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THE CANADIAN HORTICULTURIST

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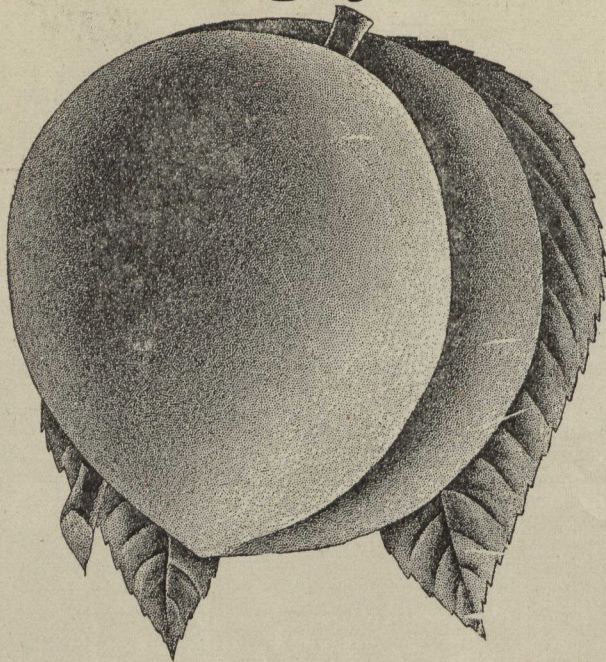
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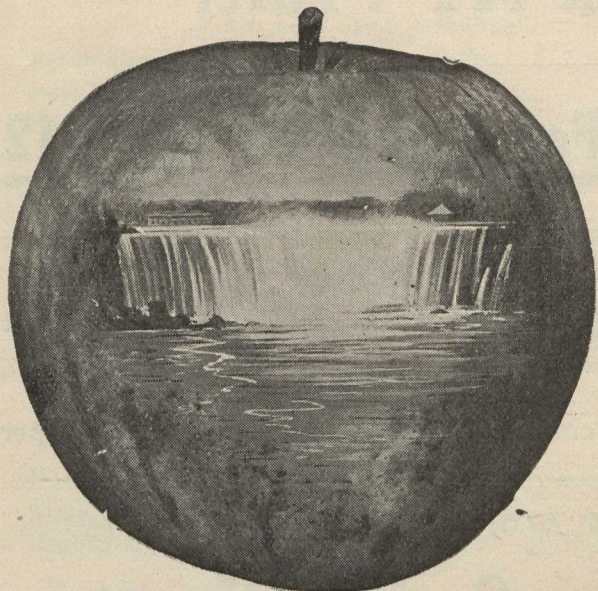
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The Canadian Horticulturist

Contents for January

Scene in the Gardens at Rideau Hall, Ottawa *Cover*

Fruit and Fruit Growing

Peach Diseases in Ontario	<i>Prof. L. Caesar</i>	1
Best Varieties of Fruit to Plant.		2
Best Varieties of Small Fruits	<i>G. S. Peart</i>	4

Flowers and Flower Growing

Lady Grey and the Gardens at Rideau Hall, <i>W. T. Macoun</i>	5
The Care of Sword Ferns	<i>A. V. Main</i> 6
Plants and Flowers for Every Window <i>Wm. Hunt</i>	7
Rubber Plants	<i>A. V. Main</i> 8
Hanging Baskets	<i>A. H. Ewing</i> 9
New Year Plans for the Garden	<i>John Gall</i> 9

Vegetables

New Ontario for Seed Potatoes	<i>T. G. Raynor</i>	10
Black Rot of Celery	<i>A. McInnis</i>	10
Results from the Use of Fertilizer	<i>W. H. Taylor</i>	11

General

Editorials	12
Publisher's Desk	13
Quebec Fruit Growers' Annual Convention	14
New Brunswick Apple Show	18
A National Apple Show	22

INDEX TO ADVERTISEMENTS.

Bank	ix
Boots	24
Cameras	22
Clubbing Offer	v
Churns	viii
Classified Advertisements	x
Colleges	ix
Correspondence Schools	x
Commission Merchants	ix
Explosives	18
Fencing	24
Fertilizers	ii, 15, ix
Flower Pots	viii
Fruit Evaporators	16
Fruit Farms.	20, 23, x
Greenhouse Material	14, vi, xi
Hot Water Boilers	xi
Implements and Tools	20, 22, x
Incubators,	23
Ladders	29
Lamps	x
Landscape Architecture	14, vi
Nursery Stock	ii, iv, 14, 15, 16, 23, vi, ix
Phonographs	21
Pruning Tools	22
Roofing Material	vii, viii
Salt	viii
Seeds, and Plants	15, 22, 23
Spraying Preparations	iii, 17, 19, 23, ix
Stock Food	23
Spray Pumps	iii, 16, 18, 24, x
Stove Polish	viii
Telephones	xii
Tree Protectors	v
Typewriters	20

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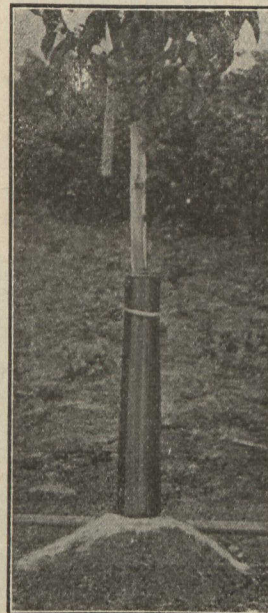
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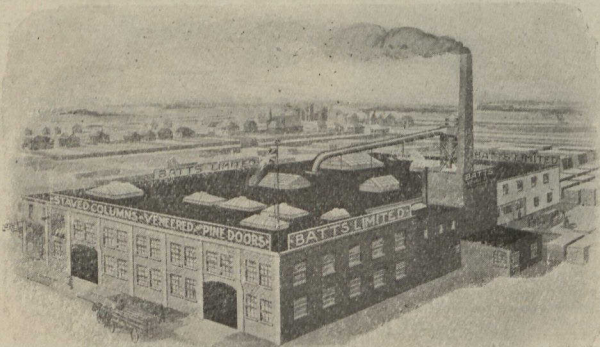
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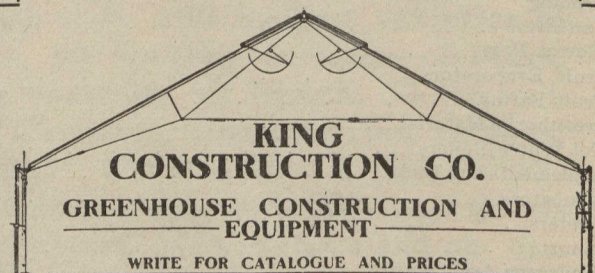
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The Canadian Horticulturist

Vol. XXXV

JANUARY, 1912

No. 1

Peach Diseases in Ontario*

Prof. L. Caesar, O. A. C., Guelph, Ont.

EVERY peach grower is familiar with the leaf curl disease, and knows that it attacks the leaves early in the spring and causes the mat first to become thickened, curled and distorted and of a pale whitish or often reddish color, and later on to become brown and dead and fall off. It is, next to Yellows and Little Peach, the most destructive disease that growers have to combat. The loss takes the following forms: First, in seasons of severe attack many young nursery trees are killed the first year they are set out and before they have had a chance to get over the shock of transplanting; second, there is a great drain on the vitality of older trees from the loss often of a large part of their foliage early in the season and the necessity of producing a new crop of leaves. Such trees are frequently not properly matured for winter and are sometimes killed by the cold. Trees severely attacked two or three years in succession not infrequently die, or at least lose a number of their branches; third, the fruit is dwarfed and often in bad cases drops off. This is to be expected from the fact that the substances that make the fruit are largely manufactured in the leaves; hence this source of supply is cut off for a considerable period by the disease;

*Extract from a paper read at the recent annual convention of the Ontario Fruit Growers' Association, held in Toronto.

fourth, the disease often attacks young shoots or twigs and kills these.

FAVORABLE CONDITIONS

Leaf Curl is well known not to be so severe some years as others. Experience has shown that it is favored by damp late springs, while it is almost completely kept in check by dry sunny weather around the time of blooming, and while the leaves are still quite small. In 1910 the spring was very late, cold and wet, and so the disease was exceptionally severe. Last year, 1911, the spring was early and we had beautiful, hot, sunny, dry weather, with the result that there was no Leaf Curl or almost none. This fact has led some to believe that Leaf Curl is not a disease, but is merely the result of unfavorable weather conditions. Such, however, is not the case, as anyone can easily prove who takes a glance through a microscope at one of the dead leaves from an affected tree and sees the millions of spores on the surface. These spores act like seeds and are carried by the wind from tree to tree and orchard to orchard, but so far as we know do not germinate until the next year. For their germination and growth plenty of moisture is necessary, hence the wet seasons favor their growth; moreover, cold does not interfere with their development, while it retards the vigor of the leaves.

A number of years ago we were told that spraying would not control the disease because it was then believed that it passed the winter only in diseased twigs, but we now know from thousands of experimenters that even in the most favorable seasons for the disease we can keep it under thorough control by a single application.

MEANS OF CONTROL

Spray with lime-sulphur of the ordinary strength as for San Jose Scale (one gallon commercial wash diluted to about ten with water). This application must be made early in the spring and before the buds have begun to swell. The disease begins with the growing bud, so to prevent its getting a start we must spray early before the spores around the buds can germinate. Most of the failures to control the Leaf Curl are due to spraying too late and not taking sufficient pains to see that every bud is thoroughly covered. Bordeaux would also control the disease, but is not recommended because in most peach districts San Jose Scale is either present or likely to be introduced and the lime-sulphur will keep it in check, while Bordeaux will not.

MILDEW

The Powdery Mildew (*Sphaerotheca pannosa*, Wallr.) disease is found chiefly on young trees not yet in bearing, but



Some of the High Grade Fruit Grown in the Province of Quebec as shown at recent Annual Convention of the Provincial Fruit Growers' Association, held at Macdonald College

occasionally it occurs on older trees. It attacks the leaves chiefly, especially those on the terminal twigs, and causes these to become somewhat folded, dwarfed, distorted, and sickly. The succulent twigs on which the affected leaves are borne are also attacked. The disease is easily recognized by the white powdery substance found in abundance on the affected leaves and shoots. This substance consists of countless masses of tiny spores.

This mildew is favored by warm, moist conditions and is worst in late summer and autumn. It seldom does much harm, though young trees severely attacked are weakened greatly and stunted and are liable to be winter killed. This is the same disease as attacks the rose bushes, on which, in fact, it is much more common and destructive than on the peach.

Spraying with the self-boiled lime-sulphur should be an excellent remedy. The

spraying should be done as soon as the disease is noticed and repeated about every ten or twelve days. Dusting sulphur over the trees will also control it as has frequently been proven in the case of rose bushes.

PEACH SCAB

Peach Scab or Black Spot (*Gladosporium*, Thum) is a disease that causes small blackish spots here and there over the surface of the fruit. Sometimes these are very abundant and disfigure the fruit greatly; occasionally a fruit is so badly attacked that it cracks open in the same way as a Flemish pear does when attacked by Pear Scab. As a rule this is not a very destructive disease in Ontario.

Spraying with the self-boiled lime-sulphur about a month after the fruit is set will usually control this disease quite satisfactorily, as shown by the experiments of Professor Scott, of Washington, D.C.

Best Varieties of Fruit to Plant

EACH year many beginners in fruit growing anxiously ask the question, what are the best varieties of fruit for me to grow? The question is not such a difficult one to answer as it was a few years ago. The numerous demonstration orchards, experimental farms, and agricultural colleges that are now located in almost all our provinces have each helped to provide accurate information on this point. This information is furnished free, often in bulletin form, to all who apply for it. In every province beginners will do well to consult their local provincial authorities in regard to varieties before giving extensive orders for nursery stock.

Varieties of fruit that do well in some provinces are utterly unsuited for growth in other provinces. Again, varieties that thrive in some parts of a province are not a success when grown in other parts of the same province. For this reason it is always advisable to consult not only experienced Government officials but also successful fruit growers in the section where planting is contemplated.

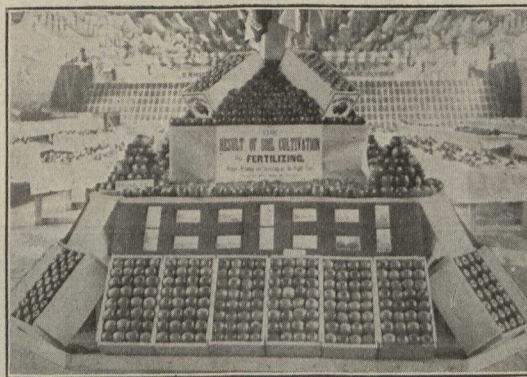
In each province there are certain varieties of fruit that have been proved to be especially adapted for the conditions there prevailing. In order to assist those readers of *THE CANADIAN HORTICULTURIST* who desire information on this subject we hereby publish lists of varieties of fruit best suited for growth in the provinces mentioned as given by some of the leading authorities in each province.

NOVA SCOTIA

From Nova Scotia, Prof. P. J. Shaw, of the Truro Agricultural College, writes as follows: The most profitable varieties of apples for the Annapolis Valley are now pretty well known to the growers.

They include the Gravenstein, Ribston, Blenheim, King, Yellow Bellflower, Wagener, Cox Orange, Baldwin, R. I. Greening, Stark, Northern Spy, Golden Russet, Fallawater, Nonpariel, and Ben Davis.

Earlier varieties grown in small quantities are Astrachan, Y. Transparent, Duchess of Oldenburg, William's Favorite, and Wealthy. They are mostly sold



Educational Exhibit of New Brunswick Fruit

One of the exhibits of fruit as made at the recent provincial fruit show at St. John, N.B.

locally, and therefore do not find as large a market as most of those named in the first list, which are chiefly sold in Great Britain, Germany, the West Indies, and South Africa. There are also some Alexander, McIntosh Red, Wolf River, and Mann grown.

For that part of Nova Scotia from Truro east, including the island of Cape Breton, the varieties which seem to do the best are: Crimson Beauty, Yellow Transparent, Duchess of Oldenburg, Wealthy, Wolf River, Alexander, Dudley, McIntosh Red, and possibly Baxter and Milwaukee.

For conditions in New Brunswick, A. G. Turney, of Fredericton, the provincial horticulturist, has the following to say:

The wrong selection of varieties, not only in this province but in all places where fruit is grown, has occasioned enormous loss and great disappointment to fruit growers. The recommendations following represent the result of personal observations, together with the experience of our leading growers.

Apples not recommended at all include Ben Davis, Gano and Stark. Not to be planted on their own roots: Northern Spy, American Baldwin, Rhode Island Greening, King of Tompkins, Gravenstein, Bishop Pippin, Ribston Pippin, Blue Pearmain, Blenheim Pippin, Ontario and Wagener.

In the best sections of Albert, Charlotte, King's, Queen's, Sunbury, Westmorland, and York counties, the Bishop Pippin, Ribston Pippin, and Blue Pearmain can be grown very successfully by top-grafting to hardier stocks, such as Talman Sweet, Fameuse, and MacMahon's White.

South of a straight line drawn east and west from Woodstock to Shediac, the following varieties have proved hardy and valuable:

Summer—Crimson Beauty, Red Astrachan, Yellow Transparent.

Autumn—Duchess, New Brunswicker, Dudley.

Early Winter—Wealthy, Alexander, Wolfe River, Fameuse, McIntosh Red, Ribston Pippin (best top-grafted).

Winter—Bishop Pippin (top-grafted), Bethel, Canada Baldwin, Talman Sweet, Baxter, Peewaukee. These last two varieties are not recommended very strongly.

North of the same line the following varieties are recommended:

Summer—Crimson Beauty, Yellow Transparent.

Autumn—Duchess, New Brunswicker
Early and Midwinter—Wealthy, Wolfe River, Fameuse, Alexander.

Winter—Scott's Winter, Canada Baldwin.

For commercial apple growing, where the orchards will range larger, the Fameuse, McIntosh Red, Bethel, Bishop Pippin, and Talman Sweet will find a ready sale at good prices on the local markets. For export purposes from this list we would leave out the Bishop Pippin, and Talman Sweet, and add the Duchess, Dudley, Wealthy, and Alexander or Wolfe River. For fuller information on this point, read the writer's article in the September issue of *THE CANADIAN HORTICULTURIST* for 1911.

QUEBEC

Prof. W. S. Blair, of Macdonald College, Que., recommends the following varieties of fruit as suitable for the province of Quebec:



Irrigation as Practiced in one of British Columbia's Now Numerous Irrigated Orchards

The irrigation company generally carries the water to the highest point in the orchard. The fruit grower then distributes it from there, as shown in the illustration.

Summer Apples—Yellow Transparent, Lowland Raspberry, Duchess of Oldenburg.

Fall and Early Winter Apples—St. Lawrence, Wealthy, Alexander, Wolf River, Fameuse, McIntosh Red.

Winter Apples—Milwaukee, Bethel, Canada Red, Blue Pearmain, Golden Russet.

ONTARIO

The fruits recommended for planting in Ontario are fully described in bulletin 179, issued by the Ontario Department of Agriculture, Toronto. Descriptions are given of the qualities of the different varieties of fruit as well as of the localities for which they are best suited.

For growth in the Ottawa Valley and in the eastern part of the province not elsewhere enumerated, south of latitude forty-six degrees, Mr. W. T. Macoun, horticulturist at the Central Experimental Farm, Ottawa, recommends the following varieties of apples:

Commercial and Domestic—Summer—Transparent, Lowland Raspberry, Duchess, Langford Beauty.

Autumn—Dudley, Wealthy, Alexander, McMahon.

Early Winter—McIntosh, Fameuse, Rochelle, Wolf, Baxter.

Winter—Milwaukee, Bethel, Scott.

Additional varieties suggested for domestic use are:

Autumn—Peach of Montreal, St. Lawrence.

Winter—Swayzie, Peewaukee, Golden Russet, Rufus.

Crab Apples—Commercial and Domestic—Whitney, Martha, Hyslop.

BRITISH COLUMBIA

Mr. R. M. Winslow, the provincial horticulturist, writes us that in British Columbia, on Vancouver Island, the Wealthy and King apples are the varieties now most largely planted, while Grimes Golden is becoming more of a favorite as another winter apple suitable to go with the King. In pears, the Bartlett, Boussock, Bosc, Clairgeau, and Anjou have all done well, and plantings are being increased. By intensive culture, the Olivet Cherry has been a fine commercial proposition around Victoria, and is worthy of extended planting. The Magoon strawberry meets with more general approval than any other variety, being extremely well adapted to local conditions, attaining a good size and yield in the dry summers prevalent here.

In the Lower Mainland country, the Dunlop and Magoon strawberries are proven, the latter preferably for local and the former for long-distance shipments. The Cuthbert raspberry is well proven, and is one of the best commercial propositions. Large fruits are not as favorably reported as the small fruits mentioned, but the Yellow Transparent and Duchess give good returns, because of the earliness with which they can be put on the Prairie markets by express

and the Wealthy and King, among later apples, are giving good satisfaction. Here, as on Vancouver Island, the planting of pears, particularly Clairgeau and Anjou, is being more extensively carried on.

In the Thompson River Valley, particularly Walhachin and Kamloops, the Transcendent, Wealthy, McIntosh Red, and Jonathan have proven themselves as the best commercial varieties of fruit, while in the Salmon Arm and Armstrong District, a little further east, the same varieties, and also Wagener, Grimes Golden, and Northern Spy, have been settled on as furnishing the most suitable types of apple to grow.

In the Upper Okanagan, the Transcendent Crab, Wealthy, McIntosh, Jonathan, and Wagener are being steadily increased. In the Southern Okanagan, the McIntosh, Jonathan, Wagener, Rome Beauty, and Spitzenberg, are recommended. For the Similkameen, Jonathan, Spitzenberg, Yellow Newtown, Winesap and Rome Beauty are very deservedly popular, while Delicious is also being extensively tried out. In the Grand Forks and Boundary Districts, the Wealthy, McIntosh, and Jonathan have been proven by extensive plantings, and are to be recommended for further extensions to the orchard area.

In the very extensive West Kootenay country, Wealthy, McIntosh, Jonathan, Wagener, and Northern Spy do very



A Twelve Year Old Northern Spy that Produced Five Barrels and One Bushel Last Fall.

This tree, grown in the orchard of Geo. Mitchell, Clarksburg, Ont., produced ninety to ninety-five per cent. number one apples, all highly colored.

well, while Gravenstein, King, Cox's Orange, and Ontario have all done well, and meet with the approval of experienced fruit growers. In this district, in-

creased plantings of strawberries of the Magoon and Royal Sovereign varieties are being made, and can be further recommended.

Best Varieties of Small Fruits

Grant S. Peart, Burlington, Ont.

IT is a horticultural fact that certain varieties of small fruits are more profitably grown in some sections of Ontario than others. But this does not seem strange when we consider for a moment the many sorts of climatic conditions prevailing in different sections of Ontario, and our great variety of soils.

The adaptability of some varieties is limited to a small area, while other sorts seem to thrive over a wide range of country. Probably all varieties are affected, more or less, by soil conditions, exposure, elevation, climate, and atmospheric peculiarities. Hence the question as to whether a variety is a profitable one to grow in a certain district will largely depend on the influence it receives from the foregoing factors in that district. When selecting varieties for planting it is essential that we learn whether they are hardy or not and whether they are adapted to the soil we have.

If a variety is subject to winter killing, as a general rule it is not a profitable one. The canes, plants, and so forth, are so set back, just before the fruiting season that poor crops result. The plants spend most of the spring and summer in an effort to renew their vitality from the previous winter's shock. A grand example of a variety that suffers in this way in localities north of the climatic zone of Niagara is the Kittatinny blackberry. In the Niagara District it is perhaps the most profitable berry of its kind, but it is too tender in a more severe climate.

The following includes the more profitable varieties of small fruits for the Burlington district:—

Strawberries—Early, Michels. This variety, though the earliest of all, only yields about two or three pickings, thus is profitable to grow only on the earliest of lands for the first market.

Bedewood, not as early as Michels, but a heavy bearer, consequently the fruit is small if picking season is dry. The berries are soft and not a good color for canning purposes. It is a self-fertilizing variety and gets its place among the leading varieties because of its heavy cropping qualities.

Medium season—Gibson and Parson's Beauty. These no doubt are one and the same variety, for the plants and berries of each are very much alike. The Gibson is a very popular variety. There is double the acreage of Gibson in this district than any other variety. It seems to be adapted to a wider range of soils than some other varieties. It bears heavily and carries a dense foliage, which affords shelter to the berries from the scalding effects of the sun and helps to retain moisture.

Glen Mary is a vigorous productive variety. The berries are large and of good quality. Last year this variety demonstrated its superior qualities, resisting drought.

Late season—Williams still holds a place among late varieties because of the firmness of the berries. They are particularly adapted for canning purposes.

RASPBERRIES

The Marlboro, Herbert, and Cuthbert are early, medium and late in season. Where all three are grown the picking season is continuous while it lasts. The writer believes it would be wise to give the Marlboro a rest for a few years so as to discourage the many insect, fungus and bacterial pests that it is subject to, and give the stock a chance to regain vigor.

The Herbert seems to be disease resisting so far, doubtless due to its natural vigor, and little mistake would be made if a large proportion of new plantations are of the Herbert variety.

The Cuthbert is still the leading raspberry in commercial plantations, but rigid inspection must be given the plants when planted and all diseased and weakly ones discarded.

BLACKBERRIES

Agawam is an early variety and hardy, vigorous and productive.

Snyder is the leading variety for mid-season. It is hardy and productive, but the quality of the fruit is inferior but firm, and stands shipping well.

Kittatinny—The berries are large and the quality first-class, and as a general rule the cane growth is vigorous. The natural soil for the blackberry is a loam with a quick sand bottom.

BLACK CURRANTS

Champion is the chief commercial sort. The bush is small and very productive. The fruit is large.

Naples and Lees have the bad habit of producing too much wood and not enough currants.

Lady Grey and the Gardens at Rideau Hall

W. T. Macoun, Dominion Horticulturist, Ottawa, Ont.

WITH the departure of Lady Grey from Canada lovers of flowers and gardens have lost a warm friend, and one who will long be missed. Wherever Lady Grey went in this country she impressed her love of flowers upon

there has been a number of influences at work, she has played no small part in bringing about the widespread interest which there is to-day.

A concrete example of the way Lady Grey lent her influence was the "Lady Grey Garden Awards," a garden competition which under her patronage has been held in Ottawa for the past six consecutive years, and for three years before by Lady Minto, who inaugurated it. During these nine years no less than one hundred and twenty-four different gardens have been entered in competition, most of them during the past six years. It is believed that this garden competition has done much to improve the gardens in Ottawa.

THE TRUE GARDENER

The true horticulturist, however, must have a garden of his own if he or she is to be of the greatest assistance to fellow gardeners. In this respect Lady Grey is a true gardener. Belonging to a family noted for their love of flowers, she has not been content to see others plan and plant, but while residing at Rideau Hall has done both herself.

It has been the writer's good fortune to have had many conversations on gardening with Lady Grey and to have been shown her treasures at Government House by herself. What has impressed me more than anything else has been her knowledge of varieties and her ability to remember the names of new plants. How few Canadians, even among our most enthusiastic horticulturists, are like

her in this respect? How much more interesting it is to know the names of the species and varieties of plants we grow than to merely know that they are phloxes or pæonies or irises.

The effects in a garden depend so much on color, contrasts in color, and the blending of colors that there is a boundless field for resource in the planning and planting of a garden. Good taste in this respect is all important in gardening. It is unnecessary to say that Lady Grey had this in the highest degree and it is unfortunate that she was not able to remain long enough in Canada to bring about all the changes in the gardens and grounds at Government House which I know were in her mind. She had in a large degree the desire which all enthusiastic horticulturists have of getting new things of merit for her garden and of giving to others interesting plants which she had. She paid many visits to the Experimental Farm to take notes on plants which pleased her, and wherever she went she endeavored to obtain new and choice things.

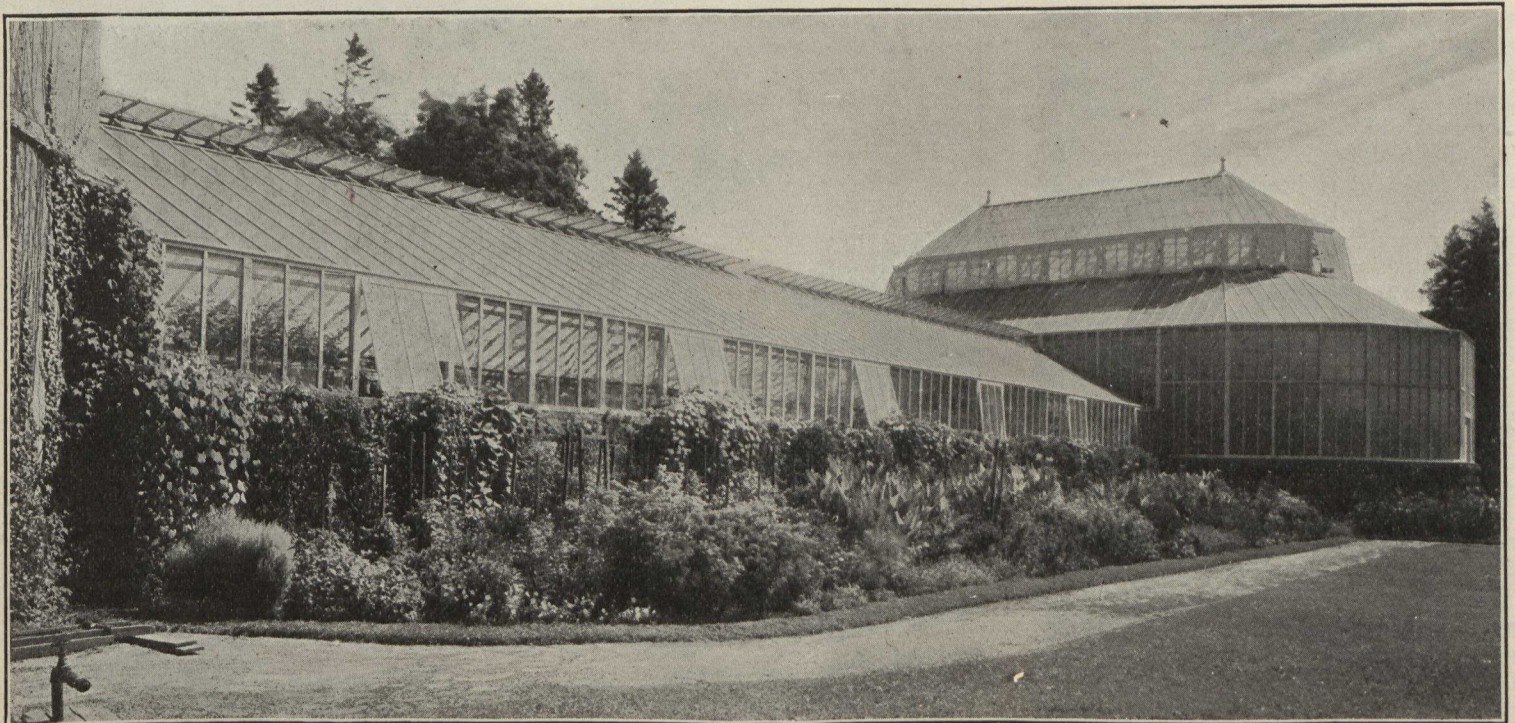
LOVED WILD FLOWERS

Lady Grey showed an especial interest in Canadian wild flowers and before she left had brought together quite a large number of the more ornamental species at Government House. So keen was her desire to see Canadian flowers growing in their native wilds that she visited out of the way places to do so. One instance of which the writer had personal knowledge was a trip to see the showy lady's



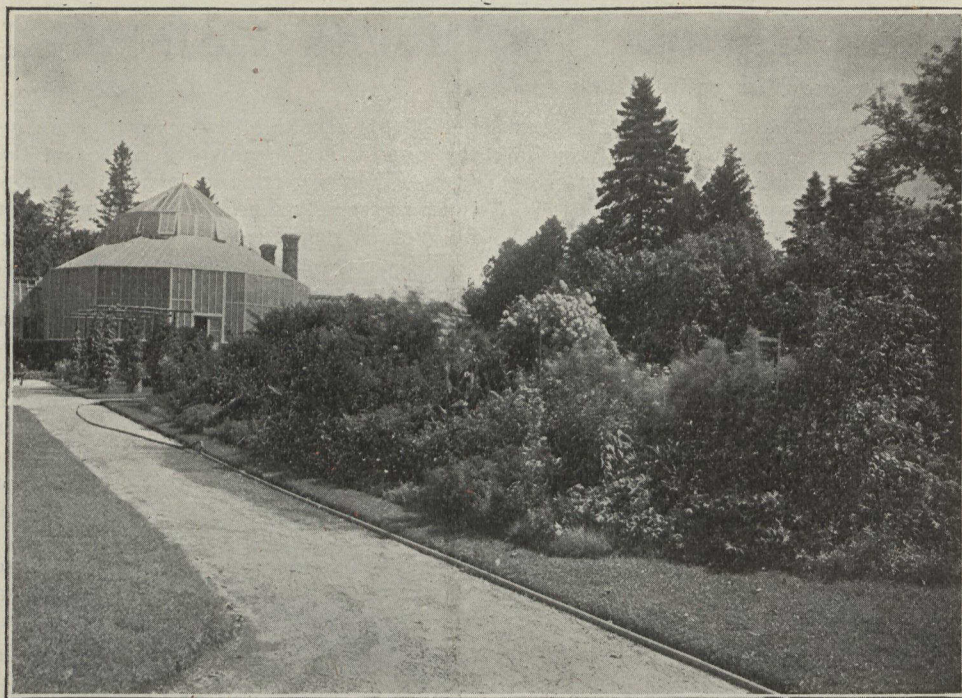
Lady Grey

those whom she met and encouraged many to improve and beautify their homes. During her sojourn in Canada there has been a more marked development in gardening than in any previous period of Canada's history, and while



One of the Flower Borders and a Portion of the Greenhouses at Rideau Hall.

—Photo taken especially for The Canadian Horticulturist.



A Pleasing Effect in the Gardens at Rideau Hall.

slipper (*Cypripedium spectabile*) in a distant bog. Neither heat nor mosquitoes daunted her, but pulling on a pair of rubber boots she entered the swamp and saw these lovely flowers in great abundance.

THE GARDEN AT RIDEAU HALL

A little has been said of Lady Grey's influence on horticulture in Canada, and of her knowledge and love of flowers. It remains to record some of the things she accomplished at Government House itself. When she came to Ottawa the conservatories at Rideau Hall were small and comparatively uninteresting, but through her influence a fine range of houses was built in which are grown practically all the cut flowers used at Rideau Hall, and many other ornamental plants. One of the illustrations shows a section of these.

There had been little done to make a good herbaceous border at Government House. Lady Grey took it in hand and after several years hard work she had the satisfaction this year of knowing that her work had not been in vain. In the past the plants suffered during dry weather, but she had the border subirrigated by means of tiles, which has been very effective in keeping the soil moist and the plants have made much more satisfactory growth since. Two years ago she planted grape vines between the two borders and made a pergola or archway of the vines. The illustration on the front cover shows how effective this is.

Many fine herbaceous perennials are now planted in this border, which will long bear the impress of Lady Grey. Much effective planting has been done in recent years on another border, the one with the palm house in the rear, and the smaller borders about the con-

servatories. The Hall itself has received more attention than ever before. It will be seen from the illustration that climbers have not been neglected.

THE PUBLIC WELCOME

One of the most satisfactory and pleasing bits of planting which Lady Grey planned was the planting of thousands of bulbs of narcissi and tulips, in the grass along the roadside and in the park belonging to Government House. Everyone was welcome to walk in and see these charming flowers when they were

in bloom in the spring. The great masses of them everywhere in abundance, their striking contrasts of color and their setting among the trees, was a delightful picture. The planting of bulbs was, however, not confined to Government House grounds for in Rockcliffe Park, near by, many children helped to plant the bulbs of tulips and narcissi, which for several seasons have been a striking feature of the park in spring.

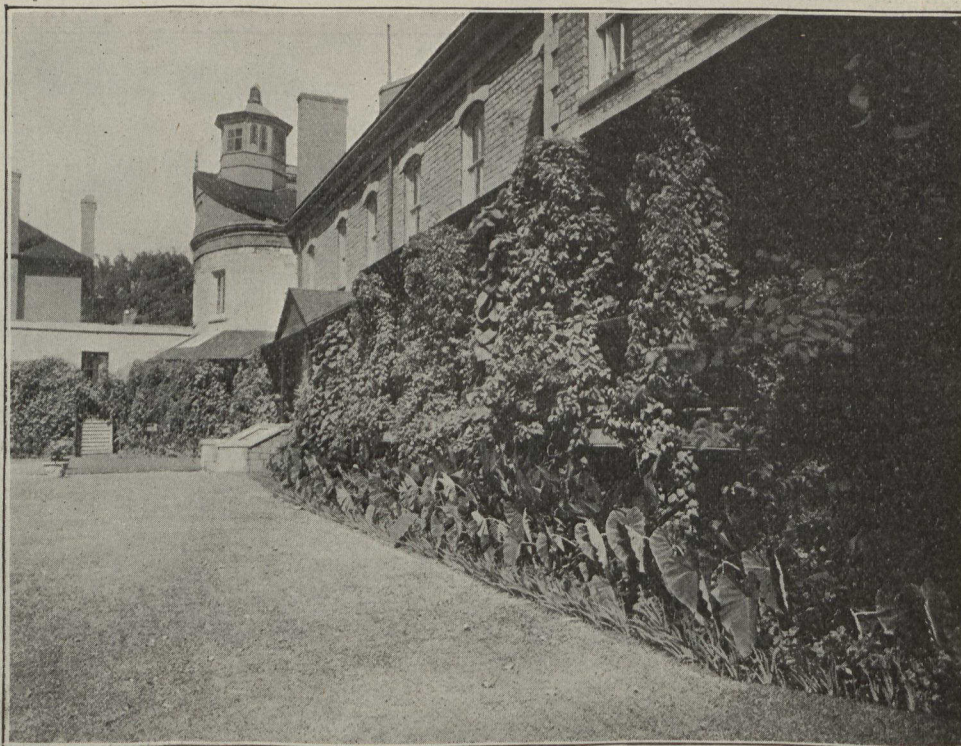
The last improvement which Lady Grey effected at Government House before she went away was the removal of an arbor-vitæ hedge which restricted the view on the west side of the grounds and hid the trunks of a fine row of hard maples, spoiling the effect. With the removal of the hedge there is a more extensive view and when the planting which was planned is completed there will be a pleasing vista with white pines in the distance. When the hedge was removed a terrace or parapet was made with steps leading down to the level of the maples, which is also a marked improvement.

The results of Lady Grey's work on the Government House grounds and gardens will be that those who follow her will endeavor to maintain the standard she has set and possibly cause still further improvements to be made.

The Care of Sword Ferns

A. V. Main, Ottawa

When ferns display a tinge of yellow it may be due to several errors of management. The most likely one is that the soil has been allowed to get into a sodden, pulpy mass. Lack of drainage at the bottom of the pot, and the presence of



The Planting of Climbers was Encouraged by Lady Grey.

worms is detrimental. They seem to grind the soil too fine, and it gets sour and wet. In such cases re-pot into clean pots, using fresh soil. Shake off all the poor soil from the roots, and place them in a pot that will take about an inch of soil around the outside.

Ferns enjoy a cool position, about fifty degrees, in preference to being near radiators or hot pipes. Watering must be

done with a system and applied in good quantity, when the soil gets dry. In winter a whole week may elapse without water being required, and when given it should be tepid. Ferns like all the winter sun and light procurable. Transfer them from the dining room table and other decorative points to the window. Take them to the bathroom, and give them a spray, to wash dust off, and clean

the plants generally. Plants in four, five and six inch pots that are full of roots, will benefit by being put into a size larger pot. Re-potting should be done in February at the earliest. Clay's fertilizer and a weak solution of soft coal soot in water are excellent stimulants. The finer sorts are rather fastidious to manage, and want closer attention. The standard Boston fern, with long, hardy fronds, is still the leader of all ferns.

Plants and Flowers for Every Window

Wm. Hunt, O. A. C., Guelph, Ont.

THE first thing to be considered in connection with winter gardening is the selection of suitable plants for the windows they are to grow and flower in. It would be useless to select flowering plants that require a good deal of sunshine for a window, where very

for almost all window plants. A temperature of from fifty to sixty degrees Fahrenheit at night and from sixty-five to seventy in the day time, will be high enough for almost any collection of window plants.

Plants like a slightly lower temperature at night than in the day time. It is natural that plants should have rest at night. A slightly lower temperature and darkness induces rest in plant life. Cold draughts of air should be prevented as much as possible, from striking directly on the plants. A thick window blind or thick sheets of paper between the window and the plants on cold winter nights, are often advisable. In giving ventilation, open the windows at the top and ventilate only on fine, calm days. Ventilate as often as possible under these conditions. Plants like fresh air.

ATMOSPHERIC CONDITIONS

A moist, humid atmosphere, although it is one of the main factors necessary to success, is often lost sight of by plant lovers. The remark is often made, "It is easy enough to grow plants in greenhouses where there is plenty of heat and light." Few greenhouses are, however, run at a higher temperature than most dwellinghouses. In the matter of light, greenhouses certainly have an advantage. By a proper selection of plants for a window this trouble can be modified to a great extent. But the moist atmosphere that is so essential to plant life is not so easy to obtain.

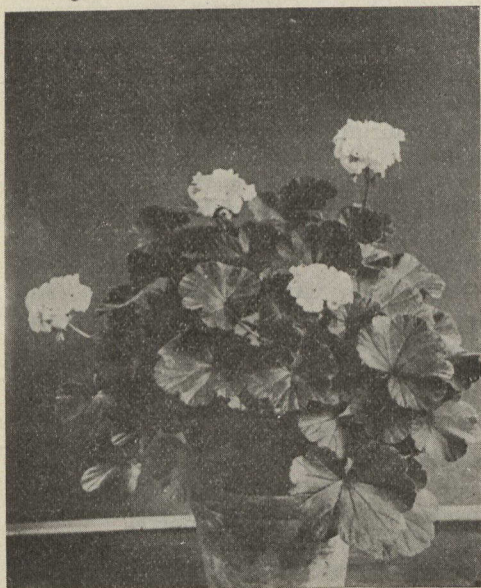
The dry, arid condition of the atmosphere of most dwellinghouses is one of the worst conditions to contend with in growing plants. The fumes from illuminating, furnace or stove gas are also very harmful. These last, however, should never be allowed to exist to any great extent in any dwellinghouse. The best element, however, to counteract all of these conditions is atmospheric moisture, the most difficult element to obtain under ordinary dwellinghouse conditions.

In a greenhouse, water can be freely used to obtain a moist atmosphere. Not so in a dwellinghouse. There are, however, various factors that can be brought to bear to help secure these conditions. One is to spray the foliage of the plants with clear tepid water on fine warm days.

The under side of the foliage especially should be sprayed. There is no better appliance for that purpose than one of the "Scollay Rubber Sprinklers," having an angle nozzle attachment. The angle or bent nozzle is indispensable. The plants can be sprayed with this without the necessity of removing them to the sink or bathroom to spray them. All seed stores offer this sprinkler for sale. It is one of the best appliances also to use for applying liquid insect remedies. If pure water is judiciously used in spraying, it will help materially to keep down insects, especially aphid, red spider, and thrip. Rough or hairy plants should not be sprayed very frequently or heavily.

AIDING EVAPORATION

The window bench or table the plants stand on should be made so that about half an inch in depth of fine clean gravel can be spread over it. The gravel not only has a nice clean appearance, but it can be sprinkled frequently so as to keep it moist. The evaporation of the moisture from the gravel will assist materially in creating a moist atmosphere around



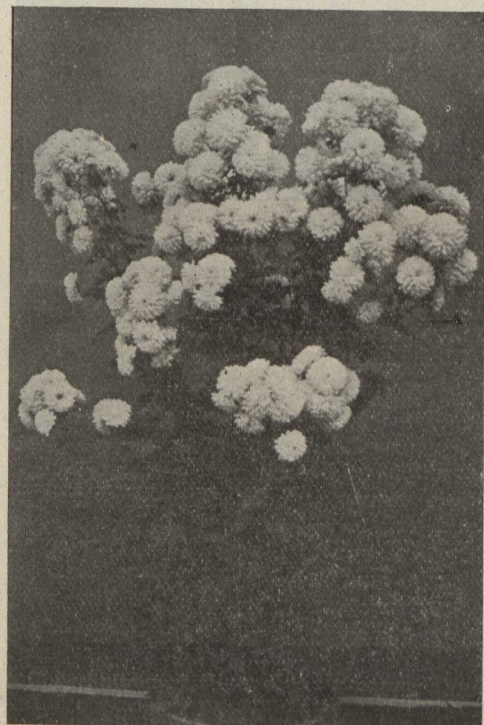
White Swan Geranium

This is a well grown plant for winter flowering. little light or sunshine prevailed. On the other hand, there are only a few foliage plants that will not succeed much better in comparative shade, than they will, in a very hot, sunny window. Coleus and Iresine are exceptions, as these require some sun. Ferns also like a position where there is very little direct sunlight.

As a rule, it is safe to select all foliage plants (except the Coleus and Iresine named) and ferns, for a window where there is very little sunlight. For a bright, sunny window, flowering plants as a rule are best. No one rule, however, will apply strictly in all cases. A great deal must be learned by local experience as to what plants are best suited for their particular surroundings and conditions.

ENVIRONMENT AND CARE

Temperature and atmospheric conditions are great factors in attaining success in plant growing. The temperature of most dwelling houses is warm enough



A Chrysanthemum Plant of the Pompon Type.

the plants. If the gravel mentioned is not available, a piece of oilcloth is a fairly good substitute. This can be dampened quite frequently.

Flower saucers, for the pots to stand in, are of great service. If about half an inch of water—not more—is constantly kept in the saucers, it will benefit the plants considerably while evaporation is going on. Saucers or pans of water stood around near the plants near the heat radiators are of great benefit to plant life.

WATERING PLANTS

Water plants, in winter especially, with tepid or lukewarm water, rain water preferred. Never use ice cold water. Stand the water in a tub or pail for a day or so to soften before using it. Add a little warm water if necessary so as to get the water about the same temperature as the room—fifty to fifty-five degrees. In watering plants always give sufficient so that it runs through the aperture in the bottom of the pot. Then withhold water until the surface of soil shows signs of dryness. Do not keep the soil soddened with water all the time, or on the other hand allow the plants to wilt for the want of water. Intelligent watering of plants has a great deal to do with the results obtained.

SUITABLE VARIETIES

The following lists of flowering and foliage plants will give a good selection



A Window of Plants

In the back row are callas, shrubby begonias, Boston ferns and asparagus plumosus. In the centre is a large Chinese Sacred Lily. On either side of it are white hyacinths. In the front row are silver leaved geraniums, primulas and bloom-forever.

for both sunny and partially shaded windows, especially for winter season effect:

Geraniums—Single varieties are best for winter flowering as a rule. Good single varieties are: Phyllis, salmon rose; John P. Cleary, orange scarlet, L'Aube, pure white; Dryden, white and rosy red. Double varieties: Marquis de Castellaine, dark red; M. Anatole Roseleur, light pink; LeSoliel, dark scarlet; White Swan, pure white; S. A. Nutt, crimson; Mme. Jaulen, apple blossom.

The Ivy-leaved, Silver, Bronze, and Fragrant-leaved geraniums are especially

effective as window plants. Mme. Salle-roi and Wm. Languth, silver leaved; Rose and Peppermint scented for fragrant kinds; Alliance, ivy-leaved—are good varieties to grow.

Begonias — B. argenta guttata, B. manicata aurea, B. Otto Hacker, B. Thurstonii, B. rubra, B. Paul Bruant, and other varieties.

Primulas—B. sinensis (Chinese primula), P. obconica.

Calla—(Calla Lily), Richardia Ethio-pica.

Chrysanthemum—Pompon and Japanese types. Pompons: Snowdrop, white; Klondike, yellow; Julia Lagravere, dark red. Japanese large flowering: Nellie Pockett, cream color; Early Snow, white; Glory of Pacific, pink; Golden Glow, bright yellow.

Impatiens Sultani—(Bloom for Ever).

Lilium Harrisii (Easter Lily), Lilium auratum, Lilium speciosum rubrum, etc.

Petunia (Single or Double).

Epiphyllum (Lobster or Christmas Cactus).

Pelargonium (Lady Washington Geranium).

Freesia refracta alba (Bulbs with sweet-scented flowers).

Valotta purpurea (Scarborough Lily), bulb, bright red flowers.

Amaryllis in variety (bulbs).

Otaheite Orange (flowers, fruit, and foliage are attractive).

Winter Flowering Bulbs—Roman and Dutch Hyacinths, Narcissi (Daffodil) in variety. Tulips, Single and Double, early flowering. Chinese Sacred Lily grown in saucers in gravel.

Best varieties of Bulbs for pot culture. For early flowering—Roman White Hyacinth, Paper White Narcissi, Chinese Sacred Lily. For later flowering—Dutch Hyacinths in variety, single and double; Narcissus, Von Sion, Bicolor Victoria. Princes. Tulips: Murillo, Couronne d'Or, Cottage Maid, Chrysolora.

To have all or any of these plants in the best possible condition for the winter season, a great deal of preparation must be done the previous summer and autumn. A few hints on the culture of some of the kinds named may be helpful to plant lovers.

Geraniums cannot be dispensed with in the majority of windows. Too often, however, the all enduring nature of these plants is severely imposed upon. On that account, one seldom sees a really good specimen in a window. The plants that are expected to flower all the winter are very often plants that have been doing duty planted out in the flower bed or border all the summer. These are often dug up in the fall, potted and brought into the window just as they are. The result is a very large pot, a very poor plant, with long bare stems, except just at the top where there may be a few fairly fresh looking leaves, and



Nellie Pocket Chrysanthemum

This variety of chrysanthemum makes a good pot plant.

perhaps a very small truss or two of bloom during the winter or in early spring.

FOLIAGE PLANTS

Foliage plants suitable for a shaded or partially shaded window include the following:

Anthericum vittatum variegatum, Anthericum picturatum, Araucaria excelsa (Norfolk Island Pine), Asparagus plumosus, Asparagus Sprengeri, Aspidistra lurida variegata, Dracaena indivisa and Dracena australis Cordyline, Farfugium grande (Leopard plant). Ferns—Nephrolepis Bostoniensis (Boston Fern), Nephrolepis, Whitmani, Nephrolepis Scotti, and other varieties.

Ficus elastica (Rubber plant). Palms—Kentia Belmoreana, Kentia Forsteriana, Phoenix rupicola, Phoenix reclinata, Phoenix dactylifera (Date Palm), Latania Borbonica (Fan Palm), Cocos Weddelliana, Pandanus Veitchii, Sansevieria zeylanica (Bow-string Hemp Plant).

Most of the foregoing plants will succeed fairly well where flowering plants do, but very hot sun does not agree with them so well. Very few of the foliage plants named can be raised and propagated successfully in a window. It is best to purchase them in the first place from a florist. This class of plants requires a moister atmosphere and a warmer temperature, as a rule, than do flowering plants. As the foliage of most of them is usually of a glaucous or glossy nature, the foliage requires frequent sponging and spraying for the plants to present the beautiful glossy appearance that is their chief point of beauty.

Rubber Plants

A. V. Main, Ottawa, Ont.

Rubber plants are favorite house plants with many and about the most simple

to care for. They do not necessarily need a warm temperature, and are adaptable for centres or corners of rooms without the window light. The large leaf is a good dust catcher, and this ought to be sponged off just as regularly as the piano needs dusting.

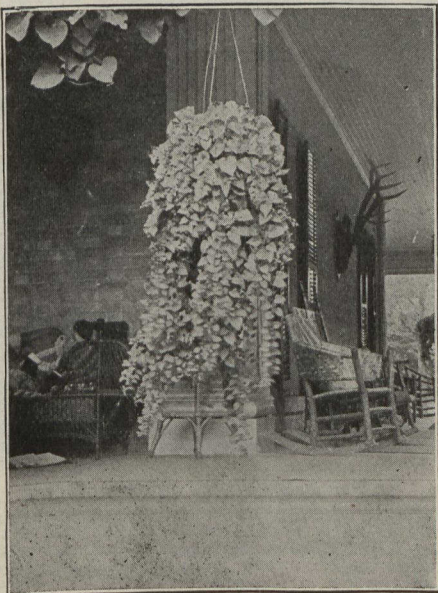
Being of an upright habit, rubber plants get tall and leafless very often at the base. They then become ineffective and cumbersome. About fifteen inches of the top of a tall plant would make a nice plant. Such an accomplishment is within the reach of the novice. At the desired place make space by cutting off a couple of leaves. With a sharp knife and a steady hand, cut the stem three-quarters through. Keep this cut open about a quarter of an inch with a small piece of wood. Procure some sand and moss and tie it firmly around the wound. Place plenty of sand next the wound and the moss or some machine waste to keep the sand in place. Always keep this moist, and in a warm situation. In eight weeks more or less roots will be active. Repot into a five inch pot by cutting the remaining one-quarter of the stem when the roots are quite visible around the moss. With good house accommodation ferns and rubber plants get better treatment when kept indoors in summer as well.

Hanging Baskets

A. H. Ewing, Woodstock, Ont.

The accompanying illustrations show baskets planted with three plants each of *Lophosperum Jasminoides*. They were secured in September, when the plants were as green and vigorous and still flowering as they were in June.

Eight of the baskets were kept during the past season on the verandah shown, as much alike as eight peas, and three



Nearer View of One of Hanging Baskets Shown in the Larger Illustration

—Photo taken in September.



Hanging Baskets in Which a Pleasing Effect is Given by Plants of *Lophosperum Jasminoides*.
(See adjoining article)

planted with *Maurandya Barclayana*. These latter, which are not shown in the illustration, have a tendency to grow up rather than down, but make a very pretty basket when planted alone, a perfect ball of green, with here and there a

spray of flowers from the top of the wires to the bottom of the basket. Fourteen-inch baskets are used, and good, rich soil, with a handful or two of bone-meal in each, and plenty of water all the time.

New Year Plans For The Garden

John Gall, Weston, Ont.

AT this season many flower growers are laying their plans for next summer's gardens. In garden work there is a starting point, as in all other business operations, and it is impossible to succeed without beginning at this point. Start slowly; avoid extravagance; do not cultivate beyond your knowledge; begin with plants that succeed under adverse circumstances, and learn from them how to grow other and more difficult subjects. Do not think because your neighbour spends hundreds or perhaps it may be thousands upon plants annually, that it is really necessary for you to do likewise. On the contrary, bear in mind that he is the best gardener who produces the best and largest crops at the least expense.

In the beginning plan to work your soil deep, make it rich and keep it clean: then you will have made a good start; continue to keep your garden clean and you will be the winner in the race. Make up your mind to give the weeds to understand from the beginning that your garden is not their home. Keep your soil so well worked around your plants that weeds cannot grow. This will make the plants your active, growing friends. They will be faithful to you as long as you are faithful to them.

For sowing, select seeds of some of the most choice annuals, such as petunias, calendulas, zinnias, balsams, phlox, mignonette, nasturtiums, dianthus, salvia and asters. A packet of these will cost but fifty cents each. A few genuine mixed gladiolus and other bulbs will not cost much more, and all together will give you a beautiful flower-garden—one that will afford much pleasure and at the same time stimulate you to greater effort.

WHAT TO AVOID

Do not run wild after novelties. Bear in mind that high-priced seeds, bulbs or plants do not necessarily give the most beautiful flowers or finest display. Supply and demand regulate prices. A plant that was plentiful and cheap thirty years ago may now sell at a substantial figure because of its rarity. Therefore start cheaply, buy a dozen of plants or packets of seed for a dollar instead of only one plant or one packet, and when you have become thoroughly acquainted with the culture of these, and can manage them well, you can safely indulge in some of the more expensive kinds.

Many people who take but little interest in their gardens at first, become successful and even enthusiastic over the work as they become acquainted with plants and interested in their growth,

Such people soon get hobbies, which they are apt to ride at a furious rate until all out of breath. They want and will have every variety of the plant with which they are smitten. Such gardeners we find exceedingly useful; you can learn from them what *not* to buy—information of far greater value than to know what *to* buy.

The secret of success in gardening is selection, a thorough knowledge of plants and their various requirements before

purchasing. Many flowers will succeed well in a given locality where others will not; therefore it is of the greatest importance to know plants and the place you have for them. You may rest assured that where grass and weeds will grow flowering plants will, provided weeds are kept down. Start cheaply but with a determination to succeed, until you know what you are able to do; then be governed by your taste and the means you have to gratify it.

New Ontario For Seed Potatoes*

T. G. Raynor, Department of Agriculture, Ottawa.

EXPERIMENT stations in Canada and the United States have given a good deal of attention to the potato, in an attempt to work out the best plans for growing, storing and marketing this important crop.

After testing the seed grown in New Ontario for a couple of years or so in the older parts of the province and finding it satisfactory, as I believe it will be found, it might pay the association to buy some land in a good locality in New Ontario and secure a northern man who would develop into a potato expert, or perhaps educate and send a local man up there to grow seed tubers. Incidentally it might be made a commercial venture, not only in growing seed tubers, but in producing them for the local and Toronto markets.

THE EXPERIMENTAL PLOTS

It was my privilege last August to visit and report on the six plots of potatoes in New Ontario to which reference has already been made. At the time of my visit they were in full bloom. The tubers were setting; in the case of the Early Olive many were as large or larger than hen's eggs. There was quite a variation in the stand of the crops. In some of the plots there were a number of blanks; two were so bad that replanting had to be done with other varieties, so that those plots would be useless so far as this association was concerned. The blanks were supposed to be due to the use of cut seed, which rotted as a result of a heavy rain just after planting. The vines of those which survived or which were planted after the rains looked vigorous and were generally healthy. The beetle is not a serious pest there, one application of Paris green seems to be sufficient. Blight seems unknown, but scab has made its appearance. Some of the growers had good crops, while others did not do so well.

METHODS IN NEW ONTARIO

Most of you are aware that the soil of New Ontario is a friable clay with more or less humus in it. The amount

of humus usually depends on how closely it has been burned to the clay. As it is either virgin soil or has been cropped only a few years at the most, no one uses fertilizers for potatoes unless it be a small amount of stable manure. The texture of the soil shows both potash and phosphoric acid present in large quantities and in a readily available form. By common consent, fall plowed land is preferred to spring plowed for potatoes. Some replot in the spring before planting. The seed is usually selected from the bin in the ordinary way and taken out of the cellar just before planting. For economy many cut their seed, but a large number advocate the use of the whole tubers as they are less liable to rot and produce stronger plants. The ground is fitted for planting from May twentieth to June tenth by thorough cultivation and opening the furrows about three feet apart. The seed is planted in drills and cultivated one way.

The after cultural methods are much the same as are followed in old Ontario. The harrow is used before the plants appear at the surface, and again when the vines are two or three inches high. The horse hoe follows this, deeply at first then shallow, at intervals of a week or ten days until they come in bloom. In some cases the hilling, which is quite the universal practice there, is done gradually; in other cases it is done with the last cultivation. Potatoes are ready for digging the last week or ten days in September. They are usually put up in the cellars direct.

Improvement can be made on their general methods whereby larger crops may be grown. They, however, grow satisfactory crops. Taken in all, I believe that potato growing may be successfully exploited in New Ontario.

It may interest this association to learn that in a recent competition in New York city a Mr. A. Smith, of British Columbia, landed a one thousand dollar trophy for the best potato exhibit. Mr. Smith is a member of the Canadian Seed Growers' Association, and has been working along the lines of selection

adopted by the association for some time.

Black Rot of Celery

A. McInnis, London, Ont.

While in the storehouse celery is sometimes attacked by a black rot which if not checked will sometimes destroy the entire crop. The disease is induced by too heavy watering and by wetting the tops of the celery after it has been stored, also by keeping the storehouse too warm without sufficient ventilation.

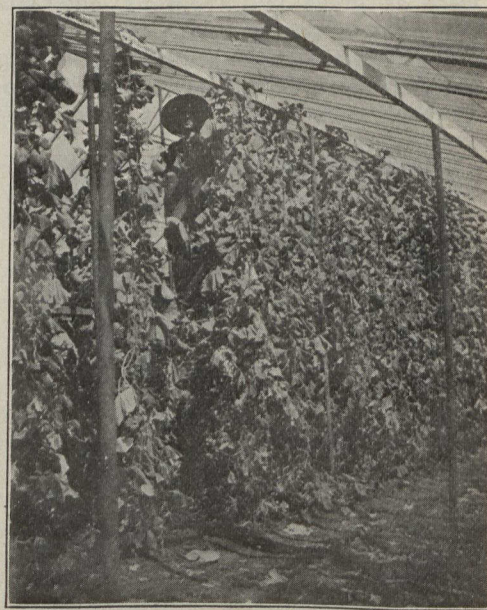
Some varieties have a greater power of resisting the attacks of disease than others. It is wise to test the newer sorts and secure if possible one that will combine resistance to disease with suitable market value.

The Question of Help

A shortage of help is proving a serious problem for many market gardeners and vegetable growers. This question was discussed at the recent convention of the Ontario Vegetable Growers' Association.

Mr. W. J. Kerr of Ottawa, criticized severely the class of immigrants that have been coming out from the old country, stating that some were not good, and never would be. He maintained that not one man in nine was of any use for the market gardener. Mr. J. W. Rush, Humber Bay, Ont., stated that he had considerable sympathy for the immigrant for once upon a time he had been one himself.

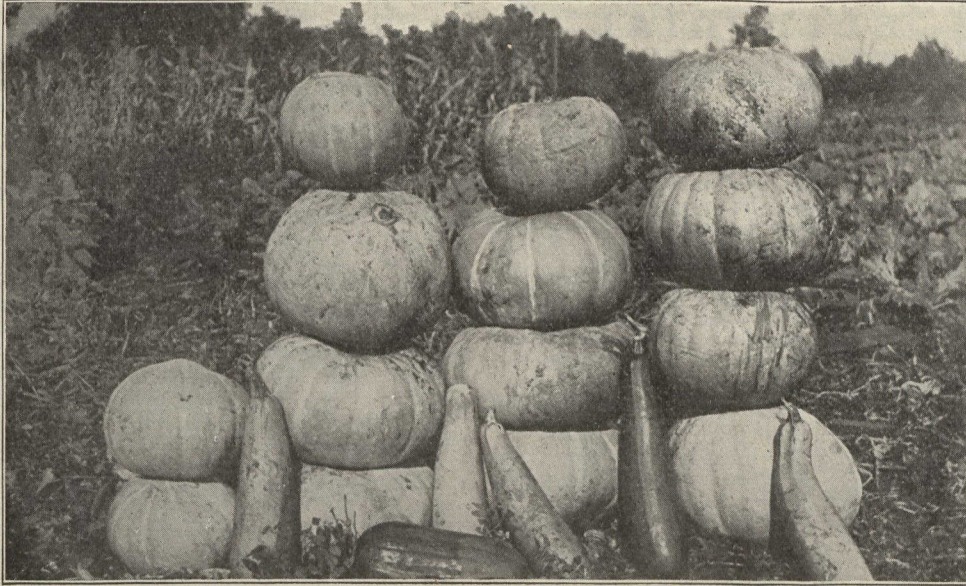
It was stated by Mr. W. J. Robb of



A Profitable House of Cucumbers.

The illustration shows a portion of a great crop of early cucumbers grown a year ago by Mr. R. H. Ellis of Leamington, Ont. As will be noted, the cucumbers were grown to single stem and run up to the roof of the house. Some of the vines were sixteen feet long. The rows were three feet apart and the plants three feet apart in the row. The variety grown was Perfection White Spine. From ground occupying 60 by 100 feet floor space in his greenhouses Mr. Ellis netted a little over \$1,200.

*A paper read at the annual convention of the Ontario Vegetable Growers' Association held in Toronto in November.



A Sample of What Western Canada Can Do in the Growing of Vegetables.

These vegetables are the product of one hill of pumpkin. They weighed 630 lbs. and were grown by Ed. Sanderson of Dauphin, Man.

St. Thomas, that he had succeeded in placing near St. Thomas some splendid men from the old land. One of these men claimed that near where he left in the Old Country there were many good men who would be glad to come to Canada were they interviewed by some one whom they knew. Mr. Robb wanted to know if there were any way in which the St. Thomas branch of the vegetable growers' association could arrange to send an agent to Great Britain acting in conjunc-

tion with the Canadian Government to bring out such help.

Attention was called by President Thomas Delworth to the fact that it is important that growers should so arrange their work that they will be able to keep men by the year. Mr. Rush maintained that many of the immigrants who at first appear to be incapable might develop into good men were they given more sympathetic treatment by their employers.

Results From Use of Fertilizer

Wm. H. Taylor, St. Giles, Que.

THE potato crop having been almost a failure last fall, I believe you would be glad to give your readers the results of my endeavors to overcome the unfavorable conditions of the season; also the different results from certain fertilizers for this crop. My land is clay loam. It was under buckwheat last year. As soon as the buckwheat had started, I spread a light dressing of barnyard manure,—horse, cow and hog,—as if I wanted a crop of buckwheat, and ploughed the whole down when it was about two inches high. I divided the field into three parts. Plot number one was not fertilized. Plot number two was fertilized at the rate of two hundred pounds sulphate of potash, four hundred pounds acid phosphate and one hundred and twenty pounds of nitrate of soda per acre. The whole field was well harrowed and planted to Sensation potatoes. Number three plot was fed at the rate of four hundred pounds of acid phosphate and one hundred pounds nitrate of soda an acre.

The first two weeks the weather was splendid, but our first rain was not until July 18th, followed by many days when the temperature ranged from ninety-six

to one hundred and four degrees in the shade, and from one hundred and eight to one hundred and thirty degrees in the sun. To prevent too great evaporation I kept the cultivator and hoe going nearly all the time. We got a few light rains in August—our hopes revived, things looked well; but on the night of August thirty-first, potatoes, tomatoes, beans, corn, and so forth, were killed to the ground. The potatoes were certainly not more than half grown. However, I feel that God rewarded my persistence and courage, as the following results seem to show:

Plot number one, which received a light dressing of manure only, yielded at the rate of one hundred and ninety-four bushels.

Plot number two produced two hundred and forty-two bushels.

Plot number three two hundred and four bushels.

The latter plot gave twelve bushels more than plot number one, and plot number two gave forty-eight bushels more than number one. This means in the one case an increase of value at seventy-five cents per bushel (they are

going up fast and will be at least one dollar in the spring) of nine dollars, and in plot number two, forty-eight bushels at seventy-five cents, gives an increase of thirty-six dollars.

All up to date farmers will admit that the constant surface cultivation did a great deal of good, but will they give any credit to the green buckwheat ploughed in? I do.

Vegetable Jots

Asparagus grows readily from seed. One ounce is sufficient for about fifty feet of drill.

It is time to begin planning the garden for next summer. Select your seeds and order early.

Peppers need a rich sandy loam and frequent cultivation.—G. Bremner, Burlington, Ont.

In bleaching celery, care must be taken not to have more of the early crop boarded in than will be sold within two weeks. It is better to have it green when marketing it than to have it over-bleached.—George Smye.

Tomato seed should be sown in the frame about ten weeks before it is safe to set the plants in the open ground. As soon as they are large enough to handle set them out two inches apart in another frame and as they grow stronger transplant again at four inches. This produces short stocky plants. Every time they are moved increases the chance for earliness.

Our tests of vegetables have proven very interesting. We now have in progress tests of thirty-three early and thirty-four late varieties. Some are probably new to a considerable portion of the public, and have merit, while a large proportion appear to be well known varieties under a different name, and frequently the name is made up of a number of descriptive adjectives which are misleading. I have distinct recollection of one variety in our test, that is being sold under four names. Work of this kind is unfortunate, and something should be done to straighten out the jumble of meaningless names and place them on a basis that is reasonably accurate and reasonably scientific.—Prof. C. E. Myers, State College, Pa.

The Only Way for an old countryman to make a success of vegetable-growing in Canada is to work for someone in the business for a year or two. He will have practically to forget all he knew, and to begin at the bottom of the ladder, for the climate, customs of the country, manner of growing, and marketing, are all different to the conditions in the Old Country. After he has gained that experience he will require capital of from \$500 to \$1000, according to the amount of land he wishes to work, to enable him to make a good start.—F. F. Reeves, Humber Bay, Ont.

The Canadian Horticulturist

Published by The Horticultural
Publishing Company, Limited

PETERBORO, ONTARIO



The Only Horticultural Magazine in the Dominion

OFFICIAL ORGAN OF THE ONTARIO, QUEBEC, NEW
BRUNSWICK AND PRINCE EDWARD ISLAND
FRUIT GROWERS' ASSOCIATIONS

H. BRONSON COWAN, Managing Director

1. The Canadian Horticulturist is published on the 25th day of the month preceding date of issue.
2. Subscription price in Canada and Great Britain, 60 cents a year; two years, \$1.00. For United States and local subscriptions in Peterboro (not called for at the Post Office), 25 cents extra a year, including postage.
3. Remittances should be made by Post Office or Express Money Order, or Registered Letter. Postage Stamps accepted for amounts less than \$1.00.
4. The Law is that subscribers to newspapers are held responsible until all arrearages are paid and their paper ordered to be discontinued.
5. Change of Address—When a change of address is ordered, both the old and the new addresses must be given.
6. Advertising Rates quoted on application. Copy received up to the 18th. Address all advertising correspondence and copy to our Advertising Manager, Peterboro, Ont.
7. Articles and Illustrations for publication will be thankfully received by the editor.

CIRCULATION STATEMENT

The following is a sworn statement of the net paid circulation of The Canadian Horticulturist for the year ending with December, 1911. The figures given are exclusive of samples and spoiled copies. Most months, including the sample copies, from 11,000 to 12,000 copies of the Canadian Horticulturist are mailed to people known to be interested in the growing of fruits, flowers or vegetables.

January, 1911	8,082
February, 1911	8,260
March, 1911	8,523
April, 1911	9,469
May, 1911	9,783
June, 1911	10,178
July, 1911	10,062
August, 1911	10,043
September, 1911	9,973
October, 1911	9,991
November, 1911	9,988
December, 1911	10,137
Total	114,489

Average each issue in 1907,	6,627
" " " " 1908,	8,695
" " " " 1909,	8,970
" " " " 1910,	9,067
" " " " 1911,	9,541

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, ONT.

EDITORIAL

HON. MR. DUFF SHOULD ACT

At the recent annual convention of the Ontario Fruit Growers' Association a resolution was passed endorsing the proposal that has been made frequently in these columns that the Ontario government should take the appointment of the fruit pest inspectors out of the hands of the township councils and conduct the work on a provincial basis. This should have been done long ago. The government has been warned repeatedly that injurious pests like the San Jose scale would continue to increase rapidly until such action was taken. Hon. Mr. Duff, the provincial minister of agriculture, has slumbered through it all, however, until there seems reason to believe that little less than the discharge of a blast of dynamite will lead him to take action. Our minister of agriculture does not seem to comprehend that his ability to hold the position he occupies can best be shown by anticipating the needs and demands of the public instead of delaying action until public opinion forces him to move.

When work of this character is left in the hands of local municipal bodies it is never discharged satisfactorily. While some may take effective action others decline to assert themselves at all, and the inertia of such more than offsets the good work done by others. The government recognized this weakness in this system of law enforcement by local bodies when a few years ago it took the enforcement of the sanitary regulations pertaining to cheese factories and creameries out of the hands of the local boards of health and placed it in the hands of provincial officials. The benefits that followed the change were most marked.

In certain portions of the Niagara district during the past two years the spread of the San Jose scale has been alarming. Not only have fruit trees been affected, but in some cases thorn trees, dogwood and other trees and shrubs have been almost wiped out where attacked. Some new diseases, the nature of which is not even yet understood by the growers, are now working great havoc in many orchards. It has been demonstrated that the local inspectors are utterly incapable of dealing with the situation as it should be handled. All eyes, in consequence, are on Hon. Mr. Duff. The question is, what is he going to do to see that the fruit interests are properly protected?

ENCOURAGE APPLE CONSUMPTION

One of the main explanations of the tremendous consumption in our Canadian cities of tropical fruits, such as the orange, grape fruit, dates and figs, may be found in the attractive manner in which these fruits are displayed in the windows and stores of our city grocers and fruiterers. Of late years apples have received more attention at their hands, but not nearly to the extent that is desirable.

The Commercial Club of Walla Walla, in the state of Washington, as a means of increasing the interest taken in the apple industry, as well as to increase the consumption of apples, has held two annual apple window displays which have proved so successful it is planned to conduct them every year hereafter. Three prizes, of twenty-five, fifteen and ten dollars, are offered to the merchants of the city for the best deco-

rated windows during a specified week. Apples must comprise at least half the material used in the decoration. Allowance is made for the shape and size of the windows, so that the smaller stores have an equal chance with the larger ones. The windows are marked on points, as follows: Attractiveness, forty; originality, twenty; most advantageous use of apples, ten; inexpensiveness of display, ten; arrangements of signs, show cards, etc., ten. The judges are men brought in from outside cities.

Does this not offer a suggestion to some of our fruit growers' association? The offering of a few prizes in this way in certain of our leading cities would arouse interest, increase the demand for apples and set examples of window decorations that would soon be followed in smaller centers. Something of this kind requires to be done in order that our Canadian apples may take their proper place in our home markets.

COMPULSORY SPRAYING

British Columbia has had a law for some years making the proper spraying of orchards compulsory. So far we have heard no complaints against this law. While this may mean that it has not been strictly enforced, still we have reason to believe that the law is being applied as conditions require and that it is being attended by satisfactory results.

The state of Ohio, where conditions are closely similar to those which prevail in Ontario, has now followed this example. A law passed by the last legislature requires all orchards in which there are ten or more trees to be sprayed at least once between November first and April thirtieth. The preparation used must be such as will destroy San Jose, oyster shell and scurfy scale. A fine of twenty-five to one hundred dollars is to be imposed for each year spraying is not performed. This law goes into force next May.

We are so afraid of preceding public opinion in Ontario there is reason to believe that we are falling behind other provinces and states in several important respects. A compulsory spraying law in Ontario, as well as in our other eastern provinces, would not be any more drastic or any more of a hardship than the sanitary laws now generally in force which require the patrons of cheese factories and creameries to keep their stables clean, wash their separators and other dairy utensils regularly and to maintain cleanly conditions generally in connection with the handling of their dairy products. This matter of compulsory spraying deserves to be given more consideration than it has yet received in our eastern provinces.

So much interest was aroused by the trial shipments of Ontario tomatoes to the British markets made last year, the Ontario government might well issue in bulletin form the excellent paper on "Tomato Growing and the Possibilities of the British Market," read last month at the annual convention in Toronto of the Ontario Vegetable Growers' Association by Mr. Geo. Cooper, of Grimsby. While Mr. Cooper did not hold out hope for any speedy development of this trade between Ontario and Great Britain, he showed in a masterly manner that the development of such a trade is practical. He also showed plainly the difficulties in the growing and shipping of tomatoes, as well as in the marketing of them in Great Britain which confront us. We venture to say that Mr. Cooper's paper, which we purpose to publish in full in THE CANADIAN HORTICULTURIST, contained information that it would have cost the govern-

ment thousands of dollars to have secured had it been forced to gather the information for itself.

The Ontario Horticultural Association

Why Read Advertisements?

"Why did you cut out the advertisements? That is the only part of a magazine that I read. I can write stories myself." This is what a well known novelist and writer wrote a friend who had sent him some magazines and had removed all the advertising pages to save postage.

More than one prominent man has said that if magazines ceased to publish advertisements they would stop taking them. They have not time to read the stories, but feel that **THEY HAVE TO LOOK OVER THE ADVERTISEMENTS TO KEEP THEMSELVES INFORMED IN REGARD TO WHAT IS DOING IN THE BUSINESS WORLD.** They find the advertising columns of the various periodicals they read the best means of keeping themselves posted along this line.

Did you ever stop to think how much you learn consciously or unconsciously through the reading of advertisements? How often you learn about some new labor-saving device for the farm or home, some new industry which has just opened up, some new use for an old article, or any one of the hundreds of things which you can make use of to add to your comfort, pleasure or profit, through reading about these things in advertisements in newspapers or magazines. **MUCH OF THE KNOWLEDGE WE GAIN ABOUT THE ARTICLES WE WEAR, EAT, WORK WITH, OR USE FOR ANY PURPOSE, COMES THROUGH THE READING OF ADVERTISEMENTS.** Advertising is simply news about the goods that are offered for sale, and when the advertisements are well written, it is very interesting news.

Several advertisements in this issue of The Canadian Horticulturist contain news that will interest you. Look them over. There may be something advertised in this number that is just the thing you have been looking for. Or, there may be something that will save or make for you many dollars in the course of a few months. Write to those advertisers. You will find them willing and glad to tell you more about their goods.

Remember that **WE DO NOT ACCEPT ADVERTISEMENTS FROM FIRMS OR INDIVIDUALS WHICH WE DO NOT BELIEVE TO BE THOROUGHLY RELIABLE.** Within the past month or two we have refused to accept several advertisements which we did not feel we could recommend to our readers. This cost us something in loss of advertising revenue, but we felt that by keeping up the standard of the advertisements we print, we are not only acting in the best interests of our readers and advertisers, but of ourselves as well.

Don't hesitate to write to any of the advertisers in this issue of The Canadian Horticulturist. They have our recommendation.

purposes asking the provincial minister of agriculture, Hon. Mr. Duff, to print enough copies of the annual report of the association to enable a copy to be mailed free to each member of a horticultural society in Ontario. This request should be granted without hesitation. The government deserves credit for the improvement it has made of late years in the quality of the paper used in these reports as well as in their typographical appearance. This good work, to be made complete, requires to be carried only a little further. This will be accomplished when arrangements have been completed which will ensure every member of a horticultural society receiving a copy of the report each year.

The officers of the Ontario Vegetable Growers' Association have lost no time in laying before the new Conservative administration at Ottawa their request that legislation be enacted establishing standard weights for vegetables by the bushel and by the bag. This request is so manifestly in the interests of not only the producers but of the consumers, also, we may naturally expect that the request will be granted readily by the government.

PUBLISHER'S DESK

As will be noticed by the circulation statement published on the editorial page adjoining, the average circulation of THE CANADIAN HORTICULTURIST during 1911 showed a marked increase over preceding years. It will be observed also that the circulation of THE CANADIAN HORTICULTURIST has been increasing steadily, even rapidly, for the past four years. Already there are indications that this year's record will establish another distinct advance. In all parts of Canada there is a marked increase in the interest being manifested in horticultural pursuits. The increased demand for horticultural information is reacting to the advantage of THE CANADIAN HORTICULTURIST, and its circulation is showing the results. Not only are we receiving a large number of individual subscriptions, but organizations are forwarding more subscriptions than ever before. Two large city organizations, for instance, which did not send THE CANADIAN HORTICULTURIST a single subscription will this year send us between one and two thousand new subscriptions. This all means that we will be able to continue to enlarge and improve THE CANADIAN HORTICULTURIST in many ways in the future as we have in the past.

With this issue we introduce an important change in connection with the advertising policy of THE CANADIAN HORTICULTURIST, inasmuch as hereafter all advertisements will be accepted on a flat rate basis of a dollar an inch irrespective of the number of insertions. This means that small advertisers will pay less for their advertisements and some of the large advertisers slightly more. In common with most papers THE CANADIAN HORTICULTURIST has been charging small advertisers what proportionately have been high rates. On the flat rate basis hereafter all will be treated alike. The flat rate is the ideal basis of handling advertising both for the advertiser and the publisher. The advertiser can at all times figure just what his advertising is costing him and just what any increase or decrease in the space he is using will involve. He knows, also, that he is placing his business on the same basis as all other

advertisers and that none, due to the intricacies of the average advertising rate card, are getting a better rate than he is. For the publisher it means an avoidance of the troubles incident to the adjusting of rates involved in the handling of different contracts, and it establishes a standard of value that facilitates the procurement of business and the ease of handling it. Advertisers are all times free to withdraw their advertising if they so desire. At the same time they know that if they desire preferred positions they must contract for it for considerable periods in advance. We predict that all our advertisers will be pleased with the change and that the volume of advertising in THE CANADIAN HORTICULTURIST will soon show a marked increase not only on this account but also on account of the increased circulation of THE CANADIAN HORTICULTURIST.

With the publication in this issue of the description of the garden at Ottawa of Lady Grey, by Mr. W. T. Macoun, we commence the publication of the first of a series of articles describing successful Canadian flower growers. Most of these gardens will be those of amateur growers. We expect that they will prove a most interesting and valuable feature of THE CANADIAN HORTICULTURIST during 1912. These articles alone should be well worth the price of a year's subscription to THE CANADIAN HORTICULTURIST.

The February issue of THE CANADIAN HORTICULTURIST will devote special attention to spraying. There will be timely, instructive articles in all departments dealing with this important subject. They will be written by well known authorities and will be full of interesting articles, well illustrated.

Ginseng Growers

The executive committee of the Ontario Ginseng Growers' Association, at the annual meeting of the association held recently in Toronto, was instructed to take up the matter of a central station for the drying and shipping of roots and communicating with merchants in China to handle the roots of the members of the association. The committee will report at the next meeting.

Papers were read on the washing and curing of roots, by Mr. Chas. Leggatt of Kingsville; by Rev. Dr. Medd of Goderich, on the "Effect of Seed Bearing on Root Development," and by H. Q. Watson of Newmarket, on "The Best Fertilizers." General discussion took place on all these topics as well as on the possibilities of germinating seeds the first year. This last discussion was led by the veteran grower and experimenter, Mr. P. Menzies of Milton, Ont. The meeting was full of interest and profitable.

The Canadian Horticulturist is in receipt of some preliminary advertising material for the Royal International Horticultural Exhibition to be held in London May 22 to 30, 1912. It is expected that this will be the largest horticultural exhibition ever held. King George has intimated his intention to offer a cup valued at \$500 for the best exhibit in the show.

Never stop my subscription to THE CANADIAN HORTICULTURIST. I cannot very well do without it. Sometimes I neglect the small matter of remitting right on time, but I would not be without this valuable paper as a reference for ten times what it costs per annum.—James Barnes, Buctouche, N.B.

Quebec Fruit Growers' Annual Convention

THE winter meeting of the Pomological and Fruit Growing Society of the Province of Quebec was held at Macdonald College December 5th and 6th. From the opening until the close of Wednesday night a spirit of hopefulness and encouragement pervaded the meetings. Every person was convinced that the fruit industry in the province of Quebec was at the dawn of a great awakening, and that the capabilities in this line were very great.

The meeting was called to order by the president, Rev. H. A. Dickson of Rectory Hill. Sharp on time the large assembly hall of Macdonald College was well occupied by representative growers from the province. Dr. Harrison welcomed the delegates to the college. The enthusiastic gathering and the excellent display of fruit surpassed anything he had seen in the province. He was satisfied that a still greater impression might be made if the fruit men, the vegetable growers and the florists would unite, and hold an exhibition in Montreal, which would surpass anything yet attempted in this province. He believed that such an exhibition might be made a financial success and that it would attract widespread attention.

The president reviewed the work done in the past and outlined the hope for the future. He said that the crying need of the people was for more information—exact information. One way of obtaining this was for the society to keep in touch with the trees purchased and distributed so that reliable data might be obtained concerning any variety in the different sections where fruit may be grown.

The election of officers resulted as follows:

Hon. patrons—Hon. Martin Burrell, Hon. Sydney Fisher, Hon. J. E. Caron and Mr. G. A. Gigeault.

Hon. president—Prof. W. G. Blair.

Hon. vice-president—Rev. H. A. Dickson.

President—C. P. Newman.

Vice-president—Father Leopold, La Trappe.

Sec.-Treas.—Peter Reid.

Directors—Messrs. G. B. Edwards, Chas. Byers, G. P. Hitchcock, A. D. Verreault, Auguste Dupuis, Robert Brodie, Dr. W. Grignon, H. W. Thompson and N. E. Jack.

INSECT PESTS

Mr. A. Gibson, of the Central Experimental Farm, Ottawa, was the next speaker. After pointing out the loss which annually occurred to the fruit industry in Quebec on account of the various insect pests which attack fruit, he confined his remarks to the Apple Maggot, the Codling Moth and the Plum Curculio. By precept and example Mr. Gibson showed the necessity for clean culture in the orchard, without throwing discredit on the standard sprays. Spraying is of little avail, however, in dealing with such insects as the Apple Maggot, which live and move inside the fruit, unless great care is exercised in gathering up all windfalls and destroying them. If not fed to cattle they must be buried or burned. This is essential if progress is ever to be made in dealing with such pests. The importance of cooperative work was also pointed out. Any man is much handicapped in fighting insects if he fights alone. Beside the unfairness, he can-

not accomplish what he otherwise would if his neighbor fails to do his duty in the care of his orchard. This paper will be published in THE CANADIAN HORTICULTURIST.

J. C. Chapais, St. Denis-en-bas, in his usual pleasing manner, spoke of the recrudescence of orchard pests in Eastern Quebec. He referred to the fight which men were obliged to put up if they were to produce marketable fruit and to meet their competitors from the west. He was of the opinion that the department of entomology should send one or more experts to different localities, and to specialize on such insects as cause trouble there. Such experts should remain on the ground and study these pests in the orchard, until prepared to report on same. Judging from the approval which this statement received it was the unanimous wish of the association.

CLEAN CULTURE

Dr. H. T. Gussow, botanist of Central Experimental Farm, spoke on the Nature of Parasitic Fungi and their Influence on the Host Plants. The address was illustrated by lantern slides. The nature of fungi, methods of reproduction, manner of attack and control were dealt with. Dr. Gussow was satisfied that fruit men must give more attention to clean culture, if disease was to be controlled. This was equally important with fungi as with insect pests. Another point which should receive more attention was the selection of resistant varieties. If twenty men are exposed to contagion often only twenty percent. become diseased. With plants we have like conditions. In many cases they are somewhat immune, and with ordinary

THE CANADIAN NURSERY CO. LIMITED

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10 PHILLIPS PLACE, MONTREAL

Ornamental Trees	Strawberries and
Deciduous Shrubs	Small Fruits
Evergreen Shrubs	Vines and Hedges
Fruit Trees	Hardy Roses
	Conifers, etc., etc.

Only those Plants sufficiently robust for our northern climate are grown. All Stock guaranteed. Full directions given.

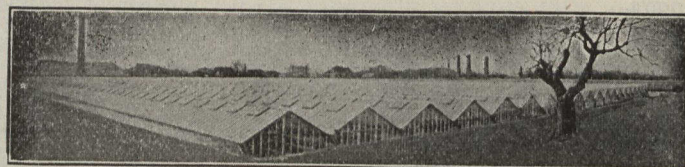
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Glass supplied by our Toronto Branch

GOOD QUALITY, FLAT, EVEN THICKNESS, AND WELL CUT

We make a specialty of supplying Glass for vegetable forcing houses

PILKINGTON BROS.

Limited

Toronto, Montreal, Winnipeg, Vancouver

Mention The Canadian Horticulturist when writing

care they escape disease. As with man, strength and resistance go together.

SPRAY MIXTURES

Mr. L. Caesar, of the O.A.C., Guelph, was very much at home when speaking of spray mixtures and their applications. He said lime sulphur is destined to take the place of bordeaux, although bordeaux is probably the better fungicide, but when we consider that lime sulphur has an insecticidal value as well, its field becomes large. The formula as now used by him is twenty pounds of lime, one hundred

over to business. An interesting feature was the report of Mr. Richardson, superintendent of the demonstration fruit farms at Covey Hill and Abbotsford. These demonstration fruit farms were a new venture. The work had been undertaken and fostered by the cooperative societies in conjunction with the Pomological Society of Quebec. The report of the first year of the work done, and the results achieved were encouraging. The fruit conference to be held at Ottawa also received a share of attention.

RESOLUTIONS

After dinner a number of important resolutions were discussed and carried, viz.:

First. Resolved—That a committee of the Association be appointed to procure the latest information with regard to the best style of packing fruit, and that they report to the directors of the Association for publication.

Second. That the Ontario Government be requested to provide a short course for fruit inspectors at the O.A.C., Guelph, and that they grant certificates to each successful student. Also that schools to instruct apple packers be provided in the counties.

Third. That the Dominion government be requested to send a capable man to Europe to study cooperation and market conditions and report to the government.

Fourth. That the Dominion government have daily market prices of fruit collected from their agents in the Old Country and published in the daily papers in all provinces of the Dominion.

Fifth. That the Dominion government be requested to have forms issued to basket manufacturers, so as to insure uniform size of fruit basket.

Sixth. That the Association convey congratulations to Hon. R. L. Borden on his

The Extremes Agree

I appreciate THE CANADIAN HORTICULTURIST very much.—J. K. Ross, Charlottetown, P.E.I.

Send me THE CANADIAN HORTICULTURIST for another year. I cannot do without it.—D. W. Spice, Vernon, B.C.

pounds of sulphur and forty gallons of water. It is essential that the lime should be ninety per cent. pure. This concentrated spray is diluted with water and applied at a specific gravity of one and three-hundredths per cent. before buds burst, one and nine-thousandths per cent. before blossoms burst and one and eight-thousandths per cent. just after blossoms fall. He recommended nothing new in the way of making or applying same. For grapes and potatoes the bordeaux mixture is still much superior to lime sulphur. The only reliable arsenical to use with lime sulphur is arsenate of lead, while a number of poisons may be used with the bordeaux mixture.

The morning of Wednesday was given



PEDIGREED CHERRIES

THIS is one of our Specialties. We have a large stock for spring sales and they are the finest we ever offered. Our Sour Cherries are budded on Mahaleb Seedlings, our Sweets on Mazzard, insuring long life and thrifty growth. The stock we offer is all bred from Selected Bearing Trees, and we guarantee it true to name and of superior type. We can offer attractive prices on all varieties.

AUBURN NURSERIES
QUEENSTON, ONT.

Douglas Gardens

Oakville, Ontario

Wishes all the readers of
The Canadian Horticulturist
The Compliments of the Season

OUR
Spring Planting List

Will be issued on 1st February next—
It will describe and offer a
goodly list of

Bedding Plants:

China Asters, Salvia, Scabiosa,
Stocks, Etc.

Herbaceous Perennials:

Shasta Daisies, Delphiniums, Hem-
erocallis, Kniphofia, Pentstemons,
Spiraeas, Etc.

Summer-Flowering Bulbs:

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ARE OBTAINED BY USING

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AS SUPPLIED TO
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SURE GROWTH COMPOST

makes poor land fertile, and keeps fer-
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We employ no agents. Our goods are sold by mail only, so we are able to give you high class nursery stock at very reasonable prices.

Our stock is carefully grown, regularly inspected, and guaranteed healthy, clean, true to name, and first class in every particular.

Our reliability is vouched for by the fact that we have been growing and selling nursery stock at our Central Nurseries for **30 years**, and have thousands of pleased customers all over the country. Some of our earliest customers still buy from us. They have had a chance to see what our trees would do, and **know** that they are good.

As regards prices, they are given in our catalogue, which is free for the asking. **Send for it.**



Our stock consists of FRUIT, SHADE, ORNAMENTAL and EVERGREEN TREES, SHRUBS, GRAPE VINES, ROSES, ASPARAGUS ROOTS, **EVERYTHING.** It will pay you to order now while the assortment is complete.



OUR CUSTOMERS TALK BACK

Toronto, May 26, 1911.

A. G. Hull & Son, Central Nurseries,
St. Catharines.

Dear Sirs,—I was over to my place on the 24th and saw the trees. I am well pleased. They are a nice lot. Mr. Jamison spoke very highly of them, also of the civility and consideration received from you. It is a pleasure dealing with nice people. I trust they will be a source of bringing you business.—
W. B. G.

Roxham, Que., May 24, 1911.

Dear Sirs,—I received the trees you shipped me all right. I must say these are the best trees I ever saw. I am well pleased with them, only sorry that I didn't send for more. I am pleased they turned out so well. The

apple tree agents in this place said they wouldn't be any good. Thank you for sending such a nice lot.—F. S.

Woodstock, Ont., May 12, 1911.

Messrs. A. G. Hull & Son, Central Nurseries,
St. Catharines.

Dear Sirs,—I beg to thank you for your kind attention to my order and for the quality of the goods you shipped me. My man, who is a thorough gardener and nursery man says that the stock is exceptionally good, and he made me promise to write you and say so.

The prices charged by you are very reasonable. If I can ever be of any service to you in recommending your goods, do not hesitate to command me.—J. R. S.

THE CENTRAL NURSERIES—A. G. HULL & SON—ST. CATHARINES, ONT

Proprietors

The ONTARIO FRUIT SPRAYER

BUILT FOR BUSINESS

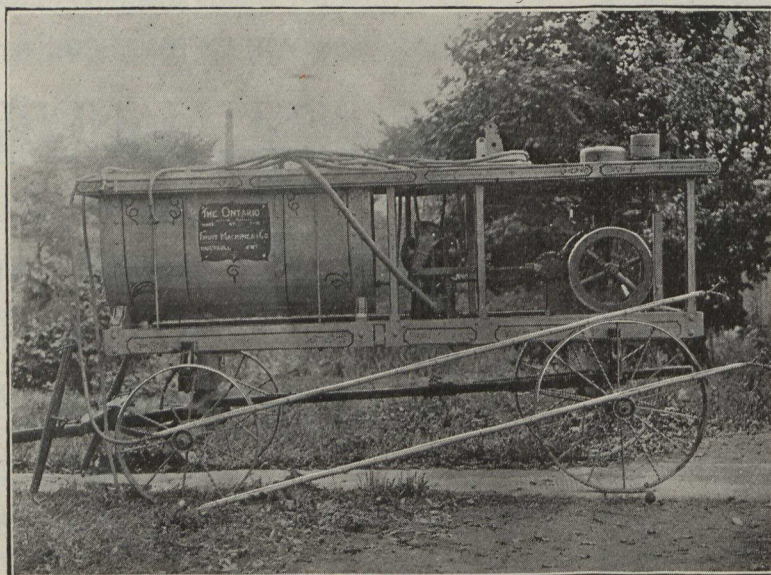


Fig. 73 No. 1 A, 1912 Model

This cut illustrates our **1912 MODEL FRUIT SPRAYER**, a marvel of simplicity, strength and durability, $2\frac{1}{2}$ H. P. engine, water cooled and always ready; can be quickly cut off from pump jack and used for other purposes. This outfit represents all that first-class machinery, material and skill can produce at a moderate price. Write for detailed description and price. We manufacture a full line of Apple Evaporating Machinery.

Installing Power Evaporators a Speciality

FRUIT MACHINERY CO. - Ingersoll, Ont.

judgment in selecting Hon. Martin Burrell as Minister of Agriculture; also that congratulations be forwarded to Hon. Martin Burrell, whose appointment was in every way satisfactory to the fruit growers.

NEW AND LITTLE KNOWN FRUITS

Mr. W. T. Macoun, Dominion Horticulturist, after referring to the boxed fruit on exhibition, and pointing out why prizes had been awarded in the several classes, spoke at some length on new and little known fruits. Two classes of men were referred to; those who accept everything that is new, and those who condemn everything because they are new. Both classes need moderation. The greater part of the new fruits are valueless; but, on the other hand, the growers should constantly be on the lookout for superior fruits which are occasionally offered.

F. E. Buck of the Central Experimental Farm, Ottawa, spoke on flowers in general and their relation to the national life. He was of the opinion that the commercial spirit tended to rob life of its poetry; and that a knowledge of how to plant, what to plant and when to plant was the great panacea which would solve this social problem.

W. H. Dempsey, Trenton, Ont., spoke of soil treatment in the apple orchard. He referred to the three systems of cultivation, viz.: Sod mulch, continuous cultivation and the cover crop. All these methods had something in their favor, but for Quebec conditions, cultivation until midsummer followed by a cover crop was the system advocated, and the system which has given entire satisfaction.

THE MINISTER SPOKE

The great feature of the evening session was the address by the Hon. Martin Burrell, Minister of Agriculture, Ottawa. His address was pleasing, instructive and enjoyed by all. He was glad to be numbered among the horticulturists, and the members of the Pomological Society were not slow in reminding him that they too were pleased. He referred to his native province, British Columbia, and by comparing east with west—their conditions, successes, failures—drew lessons destined to uplift the fruit industry in the province of Quebec. The Deputy Minister of Agriculture for Quebec followed. He was willing and anxious, as always, to help the fruit men. The excellent music rendered by the orchestra of Macdonald College, under the auspices of the horticultural club, was not so sweet to him as the chord struck by the Hon. Martin Burrell, when he said: "Cooperation is the salvation of the farming industry of the Dominion." In this he most heartily concurred.

The Rev. Father Leopold, La Trappe, then delivered a most instructive address on "Fruit Culture in France." He had spent the summer in the old land studying nursery practice first hand. In most faultless style he compared fruit growing in France with the same in America. Intensive in France; commercial in America, is the striking difference. The commercial spirit has allowed the American to invade the European market and to hold it against all competitors, but when we consider "high-pressure gardening" France easily leads.

THE FRUIT EXHIBIT

The exhibition of fruit was conceded to be much the best of any similar exhibit held in the province. The Fameuse and McIntosh Red, as usual, were much in evidence. This is as it should be, for Quebec leads the world in the production of these varieties in color and quality. This was strikingly brought out by a comparative exhibit in which Mr. R. W. Shepherd, of Como, displayed some

Grasselli Spray Products

LIME SULPHUR SOLUTION ARSENATE OF LEAD PASTE

We wish to announce to Canadian Fruit Growers that we are preparing to manufacture Grasselli Lime Sulphur Solution at our works, Hamilton, Ontario, and will be able to make deliveries by **February 1st, 1912**

Grasselli Lime Sulphur Solution is a high grade, clear cherry color solution containing maximum amount of sulphur actually in solution in the form of Calcium Polysulphides.

Shipments will be made in both carloads and less carloads from our Hamilton Works, and less carloads from our Toronto Warehouse.

Grasselli Arsenate of Lead Paste

We will ship the well known Grasselli Arsenate of Lead Paste from both Hamilton and Toronto. The quality of this product is so well known that it needs no introduction to users in the larger fruit growing sections of Ontario but to those who may not have followed closely the strides that have been made in lead making, wish to state that it is an evenly balanced product, containing not less than fifteen per centum Arsenic Oxide (Poison), less than one half of one per centum Soluble Arsenic, and is in good mechanical and physical condition.

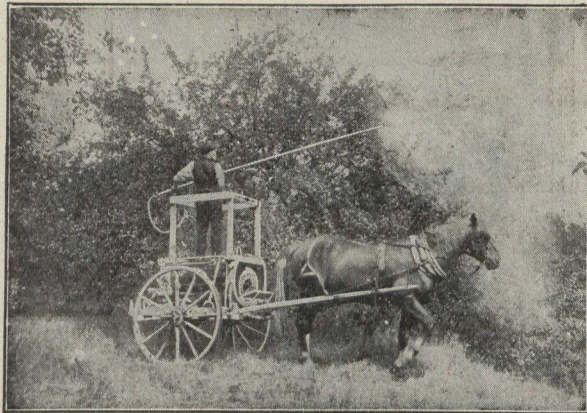
It is packed in the best of packages

Write for Prices and Name of Nearest Distributor.

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Works and Main Office:
HAMILTON, ONT.

Warehouse and Office:
131 Eastern Ave.
TORONTO, ONT.



SPRAMOTOR SAVES TREES

Two carloads of the Traction Spramotors were shipped to Waterdown and Burlington last year.

The farmers there prefer them to all others for general purposes.

They are well adapted to spraying fruit trees of any size, and by a simple change of spray pipes, are equally suitable for vineyards, row crops and weed destruction.

The greatest care is taken in their manufacture, as they are most difficult machines to manufacture.

They have all the features of the large power machines, and in addition, have a Nozzle Protector, Patented Nozzle Adjuster, 12 gal. Air Tank and a motor of the largest capacity: yet owing to the control, one nozzle can be used as effectively as 12 (the limit) and yet maintain an equal pressure of from 80 to 200 lbs., or any pressure you desire.

All of the highest grade throughout.

Everything in its construction made in the Spramotor Factory.

HEARD SPRAMOTOR CO.

1388 King Street, London, Canada

Fameuse from Quebec beside others from the King's gardens in England, and from British Columbia. The Quebec Fameuse were easy winners. This extra color is attributed to the great amount of sun, which this province enjoys. This ruddy hue, the glory of these fruits, has gained for the Fameuse much renown, and has sold many other apples in England as "Made in Canada."

The meetings were the most successful which the association has yet held. Every member went home determined to do better in the future, or as one delegate put it, "To Watch and Spray."—E. M. Straight.

New Brunswick Apple Show

New Brunswick is rapidly coming to the front as an apple growing province, and will have to be reckoned with in the near future as a competitor in supplying apples of good color and high quality. The impression gained, from a knowledge of her people, and the excellent apple show held recently in St. John, N.B., is that the people of that province are thoroughly alive to the possibilities of expansion in apple production, and are setting before themselves squarely the problem of growing and marketing fruit in the most up-to-date manner, and in sufficient quantity, to make this an industry of no small importance to the province.

The New Brunswick Government has given a great impetus to apple growing through making possible such fruit exhibits, thus inspiring confidence in her people as to the possibilities of the province in this direction. New Brunswick has been fortunate in securing a capable horticulturist to assist in development along right lines. Mr. A. G. Turney, Provincial Horticulturist, is clear in his belief that New Brunswick should produce fruit of the best and highest quality and supply it to the consumer in the box package. That such fruit can be produced was amply proven, and that the box is the package best suited for marketing this fruit was demonstrated by the excellent exhibit of five hundred boxes in one display made by the New Brunswick Government at this apple show. These apples were collected from the principal apple-growing sections of the province, and were well grown and well packed.

To bring clearly before the people in a concrete way that good culture is at the very foundation of success in apple growing, demonstration orchard work is being carried on in leading fruit sections of the province. The exhibit from these orchards accompanied by photographs of the work was one of the attractive features. In addition to the box fruit exhibits already mentioned by Carleton County Fruit Growers' Association made a fine exhibit.

The entries in the box class brought together a great number of exhibits showing the ability of growers in the province to put up fruit in this package in the best way. The diagonal pack was adopted principally, and a good tight pack was shown with few exceptions.

The plate display occupied six tables throughout the building, and in it was much close competition. It is evident from this exhibit that the growers understand well what constitutes perfect specimens of a variety.

The collection classes were well filled, and from them one is able to select with reasonable certainty those sorts best suited to the province. The varieties Oldenburg, Wealthy, McIntosh, Fameuse, Bethel, Dudley, Wolf River, King, Golden Russet and Bellflowers, were most in evidence. The box packs were made up of the Dudley, McIntosh, Fameuse, Wolf River, Wealthy, King and Bethel principally.

Are You Setting Out Your Trees as Economically as Possible and are the Trees when Planted Giving The Best Results Obtainable ?

Let Us Send You FREE OF CHARGE our Pamphlets on the use of

STUMPING POWDERS

USED FOR

Planting Trees
Cultivating and Rejuvenating Orchards
Breaking Hard Pan, Shale and Clay Subsoils
Removing Stumps and Boulders
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Write us in regard to arranging
FREE DEMONSTRATION

CANADIAN EXPLOSIVES, Limited
MONTREAL, P. Q.

A BARGAIN

The Canadian Apple Growers' Guide..... \$2.00
The Canadian Horticulturist. One Year..... .60
BOTH FOR \$2.00 \$2.60

This Offer Expires Jan. 31, 1912. Write To-day.



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REX LIME-SULPHUR SOLUTION IS **GUARANTEED** TO BE **CLEAR** ALWAYS: TO CONTAIN NOTHING BUT WATER, LIME AND SULPHUR AND TO HAVE 35% OF LIME AND SULPHUR IN SOLUTION.

REX ARSENATE OF LEAD IS **GUARANTEED** TO CONTAIN 15% OF POISON (ARSENIC PENTOXIDE)

OUR 32 PAGE "**BULLETIN**" OF FRUIT AND VEGETABLE PESTS AND THEIR CURE **FREE** IF YOU WILL WRITE US, GIVING YOUR ACREAGE.

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FERTILE VIRGINIA FARMS

\$15.00 PER ACRE & UP—EASY PAYMENTS

Productive soil, mild climate, fine water, good roads, close markets, unsurpassed school and social advantages. Note, while you think of it, write for the latest issue of "THE SOUTHERN HOMESEAKER," other literature and low excursion rates. Address F. H. LABAUME, Agr'l Agt., Norfolk & Western Ry., Box 40 40 Roanoke, Va.

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The Planet Jr 1912 catalogue is an *instructive* handbook of short cuts to best results for farmers and gardeners *everywhere*—not simply a list of implements. It illustrates 55 latest-improved Planet Jr tools, showing many *in actual use*. 64 big, helpful pages. Write for it at once! **Send postal today!**

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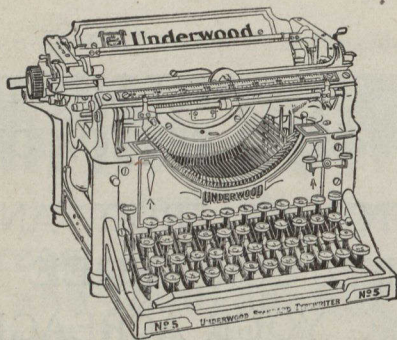
No. 11 Planet Jr Double Wheel Hoe, Cultivator, Plow and Rake works both sides of plants thoroughly and rapidly at one passage, until crops are 20 inches high. This fine tool has indestructible **steel frame** and steel leaf lifters.



No. 4 Planet Jr Combined Hill and Drill Seeder, Wheel Hoe, Cultivator, and Plow sows seed accurately and works quickly, easily, thoroughly. Wonderful all-round garden tool and money-saver.

Write for name of our newest agency.

Some History about Typewriters



Modern and Ancient

CHAPTER 6

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LAST year at Toronto alone we filled 5000 positions. Applicants are tested and graded. We know their capabilities. We supply the most efficient worker for the salary the employer will pay.

THE service is absolutely free. It is an invaluable convenience to employers, and a boon to the hundreds of young people who obtain through it their means of livelihood.

AND it is merely one phase of the Underwood Service.

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TORONTO

The apple show was held under the auspices of the New Brunswick Fruit Growers' Association, the Government giving a grant of five hundred dollars toward the show. This made it possible to offer fair prizes, and thus helps to bring together the best fruit and the leading growers of the province. The annual meeting of the society was held at the same time, and addresses were given on timely topics by horticulturists present.

A pleasant feature of the show was the banquet given at the Victoria Hotel, where some two hundred of the fruit growers did honour to the occasion. Leading business men and those holding public positions paid high tribute to the excellent work done by the Department of Agriculture through the untiring efforts of Secretary for Agriculture, W. W. Hubbard, the provincial horticulturist, A. G. Turney, and W. T. Macoun, Dominion Horticulturist. Professor W. S. Blair, Macdonald College, and Professor Shaw, of the Nova Scotia Agriculture College, acted as judges at the show, and delivered addresses at the convention.

The New Assistant in Horticulture

Our readers are hereby introduced to Mr. E. M. Straight, the new assistant professor of horticulture at Macdonald College.



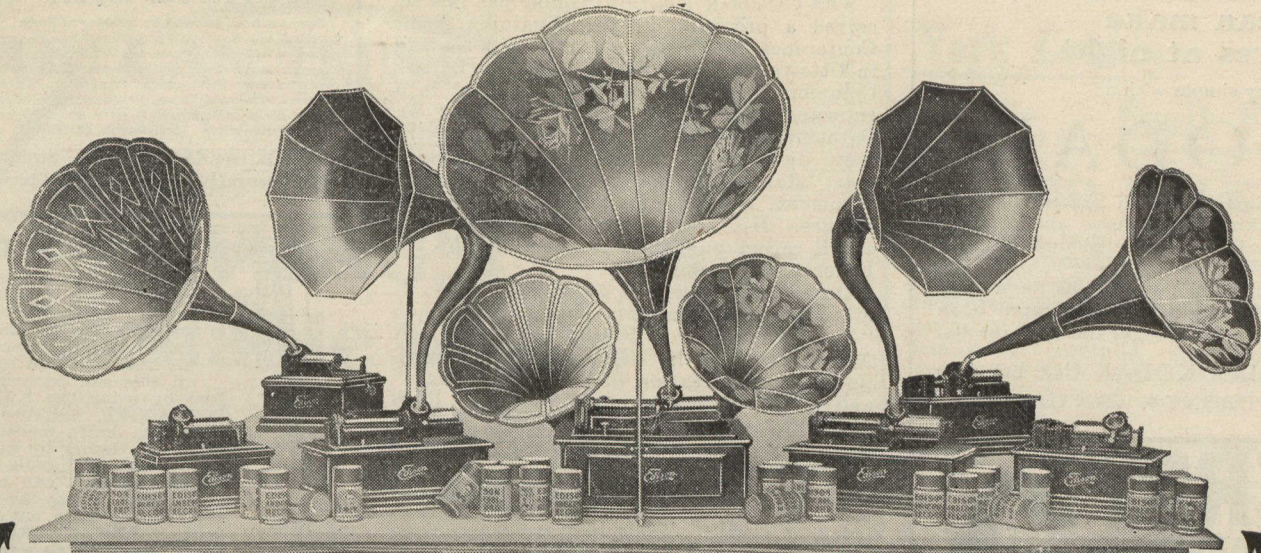
Mr. Straight is a New Brunswick man. He was born at Cambridge, Queen's county, where he received his education. After teaching in the public schools for a number of years, he was engaged in intensive market gardening, until he decided on an agricultural college training. This he secured at Truro, the Agricultural College, Guelph, and at Macdonald, Que. It may be added that he is one of Macdonald's first graduates. Mr. Straight will contribute a number of articles to The Canadian Horticulturist during the coming year.

Canadian Apples in China

The Canadian Trade Commissioner at Shanghai writes to the Department of Trade and Commerce at Ottawa concerning his efforts to promote trade in apples between Canada and China. Many merchants there prefer the Canadian product, but find the prices too high. One particular firm desired from five hundred and fifty to one thousand cases to be delivered from Vancouver at Shanghai by December fifth, but found that the Canadian firm with whom they communicated quoted two dollars and fifty cents gold per case of forty-one pounds, which was forty-one cents more than the United States firms were quoting. The Shanghai market can easily absorb one thousand six hundred cases this season.

A trial shipment of Canadian apples last year met with considerable success. Commissioner Harris states that if Canadian apples can be quoted for one dollar and eighty cents, they can easily compete with those from the United States, since they are locally preferred.

Many thanks for the fountain pen sent me as a premium for securing five news-subscriptions to The Canadian Horticulturist. I am more than delighted with it. It is worth ten times the labor to secure such a premium.—H. Laycock, St. Thomas, Ont.



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Yes, FREE. Shipped positively and absolutely free as per offer below. You do not have to pay us a single penny either now or later. We do not even ask you for any deposit or any guarantee, not even any C. O. D. payment to us. All we ask is that you tell us *which* of the magnificent Edison outfits you prefer so that we can send that one to you on this free loan offer.

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We will send you our handsome new Edison book and full particulars of our wonderful free loan offer absolutely free and prepaid. You should see our grand new Edison book. It will give you the list of the thousands of records and all the machines that you have to choose from. Write today—do not delay. Get the free book and learn about this wonderful free trial offer. Send postal or letter, or just the coupon without any letter—but **WRITE NOW!**

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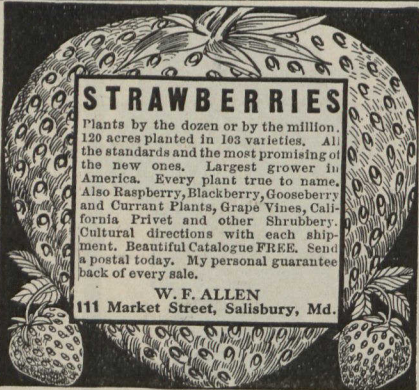
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1912 SEED ANNUAL
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Plants by the dozen or by the million. 120 acres planted in 163 varieties. All the standards and the most promising of the new ones. Largest grower in America. Every plant true to name. Also Raspberry, Blackberry, Gooseberry and Currant Plants, Grape Vines, California Privet and other Shrubbery. Cultural directions with each shipment. Beautiful Catalogue FREE. Send a postal today. My personal guarantee back of every sale.

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ALPINE and Border Seeds

A unique collection, all my own saviog, all guaranteed true. A marvellous season for saviog seed. Lists free.

PERRY, ENFIELD, ENGLAND

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

See advertisement of Bissell Orchard Disc, page X.

Dominion Fruit Conference

THE CANADIAN HORTICULTURIST has not received a program for the Dominion Fruit Conference that it is expected will be held in Ottawa, February 20-22. From a British Columbia paper, however, we see that it is expected that Mr. W. H. Bunting, of St. Catharines, Ont., who has been visiting the fruit districts of Canada and the Pacific coast states on behalf of the Dominion government, will give an address at the conference. His address will be followed by a full report published as a bulletin by the Federal government.

Other features will be an address by W. T. Macoun, the Dominion Horticulturist, on "New Varieties of Fruit," a paper by Alexander McNeil, Chief of the Fruit Division, on "Cooperation in Fruit Marketing," and also, possibly, a paper by J. A. Rudwick, the commissioner in charge, on the subject of cold storage in its applications to the fruit industry.

An interesting feature will be an exhibit of fruit from the various producing districts of Canada, which will be represented by one box each of the twenty or thirty varieties most commonly produced.

Arrangements have already been made for the collection of the requisite fruit in British Columbia. Fruit is being collected not only from the provinces of Canada, but from Oregon, Washington, Virginia, New York, etc. The comparisons that will be made will be of much value to the delegates.

Extracts will be made from the census returns, to show the progress and size of the fruit industry in the various provinces and in the Dominion as a whole. Short addresses will be given by the delegates, indicating briefly the progress being made in their special districts.

A National Apple Show

Two news despatches that have reached THE CANADIAN HORTICULTURIST give reason to believe that Eastern Canada may have a national apple show next fall after all, and that it will be held either in Toronto or Montreal, and be backed by the Dominion Government. The first despatch was received from Spokane, Wash., and was in part as follows:

William H. Bunting, of St. Catharines, Ont., official representative of the Dominion Department of Agriculture, who is making a tour of the Canadian and American north-west, said in the course of an interview in Spokane that he is visiting the various fruit districts in this part of the country to gather data and other information for use in the event it is decided to hold a national apple show in Canada next fall. It is likely that Toronto will be the exhibition city.

"Growers in all parts of Canada, as well as in the United States, will be invited to compete for substantial prizes and handsome trophies," Mr. Bunting said, "and we expect to have an exposition which will attract many from the so-called Spokane country and other parts of the north-western states. We shall have a building of sufficiently large dimensions to accommodate from thirty to thirty-five cars of apples for exhibition purposes, and afford every facility for the display of fruit."

MONTREAL ACTIVE

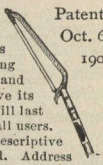
The second despatch was from Montreal, and appeared in a leading British Columbia daily paper. It was as follows:

"Montreal will, next year, probably be the scene of a national fruit exhibition on the same big scale as marked the National Apple show at Vancouver a couple of years ago. It is proposed that an exhibition of what is regarded as Canada's national fruit,

PRUNING SAW

Patented Oct. 6th 1908

Operates from ground. No breaking of limbs by climbing. No moving of ladders. No sawing of wrong limbs. Can reach topmost branches and shape tree better than by old methods. Will save its cost in one day. Nothing to get out of order. Will last for years. Thousands in use. Recommended by all users. If your dealer can't furnish it, write for full descriptive circular and prices. Satisfaction guaranteed. Address



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A Science



Tree Trimming is a science and the man intelligent enough to do this work properly is too good a man to have his arms pulled off, his back broken or his head smashed by a fall when all this can be avoided. HOW? Just by using the KANSAS PRUNING KNIFE, improved, the most up-to-date knife made. It is automatic, no levers to work by hand, any length of handle can be used so all the work can be done from the ground, where the operator can see what to take out and what to leave. The KANSAS PRUNING KNIFE does heavy work and does it fast. It is made of the very finest material and made to last.

May we send you our circulars telling more about this knife and also about our HAPPY THOUGHT KNIFE and what owners say about them.

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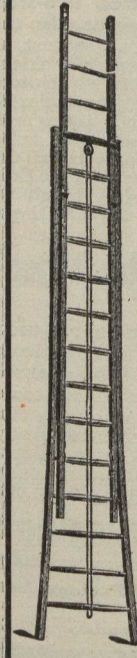
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We have a fine lot of plants for spring delivery. Best varieties for home, garden and commercial growers. List will be ready early in January. Send for it now.

Place your order early as PLANTS ARE SCARCE

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THE STRATFORD EXTENSION LADDER



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**

IF Interested write for Catalogue F

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faithfully reproduce the selected grains, vegetables and flowers from which they were grown. They are clean, vigorous and healthy—sure to grow big crops under all reasonable conditions. By doing this for over forty years they have earned the name "Reliable".

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International Stock Food

Every cent invested in this wonderful health-giver, brings back dollars in strong, healthy horses, cows, sheep and hogs.

Careful tests show that 4 quarts of oats and the regular feed of INTERNATIONAL STOCK FOOD will keep horses in better condition than FIVE quarts of oats without it.

INTERNATIONAL STOCK FOOD will make your cows gain 1 to 4 quarts of milk per day. Nothing like INTERNATIONAL STOCK FOOD to fatten animals for market. Your hogs need it. Ask your dealer for it.

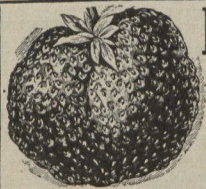
We have a copy of our \$3,000 Stock Book for you. Send us your name and address, and tell us the number of head of stock you own.

INTERNATIONAL STOCK FOOD CO. Limited
TORONTO ONTARIO

TESTIMONIAL
Hayfield Sta., Man., Nov. 15, 1911.
International Stock Food Co. Ltd.
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63 MENTION THIS PAPER.



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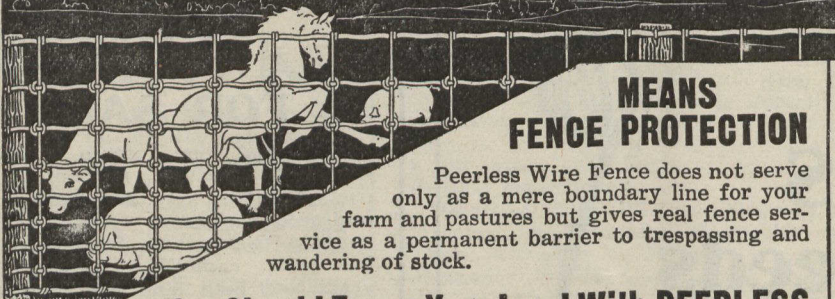
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the apple, shall be held here next November, where there will be exhibits from all the apple growing districts of Canada. It is expected that such an exhibition will prove of great advantage to the country, since it will draw buyers from Europe, as well as from the United States.

"Committees have been appointed to find how much support may be looked for from the Dominion and provincial governments as well as from the railway and steamship companies. It is pointed out that the Vancouver Apple exhibition gave forty-five thousand dollars in prizes and it was thought that Montreal should be able to do even better than this. Other expenses in connection with the exhibition will probably bring the expense up to about sixty thousand dollars so that it will be no small affair to undertake."

BE ON GUARD

While it is possible that the proposal is still only very much under consideration, and that it may not materialize, still eastern apple growers will do well to be on their guard so that there will be no danger of their being caught napping. Were the show held in Montreal, Nova Scotia and New Brunswick might be expected to send large exhibits. We presume that this matter will be given consideration at the Dominion fruit conference this winter.

Nova Scotia

The shipping of apples from Nova Scotia so far this season aggregates over 921,702 barrels, 1,861 half-barrels and 9,907 boxes. This is estimated to be only half the crop. Of this quantity 790,128 barrels have been forwarded through the port of Halifax, 21,574 through the Bay of Fundy, and 100,000 barrels by rail to western Canada. The Halifax shipments were: London, 332,333 barrels; Liverpool, 151,323 barrels; Glasgow, 134,281 barrels; Hamburg, 133,673 barrels; Bristol, 13,430 barrels; Newfoundland, 6,736 barrels; South Africa, 2,675 barrels; Manchester, 3,701 barrels; West Indies, 2,976 barrels; Newfoundland (by Red Cross Line), 9,000 barrels; total, 970,128 barrels. From Annapolis by steamer to Hull, 17,574 barrels; to St. John by schooners (estimated), 14,000 barrels.

British Columbia

The Department of Agriculture, in accordance with its policy of education, has decided to continue the fruit packing schools as inaugurated two years ago and extended last winter. The five packing schools with an attendance of one hundred and twenty pupils in the spring of 1910, grew to a total of thirty schools with a total attendance of three hundred and eighty-five pupils in the spring of 1911. These schools proved very popular.

Mr. Thos. Cunningham, provincial inspector of fruit pests, announces that all fruit entering the province of British Columbia in future will have to pass a most rigid inspection at the hands of the provincial fruit inspectors, whether the fruit be from across the line or shipped in from the east. According to investigations made by Mr. Cunningham, evidence of the much dreaded codlin moth, from which the province is said to be free, has been found in shipments of apples received from the state of Washington and also in some received from eastern Canada. Mr. Cunningham recently inspected two carloads of Ontario apples and condemned them for being affected by codlin moth. He also condemned two consignments of apples received from the state of Washington for the same reason. The government has twenty-one inspecting stations at points throughout the province and instructions have been issued

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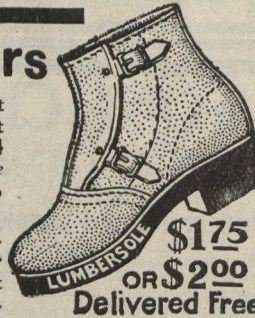
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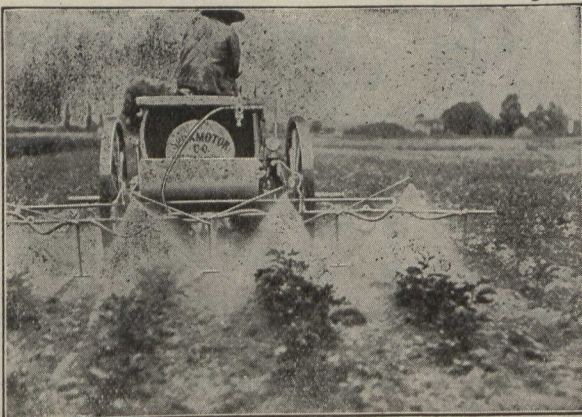
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Metal Shingle and Siding Company, Preston, Ontario.—Send me FREE, and POSTPAID, a copy of the new edition of "TRUTH about ROOFING," and tell me how to protect my buildings against lightning. My name is..... I saw this advt. in..... Please be sure to fill in name of paper. Postal address..... square feet of Preston Shingles without obligating me to anything.

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THE CANADIAN HORTICULTURIST
Peterboro, Ont.

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MANUFACTURERS 1753

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to these stations to keep a close watch for evidences of any infection on any shipments received from outside points.

Fruit pit, or baldwin spot in apples, has made its appearance in practically every apple growing section of the province. The provincial horticulturist has sent out a helpful bulletin to the local papers and to fruit growers describing the nature of the disease and the best known remedies.

Out of fifteen entries made at the Spokane National Apple Show, Summerland apples won ten firsts and four seconds.

The Dominion government has ordered a shipment of Summerland apples for the purpose of testing their keeping qualities. The fruit is to be put into cold storage for twelve months.

Niagara District Notes

At a meeting of the fruit growers of the Niagara District held in St. Catharines late in December, it was decided to ask the provincial government to appoint an inspector and to have him take charge of all fruit tree inspection. It was recommended that he should have power to appoint and dismiss the local inspectors and that he be allowed to assess half of all the expenses against the townships.

It was further recommended that an investigation of the cause and spread of the two fruit diseases, little peach and yellows, should be placed in charge of Prof. Caesar. These diseases are spreading rapidly, and no remedies are yet known.

Items of Interest

A despatch from Ottawa that appeared recently in some of the daily papers, stated that a reorganization of the fruit section of the Agriculture Department was being contemplated by Hon. Mr. Burrell. The fruit industry is under the direction of the Dairy Commissioner, whose interests are more with dairying. It is expected that a change will be made and that a special fruit commissioner will be appointed. Hon. Mr. Burrell is said to have dismissed about half a dozen fruit inspectors on the recommendation of officials of the fruit division.

Harry Coyle and Gordon McDonald, two Colborne boys, are believed to be the champion apple pickers of the world. Last fall they wagered fifty dollars that they could nick fifty barrels of apples in five hours. The bet was accepted, and the contest was held on the farm of G. P. Ireland, near Colborne. In four hours seventeen minutes the fifty barrels were filled. The average time per barrel was five minutes eight decimal four seconds.

The Plums of New York.—THE CANADIAN HORTICULTURIST received recently from the New York Agricultural Experiment Station at Geneva, N.Y., a magnificent volume entitled "The Plums of New York." It is a very large volume, comprising over six hundred pages, and is handsomely bound. It is written by U. P. Herdick, assisted by R. Wellington, O. M. Taylor, W. H. Alderman and M. J. Dorsey. It contains the report of the station for the year 1910. In the report are a large number of colored engravings, of different varieties of plums, that are among the finest we have ever seen. These illustrations are marvellously true and add immensely to the value of the descriptions given of different varieties of fruit. This is the third in the series of fruit publications that is being prepared by this progressive experiment station.

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Maxwell's "Favorite" is used all over the world—in Denmark, the butter country of the world—in the United States, in spite of high tariffs—and in every Section of Canada. Our Agricultural Colleges and Govt. Inspectors recommend it, because it is the finest butter-maker in the world.

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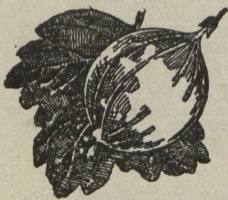
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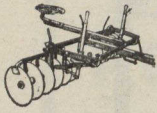
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NEXT Big Spraying Number for February Tells how, when and why to Spray. Spraying Calendar -- Colored Cover. **DON'T MISS IT**

Items of Interest

At an enthusiastic meeting of the fruit growers of Northumberland county, Ontario, held at Brighton, Ont., the middle of December, the Northumberland Cooperative Fruit Growers' Association was formed. The following officers were elected: President, W. J. Farley; vice-president, C. E. Post; secretary-treasurer, E. C. Brown; executive, Robt. Wade, Dr. C. M. Sanford, S. T. Tinson. R. B. Scripture, who was instrumental in organizing, was appointed manager.

William Dingman, of Belleville, an apple buyer, well known in the fruit growing districts of Ontario, was found guilty in St. Catharines, Ont., recently, of giving cheques when he had no funds to meet them and was sentenced to six months in Central Prison.

The annual meeting of the Nova Scotia Fruit Growers' Association will be held in Wolfville, Kings county, January 15-17.

A deputation from the Ontario Vegetable Growers' Association waited on the Dominion Government in Ottawa recently and asked for amendments to the law fixing the standard weights for vegetables. The law fixes the weight of roots at sixty pounds per bushel. The growers stated that the actual weight per bushel of many roots varies greatly from that fixed by the statute. For instance, carrots weigh only forty-five pounds to the bushel. Hon. Geo. E. Foster, who received the deputation, was impressed by the points brought to his attention by the deputation and promised consideration. The deputation consisted of Thos. Delworth, of Weston; F. F. Reeves, of Humber Bay, and J. Lockie Wilson, of Toronto. They also laid before the Hon. Martin Burrell, Minister of Agriculture, a request that an experimental farm be established in Northern Ontario.



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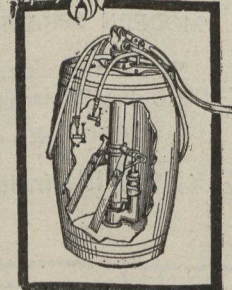
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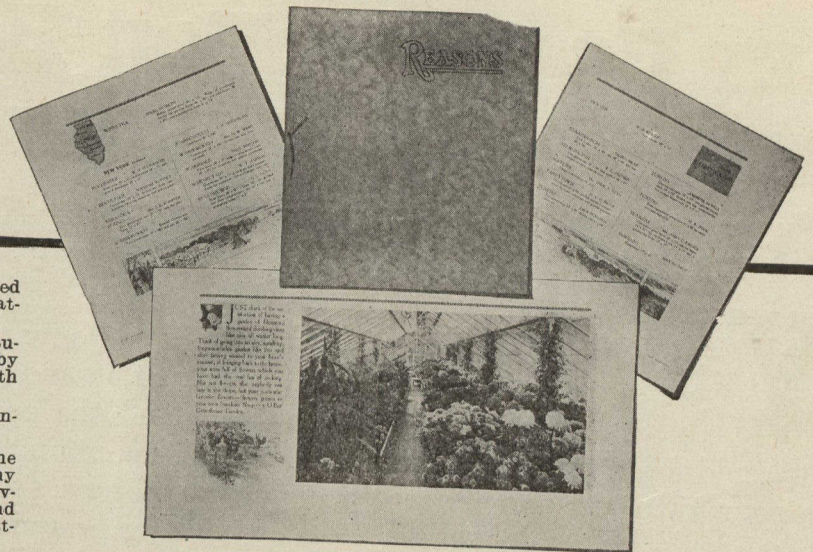
This being so, then naturally enough you will buy a greenhouse much the same way.

Suppose, for instance, you want to know thoroughly about the U-Bar Greenhouse, and have been wondering if there are any houses in your vicinity you could see; wouldn't a booklet giving you the names of all U-Bar owners and the character and extent of the greenhouse they own, be of interest and assistance to you?

Let us suppose still further, that you want to confirm your decision to buy a U-Bar house by seeing who some of the others are who arrived at the same decision and built; wouldn't a booklet grouping such names in a readily get-at-able way be just the thing you want?

That's why we made just such a booklet.

It's called "Reasons."



The reasons themselves are told in 93 words, right at the start—the rest is given over to a unique and interesting arrangement of the locations and owners of U-Bar houses built in the last few years. Send for this Booklet. With it we will mail you our Catalog and a section of the U-Bar itself—so you can see exactly what the U-Bar is.

U-BAR GREENHOUSES

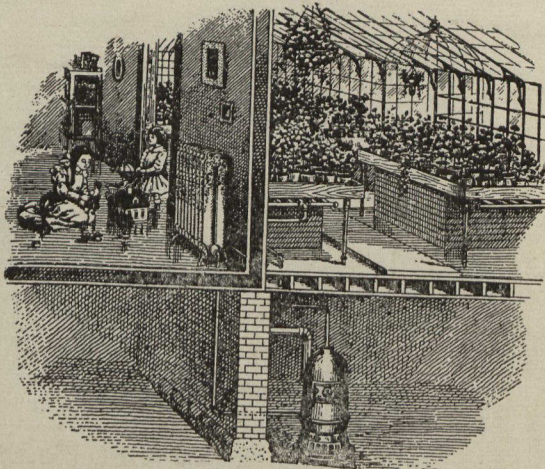
PIERSON U-BAR CO

ONE MADISON AVE., NEW YORK

CANADIAN OFFICE, 10 PHILLIPS PLACE, MONTREAL



The U-Bar itself is mailed to you in a green box like this.



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LET US SHOW YOU HOW EASILY YOU AND YOUR NEIGHBORS CAN HAVE A TELEPHONE SYSTEM OF YOUR OWN

YOU—you and your neighbors—would have a telephone system for your own community, if you only realized how easily you yourselves could construct it and get it going. If you knew, in detail, how you and the people around you could form, own and control a local, self-maintaining company, for your own use and convenience, you would have such a system. There would be a telephone system in your community to-day if you knew how easily you and your neighbors could build every foot of the line and install every instrument yourselves—and especially if you realized that you do not need very much capital to do it either. Now, there is no reason why you should not know all these facts; for we stand ready to give you, for the mere asking, every bit of this information, provided only that you are sufficiently interested in the subject to write and ask us for it.

We Send This Book **FREE** But Only On Request

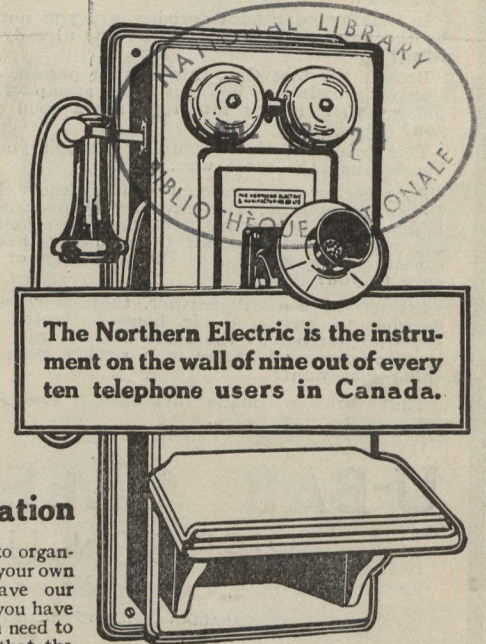
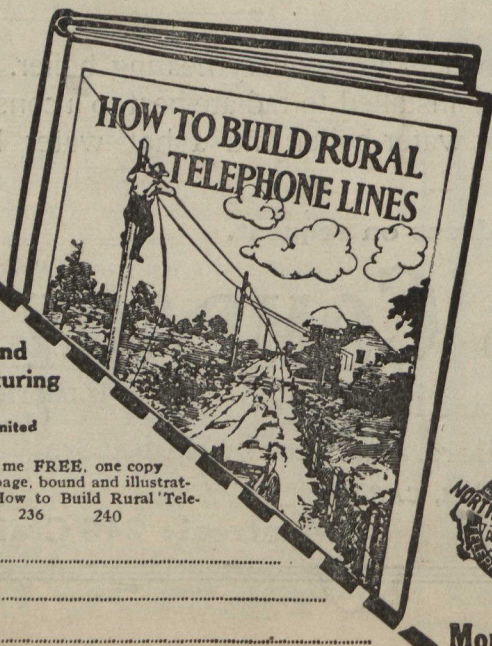
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BUILDING your own line keeps down construction costs. With the help we give you, you do not need to employ expert linemen. The book explains the last word in line construction and contains, in this one chapter alone, thirty-seven diagrams and illustrations, showing how to make every kind of connection necessary, how to route the line, how to put the fittings on the poles, how to guy the poles, how to place the insulators and string the wires in fact, how to handle every detail as well as an expert lineman can. On request, we will also tell you of your provincial regulations, what your government requires and what it will do to help you.

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THE first step in getting started, is to enthuse your neighbors and get them all in with you. When you have read "How to Build Rural Telephone Lines," you will have a mass of information at your finger ends that will enable you to place positive, definite facts before your friends, to enthuse them with the idea of a self-maintaining, community-owned system and to make everybody around you anxious to help. All it needs to get a telephone system started, is for some one progressive man to start the ball rolling. With the information that we will place at your command, you can get everything organized in short order.

There Will Be A Telephone System In Your Locality — Get Posted

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