

THE CANADIAN HORTICULTURIST

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APRIL - 1911
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PETERBORO, ONTARIO

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THE ONLY HORTICULTURAL MAGAZINE IN CANADA
FOR FRUITGROWERS, MARKET GARDENERS & AMATEUR HORTICULTURISTS
ISSUED ONCE A MONTH

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LIME-SULPHUR SOLUTION COMBINATION WINTER AND SUMMER SPRAY

As **WINTER SPRAY** (diluted 1 to 11), it will control **San Jose Scale, Oyster Shell, Bark Louse, Blister Mite, Peach Curl, Aphids** and all sucking insects.

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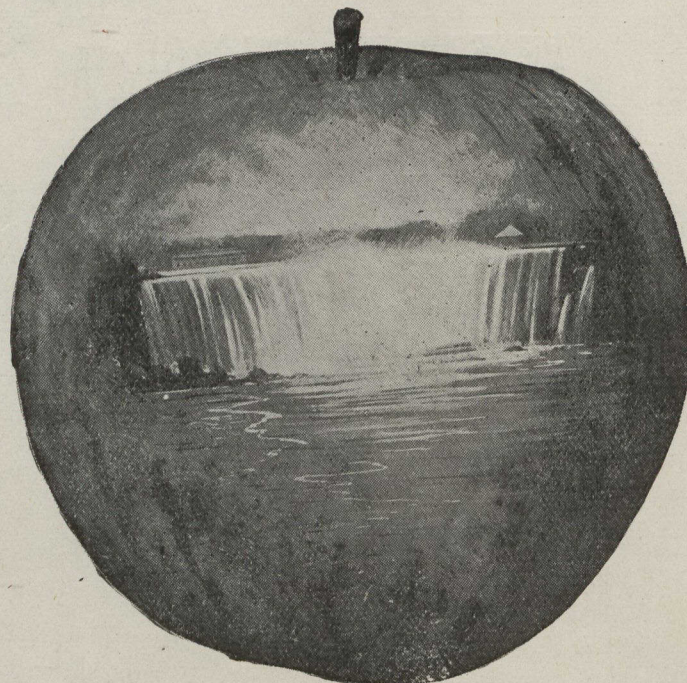
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We have made a number of analyses of your Lime-Sulphur wash, and have always found it to be a strong, well-prepared solution, and a very high percentage of this is in the most desirable form to insure its efficiency for spraying purposes. From the results of our analyses we have no hesitation in pronouncing your wash to be of first-class quality.

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EVERY FRUIT GROWER SHOULD HAVE AN HYDROMETER TO TEST HIS MATERIAL. We will mail to any address in Canada on receipt of 80 cents, the Standard Hydrometer, Pennsylvania pattern, showing both Beaume and Specific Gravity reading.

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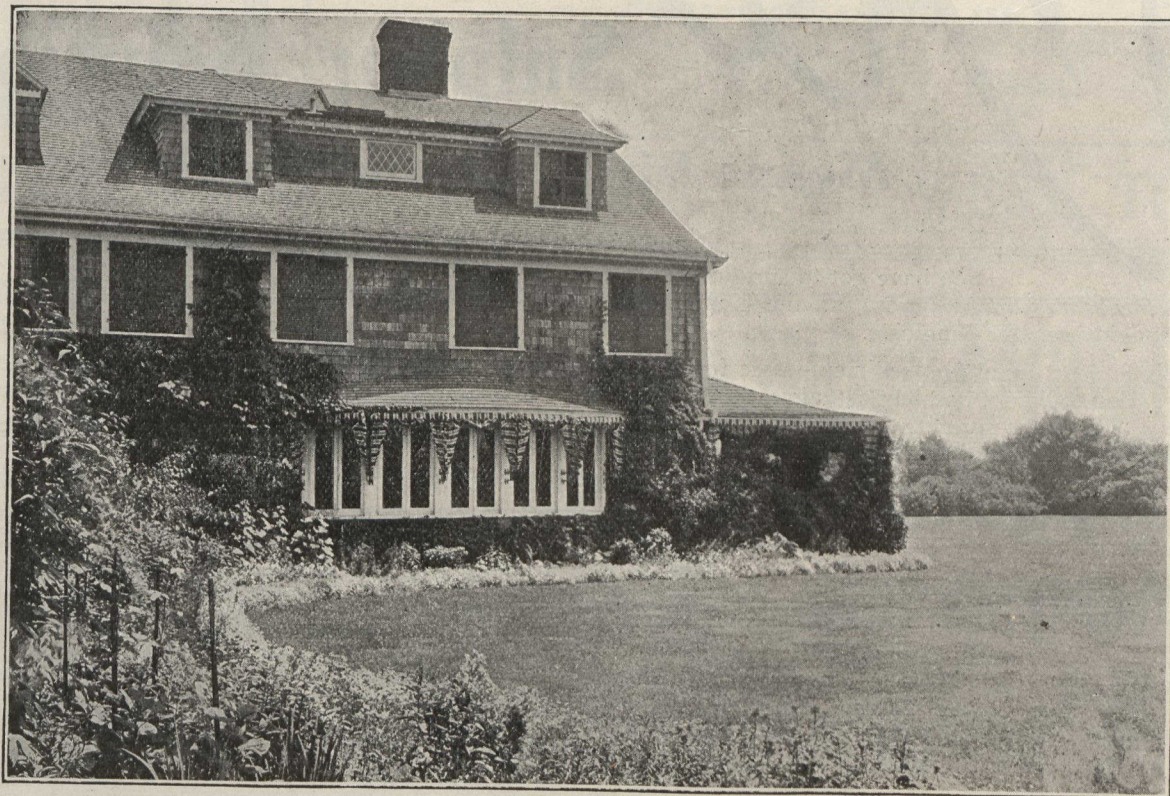
Brown Brothers Company, Limited, Nurserymen, Landscape Architects

P. O. BROWN'S NURSERIES, ONT.

WITH the general development of the country, the increasing amount of travel and unprecedented prosperity, the many thousands of acres of public parks and innumerable private estates developed into beautiful landscapes, has come a general love for the beautiful in nature. This has been increased and intensified by the introduction of hundreds of valuable species and varieties of trees, shrubs and plants from various parts of this country and from foreign lands, so that we may now say, there is a tree or plant for every purpose.

All this has produced a widespread demand for expert advice on the subject of the improvement of public and private estates and city back yards, for the lack of which in many cases large sums are being expended that bring very little satisfaction. Plants and trees are sometimes selected that are entirely unsuited to the soil and conditions that prevail, or some "stock" design may have been obtained without consideration of the fact that it cannot possibly meet the requirements of different places wholly unlike in the character of soil, contour and exposure. The result is that the trees and plants placed among conditions foreign to their natures are unable to extract from the soil and atmosphere a proper nutriment to sustain life, to say nothing of making a vigorous, healthy, growth, and in consequence they soon sicken and die, leaving their places vacant. Often it is well they do, for, at best, some of them would only make a conglomeration of disconnected specimens entirely out of harmony with one another.

A home is better planned and constructed for having the advice of an experienced architect, and the same is true of the landscape work required about a home. Even though the expenditure of but a small sum is contemplated, it is better to spend this judiciously than at random. Well planned and planted grounds surrounding a house, make the whole an attractive home and bespeak the culture found within.



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We invite correspondence on any subject pertaining to landscape work, ornamental trees, shrubs or evergreens. Our Nurseries are open to your inspection at any time, and our Landscape Department is at your command.



SPRAYED WITH
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Lime Sulphur Solution

Means Big Fruit and Big Prices

You have got to spray the fruit trees to get any kind of a crop. The most effective spray means the biggest crop and the biggest profits. VANCO LIME SULPHUR SOLUTION is a thoroughly reliable fungicide.

It is a clear liquid—no sediment—free from small particles—sprays easily and does not clog the nozzle. You could not possibly get a greater amount of Sulphur in Solution than you get in the "Vanco" Barrel. This is the spray to use for San Jose Scale, Aphis, Scab, Blight, Mildew and many other parasites and fungi that ruin trees and fruit.

VANCO LIME SULPHUR SOLUTION is better than any home-made spray, because always of the same strength and uniform quality. Specific Gravity stencilled on every barrel. One barrel makes 12 barrels for spring or 40 for summer spraying.

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Safest and surest spray for Apple Worms, Codling Moths, Potato Bugs, Asparagus Beetle and other leaf-eating, fruit-destroying insects. More effective and more lasting than Paris Green—safer to handle—easier to spray—sticks longer—strength guaranteed—NEVER BURNS. Made in Canada. This insures standard quality at lowest prices, because there is no duty to pay on it.

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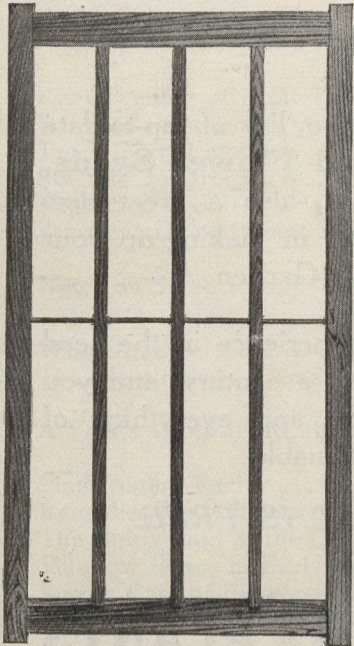
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A trial order will convince you that our sash possess the greatest possible strength and durability.

Hot bed folder mailed on request.

SIZE: 3 FT. 2 INS. WIDE BY 6 FT. LONG FOR 4 ROWS OF 8 INCH GLASS, FOR BUTTED OR LAPPED GLASS

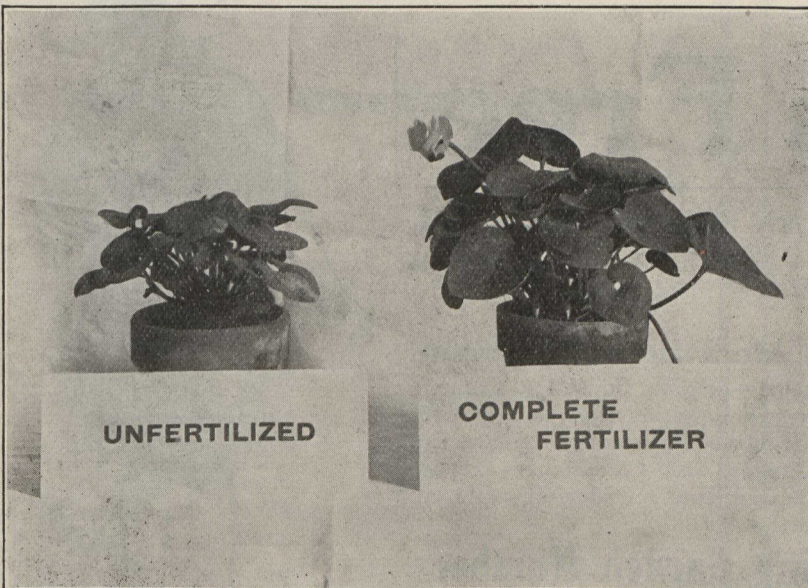
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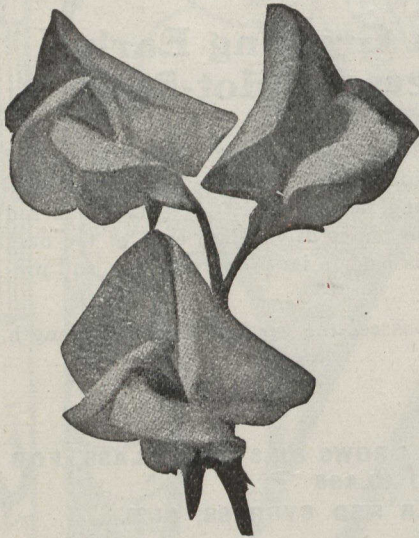
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== FOR 1911 ==



Contains a fully illustrated and descriptive list of up-to-date varieties of **Field Seeds, Garden and Flower Seeds, Plants, Bulbs, Garden Tools, etc.**, also a great deal of valuable information that will assist you in making up your requirements for the farm or Garden

We give you the benefit of our long experience in the seed business, extending over more than half a century, and you can rely on getting just what you order, and everything of the very best quality obtainable

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LIMITED TORONTO, - - ONTARIO

BEST OFFER EVER MADE TO WOMEN. \$2.00 VALUE FOR \$1.00

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Excellent culinary suggestions and menus—toilet helps—original household exchange ideas from all readers—shopping news—short stories and serial that delight every member of the family—music, with words—new attractive embroidery stitches and ideas—splendid children's page—Descriptions of Canada and Canadians—excellent garden department. Order at once and start with the April



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Enclosed is \$1.00 to pay one year's subscription to Canadian Home Journal; also 10 Coupons giving me my choice from all Patterns shown during the year.

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Make the Journal known in your neighborhood.

Best Selling Magazine. Big Commissions.
Ask for Agent's Terms.

The Canadian Horticulturist

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TALKS ON ADVERTISING

By the Advertising Manager

No. 7

KEEPING EVERLASTINGLY AT IT

"Repetition," says Luther Burbank, "is the best means of impressing any one point on the human understanding. By repetition we fix any tendency, and the more times an impression is repeated, the more indelibly will the resultant tendencies be fixed, until, if repeated often enough, the impression becomes so fixed that it will require many repetitions of an opposite nature to efface it."

What has this to do with advertising? Let us see. Suppose someone mentions soap, tea, safety razors, or breakfast food, to you. Instantly you think of some particular brand or variety in connection with the article mentioned. Why? You have seen advertising of these articles so frequently that your mind instantly connects the name of the article with some particular make or brand. The constant repetition of the advertising of this article which you have seen from time to time has made such an impression on your mind that you cannot think of one without the other. When buying an article you are influenced perhaps almost unconsciously, to purchase something which has been well advertised rather than another article which may be every bit as good but about which you may know nothing. You are so familiar with the name of the advertised article that you somehow feel it must be good.

And here is the real secret of the remarkable success that usually attends steady persistent, straight-forward advertising. It is possible to sell goods of poor quality through the aid of advertising, but it is not possible to continue selling these goods to people who have once tried them, and found them unsatisfactory, no matter how hard they are advertised. When people see the same line of goods advertised steadily in the same publication, month after month, they know these goods must have quality. The advertising has created confidence in the reliability of the advertiser and in the quality of the goods he offers that would be difficult to obtain in any other way.

Then, too, people like to buy from the man with whom they feel acquainted. If they see his advertising appearing regularly in their favorite paper or magazine, they get to feel that they know him. When they want anything in his line they will buy from him in preference to buying from a man whom they do not know. Steady, persistent advertising is of value to the advertiser not only in helping to sell the goods advertised from month to month, but also serves to build up a reputation for reliability and fair dealing that will of itself attract many customers.

The Canadian Horticulturist numbers among its advertisers many who find it pays to advertise in every issue of the year. There are others whose business would be benefited by such advertising. Let us talk the matter over with you.

We do not admit Advertisers to our Columns except such as we believe are thoroughly reliable.



Blackcaps, Blackberries Currants and Other Small Fruits

All Choice Transplanted
Stock Grown on Choice Land
In the Niagara District

Lists and Prices Furnished on Application

E. D. SMITH, Winona, Ont.

A Heavy Surplus of Choice Apple Trees. Get Our Prices Before Ordering

SPECIAL OFFER

The Canadian Apple Growers Guide

By L. Woolverton, M. A.

Part 1.—A Complete Guide to the Planting, Culture, Harvesting and Marketing of Apples.

Part 2.—Descriptions of Varieties of Apples, which are grown in the various Provinces of the Dominion of Canada, made by the author from personal study of both the trees and the fruit with full size photogravures of the fruits themselves made under his personal supervision.

Part 3.—Varieties of Apples recommended for Planting in the various sections of the different Provinces of the Dominion. The price is \$2.00.

We make a special offer of the book and a year's subscription to The Canadian Horticulturist.

Both For \$2.00

Either new or renewal subscriptions. Write now while this offer is open.

Premium Collections

Secure a new subscription to The Canadian Horticulturist for one year at 60 cents and we will send you your choice of the following valuable premiums:

1. RAMBLER ROSE BUSH (Thousand Beauties).
2. FOURTEEN PACKETS of Flower and Garden Seeds.
3. THREE Beautiful Cactus Dahlias.
4. EIGHT Single Begonia Bulbs.

Write for complete list of premiums and free sample copies.

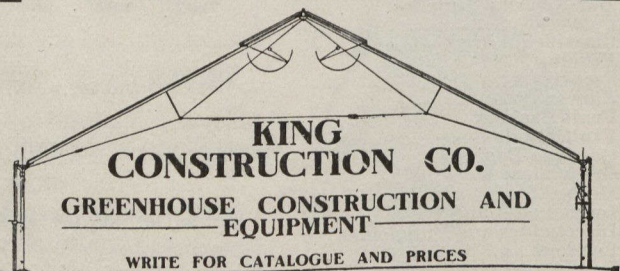
The Canadian Horticulturist
PETERBORO, - - - ONTARIO

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Are the most

MODERN AND PERMANENT

Greenhouses that can be constructed. Years of actual test and the experience of large and small growers have gained for our houses the reputation of being the most satisfactory ever erected for vegetable or flower growing, or private conservatories.



Plans prepared for complete plants and equipment at a moderate cost: all or part of the necessary materials supplied and houses of any size erected under our personal supervision if desired by builder.

Write and tell us the kind of houses you desire to erect or ask for question blank and we will mail you our descriptive bulletin by return of mail.

THE KING CONSTRUCTION CO.
248 Wellington St. West TORONTO, ONT.

Mention The Canadian Horticulturist when writing.

The Canadian Horticulturist

Vol. XXXIV

APRIL, 1911

No. 4

Orchard Cultivation*

W. Dreher, Macdonald College, Que.

A KNOWLEDGE of this practice is becoming more and more important, for upon it depends largely the success of the fruit grower. The demand for good fruit, especially apples, has increased very much in the past few years on both the home and foreign market, and there is no reason why a greater number of people in this province should not specialize in this branch of agriculture which has proven to be so profitable to our neighbors in the province of Ontario and to the grower of British Columbia.

The argument that the growers of Quebec cannot compete successfully with those of the provinces just mentioned on account of unsuitable soil and climatic conditions is unfounded, for nowhere else can some of the hardy varieties be grown and produced so well as in this province. A good many farmers possess fruit trees which yield fair returns; but to make fruit growing a profitable business the trees must be properly cared for, and if any one of the operations is more important than another, I should say it is cultivation. The method that has in principles been recognized to be the best by all successful fruit growers and at Experimental Farms is the following:

PREPARATION OF THE GROUND

Where ordinary field crops, such as cereals and hoed crops yield profitable returns, then the soil will be rich enough for an orchard generally speaking. The required conditions are the same as for these, namely, a good friable loam soil of good depth, tilth, and drainage. The required conditions, except the last, can be obtained by thorough plowing and subsequent tillage. Experience has taught us that land in fine tilth has produced better crops than untilled land, even if the latter did contain more plant food. The reason is that tillage unlocks plant food, makes it more readily available, and regulates the moisture holding capacity of a soil which is a very important factor in fruit growing. If the soil is not deep and the subsoil compact it will be necessary to work the latter also to some depth, and drainage with tiles will ameliorate such soils most efficiently. Should the chosen piece have been in sod for some time it will be

found best to grow hoed crops on it for a year or two, and this will give the farmer an opportunity to become acquainted with it and make all necessary improvements. It must be borne in mind that the ground should give suitable moisture conditions, and this capacity is increased by adding humus to light soils and draining waterlogged land. Moreover, it is of equal importance that the roots shall be able to penetrate the soil easily; therefore, it must be friable and well and deeply plowed. Heavy lands are improved by the addition of vegetable matter. Once a soil has been, so to speak, transformed into suitable conditions of food and moisture and the trees have been planted, it remains to

Must Have It

"No use being in the fruit business without The Canadian Horticulturist. One might as well quit both as one. Please find enclosed one dollar for two years' subscription."—Watson C. Orr, Winona, Ontario

maintain these conditions, and this leads us to the question of subsequent cultivation or tillage.

CULTIVATE THE WHOLE AREA BETWEEN THE TREES

Measuring the length of roots of young trees and comparing that length with the width of the crown it has been found that the roots occupy an area twice as large as the crown does, it follows that if the trees are planted the usual width apart their roots will ultimately occupy the whole area between the rows; moreover, the roots most actively engaged in taking up food are the youngest; those that are farthest away from the trunk. These facts show that in order to obtain the best results the whole area occupied by the roots must be cultivated, and this holds equally true for a young orchard, because in that case the ground must always be in such a state as to allow the roots to expand rapidly and grow at a depth when moisture is always available, and where they shall be protected more or less from the plow or frost. The sooner and the better cultivation is practised the better the results obtained later—and that with considerable less work.

The next important point to be kept in mind is that all cultivation should begin as soon as the ground can be worked to advantage. The season of wood growth begins early in spring and ends in the middle of summer. Consequently the ground should be in such condition as to permit the trees to make a vigorous early start and continue to furnish a readily available supply of food and moisture during the summer.

DEEP PLOWING

The first step in subsequent orchard tillage consists in plowing deeply, diminishing the depth close to the trees. The depth will vary also according to the condition of the land at the start, heavy lands will need deep cultivation, taking precautions not to touch them while too wet, as puddling would be the result. On the other hand, lands already friable need not be plowed deeply. If there is sod on the ground, it is advisable to plow it under early in the spring, for this will cause its more rapid decomposition. If there is no sod, and the land needs humus or manure, this is also a good time to plow it under. In order to get a level culture, plow one year towards the trees and the next away from them. Thus the first step consists in improving the physical and chemical condition of the soil, the second, however, is to hold the moisture in the ground, or at least to prevent its rapid evaporation.

The ground left exposed after plowing begins to settle, becoming more or less compact, and a straight path is thereby formed for the underground water to pass into the air. This would also exist if grass is growing for the large leaf area would transpire a great deal of water. Therefore, the remedy in the first case is to form a dry soil mulch on the surface, whereas the loss of water in the second case can be prevented by not growing grass, but following a system of cultivation. The best mulch is prepared by breaking up the surface soil into very small particles to a depth of not more than three to four inches after plowing. This corresponds to the hoeing of crops which checks this rapid evaporation, destroying weeds at the same time. This operation must be repeated in the orchard quite often, if possible, every 10 days, or at least after every rain.

*Extract from an address delivered before the Quebec Pomological Society.

Regarding the tools used in the above operations, there are several orchard plows facilitating the plowing close to the trees, but the ordinary plow with a set over beam is recommended, and the surface tillage can be done satisfactorily by means of the various disc and smoothing harrows. Even the cultivator or spring-tooth harrow may be used when their teeth are so arranged as not to go deeper than say four inches.

CROPPING BETWEEN THE ROWS

For the first few years vegetable or small fruits, such as strawberries, may be grown between the rows of trees. The advantages of such a practice depend largely upon the judgment of the grower. He must decide what kind of

crops will suit his purpose best and what length of time they are going to occupy the ground. Some crops take up the water and food that the trees need, and many would interfere with the care of the orchard. In general, cropping between the rows is profitable, provided following points are observed: 1st, Three feet of space must be left all around the young planted trees and this space be increased by a foot or so every year as the trees grow. 2nd, The crops should be a hoed crop or crops, care of which benefits the trees as well and in no way impoverish the soil. 3rd, This practice of cropping should be discontinued after eight or ten years and all the space given up to the trees.

Peach Culture

J. W. Smith & Sons, Winona

PEACHES require a well drained soil. If the land is rolling and well drained, naturally it is not necessary to underdrain. Put in a hoe crop, such as potatoes, tomatoes, or roots of some kind, which will leave the ground in good shape. The following spring work your ground up well, then mark your field out by commencing at the base of the field, stretch a wire or cord along the

grown the way you want them. I prefer to have the main stem nipped back eighteen inches above ground, and not trimmed like a whip, but about ten inches, as a tree makes a better collar and root growth when their limbs are left on.

PLANTING

In planting, we use a "T," putting the trees down two inches deeper than they were in the nursery, with two men

to dig the holes and one man to look after the "T" and trim the roots. If the roots are long or bruised or broken, cut off with a clean slanting cut. Be sure to dig the holes large enough. Place your tree with the heaviest side leaning against prevailing wind from five to seven degrees. Shovel in the earth with the trimmer, holding the tree in place, and tramping

down the earth as it is thrown in, leave two or three shovelful of earth lying loose around the tree to keep the ground from baking or drying out.

I prefer to trim the trees after they are planted, for when the ground is ready we don't want the trees lying around. When all are planted we go along and trim back to four limbs where possible, with two buds to the limb. Have the limbs well distributed over the tree and never leave the limbs so that they form a crutch.

The best varieties to plant are Yellow St. John, Leamington, Ely, Crawford, Champion, New Prolific, Elberta, Yellow Rare Ripe, Niagara, Lemon Free, Beers Smock and Smock.

We prefer a cultivated hoe crop of potatoes, tomatoes, or a crop of strawberries, but leave a good space between berries and trees for cultivation. After second year have the orchard so it can be worked both ways and keep the ground in as good condition as it would be for a hoe crop. When the trees begin to bear give lots of manure and ashes alternately, but not together. In the spring, as soon as it is dry enough, work away from trees with a disk or shallow ploughing. Harrow or disk every week or ten days until the last of July, when the earth is worked back for winter. We get the trees ready for winter before picking comes on, with the exception of water furrows, and banking around each tree about six inches deep and two feet all around the trunk of trees, which is done any spare time between picking and after the fruit is off. Oats make a good cover crop, as it grows well under the trees and makes a good growth, which holds the leaves and is easily ploughed down in the spring.

PRUNING

In trimming the young orchard, cut out all limbs that cross and thin out centres so as to throw the growth to the sides and not in the top. In mid summer thin out all limbs that cross cut back the centre main limbs to one half to throw the growth to outside limbs, which lets in the sun to ripen the wood and make the buds stronger for winter. We do not trim our bearing trees until after February, when the severe weather is past. If buds are badly hurt we do not thin much, just head back enough to let in sun and air. If buds are good, thin out and head back so as to get shape to tree and size to fruit.

I have been spraying for the past twenty years with good results. I have fourteen hundred Duchess pear trees which I sprayed three times and controlled the spot perfectly, while one tree that was missed was black with the spot, while with apples, plums, cherries and grapes it was the same story—perfect fruit when sprayed, almost unsalable when spraying was neglected.—A. W. Peart, Burlington, Ont.

I had an old orchard of Greenings, which of late years had been so wormy and scaly that I had decided to pull them out, in fact had cut out about eighty trees, but thorough spraying is bringing back early conditions, in fact, one tree one hundred years old produced twenty barrels of perfect fruit, while a five acre orchard seventeen years old in rough land that could not be sprayed did not produce a single barrel of good apples. Lime-sulphur has given the apple trees in the Niagara district a new lease of life.—L. L. Woolverton, Grimsby.



A Model Peach Orchard

This properly pruned and well cultivated Peach Orchard is the property of Messrs J. W. Smith & Sons, Winona. See accompanying article for description.

end, then use a pole the distance you want your trees apart, and be very exact, marking off the ground and line at the same time, going across the base of the field and up the side and across the other end, coming back to starting point measure off the other side. Then with a man at each end of your line, working towards each other staking out, moving each time the distance you want your trees apart, until you have your field marked out. I consider twenty feet each way a good distance for planting, or twenty-five by eighteen feet.

When getting your trees, buy from some reliable man near by, and order a year before setting out; have them

Root Pruning of Fruit Trees

Geo. W. Tebbs, Hespeler, Ont.

"IF the heart be right, then the resulting life will be pure and good," has been said often of men. It is also true in the tree. The real secret of fruitfulness lies at the root literally. Let the root be right, and there will be large fruit, beautiful to look upon, and an abundance of it.

Further, it does not always follow that if a man have a good head, his life will be productive of the most good to others. The tree may have ever so well shaped a head, but positive benefit does not necessarily follow unless it results in fruit bearing; and this comes from an abundance of fibrous rootlets.

INCREASE ROOT DEVELOPMENT

How often is root development grossly neglected? From the time the nursery stock is purchased, when only too often the tree is rammed into the ground in any old way, with its roots frequently doubled under it as though it is to develop into an acrobatic contortionist. Little care is taken of the roots, the chief source of the strength of the tree. I think sometimes that our "nurses" who dig the stock from the "nursery" forget the fact that a young tree does not have roots that run down like a carrot towards the Antipodes, but that for a distance of, say, three feet, from the stem there is a whole mat of fibrous roots.

In a hurried filling of orders these are occasionally torn away. At least, such has been my impression when I have examined them upon their arrival. It is well if there are such webs of roots around your young stock. They will be well nourished, being near the surface, and the full influence of the air will keep a constant supply of food ready. But how many trees that are inclined to be the reverse of this be made to form a mass of roots? How may the roots be kept near the surface? The lifting and replanting once or twice will accomplish this. This operation will break the stronger roots and exuberant leaf action is checked. Beyond paring the ends of all broken roots with a sharp knife nothing more need be done. The tree is simply taken out and put back. The moving from the parent nursery to the purchaser's orchard will effect this in the first instance, and only occasionally is a second removal necessary.

To create an abundance of surface roots some people go round the town buying up surplus paving stones from an overstocked indigent corporation, and build a pavement under the tree. This is absolutely unnecessary. Mulch well, pulverize well, and you will have a soil full of air and moisture. The roots will then multiply and will naturally remain where there are so many good things to be taken advantage of.

First of all then get the soil into good condition for holding moisture through long periods of drought, and let the roots get plenty of air. If the trees have to be lifted a second time, my experience has been that showery weather in the autumn, about the time the leaves are ripe, is the best time. Begin at least three feet from the tree, and spade towards it.



Results of Rootpruning

An unproductive Duchess Apple Tree in the Orchard of Mr. G. W. Tebbs, Hespeler rendered fruitful by means of rootpruning.

But what about trees that are too large to move? There are thousands of trees in this Province that are not satisfactory, and yet they are too good to be destroyed. In these cases I would advise root pruning. Make a trench round the tree about one half of the way, doing one half one year and one half the next, preferably during the "off" years of the tree or when fruit spurs are least in evidence. Root pruning is not done by a haphazard butchery of the roots with the edge of the spade. A knife or small pruning saw should be used. The growing roots are much softer, and consequently easier to cut than the branches. As far as possible make upward cuts, as it will direct the new fibres towards the surface.

Make an effort to get at the strong roots which run down into an unproductive subsoil; cut out some of them at least, as they only produce wood. The accompanying illustration shows a

"Duchess" apple on my place that was absolutely unproductive, but which grew wood by the yard each year. I tried root pruning, with the result the first year after, as seen by the blossom, and a good harvest was afterwards gathered.

Value of Bees in an Orchard

J. W. Clarke, Cainsville

From my experience as a fruit grower and beekeeper I place great value on bees as a reliable means of proper fertilization of the blossoms. Some seasons we have more or less damp, muggy weather with little breeze to carry pollen. In such seasons bees have their usefulness in fertilizing fruit blooms. The undeveloped, one-sided fruit we often see in such seasons is due to imperfect fertilization.

I believe that every one growing fruit should have at least one or more hives of bees, if for no other purpose than the proper pollination of the bloom. Each orchard should have a few hives in it, as in cold or windy weather the bees do not go far from home.

PROFITABLE INVESTMENT

Not only will the bees prove a paying investment in distributing the pollen, but with very little care will make honey enough for the family and some to sell. Swarming can be controlled by ventilation and modern methods of handling.

Trees Injured by Mice

Considerable damage has been done to fruit trees during the past winter by mice. If attended to at once the injury can be much lessened. Where the injury is slight or even if the outer bark is all eaten off, if there are strips of the inside bark still left, cover with grafting wax and bank up where possible with earth to keep the bark moist and to prevent drying. The hot sun will soon destroy the life of the under bark. Where these shreds of live bark are near together, this will be all that is necessary to be done.

TREATMENT OF GIRDLED TREES

Where the bark is entirely eaten off, girdling the tree, paint the wood thoroughly with a good lead and oil paint, and as soon as the sap begins to run, cut scions and carefully insert them in the live bark at top and bottom, waxing thoroughly and tying firmly. A scion should be put in about every two or three inches around the damaged part. In such cases it is wise to cut back the top severely, as the evaporation from the top will be greater than the capacity of the scions to carry the moisture from the earth. In this way valuable trees can be saved that otherwise would be a total loss.

Prune fruit trees regularly each year.

Starting an Orchard

Fr. M. Leopold, O.C.R., La Trappe, Que.

(Continued from last issue)

HERE we have to get the trees to protect each other; so in considering all this, it is safe to say we can plant apple trees at twenty-five to thirty feet each way; cherries, fifteen to twenty feet each way; pears, twenty to twenty-five feet each way, and plums, fifteen to twenty feet each way. In Ontario, I would say, plant apple trees at forty feet each way.

CARE OF NURSERY STOCK

Unpack stock immediately upon arrival and dip the roots in liquid mud. In case stock cannot be immediately set out, prepare a place where it can be temporarily planted, taking care to cover roots thoroughly, working the soil in among the fibres. Dig generous holes and provide good soil to fill them. Do not bend the roots; cleanly cut off bruised or broken roots, and never let them dry. Dip them in mud, place them in hole, throw good soil in hole, tightly ramming it around roots after each shovelful. Leave no air pockets. After hole is filled, cover top of ground thickly with good, well-rotted stable manure as far as roots extend. Do not let manure come in contact with the roots of young trees; apply manure as a mulch. An assistant is very helpful when setting trees. Two men, or a man and a boy, can work together to good advantage.

Trees should be set in the ground a little deeper than they were set when growing in the nursery: Deep enough so that the joint between stock and scion is covered. As the tree setting progresses, it is a good plan often to "sight" the rows across from side to side, both ways, to make sure that everything is exactly straight. The eye is an excellent detector of unsuspected crooks in rows. In exposed situations or in windy localities, it is a good plan to incline the newly-set tree slightly toward the point where the strong winds come from. The trees will straighten as they grow.

PRUNING

The newly-set tree must be pruned. As it stood in the nursery there was approximately a balance between the top and the roots, the latter being just about enough, under the condition of that soil, to supply what moisture and nourishment the leaves and branches needed. Evidently, if half of the roots were suddenly removed, this equilibrium would be destroyed, and each leaf would show its distress at the decreased sap pressure, by wilting, and the weaker ones would probably die.

Now, this is essentially the condition of the nursery tree. No matter how carefully it was dug, many of its fine feeding roots are sure to have broken off, or have dried up; and until it can re-

establish its relations with the soil, and put out new roots to take the place of those destroyed, it is totally unable to support and nourish the original amount of top. The fine root hairs, which appear like fuzz near the tips of the smaller roots and do most of the absorbing for the roots, dry out almost instantly on exposure to the air, and are practically all destroyed in transplanting. It takes some time to form these anew, and if the whole top is left to "leaf out" during the process, evaporation from so many points will result in disastrous drying of the whole tree. This can be avoided by cut-

ting back the top to correspond with the roots, thus diminishing the evaporation to the point where they can supply the loss.

Choose three, four or five limbs to form the future frame work of the tree. These should come out from the trunk in different directions, distributed as evenly as possible; and if feasible no two branches should come out exactly opposite each other. Cut the chosen limbs back to six or eight inches, remove all others. Cut to a bud, making a sloping cut.

If the ground around your fruit trees is not kept constantly cultivated, the trees should be heavily mulched all summer. Straw or strawy manure is a good mulch. Newly-set trees have no depth of root and dry out very rapidly.



An Old Tree Showing the Result of Neglect.

The lower limbs should have been left on. Wounds from running and other causes should have been painted over and all cavities filled with cement.

Neglected Trees

A. McNeil, Ottawa

I have visited many hundreds of orchards, old and young, and do not recall ever having seen a dozen dead or dying trees that were in this condition as the result of old age. Accidents, neglect, mistakes in pruning and injuries of various sorts, in nearly all cases preventable, have been the cause. The above illustration is an example. The tree was formed with a very sharp crotch near the ground, the lower limbs having been destroyed. The bark was injured on the left hand limb; the result of this was that the wood was left naked. The tree evidently struggled to repair the wound, but the injury was so exposed that the bark never formed over it. The pickers, no doubt, travelled up and down on the tender growth that was being made about this

wound; the pruners found it a convenient way into the tree; canker spores found a congenial lodging place here, and, in the meantime, the naked wood was exposed to the vicissitudes of sunshine and rain, frost and snow. It soon began to decay, and the decay developed up and down, and has rapidly overtaken the newer growth on the outside, weakening the limb so that in a year or two it will fall entirely away.

Higher up on the right hand limb is a wound caused by sawing off a large limb. Nothing was done to protect the exposed wood, and, as a consequence, decay set in. This extended up and down the tree, so that the right hand limb is only a mere shell now, and a heavy wind will likely break it near the ground.

Both these injuries could have been readily prevented. If the wound on the

left hand side had been carefully painted with pure linseed oil and white lead, on the same plan as the clap-boards of a house are painted, it could have been preserved so that rot would not have affected the wood. Of course, mechanical means would have to be resorted to, to prevent the pickers and pruners from stepping upon this part of the tree until it had been thoroughly healed over. It is by no means a good practice to allow pickers to wear anything but rubber boots when they are permitted to climb upon the trees. Of course, in recently set orchards the trees are headed low, so that little or no climbing is necessary either for pruning or picking.

The injury on the right hand side might easily have been prevented, by simply painting the wood thoroughly and keeping it painted until it had grown over. This might take from five to ten years in the case of such a large limb; but no harm will come if the wound is always kept well covered with paint.

Notes on Small Fruits

Raspberries thrive best on sandy loams, with a damp but not wet subsoil. The rows should be from four and a half to five and a half feet apart, according to the habit of growth of the variety. They may be planted either in hedge-row form or in hills. Many successful growers are using the latter, making the hills three to three and a half feet apart.

In setting out a new plantation in a solid row, the young canes should be placed fifteen to eighteen inches apart; if in hills, plant two or three canes to ensure setting. The hill system saves a great deal of hand labor, as then you may cultivate both ways.

VARIETIES

At the start a great deal of work is saved by ploughing out a deep furrow for the plants. The three best varieties of red berries are the Marlboro, Herbert, and Cuthbert. The former being a light grower, the second a medium one, and the latter heavy. They also ripen in the order given.

At the annual pruning remove the dead and weak canes, leaving eight or ten to the yard of the best ones in a narrow row. Cut back the tips according to the variety and growth. Cutting off the tops is an advantage when the young suckers reach a height of three and a half or four feet in the summer. It makes a stouter tree-like cane, which throws out lateral branches for fruiting. We should plough towards the rows in the fall for drainage and cultivate away in the spring; then keep the cultivator going until the crop is ripe.

BLACK CAPS

Smith's Giant, Kansas, Older and

Hilborn are among the best black caps. They are propagated by tips rather than suckers, are handled in a similar way to red ones, should be grown in hills, and require cutting back more severely.

CURRENTS

Currants do well on light clay or heavy gravel loams. They should be planted about six feet apart each way, and trained in bush form from several shoots, not like a tree. Leading varieties are: Red—Cherry, Fay, Victoria, Wilder, North Star, and Prince Albert. North Star ripens late and Prince Albert very late; the others from early to medium. Black—Lee, Naples, Saunders, Champion. White—Grape and Imperial.

At the annual pruning thin out the bushes to eight or nine of the best of the older shoots, cutting away the very oldest wood year after year. Currants should also be finely cultivated until the fruit is ripe.

Both raspberries and currants should be fertilized with rich stable manure at least every other year. They will give a liberal response to good feeding. In the above fruits, when properly managed, there is a very fair margin of profit.—P.

The Strawberry Bed

E. B. Stevenson, Guelph

The strawberry, when we have a good market for it is a very profitable crop to raise. In growing the strawberry the varieties and methods pursued are largely a local matter, and so it would be difficult to lay down hard and fast rules of methods that we could take as being correct, or the variety that would be the best to grow. The soil, the man and the

market are largely responsible for the method and for a profitable crop of strawberries. Each grower should have a trial plot and grow a few of each kind on his own ground, discarding the kinds that prove unprofitable for his location.

SOIL PREPARATION

I have never had my ground too rich for strawberries. I plant roots and manure well for the two years preceding the strawberry year, then give an extra coat of well rotted stable manure, well worked in before planting.

I plant rows three feet apart and two feet in the row. When planting is over I go over the ground with a fine toothed cultivator and keep this up about once a week through the growing season. After the plants have stopped growing and the ground is frozen in the fall, I cover the whole bed with strawy manure to a depth of two or three inches; in the spring I rake this into the paths for a mulch to keep the berries clean. I then spray with lime and sulphur, to kill the rust that may appear before the blossoms open, and again just after the fruit has set. I grow the plants for fruit in the narrow rows as I find I get finer fruit than in the wide matted row.

NEW VARIETIES

There are some very promising new varieties being placed before the public; others on trial and not yet offered for sale. I have one sent me by Mr. Howard of Massachusetts, without name as yet; came to me as "No. 17." I have fruited it two years, and was delighted with it. The plant is vigorous and healthy, has a good root system, and produces large heart-shaped berries of good color and excellent quality. The blossom is staminate and the fruit firm, and will make a good commercial variety.



Nine Year Old Irrigated Orchard

The Property of Mr. Martin Burrill, M.P., Grand Forks, B. C.

Orchard Pruning and Cultivation

W. H. Gibson, Newcastle

(Continued from last issue)

I KEEP six feet on each side of the trees either cultivated or planted to a cultivated crop such as roots or corn. The land between is worked in a general farm rotation of corn, oats, wheat and clover.

As soon as the trees require the whole space, which will be at about ten years from the time of planting, I seed down the cultivated strip of about twelve feet and cultivate the centre strip. I plow as early as possible in the spring, harrow every week or ten days until the latter part of May, and then sow the cover crop, instead of doing, as many advise, continuing the cultivation until July or August. By stopping cultivation at this time, I get a better color on the apples, the wood is ripened earlier, and by sowing the cover crop at that time a much better catch of clover is assured at that time of year than later in the season. The greatest advantage of this system is that it is an almost entire preventative of winter killing. I have noticed that in the majority of cases where there has been loss from this cause the trees have been cultivated late in the season.

The grass strip is mowed each year and allowed to lie on the ground. The leaving of this strip in grass makes the cultivation very much easier and does away with the necessity of using extension harrows. I bought one several years ago and have never attached the extension wings as yet. Almost every plant is used as a cover crop in this district. The most common are buckwheat, oats, rape, barley, hairy vetch and clover, or a combination of all five. I prefer clover. The best manure for an apple orchard is a clover sod turned under. By sowing in May before the dry weather comes, there is very little danger of missing a catch.

THE TARIFF

The apple growers in this district are well satisfied with the proposed tariff changes, as they think that they stand to make more than they will lose, for the United States buyers will come over and buy free on board cars here. We may lose some of the western trade, which has grown from one thousand five hundred barrels in 1900, to two hundred and fifty thousand barrels in 1910, but I think our gain by obtaining an entrance into the United States markets will much more than offset the possible loss in the western markets, but rather than see the peach and vegetable growers lose, I would say, let the duty remain as it is.

Build suitable bird houses to entice insectivorous birds to the orchard.



A Flower Garden at New Lowell, Ont.

The above illustrates an experiment conducted by Mr. A. T. Stone, of Pentanguishene, in the culture of asters, stocks, verbenas, and other flowers. The plot was prepared as follows: In the fall a liberal quantity of leaves and fresh horse manure was applied and spaded under, and the earth left in a rough state until spring. As soon as the soil was ready to work a compost, made as follows, was applied—One bushel of hen manure, one bushel of hardwood ashes, quarter bushel air slack lime, quarter lb. bone meal. Where the soil is poor the above amount of compost is usually sufficient for every twenty-five feet square of land. The soil should be prepared as above advised. A clay loam soil will give best results where these cultural directions are complied with. Do not transplant plants until two weeks after the application of the compost, but keep the ground well worked. Transplant the asters in rows running north and south in a sunny position about fifteen inches apart in the rows and two feet between the rows. Keep well cultivated to keep out the weeds and to retain the moisture. Water only in rare cases. Follow these directions, planting first quality aster plants of the choicest varieties, and a bountiful display of rare beauty will be yours.

Culture of the Sweet Pea

H. J. Edwards, Winnipeg, Man.

The reason that we so seldom see the sweet pea at its best in this province can be attributed chiefly to late sowing and over seeding. This paper is written for the purpose of advocating exactly the opposite, i.e., "Early sowing and sparse seeding."

PLANT FAR APART

In planting, north to south is the best direction, and an open space away from trees and buildings is most desirable. There should be at least four feet between the rows, five feet would be better, for the purpose of attending to the plants.

PLANT EARLY

As soon as the frost is out of the ground to a depth of 3 or 4 inches, the seed should be sown, making a double row, six inches between the rows, the seed being planted four inches apart, and one and a half inches deep. On light, sandy soil the seed should be planted another inch deeper.

Sticks should be provided early for the plants to climb. When these are not obtainable, wire netting nailed on to good stout posts will do nearly as well. During the growing season, the surface of the soil should be kept loose, and all weeds destroyed, care being taken not to disturb the roots of the sweet peas. In late spring and early summer, keep a sharp lookout for that abominable pest, the cut worm. He can usually be found by digging four inches around the plant he has destroyed.

The seed catalogues sent out by the

various seedsmen contain a fairly comprehensive list of sweet peas, with a full description as regards type and color. It is generally a matter of personal choice as to which are the best colors. The latest list available mentions over seven hundred different named varieties, but as a great many are included in a list of "too much alike" varieties (some have nearly twenty names) it would be unwise to particularize in a paper of this nature. However, there is one variety which might be mentioned, and that is Coccinea. The seed of this variety is as a rule fine and plump, and would compare favorably with the finest samples of seed grown. Some years not one seed from a packet will germinate. This is not the fault of the seedsman or grower, but is due to a peculiar trait in the variety itself.

DON'TS FOR AMATEURS

The following "Don'ts for Amateur Gardeners" are taken from the special sweet pea number of *The Gardener* of Jan. 30th, 1909, and anyone who wishes for the best results should bear them in mind:

Don't forget the deeper (in reason) the soil is cultivated the more vigorous will be the plants.

Don't imagine that you can grow sweet peas well on the same plot of ground indefinitely.

Don't forget that early sowing is half the battle in the successful cultivation of the sweet pea.

Don't ignore the fact that it is possible to grow sweet peas with flower stems eighteen or twenty inches long.

What Amateurs Can Do in April

EVERY amateur should have a hot bed, while boxes set in a sunny window may be used with fair results, nothing gives the satisfaction that a good hot bed does. By using a hot bed to start young plants, a person can have cabbages, tomatoes, lettuce, cauliflower and other appetizing vegetables from two weeks to a month earlier than his neighbors who wait for the sun to sprout their garden seeds. Build the hot bed in a shelter of a fence to protect it from north and west winds. Dig a pit six by fifteen feet and two feet deep, and fit over it a frame made of boards, using two inch stuff for the longer sides. Make one side of the frame six inches higher than the other and slant it toward the south. Fill the pit with well tramped stable manure which heats rapidly. After the violent action has subsided, cover the manure with six inches of rich garden soil, which should be well raked before seeds are planted. Bank manure around the frame, which can be covered by five three by six feet glass sashes. Cover the hot bed with boards or blankets on cold nights. Give the plants plenty of fresh air on warm days by lifting the sashes. Sprinkle the bed in the morning when it needs watering. The bed should be allowed to lie for about a week before seeds are planted to allow the first heat to pass off, when it will cool down to an even temperature; always allow for a little ventilation to carry off the hot steam. A layer of finely sifted coal ashes spread on top of the manure and before the soil is filled in will serve to hold the heat.

Seeds of annuals should be sown in a light sandy soil in shallow boxes placed in the hot bed. Very fine seeds do not need to be covered; sow on top of the soil. The soil should be moist, and after the seeds are sown press them in with some flat object. Asters, balsams, and zennias require to be covered in the soil at about the depth of the size of the seed. A good rule in sowing all kinds of seeds is to have just about the same thickness of soil over the seed as the seed is high. Large seeds may be planted deeper. Plant in depth from one to four times the diameter of the seeds. It is a good plan to darken the surface with newspapers or some other covering to get the seed to germinate quickly. As soon as the shoots begin to show the covering must be removed. Ventilation at this period of growth should be closely watched.

Now is the time to strike cuttings of caleus, ageratum, geranium and lobelias; these will root in about ten days. As soon as they are well rooted they should be transplanted into small pots in light sandy soil and placed back in the hot bed again.

Canna roots should be divided and cleaned and placed in shallow boxes filled with sandy soil; water slightly, and expose to the light. Dahlias should also be divided now for summer growth. Mignonette, annual wallflowers, snapdragons, and sweet peas may be sown out doors as soon as the ground is dry enough to work. Plant or transplant perennials, such as peonies, dielytra and German Iris, as early as possible.

Do not sow nasturtium seed too early, as the young plants are liable to be injured by late frosts. Seedlings of annuals started inside should be transplanted when the second pair of seed leaves are in course of development.

Tulips in beds should be uncovered in order that they may get all the sun and light possible. As soon as the frost is out of the ground and the weather fairly dry, a little lawn grass seed should be sown on the bare spots in the lawn, and the whole lawn rolled. A lawn roller soon pays for itself in the satisfaction obtained by having a smooth, velvety sward. A liberal dressing of commercial fertilizer, such as is known in the trade as a 4-8-8 goods—four per cent. of nitrogen, eight of phosphoric acid, and eight of potash—should be given. The results of this application will be seen all summer, even in the driest season, in the deep green color of the grass. Bone meal and wood ashes make a good lawn fertilizer mixed in the proportion of one part of bone meal to four or five of wood ashes, but is rather slow for spring operation. This mixture would be much improved by the addition of two or three quarts of nitrate of soda to a bushel of the mixture. The nitrate of soda should be finely pulverized and the mixture ap-

plied immediately upon the addition of the soda. Trim the edge of the grass off evenly. There is nothing that adds so much to the appearance of walks and driveways as clean, well kept edgings.

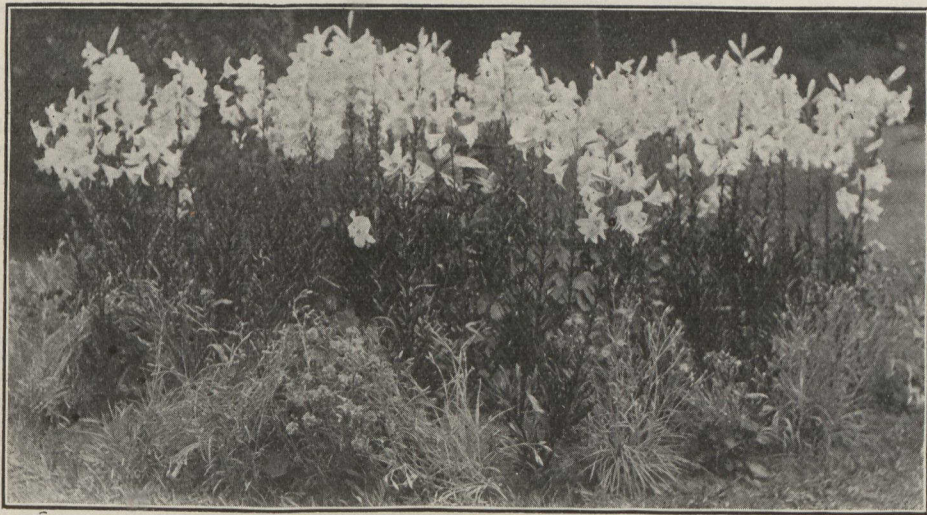
Pruning should be done now that danger from severe frosts is about over. Hardy roses should have all weak wood cut out and strong shoots shortened back to within six inches of the stock. Fork over the rose beds after pruning. A little fertilizer, bone meal or rotten stable manure, put around rose bushes or flowering shrubs will help them materially.

THE VEGETABLE GARDEN

If seeds of early cabbage were sown in the hot bed last month they will be ready to transplant about the end of April or early May. Seeds of late varieties may be sown in the open ground about the end of May and transplanted about the first of July. Sow early varieties of radish as soon as possible, and at intervals of two weeks for a succession. Do not forget a few early turnips.

One of the first pieces of work to be attended to in the spring is to take the covering of manure off the asparagus bed and fork the soil over lightly around and about the plants. If manure was not applied last fall a light application may be given now and worked in. Every garden should have an asparagus bed; it is the earliest and most acceptable vegetable. A bed may be started by sowing seed, but the best way is to secure two-year-old plants. Plant them eight inches apart in rows three feet apart. Have the asparagus bed in deep, rich land, where the water will not stand in winter or spring.

Among the first vegetable crops to sow or plant are peas, spinach, lettuce, parsnips, parsley and onions. Always



Bed of Lilies in the Garden of the Late Senator Sir James Gowan, Barrie, Ont

Mr. Richard Bidwell the gardener, gives the following information regarding their culture: The lilies have been in the garden for the last twenty-five years. In name they are the Annunciation, very tall, and waxen in bloom. The beds are always made rich with stable manure. The plan is to move the roots and separate them every three years from one bed to another. This is done as early as the 15th of August. The roots are planted six inches deep, and the soil mulched for the winter. The carnations are raised from seed and are of several colors. They also pass the winter with the lilies. The photo I sent you represented one of the most artistic and lovely flower beds I have ever seen.—Fred Brooks, Barrie.

ing named plants, all of which are suitable. I will give the height, color and time of blooming:

PLANT DESCRIPTIONS

Sylphium laciniatum, compass plant, 6 to 8 feet, yellow, August and September.

Lythrum Salicarium (Purple Loosestrife), 5 to 6 feet, July and August.

Liatris picnostachia (blazing star), 4 to 5 feet, blue, July and August.

Penstemon barbatus Torreyi (Scarlet Beard-Tongue), 3 to 4 feet, July to fall.

Liatris scariosa, 3 to 4 feet, blue, July and August.

Saxifraga imbrosa (London Pride), 12 to 15 inches, pink, June.

Statice latifolia (Sea Lavender), 2 feet, blue, July to fall.

Statice Besseriana, 2 feet, blue, July to fall.

Thermopsis Caroliniana (False Lupine), 4 to 5 feet, yellow, July.

Delphenium hybridum (Larkspur), 4 to 6 feet, in many colors.

Papaver nudicauly (Iceland Poppy), 18 inches, mostly shades of yellow, all summer if the seeds are kept off them.

Veronica spicata rosea (Rose Speedwell), 2 feet, all summer.

Veronica spicata (Speedwell), 2 feet, blue, all summer.

Veronica spicata alba (White Speedwell), 18 inches, July and August.

Veronica incana (Hoary Speedwell) 18 inches, lavender colored blooms, July, distinct foliage.

Dianthus hybridus, or Scotch pinks, 15 inches high, in all shades, June and July.

PLANTS FOR AN EAST BORDER

The east border and any of the beds may be planted with the following plants:

Erysimum alpinum (Alpine Wallflower), 8 inches, yellow, very sweet, May and June.

Gypsophila paniculata, 2 to 3 feet white, July and August.

Heuchera Sanguinea, 2 feet, June and August.

Asperula hexaphylla (Slender Woodruff), 3 feet, white, July and August.

Agrostemma Coronaria (Rose Champion), 3 feet, rose to white, all summer.

Boltonia latisgnana, 3 to 4 feet, pinkish, July to fall.

Campanula persicifolia humosa, 2 to 3 feet, semi-double blue, large, July.

Campanula persicifolia moorhemi, 2 to 3 feet, double white, July.

Coreopsis lanceolata grandiflora, 3 feet, yellow, July to fall.

The Chasta daisy, 2 to 3 feet, white, all summer.

Cerastium Bosseri will make a good edging plant for any of these borders.

Add to the above list a few of the perennial Phlox, and there should be no trouble in any person planting with good taste to have a first class garden. A few annuals may be added.

TULIPS AND NARCISSUS

There is no reason why this garden and many other situated similarly should not be beautiful in the spring as well as in the summer and fall. There is no scarcity of spring flowering bulbs that are very hardy for this purpose, and they may be left undisturbed for three years if planted properly. They should be planted between the perennials. The perennials to be wide enough apart not to interfere with them. I would plant Darwin Tulips towards the back of the border, as they grow to three feet high, and have very beautiful self colors, and can be got in twenty-five varieties named. I would plant some of the ordinary tulips beside these to bloom early, as the Darwins do not bloom until about the 24th of May generally. The Darwins last well on to the end of June.

In case a few names may be desired I here give them as follows:

Kaiser Kroon, 2 feet, red and yellow bloom, 10th May.

Potabaker, 2 feet, yellow, 10th May.

Prosapin, 18 inches, magenta, very good, 10th May.

Vermillion brilliant, 12 inches, dark red, dwarf to edge.

Tournsol, double, 12 inches, yellow and red, 15th May.

Vuurback, 12 inches, the best double red, 14th May.

Tulip Joosie Van Vondel, 18 inches, is the best single white, 14th May.

The following are the Darwins:

Tulipa Flambean, brick red, June.

T. Dream, purplish, T. Pierre Lotti, reddish purple, T. Popano, pink color, T. Philip de Comminet, almost black, T. The Sultan, black, T. Wm. Goldring, dark red. Next to the tulips may be planted a few bulbs of each of the fol-

lowing narcissus, which are in bloom with these Tulips:

Narcissus Von Sion, 12 to 15 inches, double yellow, 15th April.

Nar. Sir Watkin, yellow, large, 15th May.

Nar. Emperor, 15 inches, yellow, 14th May to June.

Nar. Glory of Leiden, 15 inches, one of the best, yellow, 15th May.

Nar. Poeticus, 18 inches, white 14th May.

OTHER VARIETIES

We have also a number of Scillas and muscarias beautiful for the edging. A few of the best are as follows:

Scilla Nutaus, blue, 12 to 15 inches, 1st June, Bluebells.

Scilla Nutaus Alba, 12 to 15 inches, 1st June.

Scilla Siberica squills, 8 inches, the earliest, blue, May.

The muscarias grow to about the same size as the scillas, and are very pretty in their season.

Muscaria racemosum (starch hyacinth), 10 inches, May.

Muscaria gussoni, 10 inches, May.

Muscaria Conicum (Heavenly Blue), 10 inches.

Muscaria paradoxum from Cascasium. This is the largest one, 12 inches, dark blue, May.

There is no limit to the number of plants that can be grown in a small garden if the owner would only get a clump of each. To the above list may be added several of the Alliums, Allium Azur-eum, 12 to 15 inches, blue, June; Astrowskianum of Turkestan is the best, 2 to 3 feet, blue, June.

PERENNIAL PLANTS

The perennial plants can be procured from any reliable nurseryman for about the price of geraniums that perish every



Tulip Beds in Major Hill Park, Ottawa

Bed in foreground shows where two thousand bulbs of the Pax Alba tulip have been almost totally destroyed by the Millipedes. The other two varieties escaped fairly well which is convincing proof that they have a preference for some varieties over others.

year. The bulbs can be procured from almost any seedsman for a small price. I plant all my bulbs deep. Tulips about a foot deep, the smaller bulbs in proportion to their size. All will do much better if the hose is not used continually on the soil. Mulch well instead of using so much water.

Take them up, select, and replant every third year. Keep your narcissus well down also, say about 8 to 10 inches. This deep planting will allow one to stir the soil, fork over and manure. Before beginning to plant put the soil in good shape, trench it two spade deep, and turn into it all the manure you can. If the soil is light use all the wood ashes and cow manure you can get.

If the soil is heavy use horse manure, some lime, leaf mould, and always use a mulch of fine manure or leaf mould during the summer, to prevent heavy soil from baking on the surface; it keeps the roots cool and moist, which is much better than using hose so freely, as we often see done.

A Year's Work in a Calgary Flower Garden*

In this paper I will merely give a record of my successes and failures during the past year in gardening work under conditions that were somewhat new to me. For my display of annuals, I depended mainly on those old and tried favorites, which invariably give satisfaction here—Asters, Stocks, Verbenas, Petunias and Phlox. The varieties of asters I grew were "Queen of the Market" and "Comet," in various colors. These were sown under glass the last week in March, transplanted once inside, and then into the open borders the first week in June. Queen of the Market came into flower two weeks earlier than the Comet, but was inferior both as regards size of bloom, intensity and clearness of color, and decorative value generally. It is six or nine inches shorter than the other variety, and should, therefore, be kept nearer the front of the border. I grew two varieties of petunias—the ordinary fringed variety and "Giant of California." The latter produces enormous blooms, but is not nearly so floriferous as the commoner kind. If I desired to secure a brilliant display of color in my garden, and was confined to one kind of flower, I think I should select the petunia. For vigor and flowering qualities it is by far the best annual I have grown in Calgary. The ordinary double German ten-weeks stock was the kind I grew, and this was raised under glass in the same manner, but owing to the fact that it germinates and grows more rapidly, I did not sow this till the second week in April.

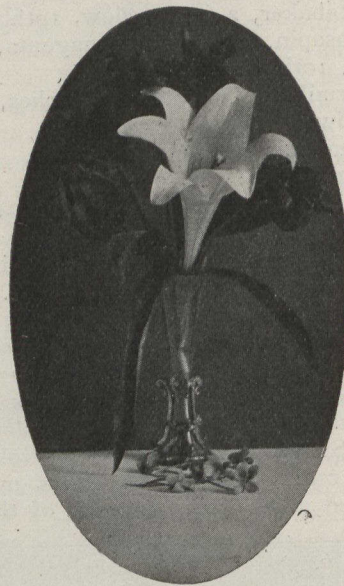
*Extract from a paper read by W. R. Reader before the Calgary Horticultural Society.

ADVISE THE PURCHASE OF PLANTS

I would strongly advise the purchasing of plants, by which means the garden will be bright by the beginning of July. By sowing in the open, without taking into consideration the risk of late frost destroying the seedlings, one cannot reasonably expect to see much flower until the end of that month.

SWEET PEAS

I sowed Sweet Peas in the open border the first week in April. I also sowed under glass about the same date, in long boxes three inches wide and three inches deep, made of ordinary laths. When ready for planting out, I prepared drills as for sowing, removed the laths from the bottom of the box, and deposited the whole contents of box in the prepared trench. In this way there was no root disturbance, and the peas treated in this manner flowered much earlier and were altogether better than those sown directly in the ground.



Easter Flowers

Plant Asters Early

C. Mortimer Bezzo

Flower growers should place their orders for aster plants with their respective dealers at as early a date as possible. Many people defer ordering until June, which is a great mistake. To get the best possible results from asters, especially the medium and late varieties, seed should be started in a cold frame as early in the spring as the frame can be brought into use. The reason for this is as follows. The blooming period for asters ranges from August 1st to the last of September, according to the variety; and each variety will bloom pretty close to its respective season, regardless of the date on which the seed was sown.

To illustrate, the writer conducted a series of experiments of which the following is typical. I planted seed of one variety on April 15, May 15 and June 15, of the same year, and under the same conditions, except as to date. Now, where

there was a month between each sowing, there were only a few days between the dates of blooming; but the difference in the quality of the bloom was great. The early ones had had a chance to become vigorous and robust before the blooming period arrived, consequently were able to produce much better bloom.

If growers of plants sow seed early, the plants are much too large to send out if delayed until the middle of June. If orders are placed early the plants may be sent out when at the best size for transplanting, and the results to both grower and planter will be much more satisfactory.

Remedies for Millipedes

Millipedes, or thousand legged worms, have caused much injury to the tulip beds on Parliament Hill and Major's Hill, Ottawa; and as over one hundred and fifty thousand bulbs are bedded each year it becomes a very serious matter. Mr. Thos. Davis, the florist, states that he has been successful in keeping them well under control by an application of one and a half pounds of Vaporite to each eight square yards, together with a liberal dressing of wood ashes. Mr. Fred Adams, Toronto, advises the mixture of sugar, bran, and just enough Paris green to color the same.

Mr. C. Gordon Hewitt, Dominion Entomologist, has the following to say on this subject:

"With regard to fertilizers as remedies for these creatures, frequent light dressings of nitrate of soda have been recommended. Good results have sometimes been had by mixing in the soil some tobacco dust or giving the soil a good soaking with kerosene emulsion. The millipedes can also be trapped by leaving about slices of mangel, potato, etc. These should be collected in the morning and the millipedes destroyed."

It is generally supposed that commercial fertilizers are obnoxious to earth worms and insects of different kinds. Many vegetable gardeners have obtained good results from an application of kainit. The reason that kainit gives better results as an insecticide than the more concentrated potash salts is due to its impurities, which are chiefly salts of sodium and magnesium. We would recommend that experiments be conducted with a fertilizer mixed in the proportion of four parts of nitrate of soda, five parts acid phosphate, and eight parts kainit. These materials should be mixed at the time of application, as the materials will form a sticky mass if left in combination for any length of time.

Liberal feeding is the best antidote for weeds in the lawn. Moisture and plenty of plant food will push up a growth of grass that will smother all kinds of weeds.

The Cultivation of the Canna

Frank Wise, Peterboro

THE cultivation of the canna is much easier than most people imagine.

In the first place you procure your tubers from your seedsman, or better still, the plants from your florist. If the former, take a box and place in the bottom some rough soil such as decayed leaves and sod about two inches deep. Over this put a covering of coarse sand, on which place your tubers two or three inches apart, and cover with a mixture of sand and rough soil to the depth of two inches.

WATERING

Water thoroughly with warm water and place in a warm place in the house if you have not a hotbed or greenhouse. Do not water again until thoroughly dry, as this is where a great many failures occur through the tuber rotting instead of starting into growth, which should be in the course of a week or ten days. When the plants are three or four inches high, and are making the first leaf, they will have formed a good root, and can be potted in four or five inch pots in two-thirds good loam and one-third rotten manure, and if possible placed in a gentle bottom heat and watered with warm water, as cold water gives a chill which is detrimental to rapid growth.

If thorough watering is given it will be a week or ten days before more is needed, then water as before. Water should be carefully applied, as too much moisture in the hotbed will cause too rapid fermentation and the heat is soon lost.

PLANTING OUT

Do not plant out into your beds until the first week in June, when you must enrich your soil by digging in three or four inches of good rotten manure. I plant my cannas two feet apart and leave a little bay or hollow around the plant, which I fill up with water; then I leave them for a few days to themselves. By this time they have become established.

I then take a good fertilizer and place in the bay that was left for the water and hoe around the plant, and place the sprinkler beside the bed and give a thorough watering. This I seldom do more than once a week, as I find you get better results from your flowers, which, if watered too often, become soft and are more easily damaged by the wind and heavy rains. It will help the growth of your plants if you hoe among them once a week. By following the above cultural directions you cannot fail to have good success.

After the season is over and the first frost has spoiled the plants, cut them off two or three inches from the ground, dig them up with all the earth that will hang to them, and place them in a

warm, dry corner of your cellar. Water them once or twice during the winter,

taking care that they do not dry out too much. On about the first week in March or earlier you can cut up the clumps, taking the strongest eyes, and start again.



A Bed of Cannas in Little Lake Cemetery

This beautiful bed of cannas was designed by Mr. Frank Wise, Superintendent of the Little Lake Cemetery, Peterboro. The bed is thirty feet in diameter and composed of three varieties—Alphonse Bouvier, Beante Portviene, and Queen Charlotte—and bordered with a snowy growing red-foliaged *Achoranthus*.

Window Boxes in Early Spring

R.L. Canning, Earscourt, Ont.

We are all pleased in summer time to see our window boxes look well and pretty with their long trailers and deep green leaves. Why not let us try and have some beauty in spring so as to help nature as she is bursting into bud and leaf after her long winter's sleep? When we have done with our boxes for the winter and they are taken down, why not plant them with bulbs?

Either take away the old soil or top-dress them; a bulb will not require very rich soil, as the bulb is rich in food itself. Plant a row of tulips at the back, hyacinths in the centre and crocus in front. Those who like narcissus daffodils, or any other bulb, can have their choice, for their names and varieties are legion.

The boxes can be brought out in March from their winter quarters. They can be top-dressed with moss or coconut fibre or even coal ashes, which will keep them cool and retentive of moisture. Where means and space will permit, a succession of blooms can be supplied by having pot plants take the place of those which were planted in the box-

es. A cold frame and a little attention is about all that is needed.

When the bulbs are over, they can be taken out and the pot plants placed in their stead, thus ensuring a steady supply right through to the summer bedding. As the nights get warmer, a fine supply can be maintained and at a small cost. Primulas, cinerarias, spireas, and deutzias can be placed in the boxes by being placed in the pots as suggested.

Spring Care of Flower Beds

The protection should be taken off flower beds about the first or second week in April or after the weather has begun to get warm. Remove only a part of the covering at a time, the wet heavy part underneath first, replacing the drier, lighter part back over the bulbs for a week or so until the weather has become quite settled and warm.

This partial removal of covering at first is desirable, so as not to expose the top growth of bulbs to frost or hot sun, the last named being quite as injurious to top growth of bulbs in spring as frost. Choose dull, showery weather if possible for removal of winter covering from all plants.—Wm. Hunt,

How to Grow Eighty-Two Varieties of Vegetables on a Small Lot

George Baldwin, Toronto

TO begin with, the writer is purely an amateur with four years' experience with city back gardens and with very little time on his hands for gardening, which has to be done before seven a.m., and after six p.m.

However, the principal thing to do is to go at it with a will. The first thing to do is in the winter when you have more spare time, make a plan of your garden, marking down what you intend to grow (as is shown in the accompanying sketch). Then along about January or February, get a seed catalogue from the firm you intend to buy from, and I want to say right here that my experience with local seedsmen is that you can rely with safety on any one of them. It is all right once in a while to try some of the novelties which U.S. seedsmen offer, but patronize local firms for the bulk of your seeds and you will not go far astray.

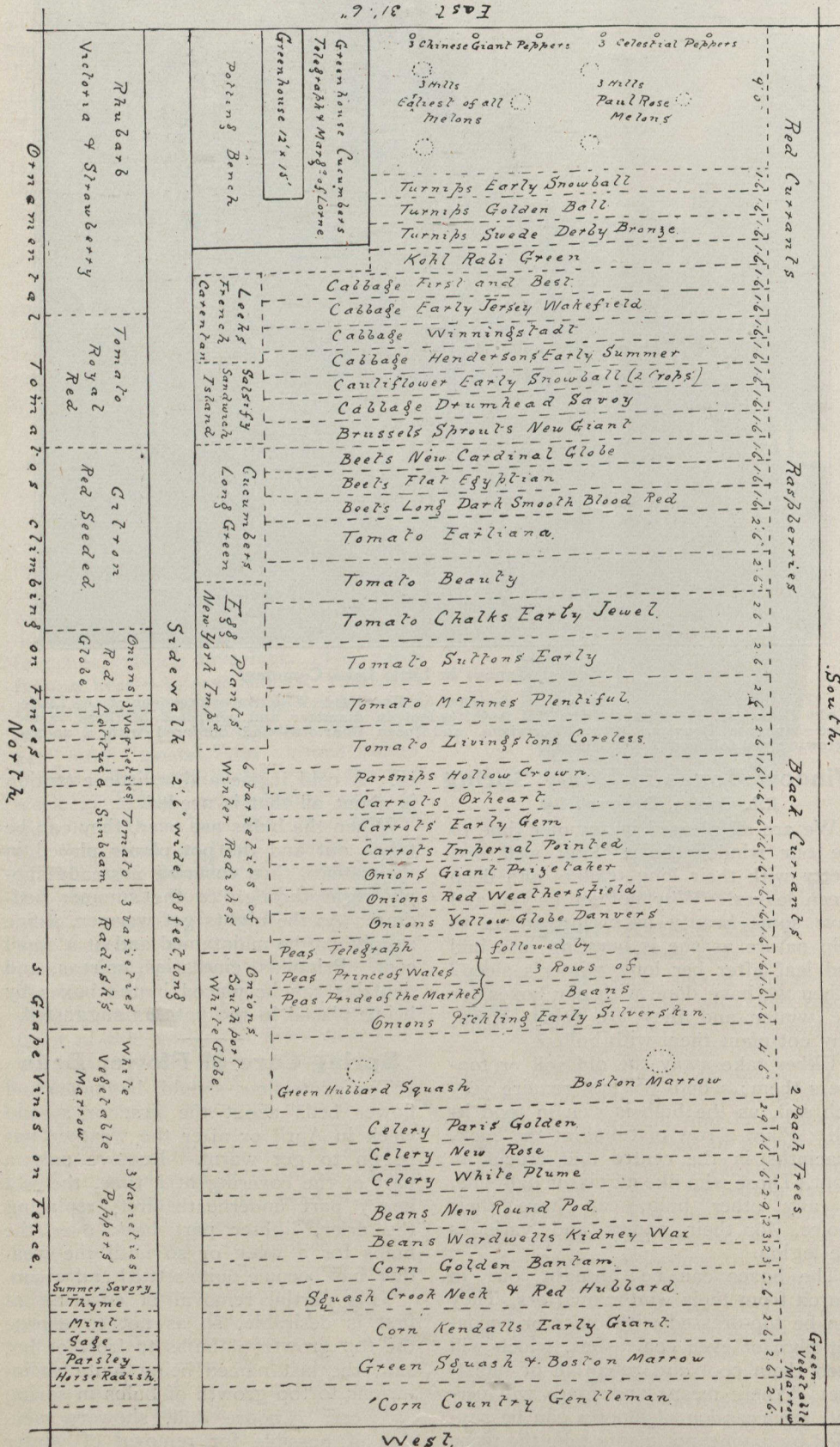
After you have procured your seeds, look over your plan again and see which seeds need to be started in heat, and about the first or second week in March prepare your hotbed or greenhouse, and sow the following seeds: Cabbage—Family, Kohl Rabi, Peppers, Eggplants, Tomatoes, all varieties, Lettuce, Onions, all varieties, but pickling; Greenhouse Cucumbers, Celery, Musk Melons, and Citron.

SOWING THE SEEDS

If you use a hotbed, sow seeds right in the bed, rows three inches apart; if in greenhouse, sow in seed pans and keep as close to the glass as possible, to keep the seedlings from getting leggy. Put in lots of seed, because it is easy enough to thin out, but do not plant seeds deeply. The writer uses a smooth piece of wood four inches long, three inches wide, and one inch thick. Sprinkle the seeds in a line or broadcast, and press them into the soil with the wooden block, and then sprinkle a very thin layer of silver or fine sand over the top, barely covering the seeds; then pat the sand down lightly with the wooden block, dampen with a very fine spray or rose, cover with paper or glass to keep moist, keeping the glass supported by little sticks about an inch from the soil.

Do not let the seeds dry out or be sodden. Watch continually, and as soon as the second or third leaf of the seedling appears, transplant to berry baskets, about six to a basket, and keep them growing right along, until time to put them out in the garden, keeping down weed growth, stirring the soil, watering and airing on warm days, by opening windows in the greenhouse or raising sash of hotbed.

Along about this time, the frost should be getting out of the ground, enabling you to start your digging. Of course the garden should have been manured and dug roughly in the fall. If this was not done do the next best thing, by getting some rotten manure and digging it in deeply and levelling the surface ready for planting out between the 24th and 31st of May,



Plan of Garden Twenty-Seven Feet Wide by Eighty-Six Feet Long

Montreal Melon Growing

Prof. Blair, McDonald College

THE following briefly outlines the method to adopt in growing Montreal melons: Usually we plant direct to three and a half to four inch pots, putting about five seeds to a pot. After the plants are fairly well started, in about two or three weeks time, we cut off the inferior plants, leaving only two plants to a pot, and later on one of these is removed. Sometimes we start the seed in flats and transplant in pots of the above size, using one plant to a pot. We have given up the use of strawberry boxes for starting plants in, finding that pots are in the end cheaper. The plants seem to do better in them, and they are transplanted from them with less difficulty.

CORRECT TEMPERATURE

The seed is germinated at a temperature not lower than sixty-five degrees at night, which may run higher in the daytime. Avoid over watering at this time, especially chilling by drenching with cold water. As soon as germination is complete, a night temperature not above sixty degrees is advisable. A high temperature with confined atmosphere forces growth too rapidly and a plant that does not stand transplanting well may result.

We aim to keep the soil in the pots moist, not wet. Give full benefit of sunlight, and all the ventilation that is possible without reducing the temperature too much. We start the seed about the first of the last week in March, about six weeks before planting out into frames.

About the latter part of April or early in May, the field is prepared by thorough deep cultivation on the heavy types of soil and shallower cultivation on the lighter soils. The ground should be manured with well rotted stable manure at the rate of fifteen tons per acre, spread broadcast and well worked in.

PREPARING THE TRENCH

We run out rows ten feet apart with a plow turning the furrows in opposite directions, making a V-shaped trench. Some of the loose soil is shoveled out and this filled with hot manure to a depth of about six inches and twelve inches wide, which is well tramped. The manure is then covered with the plow crowning the soil somewhat over the manure, leaving the dead-furrow midway between the frames when set. The ground is harrowed and the frames placed evenly over the furrows and fairly close together.

The frames are placed as early as possible, banked slightly and closed tightly to trap all of the heat possible. This is important in order to warm the soil thoroughly for the plants. Towards the end of the first week in May or in a week or ten days time, the plants are set.

PLANTING OUT

The plants are spaced in a row over the manure eighteen inches apart. Eight

properly developed plants we consider sufficient for a twelve foot frame of four lights.

The frames require careful handling to keep the plants well ventilated and yet avoid chilling them. Watering may be necessary, although every advantage should be taken of warm rains. The ground is given frequent shallow hoeings to keep the surface loose and kill weeds. Some growers follow the practice of spreading a thin mulch of coarse manure around the plant, thus checking evaporation. This may be advisable under some conditions, but I prefer shallow surface cultivation.

When the vines fill the frames the frames are lifted and blocked up, allowing the vines to run out under the frame.

Growing Nutmeg Melons

F. Williams, Ottawa

I would not advise anyone to go into the business of growing melons unless he has open, sandy soil, with free drainage. Provided soil conditions are right and the land in good, fair condition. Our system is to give a fair dressing of manure in the spring and plow it in and then work thoroughly with the harrow, leaving the field in good condition. In the vicinity of Ottawa the seed should be sown about the middle of April so that they will make good stockey plants with the first leaf,

well developed when ready to go in the field. In any case, the seed should be sown about four weeks before the plants are required for the field, which time will vary with the location and the state of the weather. We formerly used sods, but not finding them very satisfactory discarded them in favor of berry boxes. We formerly removed the plants from the box at the time of transplanting in the field, but have since found that this is not necessary, as the roots will find their way out through box, and the plants do equally as well without this extra labor.

Intensive Gardening

Last year I planted eight rows of potatoes across my garden plot on the tenth day of April. In each hill I placed a couple of seeds of garden peas. In this way the same piece of ground yielded a splendid crop of both potatoes and peas. After the potatoes were hilled up, I prepared three of the furrows between the rows for celery plants. I spaded the ground and worked in a generous supply of well rotted manure. Along with this I shovelled in some good rich loam. On the 15th of June I set out my celery plants, which up to this time had been growing first in a hot bed and afterwards in a cold frame until they were strong and stalky. The potato vines partially shaded the plants from the hot sun and held the moisture around their roots, so that in a week or ten days my celery plants had settled down to do business. —J.. W. Kennedy, Lyons, Ont.



Vegetable Gardening in New Ontario

Mr. Geo. Page grew this splendid collection of vegetables at Kenora, in the extreme north-west part of Ontario

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H. BRONSON COWAN, Managing Director

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CIRCULATION STATEMENT

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January, 1910	8,925
February, 1910	8,967
March, 1910	9,178
April, 1910	9,410
May, 1910	9,505
June, 1910	9,723
July, 1910	9,300
August, 1910	8,832
September, 1910	8,776
October, 1910	8,784
November, 1910	8,747
December, 1910	8,662

108,809

Average each issue in 1907, 6,627
" " " " 1908, 8,695
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" " " " 1910, 9,067

Sworn detailed statements will be mailed upon application.

OUR PROTECTIVE POLICY

We want the readers of The Canadian Horticulturist to feel that they can deal with our advertisers with our assurance of the advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber, therefore, have good cause to be dissatisfied with the treatment he receives from any of our advertisers, we will look into the matter and investigate the circumstances fully. Should we find reason, even in the slightest degree, we will discontinue immediately the publication of their advertisements in The Horticulturist. Should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but our reputable advertisers as well. All that is necessary to entitle you to the benefit of this Protective Policy is that you include in all your letters to advertisers the words, "I saw your ad. in The Canadian Horticulturist." Complaints should be made to us as soon as possible after reason for dissatisfaction has been found.

Communications should be addressed.

THE CANADIAN HORTICULTURIST,
PETERBORO, ONTARIO.



EDITORIAL

A TAX ON CANADIAN FRUIT GROWERS

The offer of the National Council of Agriculture through Mr. E. C. Drury, its secretary, to do all in its power to help fruit and vegetable growers to obtain fertilizers, implements, spray materials, etc., duty free, should be taken advantage of by the growers. In the matter of fertilizers the fruit growers have been most unjustly dealt with for while the protection has been removed on their fruit and vegetables it has been left on their mixed fertilizers and other necessities.

Canada is said to be the only country in the world that taxes plant food in any form. This country imported last year from the United States fertilizer valued at \$339,436 on which a duty tax of \$33,944 was collected. This is not the whole story for this duty allowed the Canadian manufacturers to charge approximately the amount of the duty more on every ton of mixed fertilizer that they manufactured. This fertilizer tax alone is a considerable handicap in the growing of fruit and vegetables in competition with the United States producer and one that should be removed at once.

THE NECESSITY OF PACKING SCHOOLS

Packing schools are the order of the day all through British Columbia. Ontario and Nova Scotia are waking up. British Columbia fruit growers evidently believe in the old adage, that "what we have we will hold." They hold the premier position in apple packing and they do not intend to let any other province take this honor away from them.

A recent conversation with an apple dealer who spends part of each summer selling apples in the prairie provinces shows how far behind Ontario is in the race. As this man expressed it: "You can gamble on British Columbia apples, you know that each box in a car will be just like the first one. With Ontario apples you never know what you will get. Not only are the majority of the Ontario apples sent west poor in quality but the packing is worse. Each barrel is different from the one next to it and even the barrel itself does not run uniform in quality. Is it any wonder that it is harder to sell Ontario apples than British Columbia under these circumstances? The West has the money and will pay for good fruit and the Ontario fruit growers making a great mistake in sending his lower grade apples west."

This is the manner in which a man on the ground views the matter. His is good advice. The day has gone by when dealers could say that anything was good enough for the Western farmers. If the Ontario fruit grower is going to hold the Western market he must learn to pack his fruit as well as the fruit growers of British Columbia and the Western States.

The high place given to British Columbia fruit in the prairie market is due in a large measure to the care taken by the government in looking after the market end of the business. Mr. Metcalfe, one of their inspectors has been kept travelling through the country visiting the markets of the central West examining the conditions in which the fruit arrived, the honesty of the packing and

reporting back to the government and the fruit-growers in British Columbia both by official reports and articles in the papers. In this way the growers have been informed just what changes should be made in packing or what varieties of fruit the different markets required.

THE NATIONAL APPLE SHOW

We would like to know what preparations have been made for the National Apple Show? If those who were depended upon to keep this matter before the public are not doing their duty they will have only themselves to answer for if they are severely censured for lack of attention to duty if when the time comes we are not ready.

If Ontario is to have an apple show that will be a credit to the east there is no time to be lost. Preliminary organization should be started at once. Every fruit grower in the east should keep the holding of this great show before him and think out ways in which he can aid it.

WORK FOR THE HORTICULTURAL SOCIETIES

This is the time when those members of the horticultural societies, who have not already done so, should get together and plan out their work for the coming summer.

Arrange your lawn competitions in good time so that the competitors will have plenty of time to obtain earth for levelling up the lawns, the cutting out of unsightly trees or the removal of brush and rubbish, also the reseeding of the lawn where necessary, and the digging up of dandelions and weeds before the rush of spring work begins. Agitate against the unsightly bill boards. The creating of a strong, healthy sentiment is a great help in a campaign of any kind.

Bring pressure to bear on the town councils to give more care to the planting and care of shade trees, the laying out of flower beds, the care of parks and cemeteries, the levelling of unsightly dump piles, and the burning of rubbish that usually collects in such places.

In many towns, and especially the smaller places that do not employ a superintendent of parks and public grounds, much good work is done by obtaining the consent of the council to a proposition giving the full control of the public grounds into the hands of the local horticultural society. Where this practice has been followed good results and a greater interest in horticultural questions have been obtained. Appoint a committee to see what terms can be made, and then if successful lay your plans to make your home town the most beautiful town in Canada.

THE BROWN TAIL MOTH

Fruit growers all over Canada and especially in Nova Scotia should be on the watch for any evidences of the Gipsy or Brown Tail moth which have done so much damage in the New England States and upon which hundreds of thousands of dollars have been spent in an effort to keep them under control. Two parties of inspectors are working in Nova Scotia. The one in the West have not found any nests as yet. The other party, working in Yarmouth and Digby counties, have found a large number.

In one week one of the parties in the East discovered more nests than were found by all the inspectors in the season of 1910. Fruit growers and especially those in the infested areas should make a careful search of their own properties as well as of the trees along

the roadside and notify the Department of Agriculture of their province as well as the Department at Ottawa of any strange deposits of eggs, nests or caterpillars which might be the Brown Tail moth. At the present time the Brown Tail Moth is in the caterpillar stage. The caterpillars are housed in a nest formed of a cluster of leaves fastened together by a web. The nest is usually found on the new growth of the tree, and is easily seen. The collection and destruction of the winter nests is the best and easiest method of controlling the insect. This work must be done before the time the buds burst or the caterpillars will have left the nests to feed upon the young leaves.

BLOCK IMPROVEMENT SOCIETY

For some time past there has been in several United States and Canadian cities what is known as the block improvement society. The central idea is that the people living in each block should organize an improvement society to look after the beautifying and betterment of their own district.

This is a work that might well be taken up by the local Horticultural societies. The Toronto Society already has done good work in this direction. The idea can be carried out in places of almost any size. A cross-roads village if not too small might divide itself into four groups. A smaller place could organize in two groups, one on each side of the main street. Larger places would have a greater number of block divisions. By this means a friendly rivalry would be developed between the different blocks and the citizens would take more interest in the improvement of their own block and in each other than they would in a plan which included the whole city. A few of the pointers which might help are given below.

Whitewash everything you can't paint.

Plant lawns, flowers and trees wherever the ground shows bear. Keep the ground green.

Exercise the same supervision over your sidewalks as over your front yard.

Sweet peas, climbing nasturtiums, castor beans, hollyhocks, or even sunflowers make an effective screen to hide old fences, sheds, or other unsightly views. For permanent screens use hardy shrubs or quickly growing vines.

If you cannot have a grand lawn filled with choice roses you may at least have a window box filled with geraniums.

AN INTERCHANGE OF PROGRAMS

The Secretary of the Thornbury Horticultural society has sent us a copy of their annual announcement which offers some very liberal options in flowers, plants and bulbs in addition to THE CANADIAN HORTICULTURIST which is sent free to each member. The society distributes flower seeds to the school children and as an inducement will give the new crimson rambler rose Thousand Beauties and other plants as prizes. We would suggest that some arrangement be made by which a sufficient number of copies of the announcement of each society be printed so that one might be sent to each of the sister societies.

By this interchange of programmes the members of each society would know what the others were doing and would obtain valuable suggestions with regard to the management of their own society. The distribution of these announcements is of such importance that we think that the Department of Agriculture might well pay for the printing of a sufficient number of extra programmes from each society that they

could send each society a programme of every other society.

The Thornbury society gives a total of twenty-two options which include such offers as three roses of standard varieties, fourteen geraniums in two and a half inch pots, three flowering shrubs or climbing vines, eight dahlias, ten begonias or cannas, one hundred tulips, thirty gladioli, six house plants, twelve lilies, four grape vines or two apple trees.

A NEW LINE OF WORK

The Peterboro Horticultural Society have undertaken a new line of work that might be followed by other societies in towns which do not keep a paid superintendent of parks. The Horticultural Society has been given full charge of the parks. The grants for their maintenance are made in its favor. The park committee of the Society appoint the caretaker and supervise all work done. In many town councils there are very few members who are interested in horticultural matters and even where they are interested a still less number have the necessary knowledge of plants and flowers. This system has given satisfactory results in Peterboro and might well be worth experimenting with in other towns.



PUBLISHER'S DESK

We often wonder if our readers realize the high character of our contributors to THE CANADIAN HORTICULTURIST. We endeavor to have those who are recognized leaders in their particular departments write for our columns. In this issue Mr. W. H. Gibson of Newcastle continues the description of his methods of cultivation, pruning and care of an orchard. Mr. Gibson is president of the Newcastle Cooperative Fruit Association and is probably one of the largest apple growers in Ontario as he has seventy-five acres of bearing apple trees in his orchard. He has revolutionized the type of farming in his district until the grain farmers of twenty-five years ago are now nearly all fruit growers.

Mr. A. McNeil, chief of the Fruit Division, Ottawa, gives seasonable advice on how to get more bearing wood in old orchards. Mr. W. Dreher takes up the question of early cultivation of the orchard. His system of later cultivation and the growth of cover crops will appear in our May issue.

The well known peach growers, Messrs. J. W. Smith & Sons, Winona, tell how to plant and grow peach trees. This firm is one of the largest and most successful growers of peaches and small fruit in Ontario and their advice will be of great value to those who contemplate embarking in peach growing. Fr. M. Leopold, La Trappe, who is known as an authority on the apple, describes the planting and early care of the apple tree. Valuable short articles are given by experts in their line on root pruning, the value of bees in an orchard and other seasonable subjects.

This number being our Garden Annual, special attention has been paid to the flower and vegetable garden. Mr. Roderick Cameron, Superintendent of Parks, Toronto, gives very full directions for laying out an amateur flower garden. Articles on seasonable subjects such as the culture of asters, cannas and the care of window gardens also a page of seasonable hints for April and a planting table are given.

In the vegetable department, Mr. Geo. Baldwin, Toronto, who won two first, two second and two third prizes on his vegetables at the Canadian National Exhibition, gives an elaborate plan of how he grows eighty-two varieties of vegetables on a city lot, 27 feet by 86 feet in size. Prof. Blair describes the growing of the Montreal melon while articles are given on intensive gardening and other seasonable matter.

Our next number will be devoted to Orchard cultivation and Home Improvement. We have articles by the best authorities on these subjects and would especially desire notes of a couple of hundred words describing any special improvement which has been made in the homes or grounds of our readers be sent to us. We will publish as many of these as our space will permit. Our Garden and Flower Department will be found full of valuable information. The page on what amateurs can do in May will be found right up to date, giving advice for work which can be started immediately.

Among the good things in store for our readers is an article on the value of bees in an orchard by Geo. W. Tebls, Hespeler, who is an authority on this subject. Mr. George Baldwin will tell the amateur vegetable grower what to do in the garden in May.

Mr. A. V. Main, Almonte, well known to our readers, has sent us an instructive and interesting article on the Care and Decorative Use of Palms. Mr. Chas. L. Honeyman, Toronto, sends us a description of gardens seen in a trip to the Land of the Thistle. Mr. S. C. Parker, secretary of the Nova Scotia Fruit growers and one of the most prominent and progressive fruit growers of the province will describe the Co-operative Fruit Marketing in that province. All departments will be filled with interesting matter.

Have you been reading the "Talks on Advertising," that have been appearing on the Index page of each issue of THE CANADIAN HORTICULTURIST for the past several months? Would you like to secure a complete set of these "Talks" to look over or to keep? If so, our Advertising Department will be glad to send you a set on request as we have printed a supply of extra copies for those of our readers desiring them. When writing us if you think of any article or line of goods not now being advertised in THE CANADIAN HORTICULTURIST that you would like to see advertised, will you kindly mention it? Suggestions from our readers are always welcome.

Have any of our readers an extra copy of the November, 1910, issue of THE CANADIAN HORTICULTURIST? We desire two or three copies for our files as our supply of this number has become completely exhausted. If any of our readers have a copy of this number they can spare we would appreciate it much if they would mail it to us.

Annual Meeting

The annual meeting of the Shareholders of The Horticultural Publishing Co., Limited, which publishes both THE CANADIAN HORTICULTURIST and THE CANADIAN FLORIST was held in Toronto, March 17th. The report of the Directors as presented by the Managing Director, proved gratifying to the Shareholders who passed a vote of thanks commending the Directors upon the success that had been achieved with the publications. The following officers were elected.

President, W. H. Bunting, St. Catharines, Ont.; vice-pres., John H. Dunlop, Toronto; managing director and secretary, H. B. Cowan, Peterboro.

Directors: Hermann Simmers, Toronto; A. W. Peart, Burlington; Harold Jones, Maitland; and P. W. Hodgetts, Toronto.

A Planting Table for the Flower Garden

Dates for sowing depend upon local conditions. Those mentioned are for early districts.

NAME	TIME TO PLANT OUT	DEPTH TO SEED	HEIGHT OF PLANT	DISTANCE TO TRANSPLANT	SEASON OF BLOOM BEGINNING	LENGTH	COLOR OF BLOOM
Ageratum	June	1/8 inch	6 inches to 1 1/2 ft.	1 foot	July	3 months	Blue.
Alyssum	April	1/2 inch	4 to 6 inches	6 inches	July	3 months	White.
Aster	May	1/2 inch	15 to 18 inches	1 1/2 feet	July	3 months	White, pink, red, yellow.
Calendula	May	1/2 inch	1 foot	8 inches	June	3 months	Orange and yellow.
Candytuft	April	1/4 inch	1 foot	6 inches	June	4 months	White.
Carnations	May	1/4 inch	1 foot	6 inches	July	3 months	White, pink, red.
Chrysanthemums	May	1/8 inch	4 feet	1 foot	Aug.	3 months	Yellow, white.
Cosmos	May	1/4 inch	8 feet	18 inches	Aug.	3 months	White, pink.
Dahlia	June	1/4 inch	8 feet	2 feet	July	4 months	White, yellow, pink, purple, maroon.
Dianthus	May	1-16 inch	1 foot	1 foot	May	4 months	Pink to red.
Gaillardia	May	1/8 inch	1 1/2 feet	2 feet	July	4 months	Yellow and red.
Heliotrope	May	1/8 inch	6 inches	1 foot	July	4 months	Violet, purple and white.
Larkspur	May	1/8 inch	1 1/2 feet	2 feet	June	5 months	Blue.
Lobelia	April	1/4 inch	1 to 2 feet	6 inches	June	3 months	Blue.
Marigold	April	1/4 inch	1 foot	1 foot	June	3 months	Orange.
Mignonette	April	1/4 inch	1 ft. to 15 in.	6 inches	June	4 months	White.
Nasturtium	May	1 inch	5 to 6 ft.	1 foot	June	5 months	Orange, yellow.
Nicotiana	April	1/8 inch	2 to 3 feet	1 foot	July	3 months	White, red.
Pansies	March	1/8 inch	6 inches	6 inches	May	5 months	Purple, white, mauve, violet.
Petunia	May	1-16 inch	15 inches	1 1/2 feet	June	5 months	Purple to white.
Phlox	May	1/8 inch	2 feet	6 inches	June	4 months	Red, white, purple, crimson.
Poppies	April	1/8 inch	14 inches	8 inches	June	4 months	Scarlet.
Portulaca	June	1-16 inch	6 inches	2 feet	June	4 months	Crimson, scarlet.
Salvia	June	1/4 inch	2 feet	2 feet	July	3 months	Scarlet.
Scabiosa	April	1-16 inch	2 feet	4 inches	June	5 months	Red, purple, pink lilac, white
Stock	May	1/4 inch	1 1/2 feet	1 foot	June	2 months	White.
Sweet William	April	1-16 inch	6 in. to 1 ft.	6 inches	June	4 months	White, crimson, scarlet.
Sweet Pea	Mar.	3 to 5 inches	6 feet	6 inches	July	4 months	White, purple, red, pink, violet, maroon.
Verbenas	June	1/4 inch	1 foot	1 foot	June	4 months	Purple.
Violas	May	1/4 inch	6 inches	6 inches	June	4 months	Purple to white.
Zinnias	May	1/2 inch	1 foot	1 foot	June	6 months	Orange, red, scarlet, salmon.

Hardy Perennials for Your Garden



We have in stock ready for spring planting, a particularly choice assortment of **PAEONIES, IRISES, PHLOX, LARKSPURS, FOXGLOVES** and other varieties of hardy herbaceous perennials, such as add so much to the beauty of the home surroundings. By judicious planting you can stock your garden or perennial border with plants that will afford a profusion of bloom from early spring till late in autumn. **We send out only strong field grown plants** that will bloom the first year.

We have also a very complete stock of ornamentals, including **Deciduous and Evergreen Trees, Flowering Shrubs, Hedge Plants, Vines and Hardy Bush and Climbing Roses.** We can in fact supply you with everything you may require for beautifying your home surroundings this spring. Being grown in our nursery near Montreal, our stock is hardy and will do well in any locality. Let us send you our catalogue, which gives full particulars regarding our **Hardy, Northern Crown Stock.**

LANDSCAPE DEPARTMENT

In our Landscape Department we have men skilled in the laying out and improvement of home or public grounds. We will be glad to help you in the laying out or improvement of your grounds, in the arrangement of a perennial border or any other work you may be doing this spring. Write for a copy of our booklet, **"More Beautiful Homes and How to Get Them."**

HARDY FRUIT TREES

We still have a good supply of many of the leading varieties of apple trees and other hardy fruits. Write for list of varieties and prices.

THE CANADIAN NURSERY CO., Limited
 10 Phillips Place, - MONTREAL, QUE.
 Nurseries at Pointe Claire, Que.
 (A FEW GOOD SALESMEN WANTED)

Durham Northumberland Fruit Institute

A most successful series of fruit meetings have been held in the Counties of Durham and Northumberland.

Both afternoon and evening sessions were held which were attended by large numbers of enthusiastic apple growers, who increased the membership of the Northumberland and Durham Apple Growers Association by two hundred and twenty-five new members.

The Bowmanville meetings, addressed by Mr. Caesar of the O.A.C., on spraying, and by Mr. Carey, Dominion Fruit Inspector, on orchard management, were undoubtedly the largest attended of any of the kind ever held in the district.

The Newcastle meetings were well attended and many features of apple production were ably discussed by Mr. Lick, Mgr. of the Oshawa Fruit Growers' Association, and Mr. Carey. The varieties of apples recommended for planting are those of high quality, of which the McIntosh, Snow and Spy are of special value, also the Alexander, Blenheim and Greening are advised, and the Gravenstein and Baldwin where the local conditions are favorable. It is advised that no more Ben Davis or Starks be planted, although those who have these two varieties should give them good care, as, no doubt, good paying prices will be obtained when exported to European markets in the years of scarcity. Our growers are now waking up to the great possibilities of this industry, and are planting very extensively, and taking Mr. French's orchard survey as a basis. It is a conservative estimate that there are now a million and a half apple trees in these United Counties, and with an acreage greater than that in peaches in Southern Ontario.

The meetings held at Orono were attended

by a large and interested audience, and all were benefitted by the able addresses of Mr. Lick and of Prof. Crew of the O.A.C. In pruning a bearing orchard Prof. Crew advised keeping the trees down to a height of fourteen or sixteen feet by removing yearly a few leading branches, being careful to cut at a junction with another limb so the wound would heal readily; also thinning the outer branches to let the sunlight reach the bearing twigs and fruit buds which should be encouraged all through the centre of every tree. By this system of pruning, spraying, thinning and picking the fruit is easily done, and by judicious pruning of lower side limbs, cultivation can be carried on as close to each row of trees as desired.

Successful meetings were also held in Cobourg, Trenton, Port Hope, Colborne, Warkworth and Brighton. The attendance was large and the interest shown at all points very gratifying.

Vegetable Growers Oppose Reciprocity

At the annual meeting of the Vegetable Growers Association held in Toronto on March 8, there were members in attendance from branches of the Association at Brantford, Dunnville, Chatham, Tecumseh, Sarnia, London, Stratford, Belleville, Picton, Kingston and Ottawa.

The meeting was strongly opposed to reciprocity. After a full discussion the following resolution, moved by F. F. Reeves, Humber Bay, and seconded by C. H. Weaver, was unanimously adopted.

"That we, the directors of the Ontario Vegetable Growers' Association, representing branches in all parts of the province, at this our annual meeting, wish to enter a most emphatic protest against the proposed reciprocity agreement. We reaffirm

THE BEST FLORAL OFFER OF THE YEAR
Ten fine Gladioli Corms for 25 cents

WANTED!

5000 readers of The Canadian Horticulturist to accept this offer NOW and prove that it is the best spent quarter-of-a-dollar of the year.

The Gladiolus is a favorite flower wherever it is known. It is free from disease and it has no insect enemies. It is of the simplest culture. With such care as is given to potatoes Gladioli will increase and give bloom from year to year. Cultural directions are sent with each order.

Ten Gladioli (Gross's Hybrids) sent anywhere in Canada, postpaid, for a 25 cents postal note. Address

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STRAWBERRY PLANTS

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Choicest Plants
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ONTARIO NURSERIES
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ARE OBTAINED BY USING

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SURE GROWTH COMPOST

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Vines, Roses, Paeonies, Flowering Shrubs, Perennial and Bedding Plants, Fruit Trees and Bushes, etc., all grown at our Nursery. Send for our free catalogue.

A start cannot be made too early. We have everything that is hardy and attractive—Shade and Ornamental Trees,

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Planet Jrs do the work of three to six men. They do it more accurately, and cause a greater yield. They are the result of a practical farmer's 35 years' experience. Fully guaranteed.

No. 6.] The newest Planet Jr Combination Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow, opens the furrow, sows any kind of garden seed accurately in drills or hills, covers, rolls down, and marks out the next row—all at one operation. Perfect Wheel-Hoe, Cultivator and Plow.

Planet Jr 12-tooth Harrow, Cultivator and Pulverizer is a wonderful tool for berry-growers and market-gardeners. Works deep or shallow without throwing earth on the plants, and pulverizes the soil thoroughly. Invaluable wherever fine close work is needed.

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Get 98% or Better Perfect Fruit

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ELECTRO Arsenate of Lead

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It is certain death to all leaf-eating insects. You can depend absolutely on dry Electro Arsenate of Lead because it is the only one in amorphous (non-crystalline) form. Mixes instantly with water and stays long in suspension—or can be used as a dust. Rain cannot wash it off. We guarantee it to contain 32½-33% arsenic oxide—twice the strength of other brands—yet it will not harm the tenderest foliage because it contains less than ½ of 1% water-soluble arsenic. Prove it from tests at Conn. and N. J. Agri. Exper. Stations. Write us for them.

Send for folder on Electro, interesting to all fruit growers. Folder on Electro Lime Sulphur tells how to use this solution which is certain death to San Jose Scale and sucking insects and the best fungicide for summer treatment.

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our belief in the memorial presented to Sir Wilfrid Laurier and members of the cabinet by our delegation at the joint meeting of protest at Ottawa by fruit and vegetable growers, and we heartily endorse the action taken by the executive committee in bringing the matter before the branches, and pledge ourselves to use every legitimate means through our members in the Dominion house and otherwise to prevent the said measure becoming law."

The election of officers resulted as follows: President, Thos. Delworth, Weston; 1st vice-president, T. A. Newton, Woodstock; secretary-treasurer and editor, J. Lockie Wilson, Toronto; executive committee, Thos. Delworth, J. Lockie Wilson, C. H. Weaver, Dunnville; F. F. Reeves, Humber Bay; S. D. Dawson, Tamblings.

Barrie Horticultural Society

Mr. A. Carson, Barrie, who paid THE CANADIAN HORTICULTURIST office a pleasant visit reports that the members of Barrie Horticultural society are very enthusiastic over the success of their society which since 1907 has increased in membership from thirty-two to two hundred and forty-five, truly a phenomenal growth. Before the end of 1911 they hope to reach the five hundred mark.

Largely through the influence of the members of the horticultural society the town council has appointed a park commission with an annual grant of \$1,500 for the upkeep of the parks and boulevards. Mr. Carson says that the good effects of the work of the society can be seen in the increased care and attention paid not only to the beautifying of the homes of the people but also to the town as a whole.

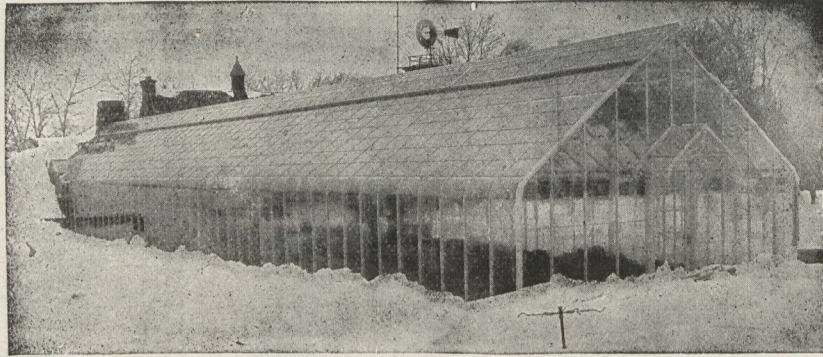
Whitby Horticultural Society

We had a very pleasant call from the Rev. J. Fletcher, President of the Whitby Horticultural Society. He reports that this society, though not large in numbers, is flourishing, and that it is making its influence felt in general civic improvement and the beautifying of the town. This society gives a year's subscription to THE CANADIAN HORTICULTURIST free to each member, and also a very desirable list of roses, bulbs, and plants as options.

Toronto Horticultural Society

The Toronto Horticultural Society made the following very generous offer to the Board of Education, which was accepted:

The Society proposes to give seven silver and seven bronze medals, and twelve first, twelve second, and twelve third prizes in money, to be competed for by the pupils of seven schools, one in each ward. Six first, six second, and six third prizes will be given for Third Book pupils, and six first, six second, and six third prizes to Fourth Book pupils. The prizes will be given for two vegetables, two bedding flowers, and two climbing flowers. All the pupils who compete for these prizes will have to use the same varieties of vegetables and flowers. The two vegetables selected are beets (Early Model Globe), carrots (Chantenay). The two bedding flowers are asters (Victoria) and larkspur (Double Dwarf Rocket). The climbing flowers are sweet peas and nasturtiums. All flowers are to be mixed colors. Each exhibit must be the product of the pupil's own garden, and of his own efforts. The decision will be made by considering the care taken of the plot, the condition of the soil, the quality of growth, the general appearance, &c.



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Next month we will tell you more about how this house differs from other houses. Send for catalogue.

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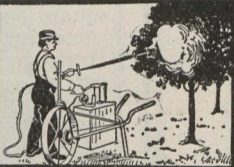
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Man-Power Potato & Orchard Sprayer. Sprays "anything"—potatoes or truck, 4 rows at a time. Also first-class tree sprayer. Vapor spray prevents blight, bugs, scab and rot from cutting your crop in half. High pressure from big wheel. Pushes easy. Spray arms adjust to any width or height of row. Cheap in price, light, strong and durable. **GUARANTEED FOR 5 FULL YEARS.** Needn't send-a-cent to get it "on trial." You can get one free if you are first in your locality. Write now.

Horse-Power Potato & Orchard Sprayer. For big growers. Most powerful machine made. 60 to 100 gallon tank for one or two horses. Steel axle. One-piece-heavy-angle-iron frame, cypress wood tank with adjustable round iron hoops. Metal wheels. "Adjustable" spray arms and nozzles. Brass ball-valves, plunger, strainer, etc. Big pump gives vapor spray. **Warranted for 5 years.** Try this machine at our expense with "your money in your pocket." See free offer below. Write today.

Fitz-All Barrel Sprayer. Fits any barrel or tank. High pressure, perfect agitation, easy to operate. Brass ball-valves, plunger, strainer, etc. Automatic strainer. No "cup leathers or rubber" about any of our sprayers. Furnished plain, mounted on barrel, or on wheels as shown. 1 year guarantee. It don't cost you "a cent" to try it in your orchard. Get one free. See below. Write today.

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We do all corresponding and selling. All you need do is show the sprayer. Many have paid for their sprayers in this way. This offer is good for only the first order in each locality. Don't delay. Send the coupon or post card NOW.
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Only thorough work with the best machinery will accomplish the best paying results from spraying. You *must* spray if you would have perfect fruit, and it doesn't pay to bother with a cheap outfit. It means no end of trouble and it's too risky—you have too much at stake.

Goulds Sprayers have proved their superiority by years of service. We make the sprayer best suited to your conditions. It will last for years because all working parts are made of bronze to resist the action of chemicals. "You can depend on a Goulds" to work when ever and as long as you require.

Send for Our Booklet:
"How to Spray—When to Spray—What Sprayers to Use"

It discusses the matter thoroughly. It gives valuable spraying formulas and tells how and when to use them.

THE GOULDS MFG. CO., 17 W. Fall St., Seneca Falls, N. Y.
We Make both Hand and Power Pumps for Every Service

No pupil may receive more than two prizes, but a prize winner may also win a medal.

The gardens of all competitors will be first examined by the teachers of the school in each ward. A committee of the teachers should reduce the gardens to the best ten belonging to Fourth Book pupils and the best ten belonging to Third Book pupils. Committees of the Horticultural Society will be appointed to visit these ten and award the prizes to the best.

The Horticultural Society has arranged with the Davies Manufacturing Company to have fertilizers delivered at the schools for one cent per package.

Suggestions for Lawn Competitions

R. W. Brooks, secretary Brantford Horticultural Society, sends the following suggestions to members to aid them in preparing for lawn competitions:

In marking, the whole place is considered; the lawn and the garden is marked on five points—

1. General effect or lay out, or ground plan of the place, 30 points.
2. Neatness and order in keeping lawns, walks and boulevards, 20 points. Keep your lawn thoroughly weeded, and edges neatly trimmed; mow as often as the mower will cut it.
3. Care and taste shown in selection of flowers, plants and shrubs, etc., 20 points. In laying out your plantings as a rule avoid straight lines and sharp angles.
4. Floral display, 20 points. Plant all flowers you wish, but plant shrubs at their back to give a more pleasing effect while the annuals are out of season, as well as when they are in bloom.
5. Difficulties overcome, 10 points. Some allowance is made in new lawns or old fences covered with wires, or any drawback the competitor may have. Try to plant so as to make the whole place one single picture of a home, with the house its chief feature, and the outside boundary line its frame.

Major H. J. Snelgreve, a representative of the Ontario Horticultural Association on the Board of the Canadian National Exhibition, put up a stiff fight for giving "a square deal" to amateur floriculturists, and succeeded in inducing the Agricultural and Horticultural committee to revise the prize list so as to increase the prize money for certain classes and bring others within the scope of amateur growers. Professional florists will not have it all their own way this year, as formerly. The prize list will be issued in April. Mr. R. B. Whyte, of Ottawa was selected as judge in the floricultural department.

The growers and packers of oranges, lemons, pine apples, and box apples are endeavoring to put up each year a more attractive and superior article. An attractive substitute is taken in preference to a scabby, ill appearing apple, and we must at least keep posted or the King of Fruits in the East will be compelled to take a tion and declining popularity.—Jas. E. Johnston, Simcoe, Ont.

We have still on hand a few copies of the Index to volume XXX., which will be sent to those of our readers requesting same. They are free but are only sent on request.

the roof that lasts long and leaks not



the cheapest good roof is one that

Possibly you may think wood shingles are cheap. They are—in the worst sense. Only metal shingles should roof any building of yours. And any metal shingle is better than any other roofing. But Preston Shingles excel—in every practical way—all other metal shingles. Shouldn't you know about that? The book that proves is waiting for your request. 17

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Metal Shingle & Siding Company, Limited
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PRESTON SAFE-LOCK SHINGLES

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Thirty-three selected varieties to choose from—new and old, early, medium and late. William Belt and Meade for the garden; Uncle Jim and President for fancy market; Gill earliest and Nettie latest. Senator Dunlap and Sample, good anywhere. All but the new varieties, \$4.00 per thousand, express; \$1.00 per hundred, post-paid.

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HERBERT—the most vigorous and productive raspberry grown to-day, \$3.00 per hundred.

EATON—the largest berry and on soil suited to it, the heaviest bearer. \$3.00 per hundred.

KING—a splendid early berry, firm, and a good shipper. \$2.00 per hundred.

And other Hardy Varieties. Send for Catalogue.

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Is your garden a source of pride and pleasure, or simply of common "garden truck?" That will depend largely on your choice of seeds. People who sow

EWING'S Reliable Seeds

and give them proper care, get big crops—sure crops—crops of superior quality. Whether you garden for pleasure, or profit, or both, discriminate on the seed question. Get EWING'S, the seeds that have proved their quality by over forty years of bumper crops.

If your dealer hasn't Ewing's write for our Illustrated Catalogue and buy from us direct.

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Seedsman
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WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE SO YOUR LAND WILL PAY

CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED AGENTS WANTED FOR TERRITORY NOT TAKEN UP THE W.A. FREEMAN CO. LIMITED HAMILTON ONTARIO

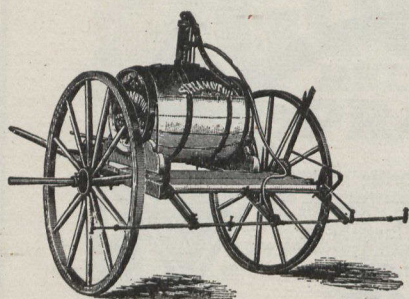


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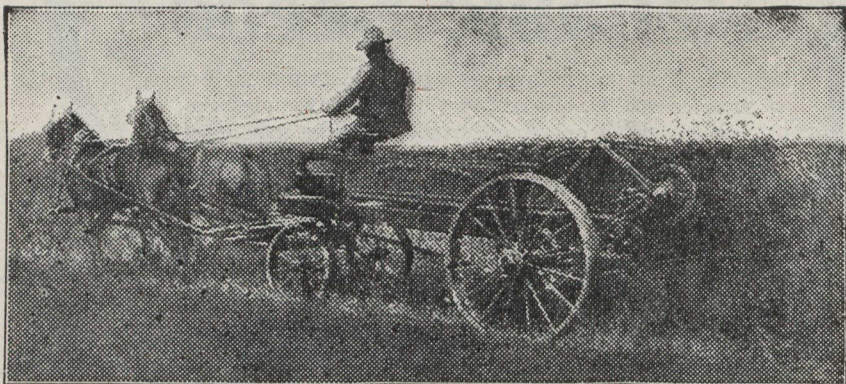
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Two Gold Medals National Horticultural Congress.

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Do You Intend To Abandon Your Farm?

In New England there are hundreds of abandoned farms—abandoned because the soil has been drained of its fertility. Had these farms been properly fertilized they would still be producing bounteous harvests.

New England farms are not the only ones that are being depleted of fertility. There are thousands of other farms which are rapidly approaching the point where further cultivation will be unprofitable unless some means is adopted to renew the fertility of the soil.

If you do not intend to abandon your farm, it will be necessary to supply fertilizer to the soil. It is not only necessary to apply manure, but it is absolutely essential that it be applied evenly and in proper quantities.

Manure cannot be spread evenly by hand. Experience has demonstrated that the spreader is the only method by which manure can be applied uniformly.

It is just as necessary to exercise judgment in selecting a spreader as it is on any other subject. There are many spreaders on the market. The IHC spreader has proved its superiority by giving the users years of efficient service. With an IHC spreader you can regulate the distribution of manure so as to make every ounce count. Adjustments can be made to spread a light top-dressing or a heavy covering. This is possible because IHC spreaders have a wide range of feed, and the long, square, chisel-pointed beater teeth thoroughly pulverize the manure that is applied. Wide tires and roller bearings insure light draft.

IHC spreaders are made in two styles—

Cloverleaf—Corn King

Cloverleaf spreaders have endless aprons. Corn King machines have return aprons. These machines are made with capacity suitable for farms of any size.

Call on the IHC local dealer and let him show you the style and size best suited to your purpose, or, if you prefer, write to nearest branch house for catalogue and full particulars.

CANADIAN BRANCHES—International Harvester Company of America at Brandon, Calgary, Edmonton, Hamilton, Lethbridge, London, Montreal, North Battleford, Ottawa, Regina, Saskatoon, St. John, Weyburn, Winnipeg, Yorkton.

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IHC Service Bureau

The Bureau is a center where the best ways of doing things on the farm, and data relating to its development, are collected and distributed free to every one interested in agriculture. Every available source of information will be used in answering questions on all farm subjects. If the questions are sent to the IHC Service Bureau, they will receive prompt attention.

PROVINCIAL NOTES

Fruit Growing in Prince Edward Island

J. A. Moore, Hazelbrook,

When undertaking the profession of fruit growing the first necessity is a soil not too heavy and good natural drainage. I do not think the lay of the land matters much, for I have seen as good fruit grown on land sloping to the north as on land sloping south. Land sloping north and west seems to be the ideal.

A good preparation for fruit would be to have a crop of clover or peas or buckwheat plowed down in the fall, then work up the ground in the spring and lay off the rows lengthwise and across the field, and plant the trees where the lines intersect. This is a very convenient system, as it facilitates working among the trees, enabling one to work at different angles.

If there is no natural shelter, a wind-break should be planted when the trees are planted. Two or three rows of spruce bushes, two yards apart and two yards apart in the rows, set so that they would break joints, as it were, would soon make a splendid windbreak, and let it be right round the field.

I think that five acres enclosed this way would be about the right size for an orchard. Of course it need not all be planted at once.

VARIETIES

The varieties best suited for this climate and the markets are: Early apples—Crimson Beauty, Red Astrachan, and Duchess; Fall—Wealthy, Dudley, and Alexander; Winter—Belle Fleur, Baxter, and Stark. Gravenstein also does well, but not on its own stalk. It must be top grafted.

There are many theories as to how to treat an orchard, but I think that clean cultivation is the best method, especially for young trees. Vegetables may be grown provided plenty of manure is applied to keep the trees growing. If no cover crop is grown—that will die down and protect the roots in winter, such as clover, peas, or vetches—then some manure should be banked around the trees late in the fall or early winter. White building paper wrapped around the trunk will keep the mice from girdling the trees. Preferably white, because black or tar paper will attract the sun in March and cause the sap to rise and then sudden frost would burst the sap cells and injure the trees.

SPRAYING

I think the reason we have had no scab and no wormy fruit in ten years' apple-growing is that every year, fruit or no fruit, we have sprayed every tree in the orchard. An orchard sprayed every year just after the buds open and again after the bloom falls, will not be troubled much with insect pests. So then, prepare the ground; set out your trees; plant a hedge; give attention to cultivation, and then, as the deacon said in church—"Let us s(pray)!"

Mr. W. T. Macoun, Dominion Horticulturist of the Experimental Farm, Ottawa, advises the spraying of orchards with Berdeaux four times with the old formula 4-4-40 and the use of a combination of Paris Green and arsenate of lead. In this way the quick action of the Paris Green is secured together with the adhesiveness of the arsenate of lead.

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1 PACKET EACH

- Sweet Pea Specialty, mixed 10c
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 - Beet, Cheltenham 5c
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I will also include free 1 pkt. Eschscholtzia Carmine King (10c) and 1 oz. Spinach Triumph (10c) to the first two orders from each town.



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This is an Actual Loss to me, but I want two persons in every postal town in Canada to try my seeds, for every trial means a future customer. Note the following extract from a letter received from one customer:

—
"Montreal, 10th Sept. 1910.

"All the plants grown from the seed I had from you last spring turned out magnificently.

(Signed)
Gustaff Gylling.

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PKTS.</p> |
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- And packet Wild Garden Flower Seed Mixture. Also a copy of Simmers' Vegetable and Flower Garden (New Edition).

Contains 25 packets of the best Vegetable Seed, sufficient to furnish vegetables throughout the year, and one packet of Flower Seeds, which we will send postpaid to any address in the Dominion of Canada for the extremely attractive price of \$1.00.

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Strawberry Plants

Fine stocky well rooted plants. All tested varieties. Neatly tied in bunches and carefully packed. Prices reasonable. Send for free catalogue and price list.

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Wholesale Fruit, Bulb and Seed Potato Specialist

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FRUIT TREES of all description, **Gooseberry, Currants, Strawberries, Raspberry Canes, etc.**

BULBS—Daffodils, Narcissus, Tulips, etc., English grown.

SEEDS of all descriptions, including all the best varieties in **Potatoes.**

NURSERY STOCK, such as **Privet, Quick** for hedges, **Herbaceous Plants, etc., etc.**

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Bruce's Royal Nosegay Collection Sweet Peas—1 pkt. each of 8 superb sorts, separate colors, for 25c.

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FREE—Our handsomely illustrated 104-page catalogue of Vegetable, Farm and Flower Seeds, Plants, Bulbs, Poultry Supplies, Garden Implements, etc. for 1911. Send for it.

John A. Bruce & Co., Ltd., Hamilton, Ont.



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Bruce's Peerless Collection Tall Nasturtium—1 pkt. each of 7 grand sorts, separate colors, for 25c.

Bruce's Empire Collection Asters—1 pkt. each of 5 magnificent varieties, separate, for 25c.

A Plea for the Observance of Arbour Day in the Country

Much has been done during recent years towards the beautifying of Canadian cities and towns by the awakening of the people to the importance of making their homes more attractive by the planting of trees, shrubs, vines, and herbaceous plants. Many influences have been at work, chief among which are the Horticultural Societies, which through their organizations have been able to do much to bring about the great improvement which is already apparent.

In the country, unfortunately, it is quite otherwise, and one fails to note any decided improvement in the home surroundings during recent years. To us it seems almost sad that in the older settled parts of Canada a large proportion of farmers' homes are bare and uninviting to the passer-by. The contrast between the city and country home in Canada becomes greater every year, and greatly to the advantage of the city. This should not be so. With the greater room in the country and the abundant sunlight, the country home should be a delight to all beholders, and we are glad to say some country homes in Canada are a great credit to their owners.

Can nothing be done to change all this? We believe that something could be done if interest can be awakened in the right quarter and it seems to us that the Women's Institutes are the best organizations to effect a change. Through organizations plants could be ordered and distributed to the members; or as there are so many beautiful wild trees, shrubs, and vines which can easily be obtained in the woods without cost expense need not be a consideration. Then there should be a certain day or afternoon set apart every year as Arbour Day when the women would see to it that some planting was done about the home grounds. A vine one year, a tree or shrub the next, a flower bed, a hedge, a flower border, a well kept lawn; all these would gradually come and in a surprisingly short time there would be a great change. One can imagine Arbour Day becoming a day looked forward to in every community when each family would vie with its neighbor in making the greatest improvement in the shortest time.

Will not the women of Canadian rural homes rise in their might and see to it that their homes are made as beautiful as any in the land? There is abundant information about gardening that can be obtained free for the asking. Which will be the first Women's Institute to take this good work in hand? Perhaps some have done so already.—W. T. Macoun, Dominion Horticulturist.

Fortune From One Acre

The possibilities of profitable gardening on one acre of land are not confined to France, where the system of intensive culture on such small plots has become the most developed. An acre of land cultivated on the French system near London yielded last year £600 in gross returns, which is a record for England. The nearest approach to it is an acre of land between London and Oxford, which has yielded in one year flower seeds to the value of £260.

Make your Home Attractive

The R-K Lighting System will make your home attractive, cheerful and inviting. Beautiful fixtures for the different rooms giving a pure white brilliant light superior to gas or electricity at one-half the cost. Can be installed anywhere, in your residence, church-stores, etc. Easy to operate—fully guaranteed. Write our nearest office for Booklet C.

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is not accidental, but the natural result of the realization of a higher ideal in piano quality than ever before recorded in the history of Canadian piano building.

Musicians and all music lovers who are ready to acknowledge superiority have recognized their superlative qualities and voluntarily paid them unstinted praise.

Allow us to tell you more about them. Ask for Catalogue and prices.

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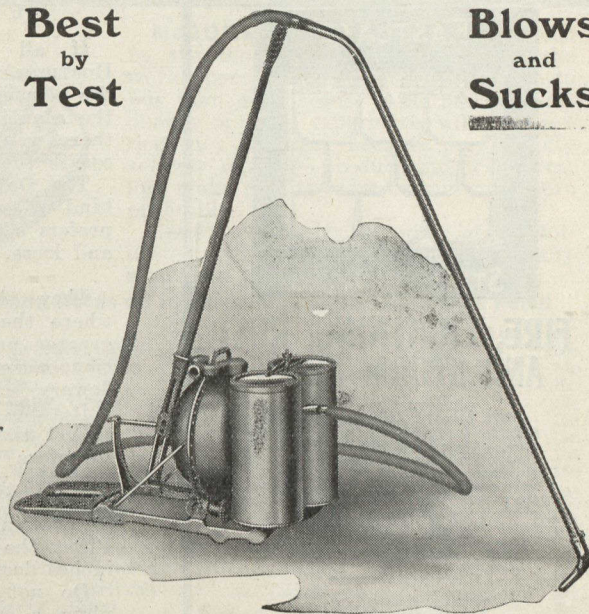
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Light, Powerful, Easy Running.

THE AUTOMATIC HAND POWER VACUUM CLEANER has a valve and piston pump action. The movement of the lever handle backward and forward forces the air up through the hose nozzle bringing with it all the loose dirt, dust, etc. The double tank device for separating the dust from the air catches 95 per cent. of the dust in the bottom of the tank without screens, baffles or water; the remaining 5 per cent. is screened through a canvas covered cylinder. The frame is made of malleable iron and steel, and is very rigid. The hose 12 feet long made of rubber and interlined with spring steel wire which prevents collapsing and kinking. Hose is 1 inch in diameter; tube for attaching tools 4 feet long, made of brass tubing nickle-plated; nozzle or mouth piece is of aluminum and has an opening of 7 by 1/4 inches. The machine is light, compact and easy to carry, slip joints are used on all connections making them instantly detachable and interchangeable. May be operated by one or two persons. Fully guaranteed or money refunded. FREIGHT PREPAID TO YOUR NEAREST RAILROAD STATION.

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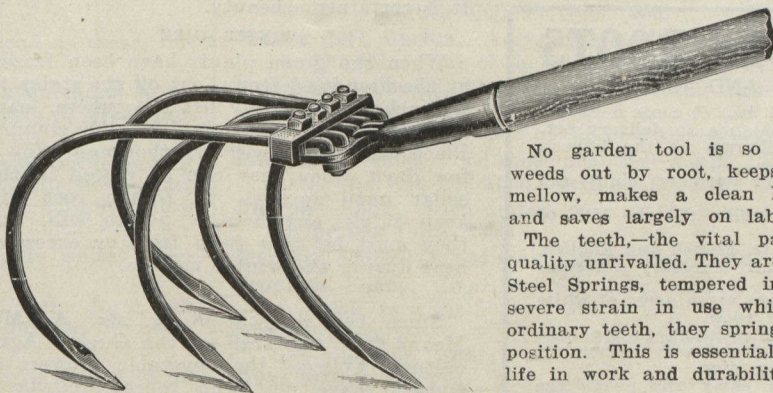
If a dealer tries to sell you a camera or films, or other goods not of our manufacture, under the Kodak name, you can be sure that he has an inferior article that he is trying to market on the Kodak reputation.

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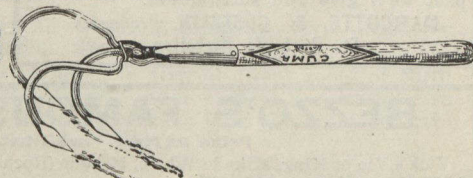
No garden tool is so useful. Cleans weeds out by root, keeps soil fine and mellow, makes a clean healthy garden and saves largely on labor.

The teeth,—the vital parts,—are of a quality unrivalled. They are all high grade Steel Springs, tempered in oil. After a severe strain in use which would ruin ordinary teeth, they spring right back to position. This is essential to get proper life in work and durability.

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Similar in quality to the "Buco" The greatest little Tool in the world for flower beds and fine work. Sold by Hardware and Seed Trade. If your dealers cannot supply you, write us direct



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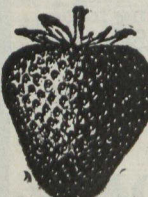
STEEL SHINGLES

FIRE, LIGHTNING, RUST AND STORM PROOF

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"We have handled your 'Eastlake' Shingles for nearly a quarter of a century. They have been on the Court House, Free Library, and other public buildings of this town for 18 years. We have used very large quantities during the past 25 years, and they have always given first-class satisfaction, and have never required any repairs."
(Signed) **MADDEN BROS.**,
Tinsmiths and Hardware Merchants.

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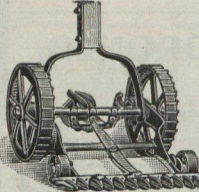
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40 leading varieties sold at prices you can afford to pay. Catalogue free. It will pay you to secure it before you order your plants. 100 plants sent post paid to any address in Canada for \$1.00

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STRATHROY, - - ONTARIO.



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There are three things that destroy your lawns. Dandelions, Buck Plantain and Crab Grass. In one season the Clipper will drive them all out.

CLIPPER LAWN MOWER Co.
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ARTICHOKE ROOTS
WHITE AND RED

\$2.00 a bushel (50 lbs.) 50 cents a bushel on ordering, the balance on delivery; express or freight charges at the buyer's expense.
\$1.50 a bushel for farmers' clubs and dealers.
We will accept orders till the 15th of May.
Write for circulars, French and English, which give you all necessary information.
We have in culture seven acres of white and red artichoke roots.
We encourage all farmers to try that easy, money making and very economical culture for feeding pigs.
Send your order early and as in the past we'll give you satisfaction.

MARCOTTE & GOSSELIN, Producers
St. Roch de Richelieu

BEZZO'S FAMOUS PRIZE ASTERS
Prize at New York State Fair, September, 1910

Vick's Violet King, Mikado White, Mikado (Rochester) Pink, Vick's Early Branching, Rose and White, 20c per dozen, \$1.00 per hundred.
Vick's Branching Pink, White, Rose, Lavender Semple's Pink, Royal Purple, Daybreak and Purity, truly the aristocrats of the aster family; 15c per doz., 75c per hundred; packed and labeled separately in wet moss. All plants sent by express and guaranteed to arrive in good condition. Express prepaid on orders over \$2.00. Remit by money order.

C. MORTIMER BEZZO, - - - - - **BERLIN, ONTARIO**

Dahlia Culture
L. W. Barclay, Morrisburg, Ont.

If all the readers of THE CANADIAN HORTICULTURIST knew, as many of them do, the pleasure and beauty to be derived from the planting of a few select dahlia roots, there would be many more flowers to decorate their homes this season.

The Dahlia is not very particular as to kind of soil on which it is grown, but it prefers a sandy loam and it wants it rich and loose, and above all, well drained.

LOCATION

They should be planted in a position where they will get the full sunlight the greater part of the day. A shady situation causes too spindly a growth and poor flowers.

It takes a Dahlia plant nearly two weeks to get through the ground after planting, therefore the season should be so chosen that the young shoots will appear after all danger of frost is past. Otherwise it will be necessary to cover them on cold nights. Plant the tubers on their side about five inches deep.

Do not crowd your plants. Give each plant a space of at least two and a half feet. A stake should be set at planting time for securing the plant from winds. If pushed in the ground later when the plant is two or three feet in height, the roots, or perhaps the tubers, will be severely injured.

PINCH OFF SHOOTS

As soon as the first shoots are six inches tall, cut off all but one, or at least two, of the strongest and keep all shoots that come out later cut off. This is one of the main kinks in Dahlia culture, and one certainly not to be despised if fine flowers are wanted. Some pinch off the top of the shoots when they are a foot high to make a more bushy plant, but I do not advise this practice.

Cultivate and water well—not a sprinkling now and then, but at least two pails full every week. Give a good soaking at each watering.

There is a color or combination of colors and a type of Dahlia to suit almost any fancy, but I prefer the show Dahlia, and if I have any particular choice it is the Frank Smith, a purplish maroon, shaded to almost black, each petal tipped white. It is certainly a beauty.

WINTER CARE

When the green plants have been frozen by the first hard frosts, cut off the stalks to six inches. Carefully lift the tubers, leaving quite a lot of ground on the clumps. Place where they will dry thoroughly for a few days, when they can be placed in the cellar until spring. A Dahlia root will keep safely anywhere a potato will, but they must be kept from frost or excessive heat during the winter months.

Since the resignation of Mr. A. McMeans from the staff of the Guelph Agricultural College, the vegetable growers of Ontario have not been represented by a practical vegetable grower at the college. What do our vegetable growers think about it?

HANDY GARDEN TOOL

Here's a practical tool for the farmer or gardener—our No. 6 Combined Double and Single Wheel Hoe, Hill and Drill Seeder. Four tools for the price of one. It plants in hills or continuous rows, covers the seed, rolls the soil, marks the next row, hoes, weeds and cultivates. Simple, easy to operate, and does a day's work in 60 minutes.



IRON AGE Farm and Garden Tools

For 75 years we have made dependable tools of quality for the farmer, trucker and town gardeners. We make 33 garden tools at \$2.50 to \$12.00 each.

Write to-day for Anniversary Catalog describing our entire line including potato planters, cultivators, sprayers, diggers, orchard and other tools.

BATEMAN M'FG CO.
Box 5162 GREENLOCH, N. J.

75 YEARS IN BUSINESS

Stocks carried at many convenient points. Ask for address of nearest Canadian agency



You can cultivate between berry bushes when the Bissell Garden Disc Harrow is closed up, or under fruit trees with wings added. Adjustable—for single horse, or light two horse harrow. Low or high seat. Reversible—In-Throw to Out Throw. Remember, no harrow is genuine without Bissell name stamped on it. Ask local dealer about the Bissell or write Dept. N for Catalog.

T. E. Bissell Co. Ltd., Elora, Ont.

The Bissell GARDEN HARROW

You can't sow thistles and reap figs. If you plant Ferry's Seeds you grow exactly what you expect and in a profusion and perfection never excelled.

FERRY'S SEEDS

Fifty years of study and experience make them reliable. For sale everywhere. Ferry's 1911 Seed Annual free on request.

D. M. FERRY & CO.,
Windsor, Ont.

Rubber Stamps
BRASS STENCILS, Etc.

ALL KINDS—ALL PURPOSES

W. E. IRONS 113 BAY ST. TORONTO

USE FOSTER'S POTS
THEY ARE THE BEST ON THE MARKET



WE MANUFACTURE
STANDARD POTS
FERN PANS
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SAUCERS AND
STRAIGHT PANS
Canada's Leading Pot Manufacturers

The FOSTER POTTERY CO., Limited
Main St. West, Hamilton, Ont.

THIS MARK ON A SEED PACKAGE

Carries With it the Strongest Assurance of QUALITY.



WE DELIVER POSTPAID TO ANY ADDRESS IN CANADA

	per lb.	¼ lb.	oz.
BEANS , Round Pod Kidney Wax	25c		
Penell Pod Black Wax	25c		
Wardwell's Kidney Wax	25c		
Scarlet Flageolet Wax	25c		
Improved Golden Wax	20c		
BEEF , Extra Early Egyptian	25c	10c	
Crosby's Egyptian	25c	10c	
Detroit Dark Red	25c	10c	
Early Eclipse	25c	10c	
CABBAGE , Early Jersey Wakefield	60c	20c	
Glory of Enkhuisen	75c	25c	
Copenhagen Market	\$1.25	40c	
Danish Roundhead	75c	25c	
Danish Ballhead	75c	25c	
CAULIFLOWER , Danish Giant or Dry Weather	7.00	2.00	
Extra Early Dwarf Erfurt	6.50	1.90	
Henderson's Snowball	6.50	1.90	
CARROT , Model or Chantenay	70c	25c	10c
Danver's Half Long	70c	25c	10c
Half Long Nantes	70c	25c	10c
CORN , Extra Early White Cory	20c		
Golden Bantam	20c		
Peep O'Day	20c		
Kendal's Early Giant	20c		

The Following Seeds all 5c per packet unless otherwise noted

	per lb.	¼ lb.	2 oz.	oz.
CUCUMBER , Everbest White Spine	60c			20c
Arlington White Spine	25c			10c
Davis Perfect	45c			15c
Improved Long Green	25c			10c
LETTUCE , Grand Rapids	40c	25c		15c
Black Seeded Simpson	40c	25c		15c
Big Boston	40c	25c		15c
Improved Hanson	40c	25c		15c
PARSNIP , New Maltese	50c	20c		10c
RADISH , Rapid Forcing	75c	25c		10c
Early Scarlet Globe	60c	20c		10c
Scarlet Turnip White Tipped	50c	20c		10c
SPINACH , Carter's Victoria	30c		10c	
TOMATO , Spark's Earliana				25c
Chalk's Early Jewel				25c
Improved Acme				25c
Beauty				20c
Stone				20c
ONION , Large Red Weathersfield	1.75	50c	25c	15c
ONION SETS , White Dutch Sets, per quart				30c
Yellow Dutch Sets, per quart				25c
Potato Onion Sets, per quart				20c

FREE--SEEDS FOR ALL

We want at least a small order from every reader of this advertisement. Nothing convinces like results. We want you to know our seeds, hence this offer.

Select seeds from the above list to the value of \$1.00 or more, and we will send you without extra charge, the following Flower Seeds, one packet each: ASTER, Giant Comet Mixed; GODETIA, Lady Satin Rose; NA-STURTIUM, Dwarf Mixed; MORNING GLORY, Imperial Japanese; SWEET PEAS, McDonald's Rainbow Mixture.

Germination of the above seeds have all been thoroughly tested, and are sure to produce vigorous, healthy plants and are exceptionally good crop, providing soil and weather conditions are favorable.

Our Handsomely Illustrated SEED CATALOGUE Mailed Free on Request. **KENNETH McDONALD & SONS** Market Square OTTAWA

The World's Most Beautiful Dahlias

SPECIAL OFFER

To introduce we cut the price in two, viz., any six, your choice, \$1.00, any 13, \$2.00, Field Tubers.

The first twelve are recommended (and priced) by the leading American seedsman.

There may be a few other collections as good as these, but there are absolutely none better.

Jack Rose, Dec. The color is similar to the Jacqueminot Rose, which lights up beautifully at night. Blooms in great profusion, on long stiff stems. 25c.

Jeanne Charmet, Flowers measure 8 inches across, borne on stiff wiry stems, often 18 inches long. The exquisite flowers are pink at edges, pure white towards centre and light yellow at margins. 50c.

Madam A. Lumiere, Dec. Unique coloring; pure white, violet red points; a fine contrast of colors. 50c.

Sylvia, Dec. Flowers 4 to 6 inches in diameter, of fine form, full to center, which is white, shading to soft pink on the outer petals. 25c.

Mrs. Roosevelt, Dec. Immense size, fine color, graceful form, good stems, flowers perfectly double, 6 to 8 inches in diameter, and of a most delicate pink. 25c.

Mme. Van den Dael, Dec. Soft rose, with deeper markings, shaded to creamy white in center. 25c.

Prof. Mansfield, Fancy. Grand flower; rich yellow tipped white, rose red centres; sometimes three solid flowers of different shades on same bush. 25c. Short stems.

Souvenir de Gustave Douzan. The largest dahlia, 9½ inches across; profuse bloomer, red. 30c.

Master Carl, Cactus. A gigantic dahlia of perfect form; bright amber color; one of the finest dahlias in our collection. 35c.

Kriemhilde, Cactus. Delicate pink, shading white in center; fine for cutting. 25c.

Mrs. Geo. Stevenson. One of the best yellow cactus. 30c.

Mrs. J. P. Mace. The most beautiful dahlia for cutting. The best and finest shaped blush pink cactus variety. 35c.

Cherub. Show. Rich amber, very distinct, very compact flower of perfect form. 35c.

Mpdesty, Show. One of the loveliest, blush. 35c.

Progress, Fancy. Clear, soft rosy lake, spotted glowing crimson, valuable as a cut flower. 30c.

Queen Emma, Pæony. Soft lavender pink of refined form, and a good keeper. 30c.

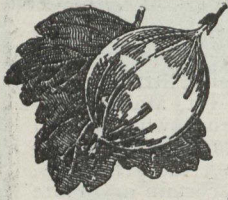
Duke Henry, Pæony. Rich brilliant deep crimson of good form and habit. 35c.

Germania, Pæony. Bright, glowing crimson, very attractive and showy; long stems. 35c.

We have a few (not included in special offer) roots of **Ruth Forbes**, pink cactus. Excels any other variety for large vase purposes, stems, 3 feet; **Delice**, the finest pink colored decorative dahlia, perfect form and color. 50c.

SEND FOR CATALOGUE

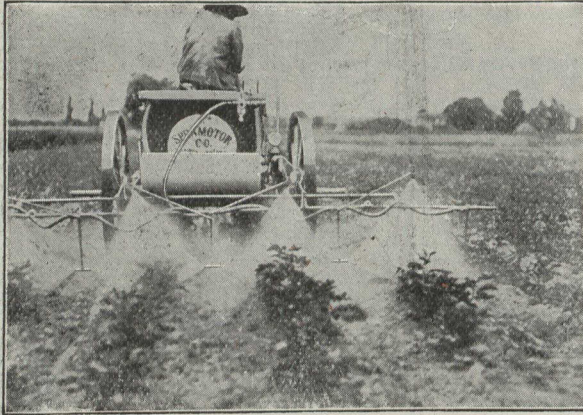
H. P. VAN WAGNER, - STONEY CREEK



SMALL FRUIT PLANTS

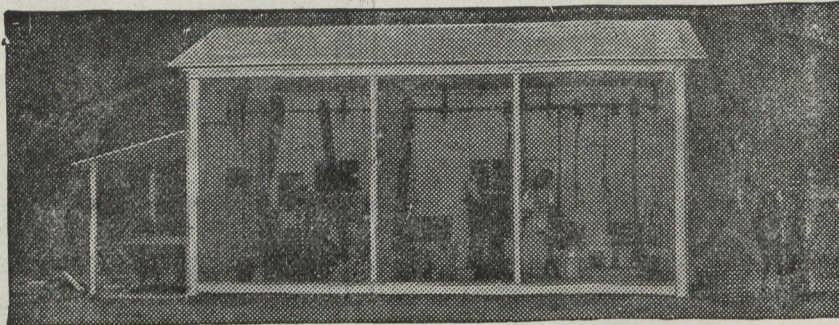
Gooseberries, Josselyn, Red Jacket, Downing, Pearl, Houghton.—Currants, Perfection, Ruby, Cherry, White Grape, Lee's Prolific, Champion, Black Naples, Victoria.—Raspberries, Herbert, Cuthbert, Marlboro, Brinckle's Orange, Golden Queen, Strawberry-Raspberry.—Garden Roots, Asparagus, Rhubarb, Perennial Celery. Write for Catalogue.

WM. FLEMING, Nurseryman, Box 54, Owen Sound, Ontario



Look at the H. P. Spramotor spraying an acre of potatoes in 15 minutes. There are three nozzles to a row and four rows, two spraying from the sides and one from the top. Adjustable as to height and width up to 40 inch rows. Absolutely non-clogging nozzles. 12 gallon air tank, automatic and hand controlled. 125 lbs. pressure guaranteed with 12 nozzles open. Has agitator clean-out pressure relief into tank, and nozzle protector, all under control of driver from seat. For 1 or 2 horses Fitted for orchards, vineyards and grain. Write for booklet.

HEARD SPRAMOTOR CO.
1398 King St., London, Can.



Multiply Your Profits With This Proved Farm Power

YOU have invested a certain amount of money in your farm machines—your separator—fanning mill—ensilage cutter—pump. To make that investment pay dividends, these machines must be operated at highest efficiency and the least possible cost.

Years of splendid service have shown that the most efficient operator of farm machines is an

I H C GASOLINE ENGINE

All I H C engines are conservatively rated—each engine easily developing 10 to 30 per cent more than its listed horse power.

The I H C is simple—its parts few and strong. This makes it easy to clean and keep in good condition, and gives it lasting qualities not to be found on more complicated engines.

I H C Gasoline Engines are built in all styles and sizes, 1 to 45-H.P., vertical and horizontal—stationary, portable, or tractor.

No matter what work you want done there is an I H C to do it. See the I H C local dealer and pick out the engine you need. Get it to work saving you time and money and increasing your production. If you prefer, write for catalogue and full information to nearest branch house.

CANADIAN BRANCHES—International Harvester Company of America at Brandon, Calgary, Edmonton, Hamilton, Lethbridge, London, Montreal, North Battleford, Ottawa, Regina, Saskatoon, St. John, Weyburn, Winnipeg, Yorkton.

International Harvester Company of America
Chicago (Incorporated) U S A



IHC Service Bureau

The purpose of this Bureau is to furnish farmers with information on better farming. If you have any worthy question concerning soils, crops, pests, fertilizer, etc., write to the IHC Service Bureau, and learn what our experts and others have found out concerning those subjects.

POULTRY DEPT.

Cooperation in Handling Eggs

A large produce firm in Montreal state that they throw out from two to four dozen eggs out of each case that they handle. Who pays for this loss? The egg dealer is not in the business for his health and he bases his prices upon what he will get for his whole stock, good, bad or indifferent.

It is estimated by Prof. Elford of McDonald College that about twenty-five million dollars were paid out last year by consumers for eggs while the sum realized by the producers did not exceed fifteen million dollars. In other words ten million dollars either went to the middle men or was lost owing to the careless manner in which the poultry men gathered their eggs. The results of this lack of system is that some seventeen per cent. are either broken in transit or are bad and have to be thrown out by the produce firms which handle them before they are sold to customers. This alone means a loss of about two million dollar a year to the egg producers of Canada. This loss is made good by the men who sell good eggs as the dealers protect themselves against loss by paying enough less so that they will make a profit on the whole. Thus the men who sell good eggs really provide the money to pay the careless ones for their bad eggs.

Is it not about time that the poultry men got together and decided on some plan whereby they could place their product in the hands of the consumers direct and save this enormous loss. The man who lives near a city or town can deliver his eggs two or three times a week and guarantee them absolutely fresh, and obtain the highest price. There is always a market for first quality eggs but there are so many low grade eggs which pull down the average price paid to the producer.

Again too many men get a share of the profits. The local dealer buys the eggs all at the same price and makes very little inquiry with regard to the degree of freshness, the local dealer sells to the commission merchant, the commission merchant in town sells to the small grocery store from which the consumer is supplied. Thus the consumer pays a great advance in most cases over what the poultry men receive yet due to the number of hands that the eggs have to pass through and the length of time taken the quality is usually very poor.

COOPERATION IN DENMARK

The Danes are leaders in cooperation and in that country the producers are grouped together in what is known as cooperative egg circles. They go so far as to grade eggs with regard to color and size making it the aim of their association to supply the consumer with exactly what he wants and of course charge him accordingly. The cooperative handling of eggs has been successful for years in Denmark. This system is also working satisfactorily in several communities in Canada and the United States.

CONDITIONS NECESSARY

The best results for the fresh egg circles are to be had where the circle is of such dimensions as will enable it to supply a certain number of eggs the whole year around. Some of the conditions necessary if the egg circle is to be a success are given below and will be found just as important for a circle

Peerless Fences cost the least per year of service

THE longer a fence lasts the less it costs you. That is why Peerless Fence is the cheapest you can buy. It is made right in the first place. Heavy steel wire, well galvanized so that it cannot rust. Each intersection is held firmly together by the Peerless lock. Peerless Poultry Fencing is made to give long and satisfactory service. It is strong enough to keep the cattle out and close enough to keep the chickens in. It requires few posts, because it stands stiff and taut. Peerless Lawn Fence will add to the appearance of any property. It is attractive and strong—will last for years.

I have compared some of your Peerless Fencing that I put up the first year with other fences put up the same year and I find that Peerless Fencing shows no sign of rust, and the galvanizing looks as good as when erected, and I think you have been successful in turning out a good fence.

—Mack Lillis, Glenburnie.

Comparing your fence with other makes it is not hard to tell which is the best. There is no sign of rust on the first Peerless Fencing I put up here, and there are some other makes that were put up about the same time that are rusted in spots now. Where I have sold fencing once I can go back and sell to them again.

—G. A. Petapiece, Oxford Mills.

We manufacture a full line of farm and ornamental fencing and gates.

THE BANWELL HOXIE WIRE FENCE CO., Ltd.

Dept 0, Winnipeg, Manitoba

Hamilton, Ontario

ROSE COMB WHITE LEGHORNS

BOSTON AND ONTARIO WINNERS

Greatest laying and winning strain in Canada. No frozen combs; lay the year round. Eggs from \$1.50 per 15, \$6.00 per 100 up. Stock for sale at all times.

White Indians, best market fowl living; birds direct from New York winners. Eggs \$1.50 per 15.

IRVIN K. MARTIN, Box 159, GALT, ONT.

GOOD WINTER LAYERS



BLACK LANGSHAN HEN

The Best Winter Layer



BLACK LANGSHAN COCKEREL

—BRED BY—

G. E. HOLT

405 Indian Road

Toronto - Ontario

20 ACRES & INDEPENDENCE FOR \$300

Better Than Bonds or Life Insurance

We offer for \$300 each, fifteen farms of twenty acres suitable for **INTENSIVE CULTIVATION**, which means the cultivation of fruits and high class vegetables yielding from \$100 to \$300 per acre.

The possession of one of these farms paid for and under cultivation places a man in a position of

Complete Independence

Ten acres in apples, pears, raspberries, celery, tomatoes, artichokes, etc., will produce from \$1,000 to \$2,000. The other ten acres can be held in reserve sowing it, meanwhile, with alfalfa, which with very little attention and without resowing will produce \$40 to \$50 per acre annually.

The land is light, sandy loam, similar to that around Clarkson, which sells at \$150 per acre, though thirty years ago it sold for \$20, because it would not grow wheat.

The land has never been cultivated and is without fences or buildings, the same as the western prairies, which is one reason of the low price. Another is we have 1,000 acres for sale and offer the first fifteen farms cheap to start the settlement, which is 60 miles from Toronto, one mile from a village with railway station, post office, stores, churches, schools, etc.

A fine trout stream of considerable size runs through the property. A higher price is asked for farms with river frontage. Whether for immediate use or future possibilities, no mistake can be made in paying \$300 for a farm in Central Ontario.

Anyone in a City, earning less than \$1,000 a year would be better off by the intensive cultivation of one of these farms.

We have made several visits to the property, and are so impressed with its possibilities that we are buying the first two farms, to have them fenced and sown with alfalfa and clover under contract, feeling sure that after paying all expenses the first two crops will more than pay for the land.

Terms, \$100 down, balance on time.

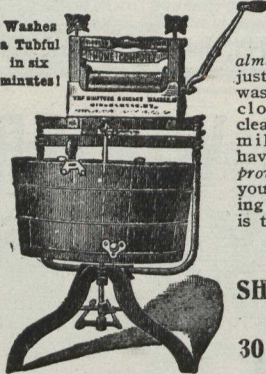
A pamphlet, with map, describing the land fairly without exaggeration, will be sent on request.

Enoch Thompson, Ltd., 152 BAY ST. Toronto

GET THE WASHER RUN BY GRAVITY!

We have harnessed the Power of Gravity to the 1900 Washer. It is the Greatest Combination known for quick, clean, easy washing.

Washes a Tubful in six minutes!



The Washer almost runs itself! In just six minutes it washes a tubful of clothes spotlessly clean. Over half a million housewives have tested this and proved it. So can you, without spending one cent! Here is the offer!

WASHERS SHIPPED FREE FOR 30 DAYS' TEST

We make this offer to any reliable man or woman anywhere. We send the Washer by freight, at our expense and risk. That's because we absolutely know you will be as delighted with the Washer as the thousands who have tried it. Get one of these wonderful Washers and say "good-bye" to the washboard forever. Good-bye to backaches, worry and washday drudgery! Let Gravity Power do the hard work! Let the Washer cleanse the clothes! We sell the Washer on little payments—only 50 cents a week. It pays for itself in a hurry. Then works for you—free for a lifetime! Drop us a postal card for the Free Washer Book and tell us your nearest freight station. Send to-day. Address me personally for this offer, C. H. H. BACH, manager, The "1900" Washer Co., 357 Yonge Street, Toronto, Ontario. The above offer is not good in Toronto, Winnipeg or Montreal and suburbs, special arrangements made for these districts.

of two or three poultry men or even for the man who has a few hens and sells his eggs direct to the consumer. As soon as the breeding season is over male birds must be removed from the flock. In this case the eggs will be unfertilized and the heat will have less effect upon them. Eggs must be gathered only from the regular nests, which must be kept clean cool and at as even a temperature as possible. Eggs should be gathered at least once a day. They must be kept in a dry cool place as near to 60 degrees as possible and delivered either to the consumer or to the central station three times a week. The eggs should be uniform in size and if possible graded according to color. Each member of the circle should be furnished with a stamp with which the eggs are numbered. In this way it will be possible to trace any complaint directly to the person responsible for the sending of any eggs not up to the standard. These rules can be followed either by the small producer selling direct or by the larger cooperative egg circle and if strictly adhered to would mean the saving as Prof. Elford says of a sufficient sum each year to buy a whole township of good farming land.

Niagara Fruit Growers' Association

The annual meeting of the above named society was held in Grimsby and St. Catharines on March 1, 2 and 3. The interest taken in the addresses and discussions was greater than usual while the attendance was larger than in previous years.

The speakers from a distance were Mr. Elijah Rogers, president of the Connecticut Pomological Society and Mr. Stancliff Hale, South Glastonbury, Conn.

They both strongly advocated good cultivation of the orchards, proper pruning, low headed trees, well open to let in the sunshine and plenty of bone meal and potash as fertilizers combined with clover for a cover crop to furnish the nitrogen. They were opposed to reciprocity as they claimed that they could obtain better prices and were afraid that the good yellow fleshed Ontario peaches would come in and compete with their lower grade poorer varieties.

In the opening session at Grimsby, the president, Mr. J. W. Smith of Winona, occupied the chair. He gave a practical address from his large experience as a peach grower and concluded as follows: Curl leaf gave us a fight, the yellows another, the San Jose Scale was the next trial, but science has overcome this obstacle, and only careless men allow the scale to hurt their orchards. The Little Peach is now causing anxiety, but I am satisfied that science will overcome this trouble also. The last scare, and not altogether the least, is Reciprocity, which will take our North-West markets from us. But we must grow better fruit, and then if we have to compete with our American friends we may come out all right.

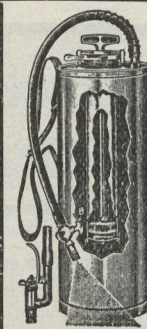
Mr. Stancliff Hale said that the Pomological Society of Connecticut and the farmers of the United States were against Reciprocity. The Senate will delay it so that it may not pass after all.

Science is of no use against the Little Peach, the axe is what is needed; it does

Roses Roses

Hardy, strong two year bushes, including Thousand Beauties, Blue Rambler and Flower of Fairfield, Perfection, the largest and best Currant, German Iris, Meehen's Marvels, Trees, Shrubs and Vines. Special price list free.

A. W. GRAHAM, Nurseryman, ST. THOMAS, Ont.



IMPROVED AUTOMATIC COMPRESSED AIR SPRAYER

BEST HAND SPRAYER MADE AT THE PRICE

READ THE FOLLOWING:
Winona, Ont.

"The Sprayer that I purchased from you last spring is a most valuable little machine. I have no hesitation in recommending it to anyone who requires an inexpensive and reliable spray pump. It is excellent, and I do not know of any other hand machine for the price that could do better work."

E. D. Smith, Ex-M.P.,
President Ont. Fruit Growers' Ass'n.

Drop us a card for Descriptive Circular and special rates.

CAVERS BROS. MANUFACTURERS, GALT, ONT.

Mention The Canadian Horticulturist.

STRAWBERRY PLANTS

Barrymore, Heritage, Gill, Gorea, Paul Jones, Wooster, Diamond, Joe, Good Luck, Chas. Newman, King Edward, St. Louis Ozark, Taft, Orem, Fairdale Giant, Bountiful, Chipman, Three W's, and all the old reliable varieties. Price list sent free on application.

E. B. STEVENSON, Maple Bank
270 Grange Street, Guelph, Ontario

STRAWBERRY PLANTS

Following Desirable Varieties

—AT—

\$4.00 per M. 60c per 100

Sample, Enhance, Senator Dunlop, Williams and Splendid

JAS. E. JOHNSON

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Imperial Bank

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It is the safest and best on the market. Fitted with automatic hooks that lock at every rung and unlock between the rungs

It is **LIGHT, STRONG EASILY OPERATED AND DURABLE**

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Makers of Ladders for every conceivable purpose

ROSES

We have to offer for early spring delivery five thousand fine young dormant roses, in over 100 of the finest Hardy Everblooming and Hardy Climbing sorts which we offer while they last in

Special Dollar Collections

of 10 varieties, one of each. Each collection includes 2 Hardy Climbers and 8 Hardy Everblooming Roses.

Five Collections, 50 varieties, for \$4.50. These are too large to go by mail, but we can send smaller plants by mail prepaid if preferred. First come, first served.

W. McK. Ross' Sons
CHATHAM, ONT.

**57 BUSHELS MORE
POTATOES
PER ACRE**

WHERE PLANTED WITH

IRON AGE

(Improved Robbins)

Potato Planter

Average results obtained in a careful, thorough test against a "picker" planter by Maine State Experimental Station, in 1910. Ask us quick for the **proof**—we will send you **now** bona fide copy of their report in Bulletin No. 188, which will be ready about March 15th. Shows exact results. Also, comparison of level culture, high and moderate ridging, 100 per cent. perfect planting is what you want—no doubles, no misses, no injury to seed. Address

BATEMAN M'FG CO.
Box 516-P
GRENLOCH,
N. J.

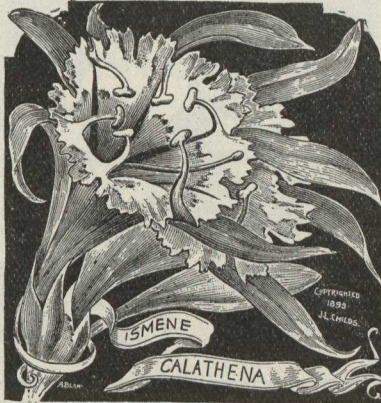


Man on rear seat makes corrections only.

Stocks carried at many convenient points. Ask for address of nearest Canadian agency

47 FIRST PRIZES
FOR PRODUCTS FROM
DUPUY & FERGUSON'S SEEDS

Twenty-Three Prizes awarded at the Lachine Horticultural Society Exhibition, Aug. 1910, and Twenty-Four Prizes at the Montreal Horticultural Exhibition, Sept. 1910, to Mr. F. S. Watson of Lachine, Que., on products grown from seed supplied by us



The results from growing our **Seeds** have made them famous. They are the most carefully selected goods in the world, of the finest quality, and germinative power. We keep only one quality, and that is the best. Try our **Magnificent Strains of Asters, Pansies, Petunias, Sweet Peas, Stocks, etc.**

We also keep in stock French Spiral Wheel Spring **Secateurs, English Watering Cans, Orchid Baskets,** and all kinds of Garden Tools.

THE GREAT ISMENE

Large Bulbs 20c. each, 3 for 50c
See page 78 of our Catalogue for Description

Write for our New Illustrated Catalogue of Garden Seeds

DUPUY & FERGUSON
SEEDSMEN
MONTREAL, QUE.



BEEKEEPERS

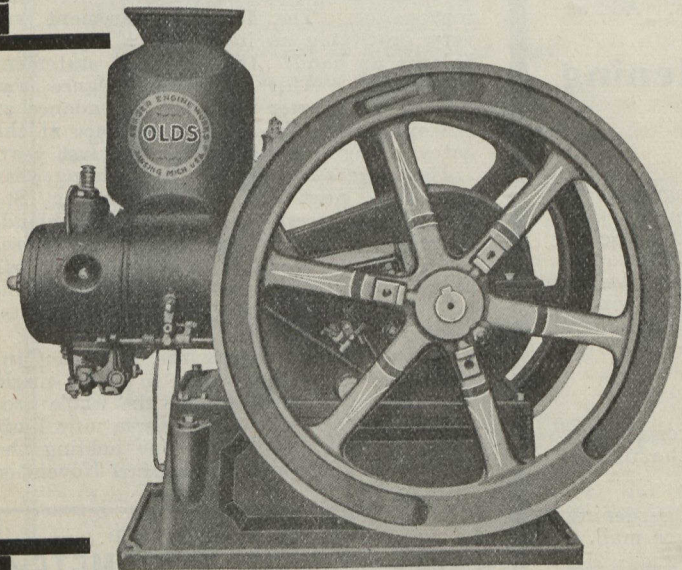
DON'T continue on in the old way, but make your bees pay well by using the best Hives, Sections, Comb Foundation, Smokers, etc., etc.

Full Colonies of Italian Bees, also Queens a specialty.

Prompt Service and Careful Attention.
Illustrated Catalogue Free.
Highest price paid for **Beeswax.**

F. W. JONES, BEDFORD, QUE.

Reliable Power for the Farm



Power for pumping, sawing wood, grinding and cutting feed, running the grindstone, cream separator, churn, washing machine, etc.—Ready at any time—Is best secured by installing

OLDS GASOLINE ENGINE

Backed by an experience of over thirty years in gasoline-engine building. Built in the largest factory in the world devoted entirely to the building of gasoline engines.

Complete Spraying Outfits

We supply a complete spraying outfit for fruit growers. Send for special bulletin.

Massey-Harris Company, Limited

TORONTO, MONTREAL, MONCTON, WINNIPEG, REGINA, SASKATOON, CALGARY, EDMONTON.

Aphine

The Insecticide that
kills plant Lice
of every species

You can depend on it for positive results, without fear of failure or dissatisfaction.

It destroys green, black and white fly, red spider, thrip, mealy bug, brown and white scale without the slightest injury to the tenderest flower or foliage.

FUNGINE

An infallible remedy for mildew, rust and other fungus diseases. A clean, safe and easily applied spraying material, particularly adapted for the greenhouse. —FOR SALE BY—

Dupuy & Ferguson

38 Jacques-Cartier Square, MONTREAL, Can.

Send for Descriptive Circular.

Manufactured by APHINE MANUFACTURING CO., Madison, N. J., U. S. A.

Any little girl can do the
churning with
MAXWELL'S
Favorite Churn.

It makes the smoothest, richest, most delicious butter you ever tasted.

The roller bearings—and hand and foot levers—make churning an easy task, even for a child.

All sizes from ½ to 30 gallons.

Write for catalogue if your dealer does not handle this churn and Maxwell's "Champion" Washer.

David Maxwell & Sons,
St. Mary's, Ont.



93

more damage than yellows and spreads faster. In pruning peaches, he wants a tree to branch out at not more than a foot above the ground. In his orchard he does not need ladders, as the fruit can be picked from the ground. This is economy in labor, and he finds that the low heads give no trouble in cultivation.

The peach-growing conditions, as far as marketing was concerned, were about the same there as here. They had to compete not only with the north and eastern growers, but with those of Colorado, Utah, and Oregon. At the time their peaches were ripe the New York and Boston markets were overcrowded with from one hundred to two hundred carloads a day coming into New York, to be eaten out of hand. Many small cities in the United States were taking from one to two cars and offering much better prices.

Prof. Harcourt gave two very excellent addresses. One on fertilizers, showing the needs of the soil and what fertilizing ingredients the trees require to produce the best crops of fruit. He explained that there were only four ingredients that were usually required in fertilizing orchards or garden crops, namely, nitrogen, potash, phosphoric acid and lime.

Most soils, except very light ones, have a sufficiency of these ingredients for all ordinary needs if they can be only made available. As aids in breaking down these insoluble compounds, he mentioned decomposing vegetable matter, moisture, air, and warmth. These conditions can only be obtained through the plowing under of cover crop or the addition of stable manure with good drainage and thorough cultivation.

He strongly advised against the use of mixed fertilizers, showing how the grower was paying more for the fertility in that form than by buying the straight goods such as potash, lone meal and acid phosphate. By buying ingredients, the fruit growers know exactly what they are purchasing.

Ontario Horticultural Exhibition

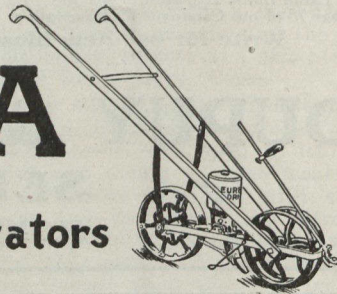
The annual meeting of the directors of the Ontario Horticultural Exhibition was held on March 24th. There was a good attendance and the various interests, such as fruit, flower, vegetables, etc., were well represented. The financial statement was very gratifying as it showed a substantial balance on hand. It is the best statement yet shown. This favorable balance was due to the greatly increased attendance at the exhibition. The paid attendance at the gates having been fifteen thousand last year.

The officers elected for the coming year are: Hon. president, W. H. Bunting, St. Catharines; president, H. R. Frankland, Toronto; first vice-president, Wm. Couse, Streetsville; second vice-president, Thos. Manton, Eglinton; treasurer, J. H. Dunlop, Toronto; secretary, P. W. Hodgetts, Dept. of Agriculture, Toronto.

It was decided to ask the Eastern Canadian Passenger Association to give a single fare, without certificate, for the whole province instead of the eighty-three mile limit as at present. The date for holding the exhibition this year was placed at November 14th to 18th.

EUREKA

Seed Drills
and Cultivators



UP-TO-DATE METHODS

In almost any business the successful man is the one who moves with the times and applies scientific methods to his business. Typewriters, Adding Machines, Cash Registers, all make for greater Office Efficiency.

Apply Scientific Methods to your Gardening

—And use Wheel Tools for Sowing, Cultivating—

The "Eureka" Garden Drill

is the best working drill on the market. It economizes seed, puts it exactly where you want it with less labor than any other means. The mechanism is perfect, sowing evenly to the last seed, and will not bruise even the most delicate. It can be instantly converted from Drill to the Hill Dropper. Then a few parts added to the Drill make it a complete Cultivator, Wheel Hoe and Plow. We also make larger hand Wheel Cultivators for special purposes. The latest and strongest is a single 24 inch Wheel Cultivator. This is very powerful. The land side Plow will turn over a straight furrow several inches deep.

Sprayers

You do not need to be told the necessity of having a good Sprayer in your garden. We believe the "Eureka Compressed Air Fountain Sprayer" is the highest classed machine of its kind made.

OUR NEW CATALOGUE contains a great deal of information on gardening and the proper tools to use. Drop us a card and you will have it by return mail.

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SPECIAL GUARANTEED LIME-SULPHUR HYDROMETER

Scale to 1400 Specific Gravity. Every man who sprays needs one. Price \$1.00 postpaid.

PARKE & PARKE, HAMILTON, ONT.

CULTIVATE OFTEN

and you hold the moisture in the ground. Cultivate shallow or deep as the crop needs it and you release the forgotten or unknown soil properties which are needed to make the crop grow properly. We have been making farm tools for 75 years and think we have as good a line of Riding Cultivators as you need to choose from.



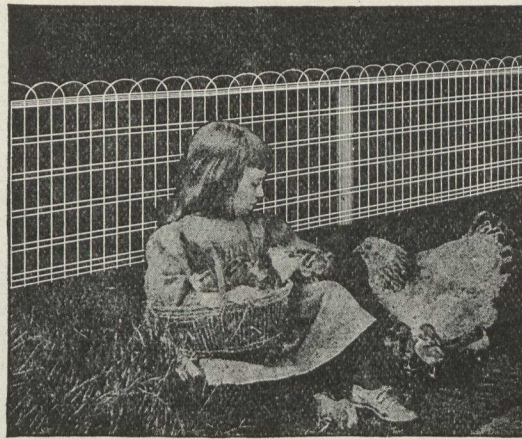
IRON AGE RIDING CULTIVATORS

are long-lived machines—adjustable for rows 23 to 50 inches, while in motion—teeth adjustable for depth and angle—pivot or fixed wheel, one row or two—high or low wheels—work well on hillsides—farm close and true. A complete line. Our Anniversary Catalog will show you—also, potato machinery, garden wheel hoes and drills, etc. Address



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Stocks carried at many convenient points. Ask for address of nearest Canadian Agency.



A fence of this kind only 16 to 23c. per running foot. Shipped in rolls. Anyone can put it on the posts without special tools. We were the originators of this fence. Have sold hundreds of miles for enclosing parks, lawns, gardens, cemeteries, churches, station grounds, etc., etc. Supplied in any lengths desired, and painted either white or green. Also, Farm Fences and Gates, Netting, Baskets, Mats, Fence Tools, etc., etc. Ask for our 1911 catalog, the most complete fence catalog ever published.

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The largest fence and gate manufacturers in Canada. 505

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Vegetable and Flower

We especially recommend our "SELECTED STRAINS" of flower and vegetable seeds to those who desire the best. They are sold direct only. Let us send you a copy of our illustrated Seed Annual, which tells about our seeds and gives also much valuable information that will interest you. Write for it. It is free. See our large advertisement in the March Number.

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Seed Merchants since 1866
124 King St. East, TORONTO, ONT.

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Arsenate of Lead is being used more and more in the fruit centres of the province of Ontario. The question that interests every fruit grower is this:

Is there Difference in Arsenates of Lead?

Yes. There is a big difference.

Let us suggest some points which we believe every grower should consider before placing an order for Arsenate of Lead:

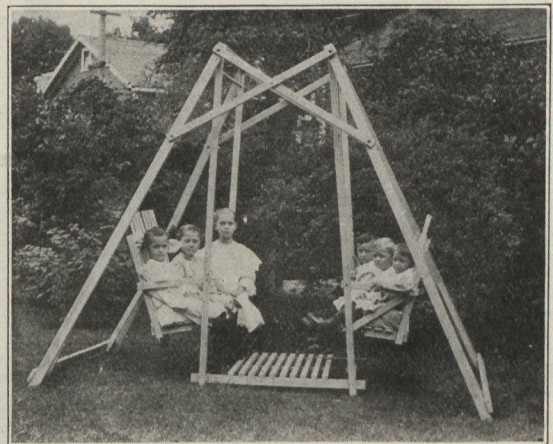
- 1st. You wish an Arsenate of Lead that will not burn the foliage.
- 2nd. It is desirable that an Arsenate of Lead mix readily, yet retain its adhesive qualities.
- 3rd. An Arsenate of Lead should contain the proper killing power.

Grasselli Arsenate of Lead contains no free acids or adulterant ingredients, contains a very low per cent. soluble Arsenic, and we have yet to learn of a case where it has burned the foliage, even though it may have been used double strength. It will mix readily and has a reputation for **adhesiveness and high killing power.**

Grasselli Arsenate of Lead has been used in the Niagara, Oshawa, Picton, Wellington and other districts for the past several seasons, and with every success. Write us for prices.

THE GRASSELLI CHEMICAL COMPANY
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Happy Out Door Hours Are Spent in the STRATFORD LAWN SWING



Fine for the youngsters and a source of enjoyment for the grown-ups too. Just the thing for your lawn or garden.

Inexpensive and certainly a pleasurable possession,—helps you to get the best of a summer's outdoor comfort

Made in three sizes at three prices. Built solid and strong in neat design and handsome finish.

If your dealer does not handle the "Stratford" write us for catalog F. It tells all about Summer Furniture.

The Stratford Mfg. Co., Limited
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FOR SALE AND WANTED

Advertisements in this department inserted at rate of two cents a word for each insertion, each figure, sign or single letter to count as one word, minimum cost, 25 cents, strictly cash in advance.

READ BEZZOS' Famous Prize Aster advertisement on page 106.

HARDWOOD ASHES—Best Fertilizer in use.—George Stevens, Peterborough, Ont.

STRAWBERRY. Red and Black Raspberry plants, Seed Potatoes.—R. C. Crysler, St. George, Ont.

100,000 RHUBARB ROOTS.—Best varieties grown. Price list, catalogue.—J. H. Lawrence, Hatzic, B.C.

PRACTICAL GARDENER AND FLORIST is open to do all kinds of jobbing work. Lawns laid out and cared for by hour or contract.—A. Youngs, 596 Waterford St., Peterboro, Ont.

WILLIAM COLVIN, GALT, ONTARIO—Specialist choicest varieties Gladioli, Dahlias, Small Fruits, Grape Vines, Perennials, Tuberosus Begonias, Ferns, Geraniums, etc.—Write for prices stating your wants.

WANTED—Persons to grow mushrooms for us in waste space in gardens, yards, sheds or cellars, \$15 to \$30 per week. Send for illustrated booklet and full particulars.—Montreal Supply Co'y, Montreal.

PLACE WANTED—In April or May, by strong and active young man aged 21, skilled in all branches of horticulture and in silviculture, good draughtsman with diploma from well known horticultural school and three years work with first-class firms. Highest references. Write to W. A. Burford, Royal Military College, Kingston, Ont.

STRAWBERRY PLANTS THAT GROW—Small fruits in many varieties, 150 assorted strawberries, \$1.00; 24 assorted raspberries, \$1.00; 50 assorted strawberry, 6 raspberry and 6 blackberry, \$1.00; 6 Currant and 6 Gooseberry, \$1. Each collection postpaid anywhere. Hardy Northern grown plants. Satisfaction guaranteed. Price list free.—Dept. A., E. L. Colpitts, Petitcodiac, N.B.

FRUIT LANDS

ONE HUNDRED FRUIT and Stock Farms, Grimsby and Niagara. Guaranteed as described. John Widdicombe, St. Catharines.

FRUIT FARMS sold and exchanged. List with us for quick sale. See us if you are thinking of buying a fruit farm.—F. J. Watson & Co., 1275 Queen Street W., Toronto, Ont.

NIAGARA DISTRICT FRUIT FARMS.—Before buying, it will pay you to consult me. I make a specialty of fruit and grain farms.—Melvin Gayman St. Catharines.

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FIFTY ACRES—Near depot, fourteen miles Toronto; twenty-eight hundred.

HUNDRED ACRES—County Norfolk, building, orchard; eight thousand.

FORTY ACRES—Near Sarnia, twenty-five acres apple orchard, bearing; six thousand five hundred.

THREE HUNDRED ACRES—County Peel; excellent building; orchard; thirty-two thousand.

FRUIT FARMS—From ten to hundred acres, in fruit belt, Niagara district; prices on application.

H. W. DAWSON, NINETY COLBORNE STREET, phone Main 6990; nights and holidays, 272 Wright Avenue; phone Park 527.

SALMON ARM, Shuswap Lake, B.C. has the finest fruit and dairy land in B.C. No irrigation necessary mild winters, moderate summers, no blizzards, or high winds; delightful climate; enormous yields of fruit, vegetables and hay; good fishing; fine boating amidst the most beautiful scenery, and the Salmon Arm fruit has realized 25 cents per box more than other fruit in B.C. Prices of land moderate, and terms to suit. Apply to F. C. Haydock, Salmon Arm, B.C.

The secretary reported that the Exhibition already promised to be away ahead of the 1910 record. The united counties of

FOR SALE—A Farm of 25 acres on the north shore of the C.P.R., 15 acres in orchard, all good commercial varieties. Comfortable home and buildings thereon. Apply to M. T. Hamilton, Grenville, Que.

BRITISH COLUMBIA fruit growing. Send one dollar for two hundred page beautifully illustrated cloth bound book, entitled "Fruit Raising in British Columbia," written by T. J. Bealy, a competent and well known authority on the subject. British Columbia Fruit, Molson's Bank Bldgs., Suite 1 Vancouver, B.C.

IF YOU WOULD LIKE to purchase a site for a home and fruit farm on good, suitable soil situated in the most favorable and dependable climate in Canada, get Louth-Clinton Peach Area free information and ground floor prices for properties in the coming locality for most profitable fruit growing. Don't miss present bargains—forty thousand mansion and farm for only thirty thousand, a fifty acres for ten thousand; others large and small. Enquire about them. State what you want. W. H. Brand, Jordan Station, Ont.

Northumberland and Durham have granted three hundred dollars in prizes.

Nine other counties have appointed strong committees to arrange for special exhibits. The Demonstration Orchards conducted by the Department of Agriculture to show the benefit of spraying and proper care, will have a large exhibit of fruit from sprayed and unsprayed orchards in all parts of the province. In addition a number of the large apple companies which are renting orchards in different parts of the province have asked for space. The meeting closed with a hearty vote of thanks to the secretary and treasurer for their services.

Show this copy of THE CANADIAN HORTICULTURIST to your friends and get them to subscribe. See some of our special premiums on page viii of this number. Write for our complete list of premiums and sample copies of the paper to help you in getting new subscriptions.

**RELIABLE NURSERY STOCK AT FIRST COST**

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You cannot separator before others. You should not you investigate all separators be impressed with IHC

know how much closer the IHC skims, how much longer it lasts, how much easier it is to clean, and how much easier it is to turn. There are no weak spots in an IHC Cream Harvester.

IHC Cream Harvesters are the only separators with dust-proof and milk-proof gears, which are at the same time easily accessible. The frame of an IHC Cream Harvester is entirely protected from wear by phosphor bronze bushings. The IHC has large shafts, bushings, and bearings; it has a perfect oiling system; the flexible top-bearing of

IHC Cream Harvesters

is the strongest and most effective found in any separator; it has only one spring.

IHC Cream Harvesters always run steady—without vibration. IHC Cream Harvesters are equipped with a patented dirt-arrester which removes the finest particles of dirt from the milk before the milk is separated. The crank is at the right height for easy turning, and the tank is at an easy height to fill.

The IHC local dealer will be glad to point out the above features and many others. Made in two styles—Dairymaid and Bluebell—in four sizes. Write direct for catalogue, or nearest branch house.

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International Harvester Company of America
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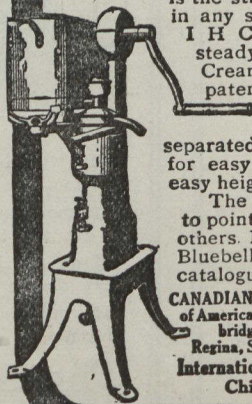
afford to buy any comparing it with take chances. The closer tors, the more you will superiority. You will then much longer it lasts,

how much easier it is to clean, and how much easier it is to turn. There are no weak spots in an IHC Cream Harvester.

IHC Cream Harvesters are the only separators with dust-proof and milk-proof gears, which are at the same time easily accessible. The frame of an IHC Cream Harvester is entirely protected from wear by phosphor bronze bushings. The IHC has large shafts, bushings, and bearings; it has a perfect oiling system; the flexible top-bearing of

IHC Service Bureau

The Bureau is a clearing house of agricultural data. It aims to learn the best ways of doing things on the farm, and then distribute the information. Your individual experience may help others. Send your problems to the IHC Service Bureau.





PHOTOGRAPHED IN AUGUST—BLOCK ONE-YEAR PEACH TREES

Herbert Raspberry

This is the heaviest cropper of all Red Raspberries: 200 bushels to the acre is its record.

Cherry Trees

Plant a row of sour cherry trees around your farm, 6 feet clear of fences. Then cultivate both sides of the trees. Each tree will produce \$5 to \$8 worth of fruit per year. We have three grades of cherry trees.

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The demand for these two fruits is very heavy of late. The Northwest development is absorbing hundreds of carloads of fruit annually. Plant more Plum and Pear trees.

Peach Trees

We still have unsold a few thousand Peach Trees of leading sorts.

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If you do not own one, buy one, and plant it to fruit. 50% dividends are not unusual in fruit growing. If you own a farm, plant fruit trees: More money in growing fruit than grain or raising stock.

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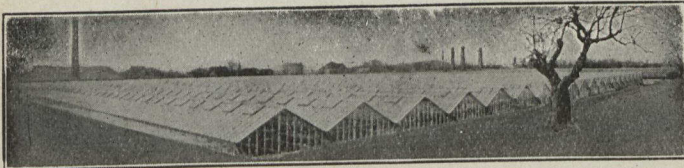
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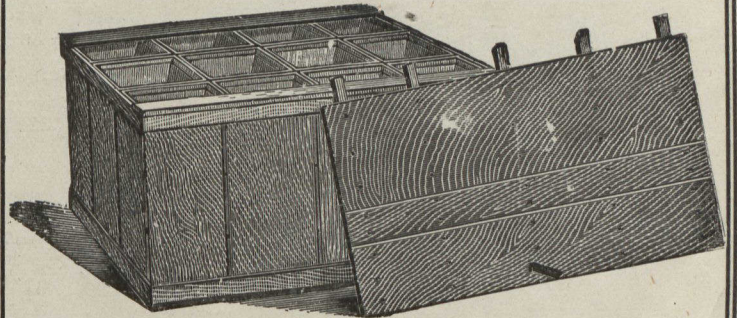
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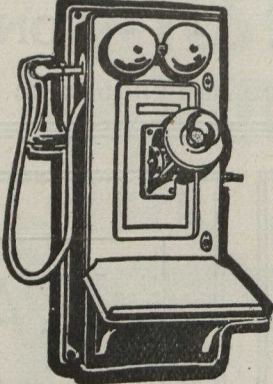


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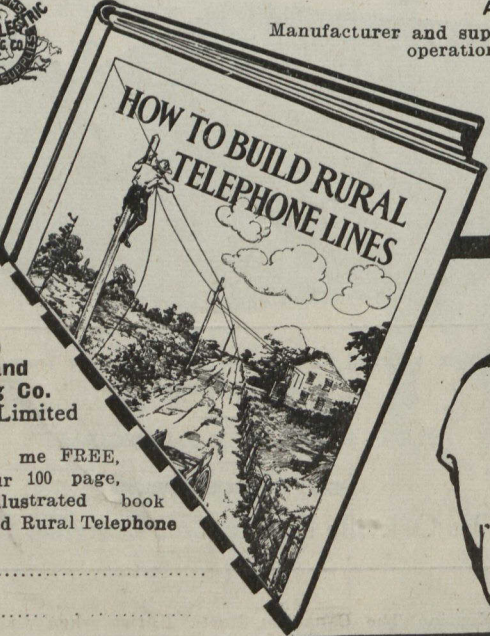
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