store devoted wholly to the dress wants of modern men.

Ready-to-wear Clothing, Special Order Clothing, Furnishings of all kinds; always in keeping with gentlemanly ideas of good form.



Our advertisement our aim and our accomplishment:—"Square Deal for Every Man."



... To ...

College Students

... in all lines of ...

Confectionery

**Candy
Bon-Bons
Fruits**



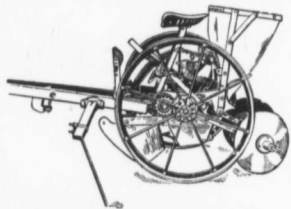
**Ice Cream
Hot Drinks
Oysters**

The Most Select Stock in the City

The Kandy Kitchen

LOWER WYNDHAM STREET

POTATO CROP A MONEY MAKER



No. 3 POTATO PLANTER

Automatic. Requires no human aid other than the driver.

No change of pickers necessary for different size of seed or different distance of planting.

Booklet on Potato Culture mailed free.

Aspinwall Mfg. Co.

112 Sabin Street, Jackson, Mich., U. S. A.

Canadian Factory, GUELPH, ONT.

"Look for this firm's exhibit at the Mid-Winter Fair."

LUMBER

LATH and SHINGLES

All kinds

Bill Stuff ETC.

DOORS

SASH FRAMES

All kinds of

BUILDING MATERIAL

Manufacturers of

Washing Machines. Stair Building and Interior Fittings a Specialty.

—THE—

H. A. CLEMENS Co. Limited

GUELPH, CANADA.

Phone 50.



FOOTBALL, RUGBY AND GYMNASIUM SUPPLIES : : : :

- Rugby Boots.....\$2.50, 3.00, 3.50
- Rugby Suits, complete.....\$2.50
- Gymnasium Knickers......75c
- Gymnasium Jerseys, cashmere.....\$1.00

Full line College Athletic Supplies

Write for Illustrated Catalogue

J. BROTHERTON

550 YONGE STREET

TORONTO

Please mention the O. A. C. REVIEW when answering advertisements.

Big Burly Freshman—P-p-please
Mr. Fairbairn, may-I-go—down town
to-buy—a pair—of shoes?



Shaver (viewing newly discovered
pole)—Je Whitaker! This can't be the
pole, it looks more like a fruit market.



L.—Say boys, did you know that
Crow, of Class '12, was an aviator?

W.—No! Is that a fact?

L.—Why yes, last year, his room
mates had to fill his boots with glue to
keep him down.



Clerk (in bookstore to Freshman)—
What is your address, please?

Freshie—Lower Hunt.

Clerk—College, I suppose. (Then
writing on parcel) Mr. Lower Hunt,
College.

FRUIT

We make a specialty of Fruit. You
can always depend on getting every-
thing in season fresh here.

BUSCUITS

If you want quality buy Christie's.
We have a large assortment.

Phone 169. Prompt Delivery.

Benson Bros.

WE HAVE A VERY COMPLETE
STOCK OF

Entomological

—AND—

Botanical Supplies

For Students

At Students' Prices

Alex. Stewart

CHEMIST

NEXT TO POST OFFICE

GUELPH AND ONTARIO INVESTMENT AND SAVINGS SOCIETY

(INCORPORATED A. D. 1876)

SAVINGS DEPARTMENT.—Deposits of **One Dollar** and upwards received and interest allowed at highest current rate. Every facility afforded depositors. Office open until four o'clock every week day (including Saturday). Interest allowed on both current and savings accounts.

DEBENTURES ISSUED for sums of **\$100.00** and over, for periods from one to five years; interest, 4 and 4½ per cent. per annum, payable half-yearly.

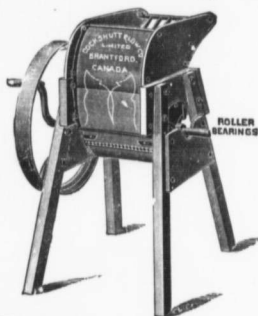
Both the **DEPOSITS** and **DEBENTURES** are legal investments for trust funds.

J. D. ELDERRY,

Managing Director.

Office: Corner Wyndham and
Cork Sts., GUELPH, ONT.

Cockshutt Implements For Long & Hard Service



This Cockshutt Cylinder Pulper grinds all sizes of roots easily. New device holds the roots right down on the reversible knives. Extra-sized drive-wheel; roller bearings; runs very easily. Great strength. Good for a lifetime of service.



This Cockshutt Pulper and Slicer has double hopper—one side for slicing, the other for pulping; divider leaf shuts off either side at will. Six reversible knives; large drive-wheel; roller bearings. A machine you can rely on absolutely.

EVERY Cockshutt Implement was designed and is built with exact practical knowledge of the needs of the man who is to buy it some day. It has no "freak features about it. It is meant to do its work well, and it does it.

Built Extra Strong

And every Cockshutt Implement is built with what we term "Plus-Strength." That means it is stronger than it perhaps needs to be, and will stand up to its work under even hard usage. Yet it costs you no more than an ordinary implement that will not stand even ordinary use and stand up.

Most Workmanlike

When you examine a Cockshutt Implement you are impressed by the workmanlike look of it. You see that it is sensible; efficient; constructed with exact purpose

for the work it is to do. You see that the money's worth is there in full measure. Expect to get long service from any Cockshutt Implement. You surely will.

The Cockshutt Line of implements includes more than 120 kinds of plows alone, besides a great range of seed-drills, harrows, cultivators, etc., Glad to send you a catalog. Worth your while asking for it. Address factory as below.

COCKSHUTT Plow Co. **BRANTFORD**
Limited

Please mention the O. A. C. REVIEW when answering advertisements.

THRESHERMEN'S
FARMERS' AND
DAIRYMEN'S

Rubber Goods

Thresher Belts, Steam Packing, Hose,
Rubber Tubing and Molded Rubber Goods
of every description for agricultural and
dairy machinery.



The Dunlop Trade Mark,
the two hands is the seal
of quality in rubber.

DUNLOP Tire and Rubber
Goods Co. Limited

Agents and Dealers throughout Canada.



SCOTT KNITTING COMPANY

Makers of High-grade, Pure Wool Goods,
Sweater Coats, Sweaters, Jerseys, and Ath-
letic Suits, Hose, Toques, Etc.

Write for Catalogue.

352 Queen Street West, TORONTO.

Please mention the O. A. C. REVIEW when answering advertisements.



ABSORBINE

Removes Bursal Enlargements,
Thickened, Swollen Tissues,
Curbs, Filled Tendons, Soreness
from any Bruise or Strain,
Cures Spavin Lameness, Allays
Pain Does not blister, remove
the hair or lay the horse up, \$2.00 a
bottle, delivered. Book 1 D free.

ABSORBINE, JR., (manking) \$1.00
bottle.) For Synovitis, Strains, Stout
or Rheumatic Deposits, Varicose Veins, Vari-
celes, Hydrocele, Allays pain. Book free.
W. F. YOUNG, P. D. F., 177 Monument St., Springfield, Mass.
L. H. S. 5038 & CO., Montreal, Canada's Agents.

Galt, Ont., July 15, 1905.

Dear Sir,—I used your ABSOR-
BINE on a barbed wire cut which left
a lump on the fetlock, with very good
success, on my three-year-old, which
people said would always show, but it
has all gone.

Yours very truly,

C. Herriott.

The People's Store

Is head-quarters for MEN'S HIGH-CLASS
READY-TO-WEAR CLOTHING, also made
to measure

CLOTHING

Have also a big assortment of Gents'
Furnishings in all the up-to-the-minute
styles.

We specially solicit the patronage of the
O. A. College Boys and Faculty.

Prices Moderate.



Benor, Scott & Co.

29 and 31 Lower Wyndham Street,
Guelph, Ontario.



Well, Do You Like it?

AH SING'S idea may suit some people, but from a sanitary standpoint—pardon our lack of enthusiasm. Modern methods of laundering—used here—do not conform to the Mongolian's conception of cleanliness, yet how superior!

Guelph Steam Laundry

PHONE 95.

80 NORFOLK ST.

E. M. HUNTER, Mgr.

THE DOWLER CO.

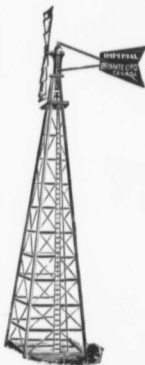
*Ladies'
and Gentlemen's
Garments*

Made to your order, or ready to put on

Modern merchandise at moderate prices. Your patronage is earnestly solicited.

THE DOWLER CO.

Windmills!



Towers girded every five feet apart and double braced.

Grain Grinders.

Pumps.

Tanks.

Gas and Gasoline

Engines.

Concrete Mixers.

Write for
Catalogues.

Goold, Shapley & Muir Co.

LIMITED

BRANTFORD, CANADA

THE THIEF OF TIME

"Procrastination is the thief of time," is an adage, old and true. This putting off things causes lots of harm; for instance, the opinion that the use of glasses should be postponed as long as possible, is wrong. Just as soon as you find your eyesight falling you should have your eyes examined. I give you a most thorough scientific examination.

My service combines accuracy, quality and reasonable prices.

A. D. SAVAGE

Guelph's Only Exclusive Optician,

Phone 571 - - - 21 Wyndham St.

Please mention the O. A. C. REVIEW when answering advertisements.



We sell the best makes of Shoes, The Walk-Over, Geo. A. Slater INVICTUS, the Beresford, the ART, and many others.

We AIM TO PLEASE. Give us a call.

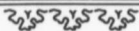
KNECHTEL'S

SHOE PARLOR,

Opposite the Winter Fair Building.

R. B. KENNEDY

Photographer



The best place to get a good Group Photograph or a Portrait of yourself. * * *

PHONE 498

CENTRAL Book Store

Opposite where the Street Cars stop.



Text Books, Exercise Books, Foolscap Writing Pads, Up-to-Date Note Papers and Envelopes, Papetries, Etc., Etc., Bibles, Hymn Books, Books by Standard Authors, Poets, Prayer Books.

In fact, everything kept in a well-ordered Book Store.



C. ANDERSON & CO.

Petrie's Drug Store

*For Kodaks, Cameras and
Photographic Supplies*



Special attention given to developing and printing for amateurs



LOWER WYNDHAM STREET

Please mention the O. A. C. REVIEW when answering advertisements.

Students' O. A. C. Supplies

Botanical, Entomological, Nature
Study, Manual Training.

Plant Mounting; Butterfly, Insect and
Larva Collecting; Weed Seed Collect-
ing; Microscopes; Slides and Cover
Glasses; Drawing and Painting Outfits;
Mathematical Instruments; Dissecting
Tools; all kinds of Note Books and
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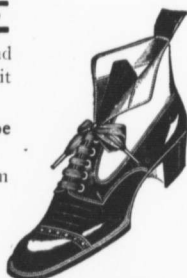


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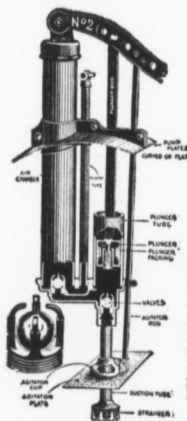
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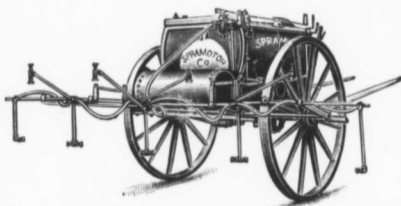
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