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Currant and Gooseberry Culture*

L. B. Henry, B.S.A., Winona, Ont

THE production of currants and gooseberries in Ontario is increasing in importance year by year, and now there is a large acreage in cultivation. It was not many years ago when growers were pulling out whole patches of red and black currants because the demand for the fruit was so poor as to cause prices to be unprofitable. Black currants sold as low as sixty cents for a twenty-pound basket, while red currants could not be sold at any price.

Conditions have changed considerably during the past thirteen years. Prices have gradually advanced until now we can obtain as high as ten and one-half cents a pound wholesale for black currants and around six and one-half cents for the red varieties.

On the other hand the price of labor has increased. Twenty cents used to be paid for picking a twenty-pound basket of black currants, while now thirty-five and forty cents is the prevailing price for an eleven-quart basket.

The increase in the prices of these fruits is due to the large number of jam factories which have been erected throughout the province. Black currants cannot be sold readily on a fruit market at such high prices to individual householders, but these same people will buy the jammed article and in the end pay more for it, as they pay also for the cost of manufacturing.

The western provinces are demanding more every year and quite a quantity of the fresh fruits are shipped out there. The care of the black and red varieties is very similar, the only essential difference being in methods of pruning.

SOIL AND LOCATION

Patches planted in the northern parts of Ontario would be better on a north slope. The sun's rays would not be so strong in the early spring, and consequently there would not be the same damage from forcing the buds early and having them injured by a late spring frost.

Black currants will grow on almost any soil, but for the best growth should be planted on a rich, clayey loam which is well drained and retentive. The soil must be well drained to allow early cultivation in the spring and must be retentive to conserve sufficient moisture to swell out the fruit. Usually about the

period when the berries are growing most rapidly, there is a dry spell, and we must have a soil which will tide the crops over this trying period.

Red currants require a soil of a lighter nature for best success. A rich, sandy loam, which is also well drained and retentive, has been found to be the best.

PROPAGATION

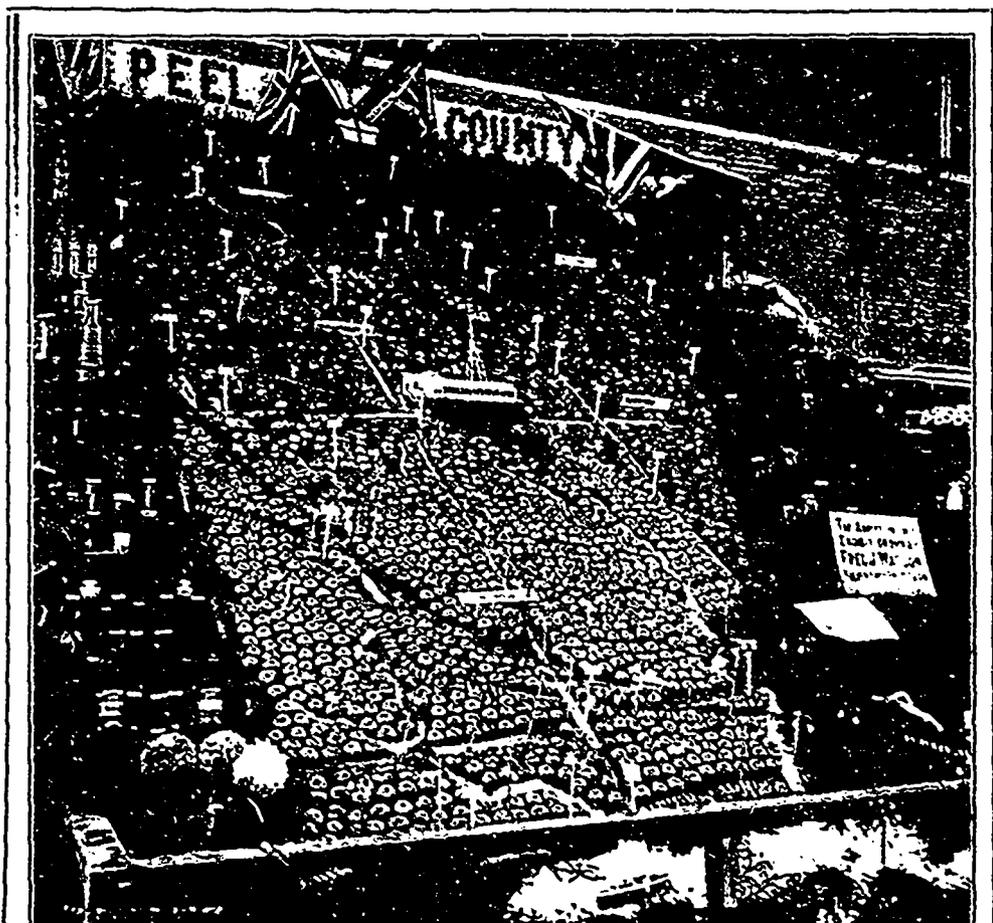
Both classes are almost entirely propagated from cuttings which are made from the present year's growth. These are made about eight inches long and trimmed off at the base of a bud, at which point the callousing process is the most rapid.

Cuttings may be made early in the fall as soon as the wood is ripe and planted immediately in nursery rows. If the fall is favorable they will root and be ready for growth the following spring. They should be covered with straw or strawy manure to prevent heaving by frost and

also to hold back growth a little in the spring. If this is not done the leaves will come out rapidly and use up all the stored food in the cutting before the roots have become active. Cuttings may also be made in the winter and stored in old sawdust or a mixture of sawdust and sand. Making them in the spring and planting them out directly is sometimes tried with indifferent success. From my experience cuttings made in the winter and stored in sawdust until planting out time have made much better growth than those made by any other method.

SELECTION OF PLANTS

Select plants which have a large fibrous root system and a thrifty looking top. A good two-year-old is superior to a one-year-old, because they have a larger root system. However, one-year-old culls are usually planted again and sold as two-year-old number one, and I prefer the one-year-olds for that rea-



A Novel Exhibit Made by Peel County at the Recent Ontario Horticultural Exhibition

Note how in this exhibit of apples made in the form of a map of the county of Peel, the townships, power lines, railroads and other features of the county are shown.

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

son. It requires a few years for a cull to regain its normal growth, and one can depend on thrifty one-year-olds to keep right on growing, providing they have proper care.

PLANTING

Planting may be done in the fall or spring. If conditions are favorable, the fall is the best, for the reason that currants leaf out and start into growth very early, and if the ground is wet and planting time is postponed, they receive a set back. I have seen them planted out when in full leaf, but they did not do well. By planting in the fall, they become established before winter sets in, and are ready for business in the spring. They should not be pruned until spring.

There are many methods of marking a field out for planting. If one wishes to be very particular, every hole should be marked with a stake, but this method is not usually employed commercially where the money end of the game is the one aimed at.

The following method is easy, cheap, and satisfactory. Having decided the distance the rows are to be apart, place white stakes about five feet long at each end of the field the required distance apart. Then by sighting from each end of the field from these stakes, other long stakes can be placed at intervals down the rows. These stakes are used merely as a guide for the plowman. Plow a furrow out each way and then take another furrow out of the bottom so as to deepen it. A wire on which the distances are marked with solder or tar can then be stretched along the furrow and a hole cleaned out at each mark for the plant. This method reduces shovelling to a minimum.

The plants should be placed fairly deep, as we want them to grow in bush form and to sucker freely. They should be deep enough so that the first few branches are covered with earth at the junction with the main stem.

Patches vary a great deal as to distances of planting. Some people recommend four feet by six feet, others six feet by eight feet. I know of a patch twenty-two years old planted three and one-half feet by seven feet, but the former distance is a little too close for satisfactory cultivation crosswise, and every other bush has since been taken out. Another patch of two acres planted five years ago at three and one-half feet by nine feet is already too close in the rows to allow cross cultivation. The reason for planting the rows at nine feet apart was to allow a power sprayer to be used, as currants should be sprayed for the best success. Also, two-horse implements may be used to advantage. From experience gained from our own mistakes, we have formed a new ideal of planting

distances, and it is this. The bushes should be five feet apart in the row. This gives plenty of room for the bush and also for cross cultivation. The rows should be seven feet and nine feet apart. Starting on one side of the field, plant three rows seven feet apart and then there should be a space of nine feet and



A Heavy Yielding Current

The red currants on the branch here shown were grown by Mr. Wm Dick, Echo Place, Ont. He considers it a better variety, known as Tam O'Shanter, than the Cherry currant. It is an Old Country variety and very prolific.

then another three rows seven feet apart. This method economizes a little space and yet provides a space for the power sprayer. Even if a grower does not intend to use a large sprayer, it is best to have the spaces wide enough to be able to drive a manure waggon through, as driving over the top of the bushes is certain to cause injury to the buds.

CULTIVATION

Thorough cultivation is absolutely necessary for best success. In the fall plow up to the bushes and thoroughly furrow out the patch so that no surface water will remain on the ground.

The patch should then be in good condition to stand the winter. Cultivation should begin in the spring as early as the ground is workable. A good implement to use is the two-horse springtooth cultivator, which works the soil up into fine particles. Cross cultivation can be done with a one-horse springtooth cultivator. The earth and weeds which remain in the middle of the bush can be taken out with a berry fork. After this the patch should be cultivated at least once a week to preserve a dust mulch until after the crop is off, when cultivation should cease. This gives the young succulent wood a chance to ripen before winter sets in, and also generally allows

a beautiful crop of chickweed to develop. If manure is applied it should be put on in the fall and plowed down so as to be partially rotted and available as plant food when growth begins in the spring.

FERTILIZATION

The soil should be kept rich, and for this purpose twenty tons of manure may be applied every three years. This does not seem to be a very heavy application, but judging from what I have seen, it is enough.

Nobody knows much about the benefit of commercial fertilizers on their crops as yet. The manure may be supplemented by a two-eight-ten mixture, but I would not recommend commercial fertilizers alone, as in time the proper mechanical nature of the soil would become injured.

PRUNING

Black currants bear the fruit on wood of the preceding year's growth. As the canes become older the size of the fruit deteriorates, as it is necessary to practise a system of renewal in pruning. Red currants bear their best fruit on two-year-old wood, and canes should not be allowed to remain longer than five years.

Pruning may be done at any time after the leaves fall, but it is usually carried on in late winter. No set rule can be laid down, as many different conditions are met with and a good deal of judgment and commonsense has to be exercised. Canes which have passed the age of greatest productiveness should be removed and young ones allowed to take their place. Broken branches and those too close to the ground should also be removed. Young, vigorous branches should be headed back to encourage the production of fruit spurs all along their length. This is particularly the case with the Fay variety, which has a tendency to produce its fruit spurs near the end of the branches, and when the bushes are loaded heavily, they are liable to be borne to the ground, allowing the fruit to become spoiled.

Young plants must not have much pruning for three years except to cut back about two-thirds of the growth each year to encourage the development of fruit spurs. Pinching back the shoots in the summer is not practiced much, but the patch should be watched for canes that may have the cane-borer. All such should be cut out and burned. The best tool for pruning is a good heavy pair of grape prunes.

The very worst advertisement for Ontario apple growers in the west is the appearance of a poor grade of Ontario barrelled fruit exposed for sale side by side with the beautiful appearance of the boxed goods from Oregon or British Columbia.—C. J. Thornton, M.P.

Prevalence of Peach Yellows and Little Peach Decreasing

L. Caesar, Provincial Entomologist, Guelph, Ont.

I AM very pleased to be able to report that there is a continuous rapid decrease in the number of trees that have to be destroyed each year for Yellows and Little Peach. In 1911 between fifty and sixty thousand trees were destroyed; in 1912, between twenty and twenty-five thousand, and in 1913, between five and six thousand, a decrease in two years of from fifty to sixty thousand to about six thousand. This will be good news to peach growers and it gives us all hope for a still further reduction. We ask the growers not to grow too confident, but recognizing that the work is progressing well, to give us their hearty, intelligent support year after year that we may, if possible, exterminate these diseases. We should not forget that it is very probable that the last two seasons have not been at all favorable for the development and spread of these diseases. If so, we are glad that we have been able to take advantage of nature's aid and so reduce the danger of rapid spread in future seasons more favorable for the disease.

Mr. Biggar, the provincial inspector, and myself, are well pleased with the work in every township but two, Grant-ham and Niagara. The disease is only moderately common in these townships, but the territory is too great for any one man to cover satisfactorily no matter how experienced he may be; the inspector, however, in each of these cases was an inexperienced man. There should be two of the very best men that can be secured appointed in each of these townships, at least for Yellows and Little Peach. We

hope this advice will be acted upon next year. Mr. Biggar and I, so far as it is possible, will try to give these townships the larger part of our time, so that the work may progress. We have been fortunate in retaining most of our best inspectors, and we are glad to be able to report that they have done loyal and excellent work for their townships, better work than most growers realize.

To Mr. Biggar, the provincial inspector, whose energy and enthusiasm in the work is unflinching, and whose tact and knowledge are of the greatest value, both to inspectors and growers, very great gratitude should be felt by every man who is interested in the welfare of the peach industry. Owing to the pressure of the new work of nursery inspection, and to numerous other duties, I entrusted to Mr. Biggar this year almost the total charge of the Yellows and Little Peach inspection work, knowing that he would do it well.

Observation of the results of so-called cures of the disease have led me to change my opinion that all such cures are only imaginary—they have all failed. The only remedy yet seems to be eradication; dig out the diseased trees at once, and burn them.

Experiments last year, repeated this year, show that if peach pits are taken from trees that do not show the disease until later on in the season, and if these pits are cared for in the best way and cracked in spring before putting out in rows, often as high as seven or eight per cent. will germinate. I have tested now over three thousand diseased pits. Some of these from lack of experience I allowed to become too dry before planting and consequently a very small percentage

grew. This was true also of healthy pits kept as checks but of the others that were cared for properly from one lot of one hundred in 1912 there grew seven, and from another lot of seven hundred and fifty in 1913, fifty-nine grew, or nearly eight per cent. Mr. McCubbin, the Dominion Plant Pathologist of St. Catharines, obtained very similar results.

So far the seedlings from these pits have shown no sign of disease. Mr. McCubbin and I have now about one hundred and sixty of these seedlings in one lot and will watch them to see whether they will show disease, and if so how soon.

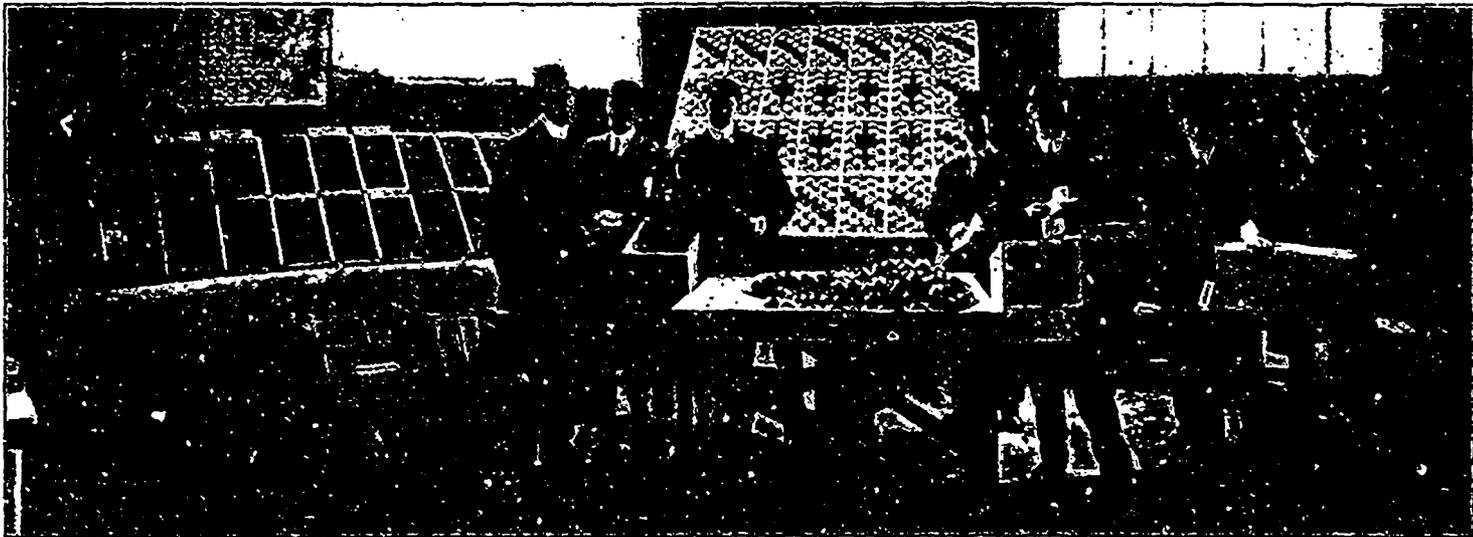
More than two hundred buds from diseased trees were budded into healthy seedlings and four year old trees a year ago. Only one tree, one now five years old, shows possible symptoms of disease. The rest are still healthy. I have budded two hundred more seedlings this fall, believing a considerable number of the trees budded in 1912 will begin to show disease symptoms by next September. I am not at all surprised that they have not done so earlier as the trees are all growing vigorously.

From inoculation of blossoms, from inoculation of trees with sap, from pruning tests, bark rubbing tests and the other experiments up to the present no disease has followed, but this is no proof that none will follow.

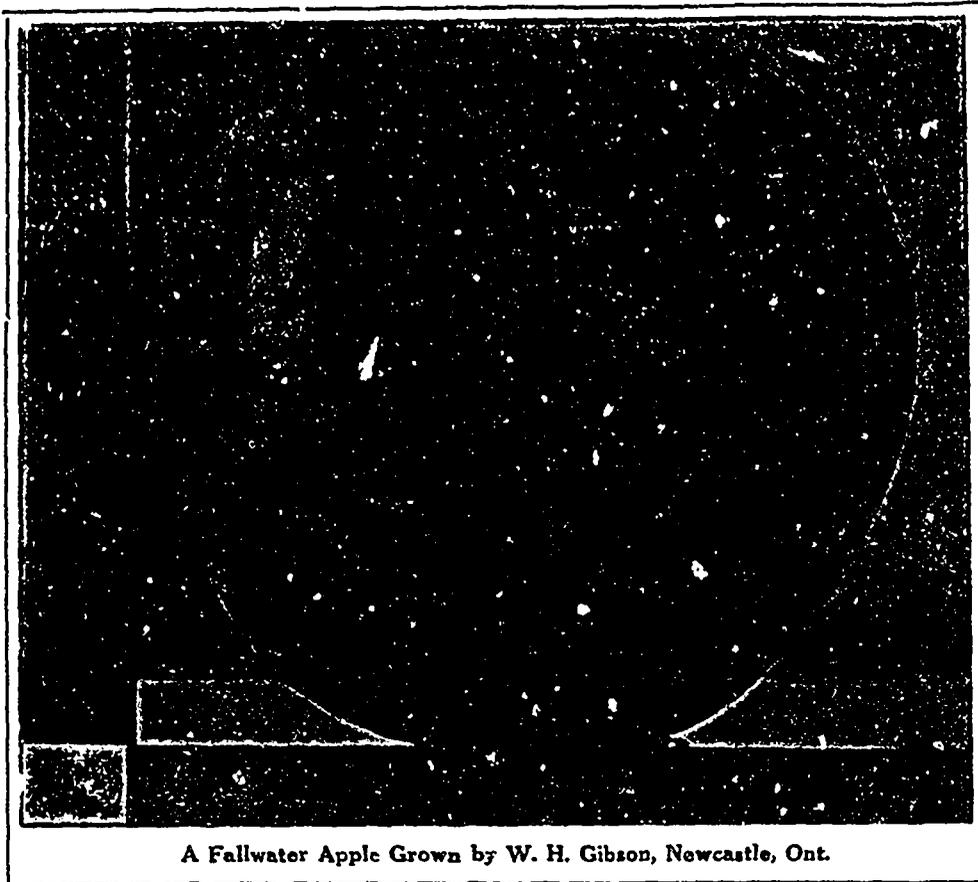
Before repeating these experiments I think it is much wiser to wait a couple of years for results. The work has been carefully done and covers pretty well the field which I thought most desirable from the standpoint of important information on the control of the disease.

No new discoveries, I believe, have been made elsewhere on these diseases, and apparently no one is much nearer the discovery of the real cause of either Yellows or Little Peach.

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



The Exhibit of the Dominion Department of Agriculture at the Recent Ontario Horticultural Exhibition
Demonstrations in apple packing were given daily at 10 a.m. and 2 p.m.



A Fallwater Apple Grown by W. H. Gibson, Newcastle, Ont.

The Plum Industry of Ontario*

F. M. Clemat, Macdonald College, Quebec

JUST a few words more to sum up my remarks and draw some conclusions and I am through. In those districts usually considered too cold for plum production some native varieties are likely to prove hardy. De Soto Stoddard, Wolf and Hawkeye, and Cheney, do well with us. Cheney buds have survived forty-three degrees below zero. These varieties will not likely ever prove serious competitors with domestic varieties in the open market, but they are worthy of a place in the home garden and for local planting and it is the duty of our experiment stations to select or breed varieties that will thrive in the colder parts.

The tendency is to drop the once greatly lauded Japanese varieties for heavier plantings of Reine Claude, Green Gage, Niagara, Monarch, Grand Dukes, German prunes, Italian prunes, and, for the western markets, Damsons.

Plums, at present prices, seem adapted to large scale production rather than intensive plantings. The cheapest land on the farm, provided the soil is suitable, is the place for them. They thrive as well on clay as on the richest sands.

If plums are worth planting at all, they are worthy of good care and attention. They respond as quickly to care as does any other fruit.

*This article comprises the concluding paragraphs of a paper read before the recent annual convention of the Ontario Fruit Growers' Association.

The time is ripe for planting plums of certain varieties. The demand will have increased very materially for good fruit by the time they come into bearing.

I would recommend the following varieties for commercial plantings in the leading plum districts: Burbanks in limited numbers, provided the grower is prepared to thin so as to keep up the size; Bradshaw—one of the best canning and market blue plums. It is always in demand because of its quality, earliness and medium to large size. Reine Claude and the other plums of similar type for general market, dessert and canning purposes. The trees are often delicate and a little difficult to grow but bring a good price and generally yield well.

Monarch—This is a large sized blue plum of medium quality. It is in good demand because of its late season and large size, and is a good bearer.

Grand Duke—A large blue and egg-shaped plum that is in good demand because of its late ripening, large size and fair quality. The egg shaped plums are always popular.

German prunes are in heavy demand, are of the highest quality, and free from stones. They are adapted for dessert, cooking or making prunes, and are one of the best sellers. Many were sold at forty to forty-five cents a gallon retail in Montreal this year.

Italian prunes have been very heavily

planted. They are larger than German prunes and are expected to some day replace them. Damsons, Common Damson and Shropshire Damson, bring the highest prices. It will pay to plant them for the western markets. They are used largely for preserving. Other good varieties are: Shiro, Quackenboss, Gucii.

The Flavor of British Columbia Apples

W. J. Sheppard, Nelson, B.C.

On page nine of the November number of *The Canadian Horticulturist*, I notice the following paragraph: "A comparison of the quality of the fruit of British Columbia with that of the product grown in Ontario, has often been made. The answers which we have received by those on the spot in regard to this particular point assure us that while British Columbia apples are generally of better size and almost invariably of better color they cannot compare favorably with Ontario fruit when flavor is considered."

I should like to enquire if samples of the same varieties of apples grown in British Columbia and also in Ontario have been compared side by side, and these conclusions as to flavor arrived at?

The great trouble in British Columbia is that by far too many varieties are grown, and that the highly-colored, flavorless kinds, that please the eye only, were, as a rule, given the preference when the orchards were first planted. Of course in a new country, the original planters, often without any experience, and consequently nothing to guide them, were almost bound to make mistakes of this kind which as time goes on will have to be rectified. Numbers of trees are now being yearly headed back, and approved varieties grafted thereon.

In a local paper here only this week it is stated that the Kootenay Fruit Growers' Union shipped out eighty-four varieties of apples this season, and the manager is most emphatic in drawing attention to the absolute necessity for reducing the number. There can be no doubt whatever that the most satisfactory plan would be for the growers in each district to ascertain which of the few good marketable varieties succeed best in their localities and to specialize in these kinds only and weed out all others.

I cannot believe that there is very much in this question of the superiority of flavor. Of course, it may be true to a certain extent, especially when the trees have experienced a check of any kind, but I do know that I have tasted apples grown in British Columbia of such varieties as Gravenstein, Cox's Orange Pippin, and Northern Spy, Delicious and Wagner, of superb flavor, that I am quite certain would be hard to beat in Ontario or anywhere else. As to size and color, it goes without saying they could not be excelled at all.

Growing Plants for Christmas Use

Henry Gibson, Staatsburg

PLANTS that are required to bloom through the holidays should now be well under way. Any that are at all backward should be left to come along and furnish flowers later, as any attempt to force them with only a little over three weeks to Christmas would result in failure. Strict attention should be paid to the temperature and watering, whether the plants are growing in a greenhouse or in the living-room.

In order to have *Primula Obconica* at its best for Christmas, the plants should have a light, sunny position, with a temperature of 50 degrees at night. If grown in a greenhouse, place them as near the glass as possible. If you have a number of small plants that are not likely to please you, put them together in large pans, taking care to have each pan a distinct shade. If the pans are made up now they will be established before the holidays, and no doubt give you more satisfaction than a lot of small pots would.

The next three weeks in a temperature of from 50 to 55 degrees at night will bring *Primula Sinensis* along in fine condition. The scarlet shades seem to bloom somewhat earlier than do the white and pink, but do not worry if there are a few laggards; they will be found very useful during the early weeks of the New Year. If any plants are pot-bound, a pinch of some highly concentrated fertilizer is to be preferred to re-potting, which would cause them to develop new roots instead of flowers.

Cyclamen should have their flower stems well above the foliage by this time, and many of them will have their flowers well developed. A light, sunny position suits them best, with a temperature of 50 to 52 degrees at night. Do not attempt to force these subjects, as they resent a high temperature. Applications of diluted liquid manure, soot water, and an occasional dose of clean lime water are very beneficial.

There are few more popular Christmas plants than the azalea, particularly the brighter-colored ones. Any that are intended for Christmas will have been in a warm room or in the warm end of the greenhouse for some time now. If a few of the flowers are now expanded, and the majority of the buds show in color, they are just right. Any that are not so far advanced should have a temperature of at least 65 at night to bring them along. Spraying freely and watering with lukewarm water will help them considerably. Any young growths that appear as a result of forcing should be rubbed off, as they check the development of the flower buds. When nicely in flower, remove them to cooler quarters, but do not

let the change be too sudden so as to cause wilting.

POINSETTIAS

The brilliant scarlet poinsettias are among the most desirable Christmas plants. The bracts of these should now be fairly well developed, when a temperature of from 60 to 65 degrees at night will bring them along in fine shape. Any that have the bracts fully expanded can readily be held for a week or two, but do not, however, put them into a really cool house, or the results will be disastrous. They will stand 50 degrees at night without any ill effects.

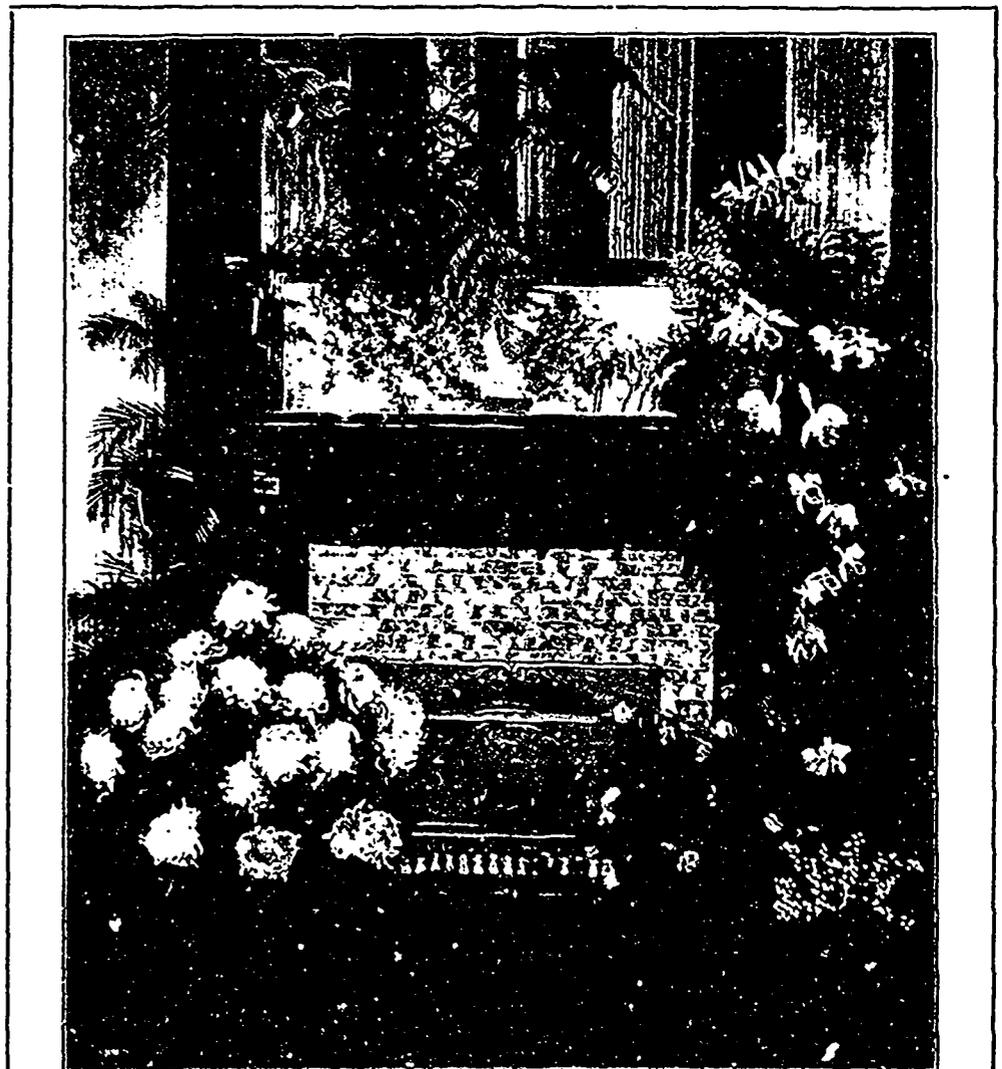
The greatest drawback to poinsettias is the falling of the bottom foliage. This is invariably the result of careless watering more than anything else. If you want to have stems clothed to the bottom with foliage, pay the strictest attention to watering. Avoid cold draughts and low temperatures.

There is frequently trouble in keeping

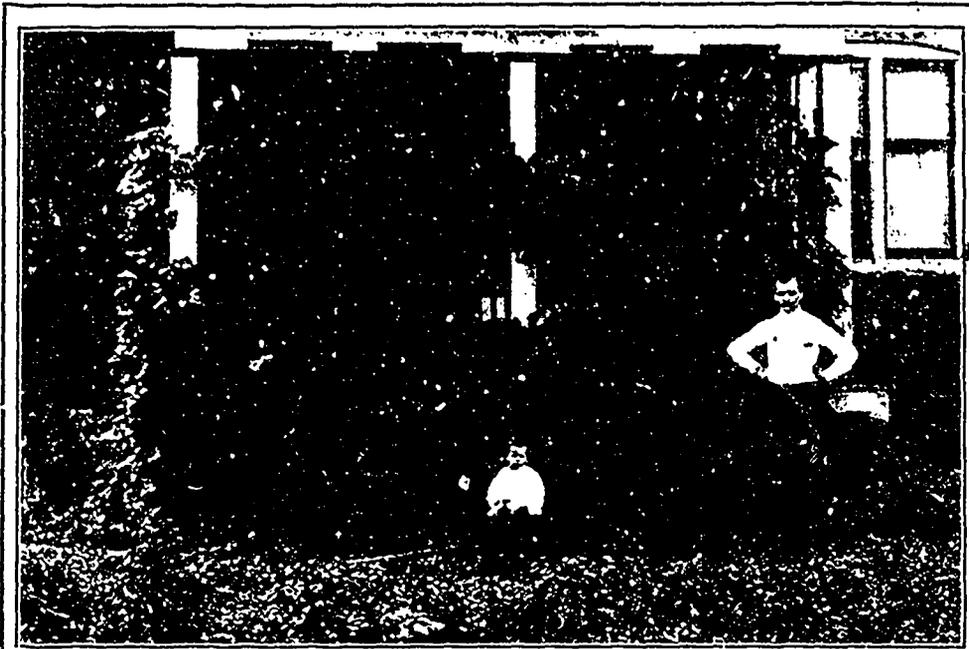
poinsettias plump when cut. If cut and put into cold water, wilting follows just the same as if they had been left out of water. This difficulty is overcome by dipping the cut ends immediately after cutting in water that is boiling or nearly so.

There is nothing that gives such a touch of Christmas to the living-room as the berried plants, *Solanums* and Christmas peppers. The *Solanums* can easily be brought along by cool treatment with plenty of water, but the peppers want warmer treatment. Any that are backward should have a warm, sunny position to color up the berries.

Christmas lilies must now have the buds starting to open. Then in a temperature of 60 to 65 degrees at night they will be all right. These cold storage lilies which are found at this season, do not make good pot plants, as they lack the vigor of the newly-imported bulbs, and they produce a smaller num-



The First Prize Mantel Decoration at the Ontario Horticultural Exhibition
Arranged by S. A. Frost, Toronto.



Pumpkin Vines as used on the Back Verandah of Mr. W. D. Grenfell, Stratford, Ont.

ranged arches and arbors. They are sure to make you anxious to own one of your own in which to spend the summer evenings or to rest on Sundays. Best of all they are easily and cheaply made. Obtain from the lumber dealer strips of pine one inch by two inches, and from ten to twelve feet. A few two by four scantlings, nails, and tools, are all that is then needed. You can readily design and erect your own structure.

Erect it in some secluded spot which you can make beautiful with vines and flowers, and ornamental bushes. Do not build too large a one or it will make an unsightly instead of a beauty spot. When you have erected your arbor you must decide upon what vine you will use to cover it. The clematis is one of the best. Any of these are suitable, Jasmine, Virginia Creeper, Cinnamon Vine, or the Kudzu. These make a fine rapid growth. A rose bower is magnificent.

Training Pumpkin Vines

W. D. Grenfell, Stratford, Ont.

Our back verandah, covered with pumpkin vines, attracted some attention here last summer, and a few notes about it may be of some interest to readers of *The Canadian Horticulturist*. The accompanying illustration was taken about the middle of August. The vines had to be trained up as their natural tendency is to trail along the ground.

The fruit does not show in the picture, but there were several quite large pumpkins. They had to be supported, as otherwise they would have torn the vines from the supports by their weight. This vine gives a good shade, and there were no insects on it, except the bees in the blossoms. I have thought of trying the dipper-gourd in the same way, as it has a rapid growth, fine dark foliage, and pure white blossoms.

The Care of House Plants

Henry Gibson, Staatsburg

The period when plants are removed from the garden to the house is a trying one for plants. Out of doors they have been accustomed to fresh air, moisture, and so forth, and not very high temperature. In the house conditions are greatly changed; the air will be dry, and there will be heat of an enervating character because of the lack of moisture in it. Leave the windows open, and shower the plants every morning, if the weather is pleasant. Use no fire heat unless it is quite cold and then only sufficient to take away the chill. By a little care in this respect your plants will get accustomed to the new conditions by such easy stages that by the time the cold weather arrives they will not mind it so much especially if one is careful to admit plenty of fresh air during the middle of the day.

ber of blooms per bulb, nevertheless they are very desirable for cutting.

Begonias, Lorraine and Cincinnati should be in fine shape whether they have been subject to warm or cool treatment. Those grown cool take longer to develop into desirable specimens, yet some first-class plants are produced under such treatment. Plants that have been subject to a temperature of from 60 to 65 degrees at night, and have the flowers well advanced, will do with cooler treatment from now on to the holidays. Don't let the change be too sudden, and be sure and give them a sunny position and a fairly moist atmosphere. Begonia Cincinnati is by far the better house plant of the two, and should be better known among amateurs. It requires just the same treatment as the Lorraine, save perhaps it is a little easier to manage.

FERNS IN THE HOUSE

The nephrolepis is still the great fern for house culture. The old Boston variety, *N. Bostoniensis*, is the most popular, but there is a wide assortment of others. *N. Whitmani compacta*, *Elegantissimi*, *Todea video*, are very desirable varieties. One of the finest and most beautiful house ferns is *Cibotium Schiedei*. It is really surprising how much ill-treatment this fern will stand without showing any ill effects. Another sort that stands dry heat fairly well is *Cyrtomium falcatum*. *Adiantum farleyense* is especially handsome as a house plant, as, indeed, are all the adiantums, but the slightest chill and one drying at the roots, and they are of no further use. This holds good with all ferns to a greater or lesser degree. Watering should be faithfully done, and an even temperature maintained at all times. The nephrolepis varieties that are well es-

tablished in their pots will be benefited by an application of some highly concentrated fertilizer once a week.

Pandanus Veitchii and many of the highly colored crotons and dracaenas make excellent plants for warm rooms. All will stand drying heat with little injury. None of these plants, however, should be exposed to a temperature lower than 50 degrees, or they will show their resentment by dropping their foliage.

If there are any plants that you want for home use or to present to a friend, which do not happen to be in the collection that you are bringing along for Christmas, it is advisable to order them from the florist now. Pay a visit to his greenhouse while he has time to take you round and show you the most desirable specimens. Place your order, and have it delivered just when you want it. Two weeks from now your florist will be so busy that he won't have time to show you round as he would like to. Moreover, if you delay too long the best plants will be sold, for it is with the florist as with all others, "first come first served."

Arbors in the Garden

P. W. Powe, Cassville, Ont.

Most people seem to think that when the last bloom is gone their year's work in the garden is finished. If you want to make a success and a beauty spot of your garden you must not neglect it a single day until the garden is deep under its winter coat of snow. Even then you may order from a carpenter or make yourself those unique and ornamental wooden arches, arbors and fences of trellis work of many kinds, which can be made at little cost.

Who does not enjoy going into a well-kept garden which contains nicely ar-

Christmas Flowers in the Home

E. F. Collins, Toronto, Ont.

MANY and varied are the efforts made in the majority of homes to secure a festive appearance at the Christmas season. Nothings assists to attain this effect more than well-grown plants or cut flowers if their size and color is chosen with the knowledge that they will harmonize with the interior decorations and the furniture used in the various rooms of the home.

Use palms for the front hall. If the ceilings are lofty use Kentia or Areca; if they are rather low, with heavy trimmings, use Phoenix Roebelenii in good, rich-looking earthenware jardinières in preference to brass. Around these may be grouped two or three pairs of poinsettias, the rich, red buds producing a beautiful effect with the green foliage. This portion of the home may be further embellished by the addition of a good specimen of aspidistra, or large ferns of the Nephrolepis type. The old Bostoniense fern is grand, or some of the other varieties, such as Whitmani, Amerpholii, or Dreerii. To these may be added one or two well-berried plants of Solanum, which if used for mantel or plate rail decoration, in conjunction with plenty of well-berried holly, will produce a fine effect.

Decorating the home library is often a problem of the housewife. The severe lines of the bookcases and usually heavy furniture call for strong colors, rather than any delicate shade. Palms may be used here also, as well as good sized plants of Pandanus Veitchii, the light green and white foliage of which produces a most beautiful effect. Dracaena, Lindenii, Victoria, Terminalia, Godseffiana, or Cooperii in plants may be used and add to this well-berried holly made up into wreaths of various sizes and draped over the white statuary and hung from the bookshelves in suitable positions.

Should the table be a fair sized one, place a vase of three dozen crimson carnations or two dozen Richmond roses on it, while nearer the window, and perhaps a little to one side on a pedestal, place a vase of white Killarney roses; if the window curtains are white, use a well-flowered plant of crimson cyclamen or poinsettias.

Much care must be used to produce a refined, rich, and yet delicate effect in the drawing-room, with its various colors in upholstered furniture and bric-a-brac, china or ivory ornaments, and gilded mantels and picture frames. Commencing at the mantel, the edges may be draped with good strips of smilax or Asparagus Plumosus, letting a few ends trail over the glass to be reflected into the room. Add to this some orchid blooms, say Cucidius Varicarkis or Tigrinius, now group over one corner of your mantel shelf a nice plant of Whittmanii fern, which would droop over the edges so as to hide the pot. Finish this by placing in among the fern fronds about a dozen Cyripedium Sanderii, or any of the pale yellow types, and a very fine effect is produced. Should the grate or fireplace be an electric one, or not in use, so much the better, as you may continue the floral decorations to the floor by using good sized ferns or palms with poinsettias and white azaleas, or well-berried Solanum.

Plants for the various window sills or recesses may consist of white or pink cyclamen, azaleas, begonia, Gloire de Lorraine, miniature hyacinths, lily of the valley, and the white or pink shade of well grown primulas. All these plants look best when placed in china vases, decorated in very light or delicate shades: The less color, the better effect will be derived from the flowers. The French Ivory rose is perfect for the home decorations, and will be much used when it becomes better known.

USE OF CUT FLOWERS

Cut flowers may consist of American Beauty roses, in large vases; Cattleya Labiata and Percivilleana with Valley for low glass bowls, or white and pink car-

nations, with asparagus or smilax trailing around the stems of the vases. It would not be nice to try and use holly in with any of the pink shades, if cut flowers or plants, but should there be an alcove or doorway with dark colored columns, or white enamel, holly wreathing may be used to good effect by twining it loosely around them and suspending a holly wreath above the doorway, with a spray of mistletoe in the centre.

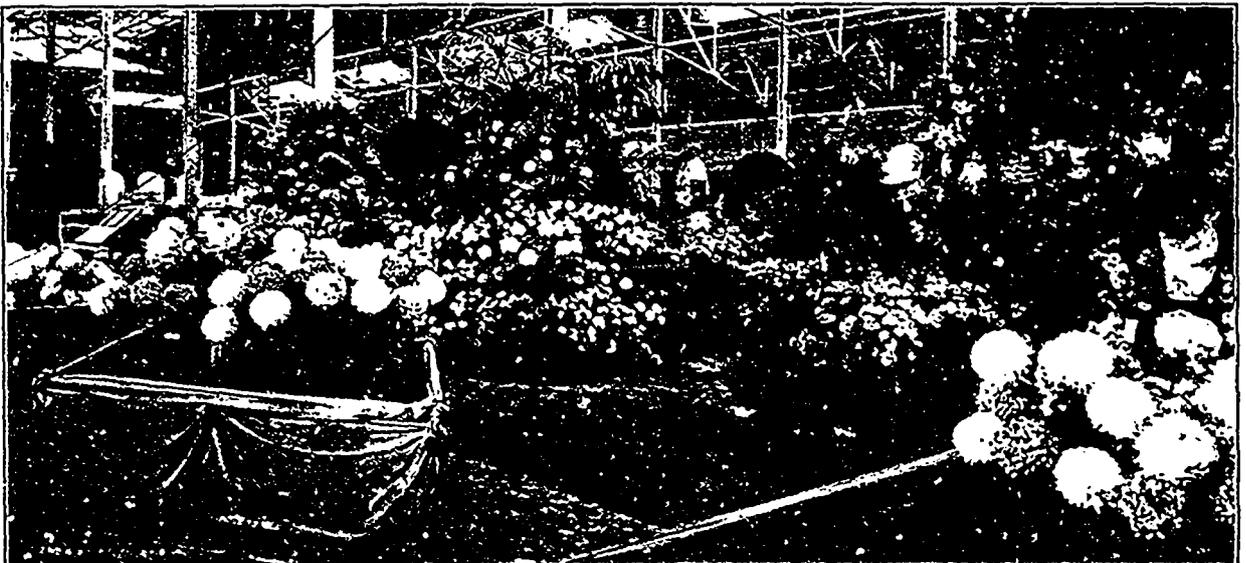
The dining-room at Christmas—what memories of days that are past do these words bring to our minds, and who can help but feel that he or she must associate the holly in the pudding, with holly on the walls, holly wreaths in the windows, bright red colors and green foliage everywhere: Add to this Richmond roses and lily of the valley for tables and buffet, with the window recesses grouped with ferns, poinsettias, and white azaleas, mistletoe hanging from the electrolier, with holly wreathing drooping gracefully from the ceiling, and it will create a most beautiful effect.

THE BEDROOMS

Cut flowers only should be used in the bed chambers, or dressing-rooms, and not too many of these, probably one vase of carnations or roses for the bed chambers and either violets or valley for the dressing-rooms.

Made-up baskets and hampers of various designs and colors are now made up by the retail florist, but only a small percentage of them are filled with anything like good taste as regards color effect. When they are well done, nothing gives so much pleasure to your friends as a present of one of them.

While many grades and qualities of plants and cut flowers are offered, it is



Some of the High Class Chrysanthemums and Decorative Displays Made at the Recent Ontario Horticultural Exhibition



Small Space Used to Good Advantage
Residence of Mr. Winterburn, Walkerville, Ont.

wise to take the best only, and if the purse is limited, reduce the quantity rather than the quality, and on no account tolerate any of the artificial plants or fake colored flowers in your home. Nothing lowers the tone of refinement in your home as much as the use of such absurd imitations.

The following is a short list of plants and cut flowers in their order of merit:

Palms—*Kentia*, *Areca*, *Phoenix*.
Ferns — *Bostoniensis*, *Whitmanii*,
Pteris, in variety, *Cibotium*, *Schiedei*,
Adiantum, *Farleyense*, *Pandanus*
Veitchii.

Treatment of House Plants

P. D. Powe, Cainsville, Ont.

DURING the winter months no house should be without at least a few potted plants. The attendance and labor required is trivial in comparison to the cheer they bring to any home. If you have not a well prepared soil at hand, it will pay you to buy from a local florist all you will require. But to those who would prepare their own, I recommend the following: One-third friable loam, one-third leaf mould, and one-third sharp sand. This will be found good for most plants.

Re-potting should be done at least once a year, and with most plants from two to three times is best.

Watering is a point on which many house growers fail. They generally try to follow greenhouse rules and most always come a cropper. Never allow the water to stand in the saucer. Always water thoroughly so that the whole pot is soaked, but do not water too often.

Dracaena, *Lindenii*, *Cooperii*, and *Terminalis*.

Aspidistra, small sized crotons, *Asparagus Plumosus*, *Spengerii*.

Poinsettias, *Ardisia*, and *Solanum*, well berried.

Azaleas, *cyclamen*, *Primula obconica*, and *Sinensis*.

Begonias, *Gloire de Lorraine*, and *Cincinnati*.

Pans of white Roman or miniature hyacinths. Cut flowers: *Roses*, carnations, violets, lilies, orchids (in many varieties), valley, and late white or yellow chrysanthemums.

The plants need water if the pots give a clear ring when tapped with the knuckles. Usually house plants need water about once a week.

TEMPERATURE REQUIREMENTS

The proper heat for the room containing plants is from 60 to 70 degrees, though some plants demand a higher temperature. Almost any kind of heating will do so long as an even temperature is maintained. Where gases are present a vessel of water placed under the shelves will do much to remedy the evil.

Great care must be exercised in the ventilation of the room. If a cold, frosty draft strikes your plants you are done. The best plan is to air from the top by letting down the upper sash of the window, at the same time covering over your plants with a sheet of newspaper.

Each week the leaves of plants should be sponged as follows: Get a pan of

warm soapy water (not hot) and a soft sponge. Take a leaf in your hand and gently sponge both sides. This sponging removes many pests such as the aphid, red spider, lice and mealy bug. It also keeps the plant healthy in the same manner as a bath does the human body.

At this season insects breed rapidly, because the conditions that generally exist in the house are extremely favorable to their development. Make sure that your plants are perfectly free from them and it would be well to treat them to a bath in an infusion of fir-tree oil. If an aphid is found fumigate the whole collection. Precautions are never useless, for eternal vigilance is the price of freedom from insects even among house plants.

Flower Gardens of Walkerville

W. H. Smith, Sec'y, Walkerville Horticultural Society

The window boxes of Mr. Montrose, of Walkerville, whose home is one of the attractive ones of our town, and whose garden was illustrated in the April issue of *The Canadian Horticulturist*, are filled to overflowing with trailing vines, coleus, geraniums, petunias, and hanging fuchsia, the whole making one mass of color from the ground half way up the windows.

The illustration here shown reveals the residence of Mr. Winterburne, Argyle Road. The vases are filled with blooming plants, the pyramids of boxwood, the tripod with its load of fragrance, the palms and hydrangea in the shade of the porch; the masses of geraniums along the walk; the border in front of the house a riot of color, containing geraniums, coleus, salvia, heliotrope, cocks-pur, and the two clematis, one the large purple *Jackmanii* and the other *Clematis Coccinea*, with its small red Japanese lanterns—all colors blending to make one perfect picture.

Peony Culture

J. H. Bennett, Barrie, Ont.

The peony is practically if not absolutely immune from disease. If the grower secures healthy plants to begin with he will have nothing to fear.

The only insect which even slightly injures the peony is the Rose Chafer, which is sometimes found eating the petals of the flower. However, the peony, with the exception of the very late varieties, has usually done blooming ere this pest appears. It would be wise where the chafer is annually very troublesome to omit the later sorts. Even if attacked by this insect the bloom is so very large and has such dense petalage, that inasmuch as the bug usually buries itself deep in the petals it does not disfigure the bloom as it does a rose or other flower.

Shrubs for Lawns Surrounding Public Buildings*

Roderick Cameron, Toronto

IN the Old Land and on the Continent, nearly all grounds surrounding public buildings are planted with evergreens. This gives a cheerful effect during the winter months, as well as during the summer. But in Ontario we must abandon all hope of success in growing such plants unless they are used and treated as sub-tropical plants. This could be carried out on a small scale by planting in beds or amongst other shrubs. The methods of caring for evergreens are well known to most gardeners, so that I need not detail them here, but shall proceed to the subject first mentioned.

Most buildings look bare in this country when lacking both flowering shrubs and vines about them, and are improved when either are used. A few neat shrubs, planted in the angles of a building, and a few vines to grow on it, not necessarily to cover it, take the bare look away. If some Tecomas and Celastruses are planted along with the Ampelopsis, particularly in the angles of a building, the one helps the other to relieve the sameness. The Tecoma blooms hang out beyond the flat background of the Ampelopsis and give a pleasant effect. The same may be said about the Celastrus, but its beauty begins when winter is at hand. The first frost bursts open the seed-pods, exposing the orange red seeds that hang down on silken-like threads from the pods, producing a warm appearance when the ground is covered with snow.

Celastrus scandens is our own native plant found in the woods, but better known by the name of staff vine. Celastrus paniculatus and Celastrus punctatus are both Japanese varieties and are hardy.

The planting of shrubs around the base of a building depends greatly upon the style of the building, whether it would be an advantage or not. The north side of a building must have shade-loving plants, such as Caragana arborescens (Siberian Pea Tree), Hydrangea arborescens, Cornus spaethii, Cornus variety elegantissima variegata, Cornus siberica, Kerria Japonica, Kerria Japonica fl. pl. and Kerria Japonica variegata, as border plants, Philadelphia, Coronarius foliis aurea, Rhodotyphus Kerriodes, or White Kerria, Ribes aureum (Missouri Currant). From the plants mentioned may be selected foliage, bloom and fruit, as well as colored bark to suit the taste of any individual.

For the east side of a building any of the best flowering shrubs will answer, as it gets the morning sun yet it is

not too long exposed to the same, and plants in this situation get the moisture when it rains.

The west side of a building is the difficult one for which to prescribe. It is so protected from all moisture during the summer with high walls and a projecting roof that artificial watering must be resorted to almost daily to ensure the development of the plants. This watering is more effective in the evening than during the day. The plants should be well sprinkled overhead to keep down insect pests such as aphid and red spider, the latter being the most destructive pest to plants in such positions. If this watering is well attended to, the same varieties of plants as are mentioned for the east side may be grown here.

THE SOUTH SIDE

On the south side of the building, where the sun is blazing hot all day and the heat reflected back from the wall, it is hard to get plants that will not be destroyed by insects, or the foliage be burnt by the sun.

In this position the more upright forms seem to answer better than the low, flat-headed ones. I find that Aralia spinosa, by some called Japonica, and Tamarix parviflora are two excellent plants. Forsythia suspensa is always clean and tidy. Spiraea prunifolia flore pleno, viburnum plicatum, viburnum tomentosum (both from Japan), can be used with Spiraea Anthony Waterer towards the outside. Philadelphus Coronarius aurea always looks well among the other shrubs on

account of its golden foliage. Dentzia Lemonei and Deutzia gracilis are about our dwarfiest shrubs. Therefore, they must be planted towards the edge. A few of the dark foliaged Canna, King Humbert, would brighten up a border of this sort.

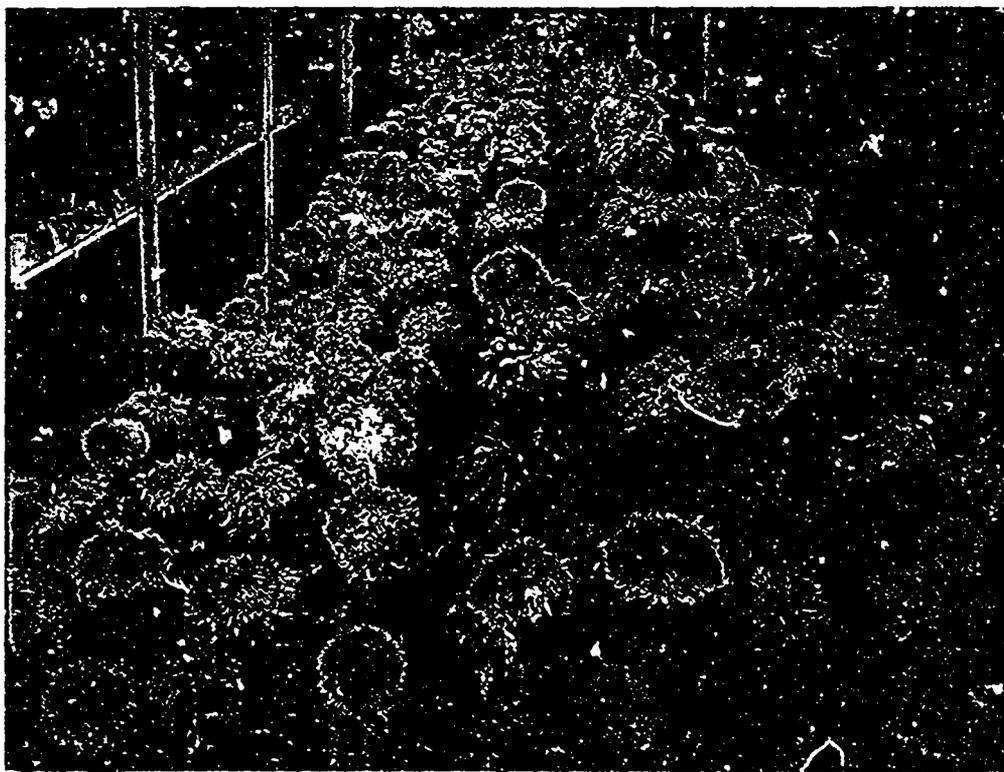
Strawberry Patch in Quebec

D. E. Lothian, B.S.A.

Two of the greatest hindrances to commercial strawberry culture in the province of Quebec, are late frosts and long mid-summer droughts. For many years it has been the habit of growers in the Middle States to prevent this late frost by smudging, but they found that the injury resulting from light frosts, such as ours are, may be prevented by spraying. Spraying will also overcome the drought trouble, lately so troublesome.

At Macdonald College there has lately been installed a long perforated iron pipe which taps the water main running through the farm. This pipe rests on wooden trestles about three to four feet high, and the water pressure is sufficient to cover a considerable area of the celery bed over which it is placed.

To strawberry growers in this province who are fortunate enough to be located at the side of streams or who have access to water power, we would suggest that an arrangement similar to that existing at Macdonald College might be applied with advantage to their strawberry patch, causing higher yields and better returns.



A Bench of Chrysanthemums in the Conservatory, Queen Victoria Park, Niagara Falls, Ont.

*Extract from a paper read at the recent convention in Toronto of the Ontario Horticultural Association.

Vegetable Growers Hold Their Annual Conference

THE ninth annual convention of the Ontario Vegetable Growers' Association, held in the Parliament Buildings, Toronto, Nov. 19th, was attended by a strong representation of enthusiastic and wideawake members of the Association. The members seemed to have attended with the intention of imparting and receiving as much helpful knowledge as possible in the limited period of time available. Cooperation was the strong point emphasized.

President C. W. Baker, London, Ont., gave the members a hearty welcome. His outlook on the future of the Association was most optimistic. "Get your hand out," he said, "and let's get better acquainted. Let's have a real heart to heart talk. It is our privilege, our duty and our opportunity. Let us dream dreams of the garden of Canada and its future. We can best keep up-to-date by being members of the Vegetable Growers Association. Individualism is a back number." Mr. Baker recommended the following work for the ensuing year: The organization of new branches, following up the proposed legislation dealing with weights and measures by the Dominion Government, the encouragement of the branches to increase their membership, and buying and selling cooperatively. He also suggested having a trade paper, or a page in some farm paper devoted to this work.

Mr. J. Lockie Wilson, secretary-treasurer, reported splendid work by the Association in the past year. He emphasized the fact that the market end of farming is where emphasis should be laid. Brain as well as muscle, he said, has to enter into this work. We can win out if we have cooperation. Mr. Wilson discussed the advisability of having a trade paper for the Association. He was opposed to an organization of this kind having an official organ but favored the idea of the executive getting in touch with a number of the leading papers so that the association might from time to time send in information of interest to vegetable growers. He believed there would be no difficulty in getting a score of papers to take up this line of work.

"Irrigation and its practical results." was the subject on which Mr. J. J. Davis of London, Ont., based his remarks. He said that the first time he used water for his crop was on a large patch of pickling cucumbers. Although he had a very crude system, it opened his eyes to the advantages of irrigation and as a result he installed what is known as the Skinner method of irrigation. "I believe," he said, "that if it wasn't for the water I would go out of the gardening business." He estimated the cost of his equipment at about one thousand dollars.

The members were greatly interested in his address at the close of which considerable discussion took place.

Hon. J. S. Duff, Minister of Agriculture, congratulated the Association on its success from year to year. "You have branched out," he said, "and your sphere of work has its ramifications in every portion of this great province. We are coming to a time when truck farming will be more and more a speciality."

A problem of great moment to vegetable as well as fruit growers is the transportation problem. Robert Thompson of St. Catharines, dealt with this subject. He strongly favored the shipping of produce by freight rather than by express. Shipping by freight enables those sending off the shipments to load the cars themselves and in this way prevent many broken packages and damaged produce.

An address on "Cooperation in the Purchase of Supplies and Marketing of Produce." by Mr. W. J. Kerr, Woodroffe, showed that he was working with the best interests of the Association at heart. Mr. Kerr was last year appointed purchasing agent for the association and his seed price list indicated that a large percentage of the profits go into the hands of the members who purchase from him. Several of the members gave him their orders for seeds for next year.

Prof. A. H. MacLennan, of Guelph, suggested that letters of regret be sent

to Mr. Thomas Delworth, of Weston, and Mr. Jos. Rush, Humber Bay, two worthy members of the Association, who were unable to be present. Mr. Wilson said he would take this matter in hand.

S. C. Johnston, B.S.A., gave some suggestions on suitable types of greenhouses and progressive vegetable culture. He said that vegetable growing under glass is becoming one of the important features of agriculture. Some of the points in building a greenhouse are: Suitable location, ample means of drainage, avoid cold, wet spots, and make exposure an important feature. He also discussed the advantages of various kinds of houses. For the progressive vegetable grower he enumerated methods and appliances that are being adopted by vegetable men in the States, which might be applicable to Ontario vegetable growers.

The report of the delegate to the American Vegetable Growers' Convention was given and it was suggested that this Association be invited to hold their convention in Toronto next year. This matter was left in the hands of the executive.

At the evening session Prof. MacLennan gave an address on "Diseases of Vegetables," dealing particularly with the use of Bordeaux mixture. A lantern talk was also given by Mr. W. R. Cobb, New York, on "Greenhouse Construction and Heating."

Vegetable Growing Experiments*

A. H. MacLennan, B.S.A., Guelph, Ont.

IN many sections of Ontario it is becoming a problem to obtain the necessary quantity of barnyard manure used in intensive gardening. As the industry grows, this will become more acute as it has in many parts of the United States. On this account it is necessary that we make use of commercial fertilizers.

For the past three years we have been carrying on tests with commercial fertilizers in different combinations in our College. While this work has been very successful, it brings one to the conclusion that if we are to obtain results that will be of value to our commercial growers, we must carry on tests in each district. These tests need not be elaborate, involving a great amount of labor and figures, but can be judged by comparison. They would give us a much more definite idea of how we must combine the different constituents to meet the needs of each particular section and crop.

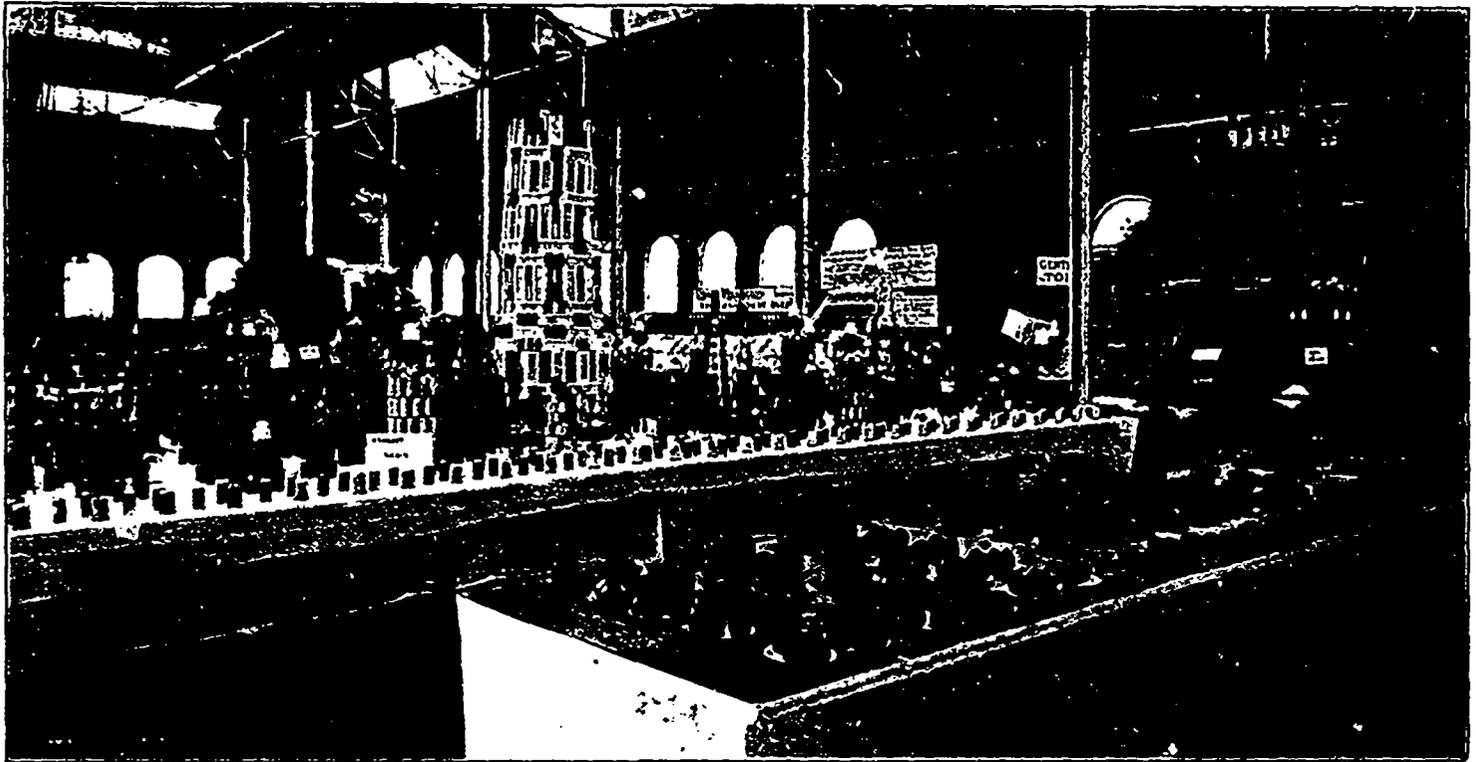
In talking this fall with a couple of men who represented large commission houses in Ontario, they spoke of the increasing demand for head rather than leaf

lettuce. You will remember that this matter was brought up at your last meeting. I have been experimenting for two or three years to find out what conditions are necessary for its growth here in Ontario. We found that in our clay soil sub-irrigation is absolutely essential, but I should think in the sandy soil that many of you have in your greenhouses, the method used in Boston of soaking the soil two or three days ahead of planting, would answer the purpose. I find also that transplanting into two-inch pots before they are placed in the bed helps greatly to obtain a perfect stand.

I have also been growing cauliflower among my third or fourth crop of lettuce. I find a good demand for it at a fair price. We start the seed in late November and carry the plants in two and a half or three inch pots until ready for the bed.

For some years I have been trying to breed a cucumber of the American type with the fruiting habits of the English varieties which will set freely without being pollinated. You all know that in dull weather most of our American varieties refuse to set unless bees are kept in the

*Extract from a paper read before the recent annual convention in Toronto of the Ontario Vegetable Growers' Association.



Some of the Plate Fruit and Honey Exhibits made at the Ontario Horticultural Exhibition Last Month

house. I have several strains which appear of exceptional value and whose appearance has suited almost everyone who has seen them. These I hope in another year to be able to pass out to you for trial.

I have also been working on tomatoes. For indoor work I have been trying to breed the good qualities of the Industry tomatoes—especially its disease resistance, on to the pink tomato which I obtained in Grand Rapids, Mich., four years ago, and which has exceptional thickness of flesh with thin skin but good carrying qualities. These I hope also before long to be able to give you to prove out. I have made it a practice to send out seed of varieties which have proved of value under our conditions, to any who desired, hoping by this means to be able to give you something which will increase your returns.

We all know that frequently we obtain seed which is not such as is represented, and probably have tried to find some way to overcome this difficulty. For a number of years we have grown seed of various vegetables as radish, lettuce, beets, cabbage, tomatoes, onions and melons, with excellent results. The Dominion Government last year made some provision for assisting in this work. Can we not help along by experimenting, under the care of your Association, to find where we could grow seeds commercially in the province?

Would it be possible for you to add cabbage and sunflower to the three crops already in the crop competitions? They are very important crops in the province, and could be judged in the field in the

fall, and then shown at the Horticultural Exhibition in November. The interest in the competition before has been great, and the addition of these crops should tend to increase their interest.

Soft Rot of Vegetables

B. Blanchard, O.A.C., Guelph, Ont.

That the soft rots of our common garden vegetables are mostly caused by bacteria is a fact not always realized by gardeners. Research work carried on during recent years has proved this to a certainty.

The most common result from the attack of the bacteria is a soft dark rot of the affected parts. All plants are composed of cells, each cell being enclosed in a cell wall. In the early stages of the disease the bacteria live between the cells. They produce substances which have the power of destroying the cell wall. After the cell wall has been thus broken down, the organisms infest the whole tissues, which become a soft, pulpy mass.

The bacteria generally gain an entrance through an injured portion of the plant, such as an insect bite. A wet season, too, is much more favorable to the spread of the disease than is a dry one. When storing vegetables care should be exercised in sorting as the rot will spread from a diseased specimen to a healthy one if they be touching.

A most important control measure is to keep insects in check. Caterpillars are largely responsible for the spread of rot in cabbages. One part of Paris green to fifteen parts of flour, sprinkled on the

cabbages, will keep them down. It is possible for the bacteria to live in the soil for several years. It is difficult for them, however, to gain access to an uninjured plant. Care then should be taken in cultivating the plants so as not to injure them in any way.

All diseased plants or parts should be removed and burned as soon as noticed; should the disease become general it is best to harvest the good specimens and burn the rest. Practically the same organisms cause soft rot in cabbage, cauliflower, radish, carrot, mangle, turnip, parsnip, potato, celery, onion, asparagus and rhubarb.

Protecting Small Fruits.—Where winter protection is necessary the strawberry bed should be mulched with long, strawy stable manure, after the ground freezes, but before severe weather. Cover the plants two inches deep and two or three between the rows. Raspberries should be protected by laying them down. Bend them over near the ground and hold in place by a shovelful of earth near the tips. Straw, hay, or corn stalks, or even soil, can be used for mulching, but it should not be put on before the first frosts.—H. Gibson, Staatsburg.

Too much stress cannot be put upon careful handling of any crop to be stored and during storage. Each bruise or cut gives the proper conditions for the development of disease and if rough handling is permitted we are sure to find decay starting from such places, eventually infecting the whole crop.

The Canadian Horticulturist
COMBINED WITH
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AND BEEKEEPER

With which has been incorporated
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edition several pages of matter appearing in the
first issue are replaced by an equal number of
pages of matter relating to the bee-keeping inter-
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CIRCULATION STATEMENT

The following is a sworn statement of the net
paid circulation of The Canadian Horticulturist
for the year ending with December, 1912. The
figures given are exclusive of samples and spoiled
copies. Most months, including the sample cop-
ies, from 13,000 to 15,000 copies of The Canadian
Horticulturist are mailed to people known to
be interested in the growing of fruits, flowers
or vegetables.

Table with 2 columns: Month/Year and Circulation. Rows include January 1912 (9,988), February 1912 (10,437), March 1912 (10,877), April 1912 (11,788), May 1912 (12,112), June 1912 (10,946), July 1912 (10,966), August 1912 (11,148), September 1912 (10,997), October 1912 (10,977), November 1912 (11,162), December 1912 (11,144), and a total of 132,556.

Table with 2 columns: Average each issue in and Circulation. Rows include 1907 (6,677), 1908 (3,695), 1909 (8,978), 1910 (9,467), 1911 (9,511), and 1912 (11,037).

November, 1913..... 13,778

Sworn detailed statements will be mailed upon
application

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We guarantee that every advertiser in this issue
is reliable. We are able to do this because the
advertising columns of The Canadian Horticulturist
are as carefully edited as the reading
columns, and because to protect our readers we
turn away all unscrupulous advertisers. Should
any advertiser herein deal dishonestly with any
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and that we find the facts to be as stated. It
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ment in The Canadian Horticulturist."

Rogues shall not ply their trade at the expense
of our subscribers, who are our friends, through
the medium of these columns; but we shall not
attempt to adjust trifling disputes between sub-
scribers and honourable business men who ad-
vertise, nor pay the debts of honest bankrupts.
Communications should be addressed

THE CANADIAN HORTICULTURIST
PETERBORO, ONT.

EDITORIAL

TRACING THE MONEY

The editor of the Grimsby Independent
has been occupied recently endeavoring to
trace the final resting-place of the bulk of
the money that drops out of sight some-
where between the point where the fruit
grower is paid for his product and where
the city consumer pays out his money for
the same article. The following is a re-
port of his investigations and his conclu-
sions based thereon:

"I have traced a basket of peaches from
Grimsby to Queen Street West, Toronto,
and made the following discoveries—
First, the fruit grower got forty cents
for his basket of fruit, the railway com-
pany got five cents, the commission
house got four cents, landing the basket
of fruit in the hands of the retailer in
Toronto for forty-nine or fifty cents. The
consumer paid at a retail store on Queen
Street West, Toronto, ninety cents. Now
this is not the history of only one bas-
ket of fruit, but it is the history of thou-
sands and tens of thousands and it is
a very conservative history, because there
are many choice baskets, for which the
grower does not get anything more than
the usual price in his home town, and the
retailer puts them up as extra choice,
and charges a dollar, a dollar and ten
cents for them, and even a dollar and
twenty-five cents. Now, what does this
prove? This proves that the grower got
forty cents for his basket of peaches, the
railway company got five cents, the com-
mission house got four cents, and the
retail dealer got forty cents. What does
that mean? It means that the retail
dealers of the Dominion of Canada are
getting the profits of the fruit business,
instead of the growers. The railway is
paid a fixed amount, the commission
house gets a fixed amount, but the re-
tailer fixes his own price and fixes it so
high that he makes a hundred per cent.
profit, and sometimes a hundred and
fifty per cent. profit, and he injures the
fruit business into the bargain."

May we be allowed to enter a dissent
with the conclusion reached? Our contem-
porary has not pursued the investigation
far enough. If the retailer is able to re-
tain for his own benefit the enormous re-
turns stated, then beyond doubt he is the
guilty party. But is he? Let us take a
retail storekeeper in Toronto, for example.

A retailer in a store on Queen Street West,
Toronto, is doing business on land worth
anywhere from thirty to two hundred thou-
sand dollars a lot. Figure out what rental
such a man must pay. Estimate how many
thousands of baskets of fruit he must
handle to pay his month's rent before he
will have any profit left for himself. Con-
sider, also, that the help he employs lives
on high-priced land and has to pay high
rentals—and therefore expects high wages.
Consider also, that this man does business
all the year round, including slack sea-
sons when the amount of business handled
is small. After doing all this, and after
allowing for losses due to fruit going bad
on his hands, bad accounts and a hundred
and one other incidentals, figure out if the
retailer is making anything like such a
fortune as might at first appear. The fact
is, he is not. The man who is reaping the
largest harvest is the man who owns this

high-priced land, who has done nothing
to create its value, but who gathers in its
big rentals just the same.

It may be claimed that these conditions
do not apply in smaller cities, such as Ber-
lin, where land is not so high in value, but
where retailers maintain prices just the
same. The reply is that land in Berlin,
considering the restricted opportunities for
doing business there, is just as high in
value in proportion as is land in Toronto.
In Berlin, as in Toronto, the store must be
operated all the year round, help must be
employed constantly, and the possibilities
of a large turnover are much more limited.

Some years ago the milk producers in
the vicinity of Toronto concluded that the
milk dealers were making excessive profits.
They pointed out that the milk-dealers were
obtaining larger returns for handling the
milk for only a few hours in connection
with its delivery than the producers ob-
tained. Several hundred of them formed a
company and started in the milk business
in Toronto. They soon found that the milk
dealers did not have any such profits as
had appeared.

The expense of doing business in Toronto
is so great and the competition from others
in the same business is so keen the average
retailer has a hard time to continue in busi-
ness. As soon as we realize this fact and
begin to pay a little more attention to the
landowners, whose land in some instances
in a city like Toronto, is worth over a mil-
lion dollars an acre, we will be hot on the
scent of one of the chief factors in the
high cost of living.

A WORTHY WORK

At the recent annual convention of the
Ontario Horticultural Association, it was
decided to appeal to the Government for an
increase in the grants now given to the
sixty or more local horticultural societies in
the province. This was a wise move. The
Ontario Department of Agriculture is now
in receipt of a special grant from the Do-
minion Government of several hundred
thousand dollars a year, which money has
to be used for the promotion of agriculture
including horticulture.

The Horticultural Societies' Act provides
that the annual Government grant shall be
distributed among the local societies in
proportion to their membership and their
expenditures for horticultural purposes.
Every increase in the membership or ex-
penditures of the stronger societies de-
creases proportionately the grants received
by the weaker societies. Every new so-
ciety that is organized also reduces the
grant to all the other societies. During
the past few years the membership of the
societies has doubled, and their expendi-
tures for horticultural purposes have in-
creased in the same proportion. Last year,
six societies ceased to exist, largely be-
cause of the difficulties they had to face
in financing their work properly. The
time has come when the grants to these
societies should be materially increased.
The work they are doing is so beneficial
in character as to warrant their receiving a
considerable share of the money being dis-
tributed each year to the province through
the Federal Grant to Agriculture.

Eight years ago, following an editorial
published in The Canadian Horticulturist
suggesting that action should be taken,
a few market gardeners living in the vicin-
ity of Toronto met with the editor of The
Canadian Horticulturist in the St. Law-
rence Market and discussed the advan-

bility of forming an Ontario Vegetable Growers' Association. Action resulted. Last month the eighth annual convention of this Association was held. It was largely attended by delegates from all parts of the province. This Association has active branches throughout Ontario, a large membership, and has accomplished much valuable work on behalf of the vegetable growers of the province. The reports presented by branch associations at the recent convention showed that their members have saved many thousands of dollars through cooperative efforts. Thus have the benefits of cooperative effort been demonstrated once more.

The Ontario Fruit Growers' Association is to be congratulated upon the excellent results that have followed from the appointment of Mr. McIntosh as its transportation agent. The members of the association were delighted, as they had every reason to be, with the report presented by Mr. McIntosh at their recent convention. Other provincial fruit growers' associations might well follow the example that has thus been set. A general and uniform agitation of the question of freight and express rates in all the provinces would strengthen the hands of the producers in their dealings with the railway companies.

PUBLISHER'S DESK

Our front cover illustration shows a view of a portion of the exhibits at the recent Ontario Horticultural Exhibition. As will be seen the exhibition reflected credit on the horticultural interests of the province.

This issue of *The Canadian Horticulturist* is a little later in reaching our subscribers than usual. This is due to the fact that the Ontario Horticultural Exhibition was this year held a week later than in former years. As a very large percentage of the readers of *The Canadian Horticulturist* take a deep interest in this exhibition, as well as in the conventions held in connection therewith, we felt justified in delaying publication sufficiently to enable us to publish the full reports of the proceedings which appear in this issue.

The horticultural societies of Ontario hold their annual meetings during the first week in November. The meetings held this year were encouraging in character. A number of interesting reports concerning them have reached us for publication in *The Canadian Horticulturist*. Owing to the fact that our columns this month are crowded with reports of the conventions of the Ontario Horticultural Association and similar organizations, we have been unable to publish these reports concerning the local societies. Otherwise they would have been published with pleasure.

December brings the ever-welcome and joyous Christmas and holiday season. May it be burdened with rich blessings and crowded with happy experiences for all the readers of *The Canadian Horticulturist*, is the wish of the publishers.

R. S. Duncan, who was in charge of the fruit exhibit in the made-in-Canada train, which recently toured the west, says that he found people everywhere expressing a preference for the Ontario apple. How different when we consider the package.

Ontario's Horticulturalists Meet and Confer

THE eighth annual convention of the Ontario Horticultural Association, which was held in the Parliament Buildings, Toronto, November 20th and 21st, evidently proved that this Association continues to grow in strength and public approval. Some fifty societies were represented by delegates. The convention sessions proved interesting and helpful throughout, and should benefit the over sixty local societies in Ontario.

PRESIDENT'S ADDRESS

In his presidential address, the retiring president, Rev. A. H. Scott, M.A., of Perth, spoke on the "Livability" and "Visibility" of life. "Livability," he said, "was not a word to be found in the dictionary, but next to 'lovability' it was the greatest thing in the world. No one has as yet estimated, nor can they, the power of life in the soils. What life is we know not. Life began in a garden, the first man was a gardener and life began to go wrong when the man left the garden. Gardening is the best of all toils, it is the acme of art. The charm of horticulture was in its visibility—a visibility as possible of existence in the back yard as in the bigger areas of parks and gardens."

FINANCIAL STATEMENT

The treasurer's statement showed receipts for the year of \$237 37, and expenditures of \$106 95, with a balance on hand of \$130 78. Some sixty societies in the province were affiliated with the Ontario Association, being the largest number in its existence.

SUPERINTENDENT'S REPORT

Superintendent J. Lockie Wilson reported that six societies had passed out of existence—Cayuga, Elora, Milton, St. Mary's, Simcoe and Sudbury. There is a possibility that the Milton and Sudbury societies will be revived. The Simcoe society when it disbanded had a balance on hand of nearly \$100. New societies have been organized in Dundalk, High Park (Toronto), and Paris. Complaints have been registered by the High Park and Toronto societies over the fact that the Act limits the maximum grant they can each receive is five hundred dollars. All other societies in the province can receive grants as high as eight hundred dollars. During the year the Act was amended, enabling new societies to be organized in Police Villages having a population of not less than five hundred. Mr. Wilson urged growing towns to profit by the error of town planners in the past and at once procure ample breathing places for their citizens, and playgrounds for the children.

SOCIETY SUGGESTIONS

Mr. H. W. Brown, of the Berlin Society, believed that the Department of Agriculture would help the societies if it would distribute a circular furnishing the names of capable speakers on horticultural subjects, with a list of their addresses and dates when the services of such speakers could be obtained. He pointed out that the Horticultural Societies Act does not facilitate work that will reach boys and girls, and suggested that a new section might be placed in the Act setting forth a basis of organization, an outline of procedure and a method of financing a "Children's Guild" or children's section of a horticultural society. The advisability of charging a smaller fee than one dollar in the case of children was dealt with. Mr. Brown advocated a copious list of options offered as premiums for both spring and fall planting, and the holding of at least one exhibition each year.

A new feature was the holding of mid-day luncheons, on the conclusion of which each day those present were invited to offer suggestions bearing on the work of the association. These discussions proved interesting and helpful.

Hon. W. H. Hearst, Minister of Lands, Forests, and Mines, spoke enthusiastically of the horticultural possibilities of Northern Ontario. Flowers and vegetables grown there equal those produced in any other part of the province. Gardens in Haileybury and Temiskaming have produced beds of sweet peas with stalks fourteen feet long.

Parks Commissioner C. E. Chambers, of Toronto, read an excellent paper entitled "A Park System for Small Towns," and Mr. H. J. Moore, of Queen Victoria Park, Niagara Falls, one on the "Ornamentation of Town Boulevards." Both of these papers will be published in later issues of *The Canadian Horticulturist*.

GREETINGS FROM THE STATES

Mr. R. B. Watrous, Secretary of the American Civic Association, showed a series of slides illustrating the three types of garden cities now being laid out and advocated in England and Germany. The speaker brought greetings from the association he represented.

Two excellent papers, one entitled "Recent Experimental Work," by F. E. Buck, of the Central Experimental Farm, Ottawa, and the other, "Vegetable Production on a Thirty-foot Lot," by Geo. Baldwin, Toronto, were well received, and will be mentioned more fully in later issues.

SCHOOL CHILDREN AND HORTICULTURE

A paper, which was so well received that arrangements were made to have copies of it printed for general distribution, was read by Mrs. R. B. Potts, of Hamilton, on the subject, "School Children and Horticulture." An extended reference to this report will be published in a later issue. Mrs. Potts told of children, backward in their school work, who had practically been remade by becoming interested in gardening. When taught in the schools, horticulture trains the head, the heart, and the hands, and brings the child in touch with life in a manner impossible under prevailing methods.

SHRUBS FOR LAWNS

Mr. Roderick Cameron, of Toronto, read a paper entitled "The Best Varieties of Shrubs for Lawns Surrounding Public Buildings," a portion of which appears elsewhere in this issue, and the balance of which will be published later.

Mr. Hugh Johnson, of Toronto, gave suggestions on the conduct of lawn and garden competitions. He advocated the inspection of lawns and gardens entered for competition at least three times in a season, spring, summer, and autumn, and that special attention be given to the owners of new houses, who, he claimed, should be put in a class by themselves.

The fixing of maximum and minimum points for the judging and a deduction of twenty-five per cent. of points for untidy or ill-kept fences were suggested, as well as the doing away with tight board fences. The beautification of fences should be an important consideration.

(Concluded on page 306)

A few years ago we used a box 9x12x18. We now use the standard size and think it alright for export purposes.—A. W. Peart, Burlington, Ont.

Ontario Fruit Growers Meet in Annual Convention

THE subject of the over-production of fruit was never before so seriously considered as at the annual convention of the Ontario Fruit Growers' Association, held November 19 to 21 in the Dairy Amphitheatre of the Canadian National Exhibition grounds. President W. H. Dempsey, of Trenton, referred to the menace of over-production in his opening address.

"The crop in storage this spring," said Mr. Dempsey, "sold at prices far under cost of production in many cases. This was the result of over-production. While last year's was not a full crop by any means, it was heavy enough to cause a slump in prices. All our selling organizations seemed to be helpless in the face of an over-crop, and the prices and profits in which we have so long believed, failed. This year with a crop almost a failure, prices have kept within reason."

Mr. Dempsey then voiced this caution: "We begin to feel that the apple business may soon be over-done, and caution seems necessary on the part of our fellow-investors and on ourselves who already know the business."

Mr. Dempsey believes that peach growers are in much the same position as the apple growers and should make further plantings with extreme caution. Cherries, too, have ceased to advance in price, which is one of the first indications of over-planting. Berries, he said, were high only because of dry weather, which cut the crop in half.

SOME VARIETIES OVER-PLANTED

The subject was referred to again and again during the convention. Prof. J. W. Crow, of the Ontario Agricultural College, admitted the truth of Mr. Dempsey's contention, but with qualifications. Some varieties, he said, had been over-planted, and as an instance he mentioned the Baldwin, one of our best commercial varieties, but one now being produced in as great quantities as the markets can stand. The lowering of tariff duties on apples going into the United States and the lowering of our own tariff walls that may follow consequent upon the demands of Canadian consumers, makes the planting of Baldwins and similar varieties even less advisable, as United States growers are heavy producers in this line. Prof. Crow, however, was not pessimistic. He predicted a great future for the fruit growing industry in Ontario if we will make the production of strictly fancy varieties our specialty. Such varieties are the Snow, McIntosh, and Spy. These varieties are always at the top of the market, and we can produce them in Canada to better advantage than any other country in the world. We will not only have a large and growing home market for these varieties, but an unlimited market as well across the line.

Mr. McIntosh, the originator of the McIntosh apple, was present when Prof. Crow was speaking, and in endorsing his views, said that this fall he had sold in Montreal well packed McIntosh Reds at seven dollars fifty cents a barrel. Mr. Dempsey himself suggested that a great market for first-class Canadian fruit could be found right in our own cities if our people were educated to appreciate the home-grown article. "Toronto people," said Mr. Dempsey, "are paying long prices for foreign fruit of inferior quality to that which they can secure at home."

Mr. Robt. Thompson, of St. Catharines, one of the largest handlers of fruit in Can-

ada, stated most emphatically that he did not believe that there was any danger of fruit growers outrunning the demand for their products. "There are consumers enough in Canada," said he, "to use all the tender fruits that can be grown from Toronto around the head of the lakes and to the Niagara River if all the suitable soil were planted." Mr. Thompson's remedy for apparent over-production in apples last year and in peaches this year is proper distribution. He said that a splendid market could be found in the smaller towns of Ontario and the Eastern province if their needs were intelligently studied and consistently supplied. Speaking from a long experience with Western markets, Mr. Thompson refuted the idea that Ontario fruit is not popular in the West. He said that if one-half of what was published about dishonestly packed Ontario fruit in Western markets were true, that we would have lost that market long ago.

Mr. G. E. McIntosh, the Association's transportation agent, reviewed the transportation situation as it affects the fruit grower. His investigations and conclusions were much the same as those given in his report of last year. Mr. McIntosh expressed his belief that both freight and express tariffs were all the traffic would bear, but he did not consider these the essential points. The real grievances of fruit growers he defined as follows: Lack of railway equipment; inefficient terminal facilities; uncertainty as to rapidity of transit; rough handling; pilfering; and neglect in icing cars or heating them according to the season.

In concluding his remarks—a portion of which appears elsewhere in this issue—Mr. McIntosh made the following recommendations:

First, that an effort be made to have navigation companies handling freight and operating upon Canadian waterways, placed under the jurisdiction of the Railway Commission; second that power be given the Railway Commission to adjudicate claims against railways or express companies not settled in 60 days; third, that the Commission be given jurisdiction in the fixing of penalties for rough handling and pilfering; fourth, that fruit inspectors be also cargo inspectors; fifth, that the express premium be reduced from 20,000 lbs. to 15,000; sixth, that the railway companies allow free transportation both ways for men sent in charge of heated cars; seventh, that the railway companies be asked to provide a special fruit service from central shipping points in Ontario to Winnipeg during the shipping season.

These recommendations met with the approval of the members and were incorporated in their resolutions. It was decided to print Mr. McIntosh's address in pamphlet form and distribute it among the members of the association, the members of Parliament, and all others who might be interested.

PEACH DISEASES

Two addresses of great educational value were delivered by Mr. L. Caesar, Provincial Entomologist, who is always a popular speaker at fruit growers' conventions. In discussing "Little Peach and Peach Yellows" Mr. Caesar reported a continual and rapid decrease in the number of trees destroyed each year through these diseases. In 1911 sixty thousand trees were destroyed and in 1913 the number had dropped to six thousand. Mr. Caesar appealed to all fruit

growers to assist him in ridding the province of these diseases. The speaker attached but little importance to the so-called cures for Little Peach and Peach Yellows, claiming that the only effectual remedy was eradication by digging and burning the diseased trees.

Mr. Caesar's second address was of wider interest. His subject was "Apple Scab," and in it he gave a survey of conditions prevailing in reference to the disease in the entire province. He called attention to the susceptibility of such varieties as Snow and McIntosh and the immunity of Blenheim, Duchess, and Golden Russet. As a general rule the worst attacks of scab can be warded off by proper spraying.

These addresses will be given almost in full in future issues of *The Canadian Horticulturist*.

DEMONSTRATION ORCHARDS

Intensely practical and interesting was the review given by R. S. Duncan, B.S.A., of the demonstration orchard work being conducted by him in the counties of Northumberland and Durham. Mr. Duncan described in detail the methods adopted for the regeneration of five neglected and apparently worn-out orchards, and then compared the profits made from these orchards both before and after the trees came into the hands of the department. Mr. Duncan made special reference to a two and one-half acre orchard on light, sandy soil. For three years the receipts from this orchard had been three hundred dollars, two hundred dollars, and one hundred dollars respectively. In the succeeding three years, with proper attention, receipts from the same orchard were seven hundred and fifty dollars fifty cents, four hundred and ninety-nine dollars eighty cents, and four hundred and ninety-three dollars and fifty-eight cents. By proper methods the percentage of number one apples was increased from thirty to sixty per cent. to eighty to eighty-seven per cent. Similar results were noted in the other four orchards. The increased profits the speaker attributed to good pruning, cultivation, fertilization, and spraying.

"The Pre-cooling of Fruit" was the subject of an address for which A. B. Stubenrauch, of the United States Department of Agriculture, was slated, but he failed to turn up, and his paper was read by Mr. R. R. Graham, of the O.A.C. The writer based his remarks on experimental work conducted by the United States Bureau of Plant Industry. He pointed out that pre-cooling, while of itself an important measure for the preservation of fruit in good condition, was of real practical value only when it went hand in hand with care in picking and packing the fruit. In fact, most of the paper did not discuss pre-cooling at all, all stress being laid on the necessity of careful handling. As an example of how carefully fruit may be handled, Mr. Stubenrauch made mention of the practice of some far Western growers who wear gloves when handling their apples.

(Continued on page 306)

In British Columbia a systematic effort is now being made to place British Columbia canned fruit on the English market. Little attention as yet has been paid to this phase of fruit marketing by the English fruit brokers and wholesale dealers. By the time that the canning industry has been well established in that province, it is hoped that an interest will be awakened in the Old Country.

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Ontario's Ninth Annual Horticultural Exhibition

The fact above all others demonstrated at Ontario's Ninth Annual Horticultural Exhibition, held in Toronto, November 18 to 22, was that fruit growers are not altogether dependent on the kindness of nature for a crop of good fruit. The past season has been a trying one for the orchardist. The severe drought extending through all the growing months has halved the fruit crop of the province and greatly reduced the percentage of number one fruit that will be packed. Those, however, who expected to see the results of an unfavorable season reflected in the quality of fruit exhibited at Toronto were pleasantly disappointed. The standard was well up to that of any previous year.

While it was evident that in some cases much picking had been required to get enough good fruit, what was shown was of good size, well colored, and free from blemish. Previous to last year's fair, it will be remembered, seasonable conditions were the exact reverse of what they have been this year. Continual wet weather had favored the development of all fungus pests and yet the fruit exhibited was clean. These two extreme years following one after the other, and with good fruit exhibited in both, prove the efficacy of advanced orchard practice.

A LARGER EXHIBIT

The fruit show no longer exists as a separate institution. This year it was incorporated with the National Live Stock and Dairy Show, and conducted at the same time on the grounds of the Canadian National Exhibition. The fruit show, however, loses nothing of its influence by the presence of other attractions and its con-

Douglas Gardens

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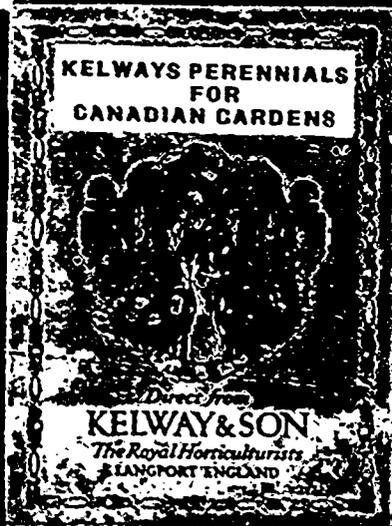
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nection with the live stock show will give the fruit growers a better opportunity to advertise their products than ever before. One admission ticket at the main gate admits the visitor to all departments of the fair. As the importance of the live stock features become better appreciated throughout the province, much greater crowds will visit the National Live Stock, Horticultural and Dairy Show than ever visited the Horticultural Exhibition as a separate institution. It will be unfortunate, however, if the horticultural features are ultimately overshadowed by the rest of the exhibition.

Ontario's Fruit Show is becoming every year more of a box apple show. Eight years ago there were only eleven boxes on exhibition. At the fair last month there were two entries of two hundred boxes each, several one hundred box entries, numerous entries in the single box classes; all of which goes to show that Ontario growers are coming to appreciate the merits of the box package.

FLORAL FEATURES

The flower department of the fair showed up to better advantage this year than ever before. There was abundance of room for the exhibits in the large transportation building where the fair was held, and the florists took full advantage of their opportunities, making a veritable fairyland of the whole southern end of the building. People who have seen both testify that the flower department of the fair far exceeded that of the New York show, both in quality and beauty. Chrysanthemums and orchids were especially strong. Some of the fine specimens came from the greenhouses of R. Jennings and the Dale Estate of Brampton. Many of the chrysanthemum blooms were twenty-two to twenty-five inches in circumference. Sir Henry Pellatt was the most successful private exhibitor. Other florists prominent among the winners were Wm. Jay & Sons, Thos. Manton, and Geo. Bonnett.

VEGETABLE DISPLAY

Perhaps the vegetable growers deserved most credit for progress made. Their exhibits this year excelled those of previous years in both quantity and quality. There was a profusion of onions, cabbages, potatoes, and all other vegetables common and uncommon. The prevalence of the disease, Rhizoctonia among the potato exhibits shows how serious this comparative unknown disease is becoming. The incipient-looking brown spots characteristic of the trouble were in some cases found on every plate of a variety. Exhibitors were numerous, there not being a single class in which competition was lacking. The chief exhibitors were Chas. Plunkett & Sons, and John Creighton, of Weston, F. C. Reeves, Wm. Harris, and Brown Bros., of Humber Bay, and Dandridge, W. R. Trott, London, and several others located in or near Toronto.

Beekkeepers were given the most favorable position in the whole building, right in the centre and between the flower and fruit shows. They used their space to good advantage, staging an attractive exhibit of honey in the comb, liquid and sugar states.

COUNTY EXHIBITS

It was a banner year for Northumberland and Durham. Fruit growers of the united counties got well over five hundred dollars in prize money, and captured many of the most coveted positions. Their exhibit that attracted most attention was a three-hundred-box lot of Spies of splendid quality and of such uniform size and well packed that there were exactly a hundred apples in each of the three boxes.

The Bee-Keepers' Review

Is out on a hunt for new subscribers and has a special offer to make to those subscribing at the present time. The regular subscription price of the *Review* is \$1 per year. Our special offer is to give the last half of 1913, and all of 1914, at the regular annual price, then to those who ask for it we will include the April and May numbers containing the National Convention report for 1913. A bargain worth considering. No extra charge for Canadian postage.

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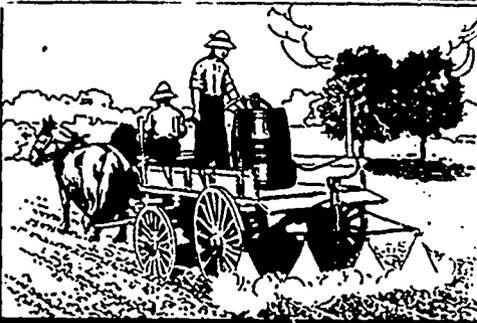
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Back of every Goulds Reliable Sprayer is a broad, strong guarantee of satisfaction. Quality is the watch-word in our factory, which is the largest and oldest in existence. A Goulds Sprayer goes right on successfully fighting insects and fungous enemies long after cheaper outfits have worn out. Thousands of satisfied users prove that Goulds Reliable Sprayers are the best for field crop and orchard work.

Bigger Crops—Bigger Prices

That's what users the world over are getting with the aid of Goulds Reliable Sprayers. They are built on practical, "experience-taught" lines—built to spray easier, quicker and more uniformly than others. And they do it, too!

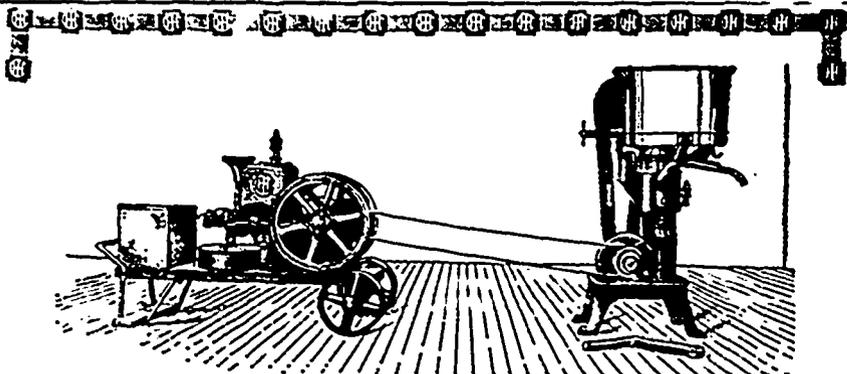
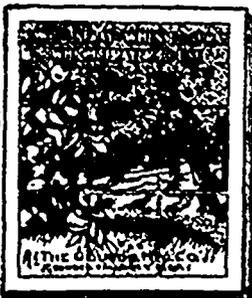


Every crack and crevice—every leaf and limb is uniformly sprayed with a Goulds Reliable Sprayer. All working parts are rust and chemical proof—reasons why they last. Made in 25 different types, for hand and power.

Write for Free Book

Our new book—"How to Spray. When to Spray, Which Sprayer to Use"—is well worth reading. It's an education to every farmer and fruit grower—expert or novice. Write for a copy today. It's free.

THE GOULDS MFG. CO.
17 W. Fall St., Seneca Falls, N. Y.



Look This Square in the Face

LET a man ask you six months after you buy an IHC outfit, "Why are you using a cream separator?"

Is it making money for you?" and the question will sound as sensible to you as though he had asked why you used a binder.

The outfit pictured above will give you more cream from your milk, saving from \$5 to \$15 per year for each cow you milk; separator skim milk, sweet, warm, and wholesome, will give you healthier, fatter pigs and calves, and this again means more milk and increased soil fertility. Many more things an

IHC Cream Separator Dairymaid, Bluebell or Lily

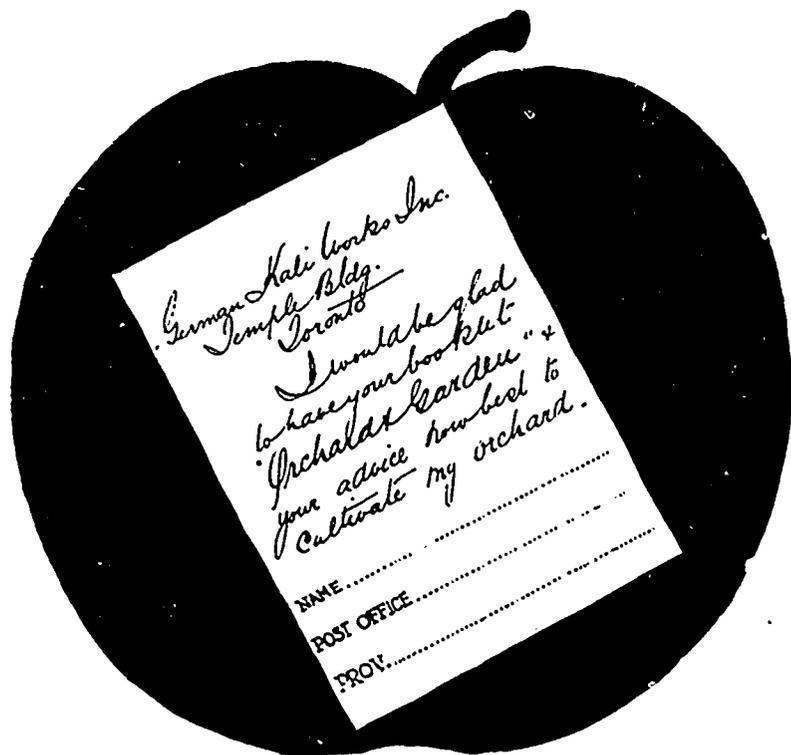
will do for you. Then the one-horse power back-geared IHC engine will be your most efficient helper. It is mounted on a portable truck, is economical, steady and reliable. It will pump water, run a washing machine, churn, sausage grinder, grindstone, and do any other farm work to which its power can be applied. Each style has four sizes.

See the local agents who handle these machines, and have them demonstrate the working to you, show you the close skimming qualities, and efficiency, and go over the mechanical features with you. They will give you catalogues and full information.

International Harvester Company of Canada, Ltd

EASTERN BRANCH HOUSES
At Hamilton, Ont.; London, Ont.; Montreal, P. Q.;
Ottawa, Ont.; St. John, N. B.; Quebec, P. Q.





Mr. Orchardman, Use This Coupon—NOW!

A decision now as to the proper methods of cultivating and fertilizing your orchard, will mean dollars and cents to YOU next season.

NOW—after harvest—is the best time to apply fertilizers, viz.: POTASH and Phosphoric Acid. This because the plant food in these materials by the action of Winter cold and Spring thaws, will make the plant food completely available by the time the sap flows in the spring.

You need have no fear of loss of leaching.

In the world-famed Annapolis Valley, the customary practice is to apply 600 lbs. Bone Meal (furnishing the Phosphoric Acid and Nitrogen), and 300 lbs. Muriate of POTASH per acre, in the fall. If you can't get Bone Meal, apply 400 to 600 lbs. per acre of Acid Phosphate or Basic Slag. The Nitrogen is supplied by plowing under clover or leguminous plants, or by applying Nitrate of Soda in the Spring.

If you prefer a factory-mixed fertilizer, be sure and get one containing at least 10 per cent. of POTASH.

The present high price for apples should impress you with the importance of improving the quality and increasing your crop. It is the best quality of fruit that demands the best prices.

If you want to learn more about cultivating and fertilizing orchards, our Scientific Bureau will be glad to advise you fully. This Bureau is composed of the very best Agricultural Experts in Canada. This advice is scientifically and agriculturally correct, and it is good.

The attached coupon makes it convenient for you to send for our "ORCHARD AND GARDEN" booklet. If you will let us know your soil condition, our Scientific Bureau will tell you, without charge, how best to cultivate your own particular orchard.

German Kali Works, Inc.
TEMPLE BUILDING - TORONTO

dred boxes. This exhibit was sold to the Robt. Simpson Co., of Toronto, for two dollars fifty cents a box. Halton county also had a three-hundred-box exhibit of Baldwins, but the quality of their fruit and their packing fell a little behind the Northumberland and Durham exhibit, but not much.

A two hundred and twenty-five-box lot of McIntosh came in for much attention. In some ways this was the most attractive exhibit of boxed apples at the fair. This attractiveness, however, was due to the variety. For quality of fruit and correctness of pack the exhibit had to take second place to a one hundred-box lot of Baldwins packed by the Northumberland and Durham Fruit Growers' Association. Mr. R. C. Ferguson, of Grey Co., had a third lot of one hundred boxes on which he secured third place. Another coveted award that fell to the growers of Northumberland and Durham was that for the best box of any variety in the building, they winning on a box of Spies.

DEMONSTRATION ORCHARDS

An exhibit of particular educational value also came from the united counties. This was a showing of boxed apples of many varieties grown in the demonstration orchards in charge of the local department of Agriculture. These apples were of splendid quality from the standpoint of size, color, and freedom from blemishes. Until three years ago the orchards on which they were grown were neglected, producing small crops of fruit and packing as low as thirty per cent. of number ones. The transformation has been effected by proper pruning and spraying, fertilization, and cultivation.

SOME DEFECTIVE PACKING

In single box entries there was much evidence that education is still needed in packing. In Spies, for instance, the best apples exhibited had to go down to last place because the box was only two-thirds full. The same exhibitor made the same mistake in other classes. The most common defect noticed was that the boxes lacked bilge. Fruit so packed does not carry well, and when exposed does not present so attractive an appearance as where the fruit springs up nicely. Prominent among the exhibitors of single boxes were the Northumberland and Durham Fruit Growers' Association; W. L. Hamilton, Collingwood; R. C. Ferguson, Thornbury; Oakville Fruit Growers' Association, Henry C. Bohn, Orono; W. H. Bunting, St. Catharines; P. C. Dempsey, Trenton; Brant Fruit Growers' Association; and several others, too numerous to mention.

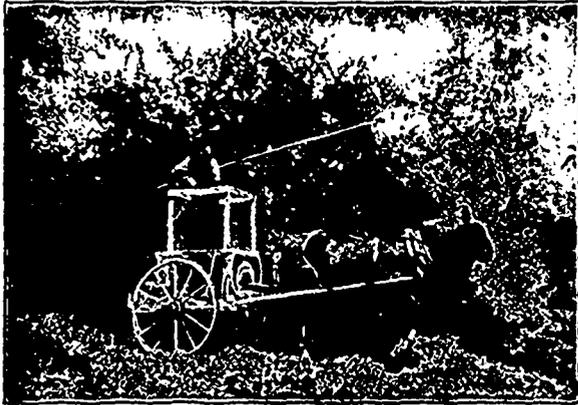
Barrels once the feature of the apple show, now form a comparatively unimportant part of the apple exhibit, their number at the recent show not reaching half a hundred. All standard varieties, however, were well represented in the barrel packs, the same exhibits being prominent as were successful in the box classes.

PLATE EXHIBIT

Plate exhibits were as numerous as in any previous year. Many growers who surrounded the table during the time of judging found it difficult to follow the judge in his awards. In many cases, large, well grown specimens, perfectly free from blemishes and of the proper shape for the variety, had to take second place to the smaller apples, the reason given being that large apples are not wanted on the market. "We are advised to fertilize, cultivate, prune, and spray, to say nothing about thinning, in order that we may grow the best quality of fruit," one grower was

AN OPPORTUNITY

WHICH FRUIT GROWERS CANNOT AFFORD TO MISS



FREE SHORT COURSES IN FRUIT GROWING

AT THE

**Ontario Agricultural College
GUELPH, ONT.**

JAN. 27th to FEB. 7th, 1914

ALSO COURSES IN

Stock and Seed Judging, Jan. 13th to 24th
Poultry Raising, Jan. 13th to Feb. 7th

Dairying, Jan. 2nd to Mar. 20th
Bee Keeping, Jan. 13th to 24th

Illustrated Short Course Calendar mailed on application

G. C. CREELMAN, B.S.A., L.L.D., President

Apple Shippers

Read this before disposing of your Apples



IT'S ONLY NATURAL to give your own property **THE PREFERENCE** — Blood is thicker than water.

Having no bought apples of our own, we are in a position to look after your interests. Consign

your apples to us—we can take care of them for you

Have ample storage to hold for improved market.

Dawson-Elliott Co.

32 West Market St., TORONTO
PHONE MAIN 1471

Announcement

Of the utmost importance and interest to growers.

PEDIGREED TOMATO SEED

Grown on Bow Park Farm, Brantford, Ont. 1,000 acres, largest seed farm in Canada.

Scientific methods after years improve, yield 100% and over. Earliness and Productiveness aimed at. We succeeded, and mark you—Grown in Canada.

Our system endorsed by eminent horticulturists as being unique and unexcelled in its thoroughness. Only a small quantity to offer as demand is already insistent.

'Tis early it is true for Tomato Seed, but it will never be too early to secure seed of such inherent merits. Orders accepted subject to being unsold.

Varieties:

- Earliana.....
- Chalk's Early Jewel.....
- Canners Early.....
- My Maryland.....
- Bonnie Best.....
- Greater Baltimore.....
- New Corlies.....
- Red Rock.....
- I.X.L.....

Prices:
 \$1.00 per oz.
 .60 per 1/2 oz.
 .35 per 1/4 oz.
 .20 per Package

Also to offer Canadian Grown Onion Seed, Yellow Globe Danvers; Market Gardeners please note, and Peas and Beans. Ask for price list.

Bow Park Farm, near Brantford

Dominion Canners Seed and Experimental Farm

BOW PARK FARM, P.O., ONT.

NEW COAL OIL LIGHT BEATS ELECTRIC OR GASOLINE

10 Days FREE—Send No Money

We don't ask you to pay us a cent until you have used this wonderful modern light in your own home for ten days, then you may return it at our expense if not perfectly satisfied. We want you to prove for yourself that it gives five to fifteen times as much light as the ordinary oil lamp; beats electric, gasoline or acetylene. Lights and is put out just like the old oil lamp

BURNS 70 HOURS ON 1 GALLON OIL

Gives a powerful white light, burns on coal oil (kerosene), no odor, smoke, clean, won't explode. Guaranteed.

\$1000.00 Reward

will be given to the person who shows us an oil lamp equal to this Aladdin in every way (details of offer given in our circular). Would we dare make such a challenge to the world if there was the slightest doubt as to the merits of the Aladdin? We want one person in each locality to whom we can refer customers. Write quick for our 10 Day Absolutely Free Trial Proposition. Agents' Wholesale Prices, and learn how to get ONE FREE.

MANTLE LAMP CO., 715 Aladdin Bldg., Montreal & Winnipeg

AGENTS WANTED

to demonstrate in territory where oil lamps are in use. Experience unnecessary. Many agents average five sales a day and make \$300.00 per month. One farmer cleared over \$500.00 in 6 weeks. You can make money evenings and spare time. Write quick for territory and sample.



The very thing!

A KODAK

The Christmas gift that will appeal to every member of the family—will add to the joy of the Christmas day in the pleasure of picture taking and will perpetuate that day by preserving its memories.

KODAKS, \$7.00 and up.

BROWNIE CAMERAS, (They work like Kodaks) \$1.00 to \$12.00.

Catalogue free at your dealers or by mail.

CANADIAN KODAK CO., Limited, TORONTO

heard to remark, "and then when we bring our fruit here, we have to take second place to fruit that looks as if it had been grown in a sod orchard." Probably, however, the awards were placed correctly from the standpoint of the requirements of the consumer, as the texture of the medium-sized apple of large growing varieties is generally superior.

Due to the lateness of the season, tender fruits were necessarily a limited exhibit. The territory they represented, however, seemed to be unnecessarily limited, almost every entry coming from the St. Catharines district. There are other sections of Ontario that can grow just as choice pears and grapes as can the St. Catharines district, and they would do well to advertise their possibilities for the production of tender fruit. Exhibitors were G. A. Robertson, F. J. Stewart, R. Thompson, W. J. Furfinger, Geo. Goring, Alexander Class, and W. L. Hamilton.

Mr. P. J. Carey, Dominion Fruit Inspector, with several assistants, gave daily demonstrations on a subject that is very near to his heart—the proper boxing of apples. Mr. Carey's corner of the building was a popular one, and it is to be regretted that bad weather so marred the attendance at the fair that more were not able to take advantage of Mr. Carey's instructive demonstrations. The exhibition was a distinct success, and showed a marked improvement over former years, particularly in the flower and vegetable sections.

Eastern Annapolis Valley

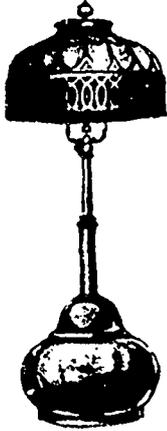
Ennice Buchanan

When the shortage of the apple crop was found to be greater than was expected, the growers consoled themselves with the prospect of high prices; but this hope has been dampened by the fact that the apples are not keeping well. The long rainy period in October delayed harvesting roots and fruit until well on in November. During the first week of November, we had severe frosts, so that many apples and potatoes were frozen. This short cold snap has been followed by unusually warm weather, which still continues (November 13), with the result that the apples are decaying in the warehouses, probably owing to a combination of causes—warm weather now, delayed picking, aphid attacks, and summer weather conditions which were conducive to spot. These spots are now sinking and turning to rot, while Ribstons and Blenheims went soft. In some cases of Greenings, the warehousemen refused to pack them.

This has roused the companies to seriously consider a cold storage warehouse at Berwick before next season, as now they are bound down to choose between shipping to glutted markets or letting the fruit deteriorate, a serious situation with which we have not had to contend before.

The first exports to England brought good prices. Early Gravensteins netted the United Fruit Co. members as follows: No. 1, \$3.85; No. 2, \$2.65; for large spotted No. 2, \$2.45; No. 3, \$1.00. Blenheims, No. 1, \$3.00; No. 2, \$2.30; No. 3, \$1.00. Boxed Blenheims, \$1.03 per box. Dudleys, No. 1, \$4.52; No. 2, \$3.79. This variety has not many threes; it is not a common apple in this locality, but is recommending itself. Late varieties of apples are attacked by minute black spots, and nearly all kinds seem to be unusually ripe for this time of year.

This Lamp Makes Its own Gas From Coal Oil



The "FAULTLESS" Lamp
Simplest, Strongest, most Beautiful and Perfect Portable Lamp in the World
Cannot Explode

Can Roll it on the Floor while Burning
Requires No Cleaning

Costs Less than One Cent a Night to produce Three Hundred Candle Power of Bright White Light

Write for circular
MACLAREN & CO., Main St., Merrickville, Ont.

Health worth having

makes life worth living. If you feel run down, with a tendency toward throat and lung troubles growing on you—act quickly and wisely—take

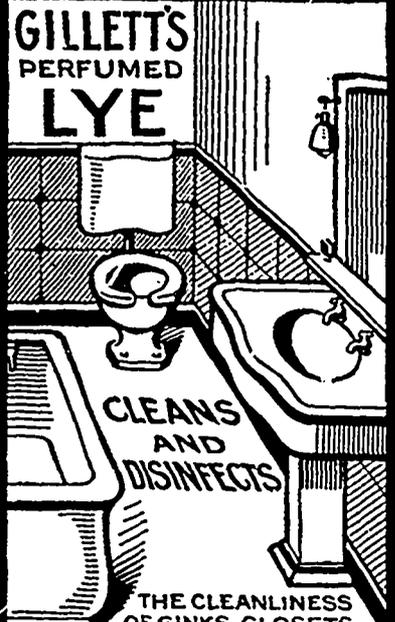
NA-DRU-CO
Tasteless Preparation of
Cod Liver Oil

This is a perfect and pleasant combination of the best Norwegian Cod Liver Oil with Malt Extract, Cherry Bark and Hypophosphites. It restores wasted energies, fortifies the system to resist coughs and colds, and gives that abounding vitality which makes one glad to be alive. As a food-tonic after wasting illness, or for weak, puny children, it has few, if any, equals.

In 50c. and \$1.00 bottles—at your Druggist's.
National Drug and Chemical Co. of Canada, Limited.

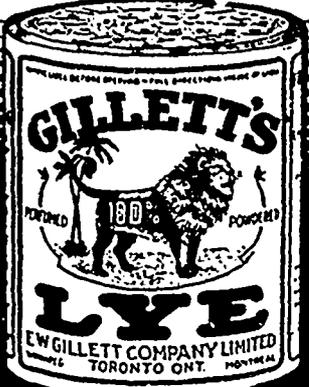



GILLETT'S PERFUMED LYE



CLEANS AND DISINFECTS

THE CLEANLINESS OF SINKS, CLOSETS, BATHS, DRAINS, ETC. IS OF VITAL IMPORTANCE TO HEALTH.



GILLETT'S LYE
L. W. GILLETT COMPANY LIMITED
TORONTO ONT. MONTREAL

TREE PRUNERS

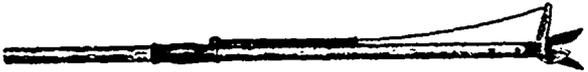
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BEST IN QUALITY
EASY TO OPERATE

THE STRONGEST MADE



Happy Thought



Orchard King

Sold by all good Hardware Stores

MADE ONLY BY
TAYLOR-FORBES COMPANY
Limited

Kansas GUELPH, ONTARIO

The Canadian Apple Growers' Guide

The only reliable detailed authority on Apples and Apple Trees, for the Dominion. Price, post paid, \$1.50.

Address

Linus Woolverton - Grimsby, Ont.

BLACK CURRANTS

We have some excellent plants of the Black Naples variety, grown from the most productive patch in the district. Also some Lawton Blackberry plants.

Apply for prices.

J. E. HENRY & SON - WINONA, ONT.

Sprayers

Sulfur Dusters

For Fighting Every Disease of Cultivated Plants

Knapsack, Pack Saddle or Horse Drawn Power Sprayers

See for Catalogues and particulars to :

VERMOREL
(Rhône), FRANCE

Manufacturers,
VILLEFRANCHE



Ranked at the Very Top

DAVID Rankin was a big farmer and he knew his business. He owned the largest corn farm in the world, about 35,000 acres down in Missouri. He devoted his life to the pleasant study and practice of right farming, and he succeeded mightily, for he made \$4,000,000 in the business of farming. This is what David Rankin said about the manure spreader: "It is the most efficient money-maker on the place."

It's warm praise to be ranked above all other farm machines, but it is in keeping with what all the agricultural world has been recognizing. Soils rebel when crop after crop is taken from them, without return of fertilizer. Witness the abandoned, worn-out farms of New England. Return every bit of manure to the soil by the spreader method. The I H C manure spreader will save you much disagreeable, hard labor, will spread evenly, and will make one ton of manure go as far as two tons spread by hand.

I H C Manure Spreaders

Deering and McCormick

are built to suit you, to do best work for the buyer in every case, to convince him that he has made the wisest purchase. Every detail in the construction has a purpose for which it was made after thorough tests and experiment. They have the maximum of strength and endurance, and their construction bristles with advantages.

You will find all styles and sizes in the I H C spreader line. They will cover the ground with a light or heavy coat, as you choose, but always evenly, up hill or down. There are high and low machines, with steel frames, endless or reverse aprons, but always giving best possible service. Tractive power is assured by position of the rear wheels well under the box, carrying nearly three-fourths of the load, and by wide rimmed wheels with Z-shaped lugs.

These and many other things will interest and convince you if you look the I H C spreader line over at the local agent's. There is one for your exact needs. Read the catalogues that the agent has for you.

International Harvester Company of Canada, Ltd

EASTERN BRANCH HOUSES

At Hamilton, Ont.; London, Ont.; Montreal, P. Q.;
Ottawa, Ont.; St. John, N. B.; Quebec, P. Q.



Ontario Horticulturists Meet

(Continued from 297)

Dr. F. E. Bennett, the energetic president of the St. Thomas Horticultural Society, which has the largest membership of any society in the province, gave many practical suggestions on the building up of the membership of local societies. His society has held monthly flower shows in store windows in the town. The shows were always held on Saturdays. In this way the public was reached. The following day many of the exhibits were distributed in the hospitals. The society has given each member a rose or a shrub, a dozen bulbs, and a year's subscription to The Canadian Horticulturist. This fall sixteen thousand bulbs were given away and nineteen thousand more imported at cost price. A fuller report of this address will be published later.

OFFICERS ELECTED

The following officers were elected: President, J. H. Bennett, Barrie; first vice-president, Rev. G. W. Tehbs, Orangeville; second vice-president, Dr. F. E. Bennett, St. Thomas; treasurer, C. A. Hesson, St. Catharines; secretary and editor, J. Lockie Wilson, Toronto. Hon. directors: W. T. Macoun, Ottawa, Prof. H. L. Hutt, Guelph; W. B. Burgoyne, St. Catharines. Directors: District No. 1, F. B. Bowden, Hawkesbury; District No. 2, R. E. Kent, Kingston; District No. 3, Geo. Vickers, Barrie; District No. 4, T. D. Dockray, Toronto; District No. 5, Jas. Ogilvie, Hamilton; District No. 6, T. Cottle, Clinton; District No. 7, R. W. Brooks, Brantford; District No. 8, W. W. Gammage, London; District No. 9, H. J. McKay, Windsor. Auditors: J. S. Moorcroft, Bowmanville, Mrs. R. B. Potts, Hamilton. Representatives to American Civic Association: J. Lockie Wilson, Rev. A. H. Scott, W. B. Burgoyne. Representative to Canadian National Exhibition: W. J. Diamond, Belleville. Committee on Names and Varieties: H. J. Moore, Niagara Falls (chairman); Miss M. E. Blacklock, Toronto; J. Cavers, Oakville; R. Cameron, Toronto; W. Hunt, Guelph, Prof. H. L. Hutt, Guelph; W. T. Macoun, Ottawa; Ed. Nephsted, Ottawa; T. Delworth, Weston; F. E. Buck, Ottawa (secretary).

A Welcome Guide

The attention of the many visitors in the Horticultural Exhibition at Toronto, Ontario, was directed to a fine display of plans for landscape and gardening made by Max Stolpe at Hamilton, Ontario.

This gentleman, ex-superintendent of the Royal Gardening Institute, and possessor of gold and silver medals, has for the last couple of years been engaged in work in this country, and has become one of the foremost landscape architects of Canada. Having practiced his science in Germany, Austria and Switzerland for nearly twenty years, the experience thus gained has made him master of his profession. Landscape architecture is not alone confining itself to the evolution of large deserts and big bushes into a number of well designed parks. It also deals with the beautifying of small gardens, lawns and boulevards, and in this way appeals to every owner of property who is trying to improve his estate and its surroundings by planting trees and flowers and placing or arranging them in such a manner as to become a treat for everybody's eyes and an advantage to the life of the plant itself. His advertisement will be a welcome guide for all those who desire to consult M. Stolpe or engage his services,

Gladioli at Less than Wholesale Prices

AMERICA, the standard pink, 1½ in. and up in diameter, \$1.50 per 100.
TACONIC, Lively pink (perfect), 2 in up, \$4.00 per 100.
Order now before too late. These prices are made to close out circular.

H. P. VAN WAGNER
R.R. No. 5 HAMILTON ONT.



SMALL FRUIT PLANTS

Gooseberries, Josselyn! Josselyn!! Red Jacket, Downing, Pearl, Houghton.—Currants, Perfection, Perfection!! Ruby, Cherry, White Grape, Leo's Prolific, Champlon, Black Naples Victoria.—Raspberries, Herbert! Herbert!! Herbert!!! Outhbert, Marlboro, Brinckle's Orange, Golden Queen, Strawberry-Raspberry.—Garden Roots, Asparagus, Rhubarb. Write for Catalogue.
WM. FLEMING, Nurseryman, Box 54, Owen Sound, Ont.

CENTRAL NURSERIES, ST. CATHARINES, ONT.

Have a Fine Assortment of
Trees, Vines, Plants, Ornamentals, Etc.



For Spring Planting
For Satisfaction, Plant St. Riges, Himalaya and Ever Bearing Burn's
Our prices are right and so are the trees. Send for priced catalogue if you have none, also your want list for special prices on Apple Trees. We can please you.



Look over our Price List No Agents
A. G. HULL & SON

MAX STOLPE

Ex-Superintendent Royal Gardenia Institute
Saxony - Germany
Holder of Gold and Silver Medals

Artistic Plans, Sketches furnished for all kinds of LANDSCAPE CONSTRUCTION WORK.

Ornamental Trees, Shrubs, Conifers, Hardy Perennials, etc.

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17 Main Str. East - HAMILTON, Ont.
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Established OF CANADA 1875

Capital Authorized - \$10,000,000
Capital Paid Up - 6,925,000
Reserve and Undivided Profits - 8,100,000

D. R. WILKIE, President and General Manager

Open a SAVINGS BANK ACCOUNT. Deposits of \$1.00 and upward received

The Call of the North

DO you know of the many advantages that New Ontario, with its millions of fertile acres, offers to the prospective settler? Do you know that these rich agricultural lands, obtainable free, and at a nominal cost, are already producing grain and vegetables second to none in the world?

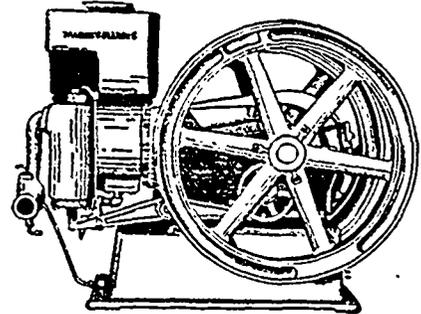
For literature descriptive of this great territory, and for information as to terms, homestead regulations, settlers' rates, etc., write to

H. A. MACDONELL

Director of Colonization
Parliament Bldgs., TORONTO, Ont.

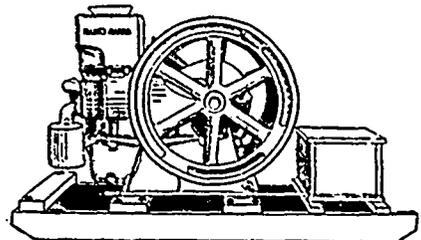
The Ideal Farm Power

Massey-Harris Gasoline Engines are always ready in all kinds of weather, winter or summer, and they not only develop their full rated horse power, but they do it on the least possible consumption of gasoline—for every gallon of gasoline you use, the Engine gives all the power the gasoline is capable of developing.



Stationary Engine

Their high efficiency, coupled with their economy of operation and durability, combine to make Massey-Harris Engines, without exception, the most reliable and satisfactory on the market to-day.

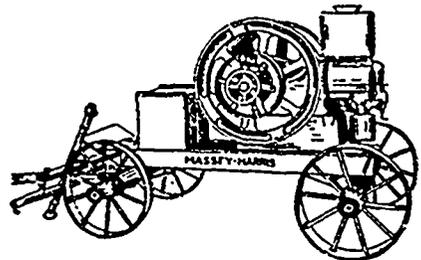


Engine on Skids

1½ to 20 horse-power.

Hopper Jacket or Closed Jacket.

Direct-Connected Pumps, Spray Outfits, Saw Outfits, Pump Jacks, Governor Pulleys, etc.



Portable Engine

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Ask Our Agent or Write Us for Free Copy

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BUILD THE MODERN WAY SUNLIGHT GREENHOUSES

Good flowers cannot be grown in a barn, why not get something up-to-date, something strong and durable. OUR METHODS of construction are thoroughly tested before they are placed on the market, and are not a lot of small pieces added to an old type of construction, for the purpose of making it appear modern. We go at it the correct way and find out what is necessary in the beginning. These little added pieces cause confusion when the erecting is in progress.

IT IS WELL TO KNOW

That you are safe under a glass roof that will stand the test and produce both quality and quantity.

We Design and Manufacture these in
IRON FRAME, PIPE FRAME AND ALL WOOD-GREENHOUSES

Also
CONSERVATORIES, PALM HOUSES, SUN PARLORS, ETC.
SPLIT TEES, SHELF BRACKETS, PIPE CARRIERS
And all kinds of
GREENHOUSE HARDWARE.

Write for Question Blank and information to

PARKES CONSTRUCTION COMPANY

Horticultural Engineers, Architects and Builders.
167½ KING STREET EAST - - HAMILTON, ONT.

Ontario Fruit Growers

At the recent convention of The Ontario Fruit Growers' Association, the plant industry generally was described as hit and miss business by Mr. F. M. Clement, of Macdonald College. Where good varieties are planted, Mr. Clement believes that fair profits may still be made from plums. Mr. S. C. Parker, of Berwick, N.S., sketched the history of the organization of the great fruit company of the province, and told of the benefits derived by the growers. Mrs. L. A. Hamilton, of Lorne Park, told of how she has induced city girls to visit the country during fruit picking and thus help the growers in the solution of one of their most difficult problems. Mr. L. D. Henry, of Wawa, dealt exhaustively with the growing and marketing of bush fruits. Prof. J. Crow, who took the place of Mr. W. Bunting, in discussing "Strawberry Culture" (Continued on page viii)

COUNTRY HOME

12 acres, near town on Lake Huron, with fine lot ornamental trees surrounding dwelling, which contains 8 rooms. There is a bearing apple orchard with good variety of fruit. Good water supply. All conveniences in the town in the way of schools, churches, etc. Price, twelve hundred and fifty dollars. Reasonable terms.

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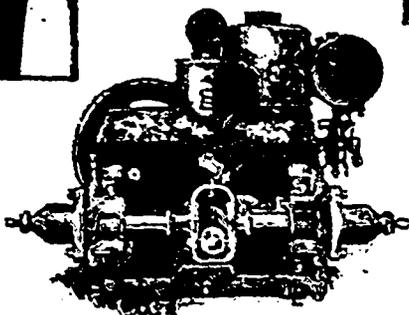
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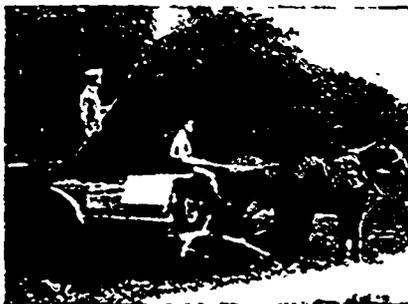
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You have heard of the celebrated

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Power Sprayer

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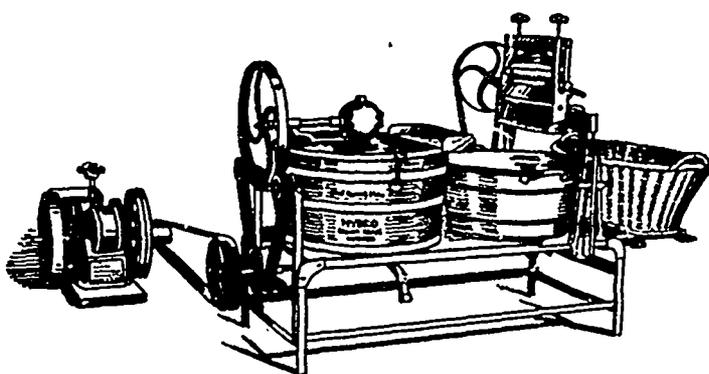
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Ontario Fruit Growers
 (Continued from page 308)

ture," spoke strongly in favor of irrigation. As all of these addresses not dealt with in this issue will be given more or less fully in future issues of The Canadian Horticulturist, further mention is not needed here.

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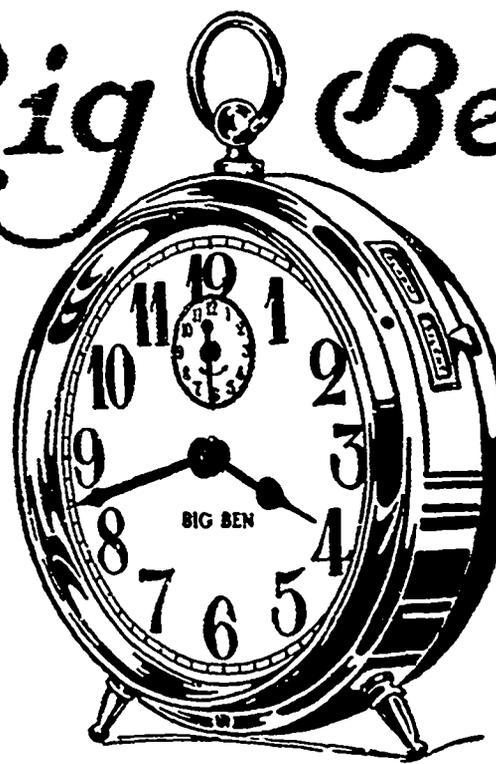
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The financial statement showed total receipts of five thousand five hundred and thirty-three dollars twenty-two cents, with a balance on hand of one thousand six hundred and seventy-four dollars forty-three cents. Directors were elected for the following year as follow: R. B. Whyte, Ottawa; C. W. Beaven, Prescott; P. S. Wallbridge, Belleville; Elmer Lick, Oshawa; W. J. Bragg, Bowmanville; H. G. Foster, Burlington; R. H. Dewar, R. Thompson, St. Catharines; George Schuyler; D. Grant; J. Mallough; C. W. Gurney, Paris; and W. J. Saunders, East Lynne. Prof. J. W. Crow continues to represent the Ontario Agricultural College.

Mr. J. A. Ruddick, who was also present, asked that representatives be appointed to the Fourth Dominion Fruit Conference, which it is proposed to hold during the summer in one of the fruit districts. The following representatives were appointed: F. S. Wallbridge, Belleville; Walter Dempsey, Trenton; G. W. Grierson, Oshawa; A. Onslow, Niagara-on-the-Lake; C. W. Gurney, Paris; A. E. Kimmins, Winona; A. W. Peart, Burlington; D. Johnson, Forest; and Robt. Thompson, St. Catharines.

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He works 36 hours at a stretch

And overtime when needed. Anyone can afford him, for he only costs \$3.00 to buy and nothing at all to keep. Nearly half of the families in Canada have taken advantage of this and have employed him to get the family up in the morning.

Even if you have a preference about waking up, he's ready to get you up your way. If you like to be wakened gradually, he'll ring little short rings every other half-minute for ten minutes. If you're a hard sleeper and need a strong dose, he'll sing out with a long, vigorous, full five-minute ring. Either way, you can shut him off at any point.

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He's invaluable on the farm, because he not only helps you get the hands out on time, but serves as a first-class clock to tell the day time by.

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