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## What shall be Our Standard Apple Box ?

R. M. Winslow, Provincial Horticulturist, Victoria, B.C.

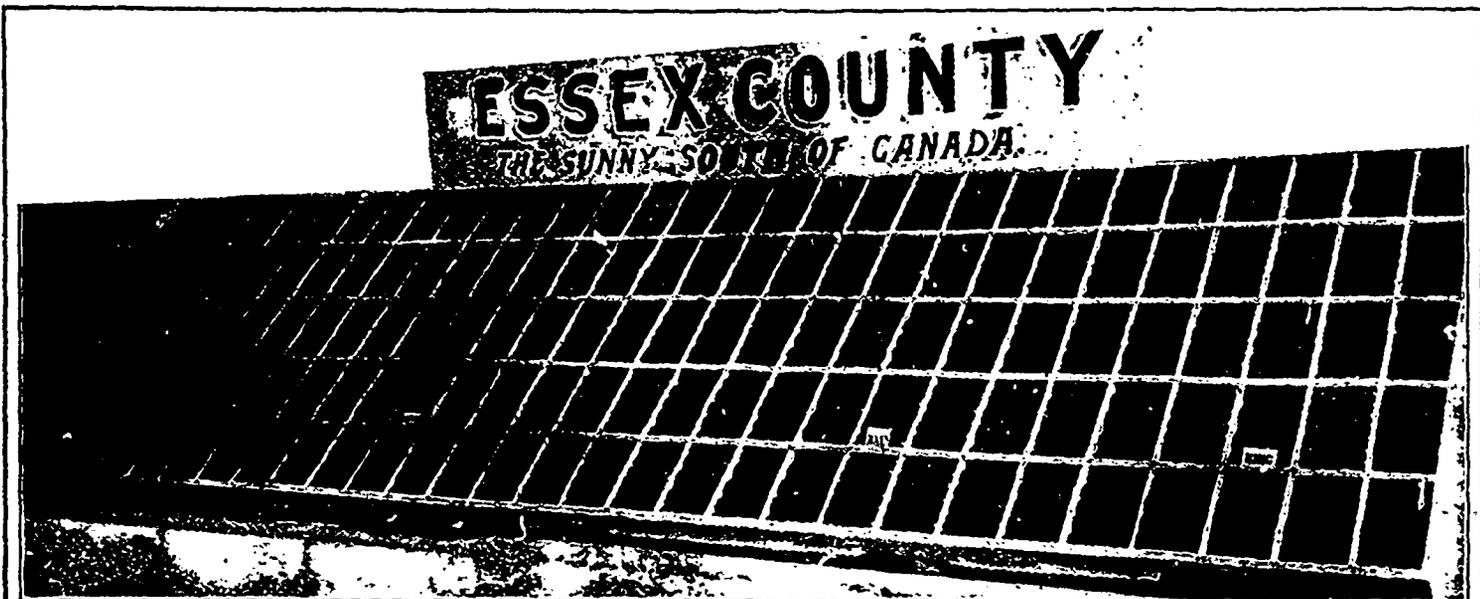
THE proper size of the apple box is a subject I approach with a good deal of caution, both because I have given the matter considerable thought and because advocates of one size or another have accused me of bias in the opinions I have expressed. It will be my endeavor to present the argument both ways as fairly as I can, leav-

ing the readers of *The Canadian Horticulturist* to draw their own opinions from the presentation of what I believe are the facts. I suppose all will admit that the box package must be suitable to the commodity, to the market, and to the packer, providing that cost and convenience are kept in mind throughout. The experience of the Pacific coast enables us to eliminate all but two widely used sizes—the Californian, which is 20 x 11 x 10 inches, inside measurement, and the Northwest Standard, which is 18½ x 11½ x 10½ inches. It is as to the adoption of one or other of these, or of both, that the present discussion throughout Canada is about. Fruit growers generally express a wish to discover and adopt the most suitable size now, rather than wait through future years, until the weight of custom makes any change, however desirable, almost impossible.

10x11x20 inch box, now used in Canada, are law and custom. The Inspection and Sales Act, Part 9, Section 325, Sub-section 3, requires that: "When apples are packed in Canada for export, for sale by the box, the inside dimensions of the boxes shall not be less than 10 inches in depth, 11 inches in width, and 20 inches in length, representing as nearly as pos-

value. This is perfectly true but, unfortunately, the result so far has been discrimination against our box, and consequently our fruit, rather than for it. The short box is well and favorably known, and the Canadian market believes it to hold more fruit than the long box.

Advocates of the short box have claimed as an advantage for it that it holds



An Evidence of What Ontario Can Do in the Box Packing of Apples. A Portion of the Essex County Exhibit at the last Ontario Horticultural Exhibition.

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Two strong arguments favoring the

sible 2,200 cubic inches."

The law does not require any particular size or capacity for sale in Canada, but the export requirements have led to the adoption of this box almost universally for our home markets.

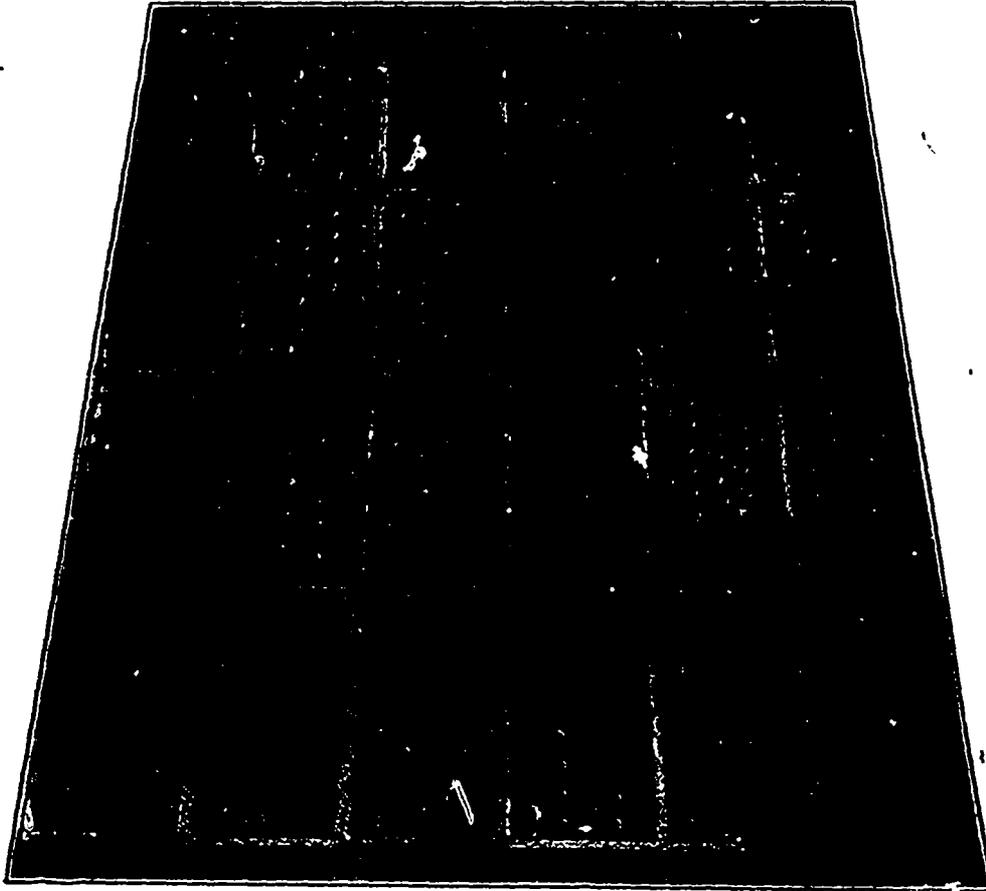
### BOTH STYLES TRIED

Before the Act was passed, the box now known as the "Northwestern Standard" (18½ x 11½ x 10½ inches) was used in British Columbia, but on the passing of the Act, the legal export box was adopted for all purposes, except in the Similkameen Valley. Since that time our packers have all been trained on the long box, the growers are accustomed to it and many of them have developed a sentiment in favor of it.

It is true that the use of the long box distinguishes it from American fruit on all our competitive markets. The distinctiveness so imparted to our product, as against that of the Northwestern States, has, perhaps, some advertising

from three to five pounds more fruit, while some advocates of the long box, now used in Canada, have claimed as an advantage for it that it holds three to five pounds less than the other. Neither is correct. Painstaking investigation has proved that the same apples, packed with equal tightness, will go into one or the other box with equal facility. If our American competitors have put more fruit in their box, it has been solely due to tighter packing and a fuller bulge. The boxes are approximately the same in cubic capacity and properly packed hold the same amount of fruit.

The apple box is in favor of the West very largely because its neat appearance has an advertising value. Advocates of both styles claim that theirs is the neater and the more attractive. It is the general consensus of opinion in the grocery stores, however, that the short wide box has a plumper and fuller appearance, which appeals to the customer in a way



New Brunswick Fruit Growers Are Beginning to Use the Box. A Sample of Their Pack

the more graceful shape of the long box does not. The customer is inclined to think he is getting more for his money and this is no inconsiderable factor when selling in competition.

Both boxes would cost the same supposing both to be in use together. It is a fact, however, that the long box is costing our Okanagan growers fifteen cents this year, while the short box is costing our Wenatchee and Yakima competitors eight and a half cents. The causes of the difference are many and not easily removed. Because of the difference in style, our shippers are not able to secure the best possible quotations from Washington Mills, so that possibly some of the advantages of competitive manufacture are lost. The difference in the cost of the package alone removes about half the protection of the tariff on apples, thirteen cents a box. More competition for our box business might have some effect in equalizing prices. Our principal box manufacturers are quite willing to adopt the American sizes however.

No one, we think, has questioned the extra strength and rigidity of the short box due to the much greater width of sides compared to the length. Its extra strength is of advantage in handling, especially for the export market. The boxes break less, twist less and there

is not so much splitting. Of most importance, there is not so much side bulge due not only to the stronger sides but to the two-piece tops and bottoms as well. These spring more easily than the single piece tops and bottoms in use with the long box and do not bulge the sides, which may cause so much bruising when the boxes are piled, as they always should be, on their sides. We believe that the short box carries the fruit with less bruising and more safely than does the long one.

It is a great defect in the use of boxes for fruit and vegetables that so many miscellaneous sizes have been developed. There is economy in uniformity and standardization. Our principal fruit packages, the apple box, the pear box and the peach box are of three different depths, and two different lengths. To illustrate: Apple, 20x11x10 inches; pear, 18½x11x18½ inches; peach, 18½x11x4 to 5 inches.

The pear and peach boxes have been narrowed from eleven and a half inches to conform with our apple box. They hold less fruit by three to five pounds than the American packages. This handicap could be removed by adopting the Northwestern apple box, and with it the standard pear and peach boxes used by our competitors, and until recently by ourselves.

Our American competitors use boxes of the following dimensions in which the uniformity in length and width may be strikingly noticed: Apple, 18½x11½x10½ inches; pear and crab apple, 18½x11½x8½ inches; peach, pear, plum, and tomato box, 18½x11½x4 to 5 inches.

There is no question of adopting both boxes. No advantage in any market, nor any convenience in the packing, could compensate for the added cost and inconvenience. We do not think our growers would even consider such a thing; they have had too much experience for that.

#### ABSOLUTE UNIFORMITY IMPOSSIBLE

Fruit packages cannot be absolutely uniform in all dimensions because as great a weight of soft fruit, such as peaches, cannot be packed as in the case of apples and on the other hand the smaller packages would be far too costly for the hard fruit. There is no reason from the packer's standpoint, however, why boxes should not be uniform in length and width. This effects economy in several important particulars. It suits the manufacturer better because all the top and bottom pieces are the same length and width for all three boxes. Then defective apple box sides and ends can be cut down to make the same pieces for the pear box or for the peach box without sawing anything off the end. Then, again, surplus apple box sides and ends may be split to make peach and tomato sides and ends. Lumber for box material is cut to fewer sides as well. All this makes for economy in manufacture.

#### HANDLING SIMPLIFIED

More uniform sizes also simplify handling in the warehouse and in making up the package. This is a considerable item where box shooks are handled and where fruit packages have to be made up rapidly. Convenience in loading cars is even a greater factor in saving expense. Packages must be of the same length to load well in mixed cars. Different lengths usually require extra bracing and the cost may run several dollars a car higher.

It is quite true that the same saving in handling can be had by lengthening the pear and peach box to correspond with the apple box. It is generally conceded, however, that a peach box twenty inches long would be too fragile to carry safely; the apple box would have to be shortened instead. In the Northwest standard box, 18½x11½x10½, all the apples are packed on the side; they carry quite well and the appearance is much better than if packed stem or blossom up. The danger of cutting is eliminated. The lining paper for apple and pear boxes could be cut to

one size instead of in two sizes, as at present.

The market is, after all, the final court of decision where any trade practice is concerned. If our markets demand one box rather than the other, that box in spite of all other arguments is the one we must eventually use. If our competitors are using it and we are not, the handicap is just that much greater. Our market commissioners in the prairies have reported consistently for the last four years that the prairie and coast

markets prefer the short box. This market takes ninety-five per cent. of our fruit. The Australian market, which takes most of the balance; does not distinguish between boxes at present. Most of the fruit they receive now comes in the short box. The English market first became accustomed to the long box and at that time preferred it. At the present time the best apples they are receiving are coming in short boxes from Washington, and while there may be some sentiment at present in favor of the long

box, it is not, in my opinion, likely to endure.

To sum up, we may conclude the box at present in use has in its favor law, custom, and the favor of certain markets. The short box is commended to us by reason of its uniformity with other standard fruit packages, with consequent convenience in manufacturing, warehousing and in loading cars. It is a more attractive package and possibly a cheaper one and, above all, it has the favor of the coast and prairie markets.

## Handling Tender Varieties of Apples in Quebec Province

Rev. Father Leopold, La Trappe, Que., President Quebec Province Fruit Growers' Association.

Picking and packing apples in the right way is a science. Ignorance in a large measure accounts for the serious loss that results from off condition of apples on arrival, in transit or in storage.

When should we begin picking? As a general rule the apple is ready to pick when the seeds turn brown and the stem separates with comparative ease from the spur, but this rule is not definite. A man must know from the general appearance of the apple when it is ready to pick, and this he can only learn from experience. In a way the color is the best guide. For instance, in the case of Wealthy, Fameuse and McIntosh apples the color must be a mature one. Duchess may be picked before it reaches its full color, if we intend to export it. But even in this case I would not recommend at all picking Duchess too much on the green side.

An apple is generally ready to pick when it is well ripe. This does not mean that the apple should be ripe enough to be eaten, but ripe enough to be shipped, keep well and have a good taste. To pick apples at this stage is very important. As all apples on a tree do not mature at the same time, like in the case of Duchess, we generally make two or three pickings.

### AVOID OVER-RIPENESS

With red apples there is a growing tendency on the part of some fruit growers, on account of the beauty of a brilliant red color, to allow apples to hang too long on the tree. Disappointment is many times the result of such a line of conduct. Last fall many growers were just glowing over the nice weather we had, when there came a big wind storm that made windfalls of half of their crop of Fameuse apples. But this is only one side of the matter.

An apple that is allowed to remain too long on the tree is beautiful in color, tempting to taste, and as far as casual observation goes is in perfect condition. This is what fools many a grower. Such apples are neither in a fit condition to

carry far or to hold up in cold storage. Inability to judge the proper maturity for picking brings back many complaints from dealers. One year especially, after a very dry and warm summer, we left our McIntosh and Fameuse too long on our trees, and the falling down in our cold storage plant was very noticeable. An apple will keep just so long under perfect conditions, and we should endeavor to know just when to pick at least the two best varieties that we have in our Province of Quebec—the McIntosh and Fameuse.

The picking of our apples is done every year by our Fathers and a few good students of the Oka Agricultural Institute, under the personal supervision and guidance of one of the Fathers. No matter how perfect may be the picking equipment, good results can not be obtained unless the fruit is handled very carefully. There is no doubt at all that a big percentage of the damage done to

our tender varieties of apples from broken skins and punctures takes place before the fruit reaches the packing house. So we train our pickers and do not leave every student who is able to climb a ladder or eat an apple, in our picking or packing crew.

### EXPERT SUPERVISION

The superintendent sees that the fruit is taken from the tree without breaking off the fruit spurs, and that the apples are carefully placed in baskets (made especially for the purpose with osier by one of our old Brothers.) These baskets hold about one-half box of loose apples. We think it would be better to line each basket with burlap. Apples should be handled as carefully as eggs for once bruised they do not keep long and have a bad appearance. More apples are bruised in putting them into the baskets, we believe, than in emptying them into the boxes or sorting tables. We always insist that our pickers put



Sorting Apples in the Orchard at the Monastery at La Trappe, Que. This Table is used now only for Barrel Packs.



The wagon used in the orchard at La Trappe, Que. Note the strong springs used to protect the fruit from bruises.

their hands clear down into the baskets until the apples can be placed carefully upon the other apples already in the baskets. Care must be exercised in all points. After the picking crew is properly instructed it is absolutely necessary to insist that these instructions are carried out to the letter at all times.

We find that a hook of wire in the form of a letter S is a great help to do work quickly and better, as then one has his two hands with which to work. One end of the hook catches the basket and the other end a limb of the tree or part of the ladder.

The ladders we use are light but solid. A great many fruit growers think that any old barn ladder that you can lean up against the trees will do all right, but we must to-day adopt modern ways and equipment. Light ladders that are convenient to carry and move around a tree and so compact that they will be easily placed between the limbs instead of against them, should be used. They should be strong so that they will last, and give you also the feeling that you can climb them safely, even with a basket full of apples. Avoid ladders that lean up against a tree because they not only break the limbs but the bark. Wherever the bark is broken, an opening is made where some of the many diseases now prevalent will have a chance to enter. We have tried types of ladders advertised in *The Canadian Horticulturist*, and found them quite satisfactory.

#### SORTING AND GRADING

Sorting and grading the apples should be done with care, all apples being handled one at a time. We used to sort our apples in the orchard and continue to do so in the case of apples going into barrels. But with such varieties as Duchess, Wealthy, McIntosh and Fameuse we think it better to do the sorting

and packing from the same pile of apples on a table. It is certain that it is less difficult for our young students to pack the apples in boxes after they are carefully graded beforehand. Also it is presumed that a sorter, having only one thing to perform, might be able to do it better than a packer will, having to pack the apples at the same time.

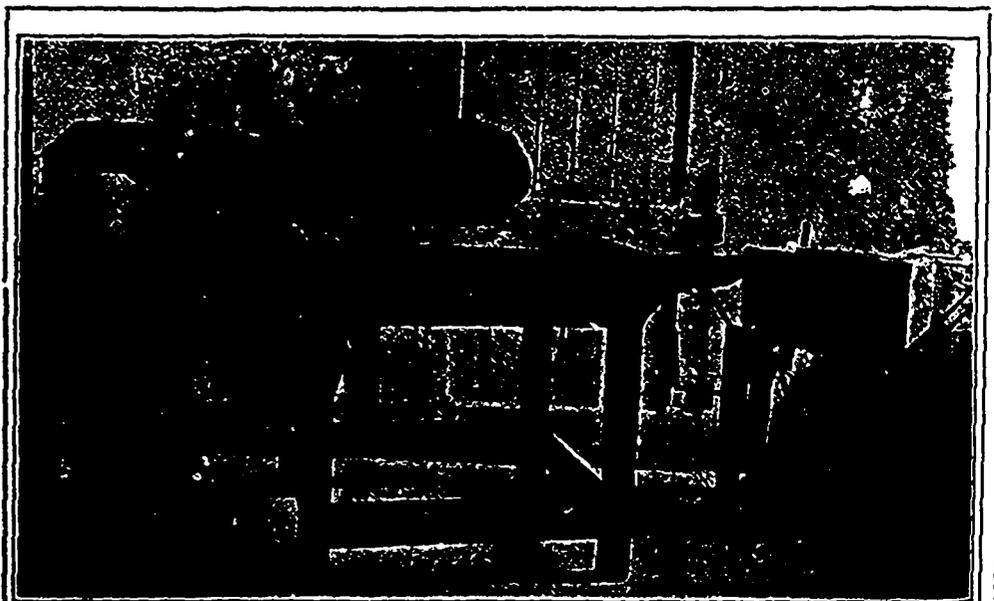
After a basket is full the picker empties very carefully the contents in an orchard box, which is then put in the express wagon, and after a load is ready the apples are brought to the packing house. Here we should insist upon one point. Every grower intending to pack apples in boxes, should be provided with orchard boxes. The only way to deliver clean boxes to our customers is to use orchard boxes. There is nothing that spoils the reputation of a grower more than a bad appearance of his barrels or boxes. The orchard box is made a little larger than the ordinary box and has cleats on the top so that the apples may not be bruised when the boxes are piled on top of one another. These boxes will last long if well cared for.

Our sorting table is quite a long one, so that apples may be put on the entire length without piling them up too high upon the canvas covering, thus avoiding bruises.

#### THE PACKING TABLE

Our packing tables can accommodate two men at a time. The boxes are inclined towards the packer in such a way that he picks up each apple from the table with the right hand and grasps the wrapping paper with the other hand.

We sort the apples in two grades only, fancy and number one ordinary; it will not pay to pack more than two grades, as every time that an extra grade is



The Packing Table, Paper Holder, Basket and Box Press as Used at La Trappe  
In a note Father Leopold adds: "The latter was bought through an advertisement in *The Canadian Horticulturist*."

introduced it adds about five cents extra per box to the cost of packing. Only perfect fruit goes in the fancy grade. Number one grade includes only fruit that is a little below fancy, and not perfect. I believe it always pays to keep above the standards set by the Fruit Marks Act; then we never get in trouble with our customers, and our name holds good everywhere.

As to the size of the apples, we first sort them with grading boards which have holes in accordance with the grade size decided upon at the last Dominion Fruit Conference held at Ottawa. McIntosh generally are graded to one hundred and twenty-five, one hundred and thirty-eight and one hundred and fifty apples in a box, and are all a 2-3 diagonal pack. Fameuse may range from one hundred and sixty-three, one hundred and seventy-five and one hundred and eighty-eight apples in a box, all 2-3 packs also. These packs all contain five rows of apples and only vary in number of apples lengthwise.

We believe that every package of fruit should be lined with paper. We feel certain that when apples are wrapped they carry better, bruise less, arrive in better condition and keep longer than unwrapped fruit. The packing paper consists of a layer of paper of a spongy nature (don't get glazed or semi-glazed paper) for lining, and a soft tough paper like the "Duplex," for wrapping. We find ten by ten to suit us very well, though eight by eight would do for the Fameuse. Part of the wrapping paper is stamped with our College motto in red color. This paper is used on the top layer at least, so that when a package is opened and displayed, everyone may know where the box came from, even though the label on the end is invisible.

Don't buy cheap paper. One never saves anything by doing so. Cheap paper will break or tear when wrapping, so that the time lost, let alone the appearance of the pack, will more than offset the difference in price of first and second class material. A tray for holding the wrapping paper is found very convenient. This tray is made so that it can be fixed on the side of the packing box. We avoid in mostly all cases using the straight pack and find that all our Duchess, Wealthy, McIntosh and Fameuse can be accommodated with the diagonal 2-3 pack.

#### PACKING HOUSE ESSENTIAL

A packing house is essential when a fruit grower wants to put up extra fine fruit. It should be well lighted, of convenient size, and well arranged for carrying on this important part of the fruit problem. In order to put up apples in the most perfect condition it is necessary after picking to get them

quickly into a cool place, where they will be protected from the sun. When the grower packs in the orchard the apples absorb heat from the sun. The less heat there is in an apple when it is shipped the better it will carry and the longer will it keep in cold storage.

Not only must we have good packing houses to protect the apples from the sun, but we must do our packing as soon after picking as possible. There is nothing equally responsible for damages to the crop as allowing the apples to

remain unpacked from one to three weeks. The sooner the apples are packed after they are picked the better their condition will be when they are in the hands of the consumer. What we all should try to do is to give satisfaction to the consumer.

Let us hope that the fruit-growers all over our province may live up to the best in modern orchard management. They will be well repaid for their trouble in many ways.

## Packing Apples in Barrels

A. G. Turney, Provincial Horticulturist, Fredericton, N.B.

A LARGE portion of the New Brunswick apple crop is marketed in open barrels. The fruit is picked into baskets, emptied loosely into barrels in the orchard, stored in bins in the cellar and afterwards placed on the local market, a few barrels at a time, unheaded. However, a considerable amount of early and late fall apples and some winter varieties are exported or shipped such distances within the province as to render good tight packing absolutely essential.

The minimum size of a standard barrel containing ninety-six quarts, and made from twenty-eight inch staves, commonly known as the Nova Scotia barrel, is used here. The dimensions of such a barrel as given in the Inspection and Sales Act, are as follows: Between heads, twenty-six and a half inches inside measurement; head diameter, sev-

enteen inches inside measurement; middle diameter, eighteen and a half inches inside measurement.

The hoops are made of birch or alder and are often split. The split hoops while lacking in neatness are cheaper and usually stronger. To prepare the barrel for filling, we drive the quarter hoops down firmly and securely nail the face end. This is done by driving nails obliquely through the upper hoop, the end of the stave, and into each corner of each piece of the head. An additional nail or sometimes two should be driven into the side pieces. In driving these nails we start them as low down on the end hoop as is possible but do not let them come through the head. Use five penny nails for this purpose.

Head liners are hardly used here at all, although they should be more gener-



Picking Gravenstein Apples in the Orchard of Joseph Kinsman, Lakeville, Kings County, N.S.



New Brunswick Apples as shown at the Provincial Horticultural Exhibition.

ally used. They make the barrel safer and stronger and are really essential for export trade. Two liners over the ends of the pieces forming the head should be used, driving four to six nails through each one and clinching them on the outside of the barrel. We secure the quarter hoops by driving two nails, one on each side of the barrel, in a slanting direction, clinching them on the inside. If the hoops are split we drive an extra nail through the lock or lap of the hoop. We use three-penny nails for securing these hoops and for liners.

We place the barrel on a good stout plank and put in one of the heavy paper heads commonly used for this purpose. This gives a neater appearance to the barrel when opened and keeps the face apples cleaner and brighter. The face layer should be representative, in size, color and freedom from blemish, of the entire package. If it fails to do this then the pack is dishonest. Dishonest packing has thrown hundreds of thousands of apple trees into neglect and decay. Why? Because it doesn't pay. With a stemmer we cut off the stems of all the apples for the face layer and place them in position, stem end down, in a series of circles starting at the outside and working to the centre. The layer should be firm and uniform, but a noticeably smaller or larger apple should not be used just because it will make the layer tight.

The barrel is now faced and after carefully placing apples so as to cover the open spaces in the face layer, it is filled by emptying the apples in very carefully from the basket. As each basket or two baskets of apples are placed in the barrel, the barrel is grasped at the top and raised first one edge and then the other, see-saw fashion, about two inches from the plank on which it is setting, being dropped back each time sharply but not loosely or violently. A barrel should be

racked at least three or four times during the filling.

When filled to about two inches from the chime the barrel is ready for tailing and is prepared for this by using a barrel "follower," which consists of a round piece of plank smaller than the head of a barrel so that it will fit nicely inside and padded on the underside with felt. This is placed on the apples and held firmly when giving the last rack to the barrel. It leaves a fairly even surface on which to arrange the top rows, or "tail up" as it is commonly spoken of.

Tailing is the most difficult part in the packing of a barrel of apples and is often only half done or omitted to save

time. The object is to arrange the last two rows of apples as firmly as possible and in such a way that when the head is placed on it will touch every apple, evenly distributing the pressure down through the barrel. The apples of this last layer should be placed stem end up, the stems being shortened as in the face layer, and should bring the surface of the fruit level with or slightly above the top of the stave, depending considerably on the variety to be packed and the distance to be shipped.

Tender skinned varieties such as the McIntosh Red and Northern Spy should not be filled more than level with the top of the barrel, and perhaps even less for comparatively local markets. On the other hand solid, tough skinned varieties, like the Ben Davis and Golden Russett, should be tailed higher, as they need more pressure to prevent slacking in export shipping, probably about an inch above the top of barrel for export and less for local markets.

In heading we remove the upper hoop of the barrel and loosen the next one; lay the head in position, catch the screw press under the barrel and arrange the circular press head in position. Everything is now ready for applying the pressure, except that the top hoop is slipped on loosely so that after the head has been pressed down into the chime, the hoop may be driven into place without removing the press, first driving the second hoop down into place. The head is nailed in the same manner as in the face end, using liners. The face is stencilled and the barrel laid on its side.



Gathering the Apple Crop, Mr. Sterling's Orchard, Kelowna, B.C.

—Photo by G. H. E. Hud. n.

# A Quebec Province Rose Garden

F. E. Buck, B.S.A., Experimental Farm, Ottawa

In this autumn season, one of the sources of satisfaction in growing roses is that many of the modern varieties have a second, and one might almost say

of beautiful roses in both the June and September seasons of bloom.

In regard to the beauty of the autumn bloom, Mr. MacGrady says that he

in the dark crimson varieties, and a Pierre Notting of June looks like a poor relation of the regal and magnificent Pierre Notting of September."

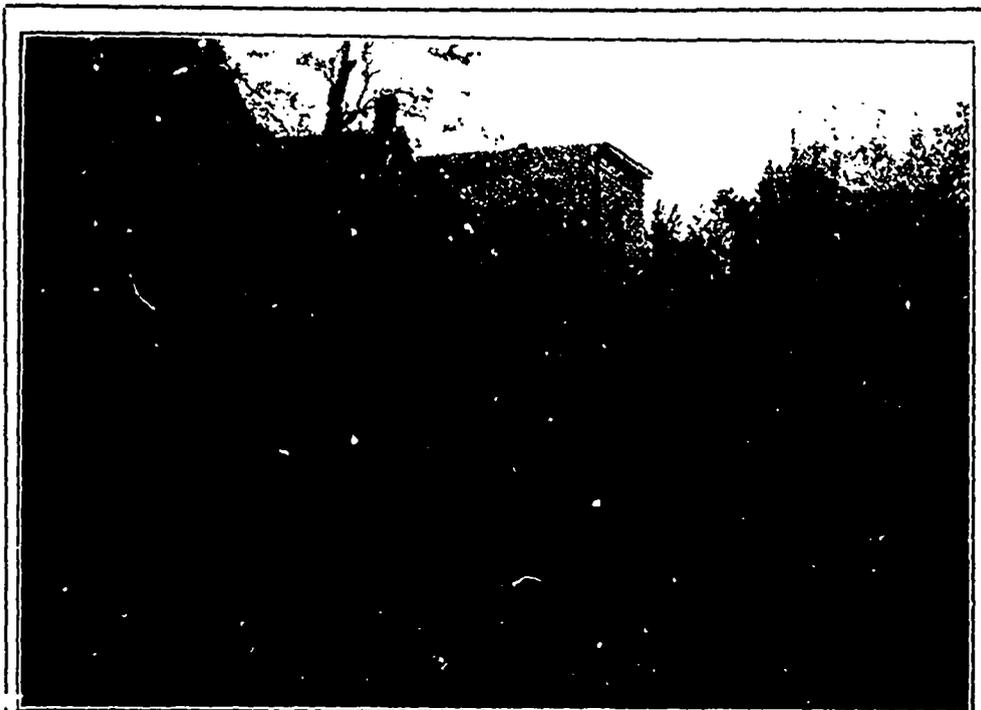
It might be remarked here by way of parenthesis that the English growers are very interested in having good beds of autumn blooming varieties. In the trial experiments with roses at the Ottawa Central Experimental Farm the present indications are that in future lists many of the recommended roses will be those giving a good amount of bloom in the autumn. One reason for this is that sometimes our season in June is so hot that the roses are past all too soon.

Altogether Mr. MacGrady has about four hundred rose bushes. Many of these are of recent fame, since each year a consignment of the newer introductions is imported from a firm located in the Duchy of Luxembourg, in which are included those brought out by English, French, German and Irish rose growers.

#### SOME GOOD VARIETIES

The following list of roses was prepared by Mr. MacGrady, by request, as being roses which he has found the best of the many varieties which he has cultivated:

White—Frau Karl Druschki, Merveille de Lyon; white with pink tints—Capt. Christy, Clio; light rose—Pride of Waltham, Mde. Gabrielle Luizet, Baroness Rothschild; bright rose—Eugenie Fremy, Capt. Hayward, Magna Charta; crimson—Gustave Piganeau, Mde. Victor Verdier, Eugene Furst; dark crimson—



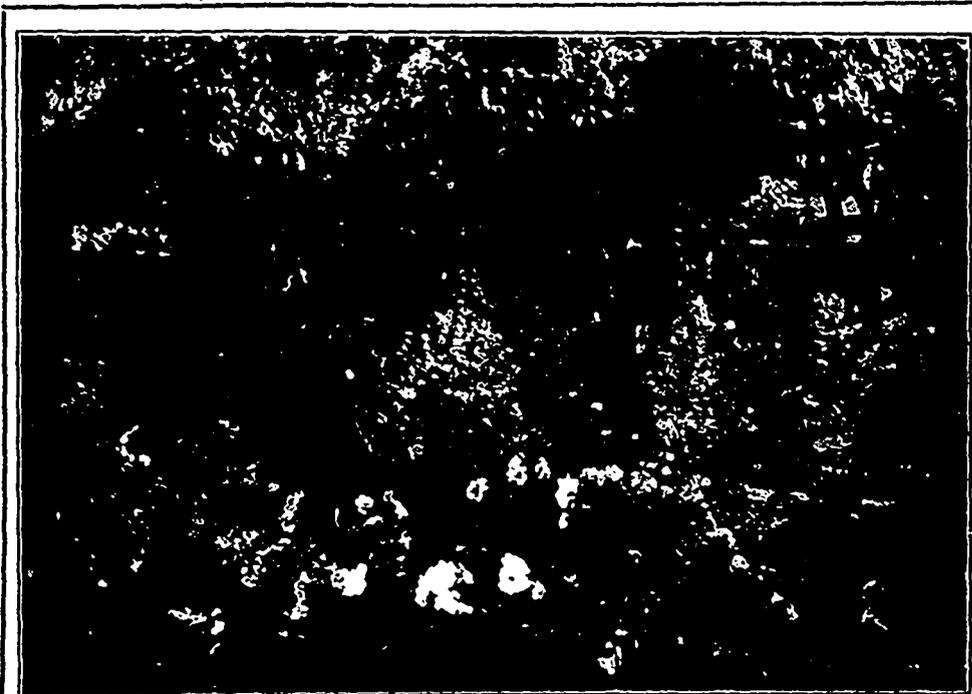
Mr. MacGrady in His Garden.—This is a General View of the Garden.

a continuous season of bloom. In fact there is a little garden, about a quarter of an acre in extent, not two miles from the Parliament Buildings of the Dominion, where they blossom in a riot of variety and profusion.

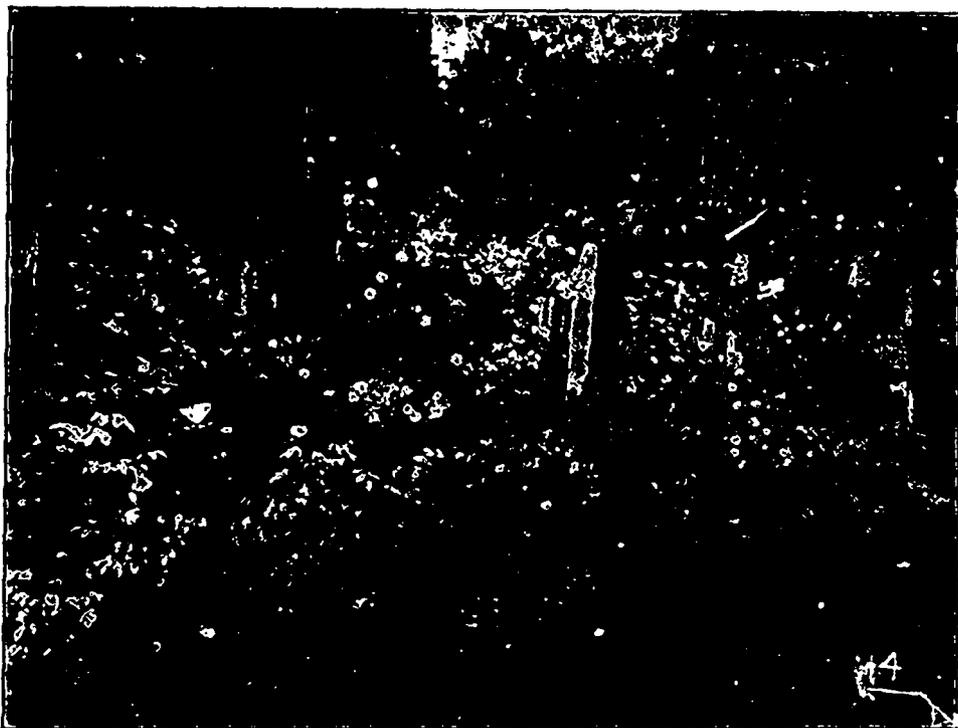
This garden is at Gatineau Point, a little Quebec village on the river almost opposite the picturesque part of Ottawa known as Rockcliffe. It is the creation and almost constant resort of a Mr. MacGrady. Unpretentious in many ways, being wedged in between small houses and rough boundary fences, it impresses one for that very reason with the potentialities for rose growing existing in a piece of land even in a climate as cold as that of Ottawa.

It is first of all a rose garden, because this flower, which is responsible for the stirring of more gardening ambitions than any other flower, holds premier place. Roses with Mr. MacGrady are not secondary, his garden was made for them and the soil is ideal. For years he has had good success with all classes of this flower. His system of growing does not differ materially from other systems. Neither has he won success by any secret or strange processes of culture. Wise consideration of the needs of the plants and a measure of patient loving care brings him a reward of thousands

finds "the quality of the flowers produced later in the season, and especially in autumn, far surpasses in size, form and color those that are given in June. These traits are particularly conspicuous



A View of the Garden from Near the Arch Showing Roses in Every Direction



A Rose Border in the Garden of Mr. James Gadsby, Hamilton, Ont.

Souvenir de Victor Verdier, Boncenne, Princesse de Bearn; climbers—Crimson Rambler (red), Mrs. F. W. Flight, (pink), Baltimore Belle (white), Rubin (red); yellow—Persian Yellow; moss—Gracilis, Cristata, Crimson Globe, White Bath; Rugosa—Conrad F. Meyer, Mde. Chas. Worth, Nova Zembla, Souvenir l'exposition de Bordeaux.

He also speaks highly of Pernet Ducher's (the great French Rose Hybridist) new introductions. Some of the most remarkable are: Soleil d'Angers with its conspicuous yellow centre and carmine border; Rayon d'Or, coppery yellow ground striped claret red; Soleil d'Or with its almost undescribable mingling of pleasing shades of rose and amber on yellow ground, and others.

#### NOTES ON CULTURE

Mr. MacGrady states that except in a winter when the snowfall is light he does not find much difficulty in protecting the plants. At the end of the season they are laid down as close to the ground as possible without breaking the stems, and are tied to low stakes to prevent the weight of the snow either crushing or breaking the stems. Earth is drawn up around the base of the plants, forming a small cone-shaped hillock. The plants are then covered with thick wrapping paper and around this odds and ends of boards are placed to keep the covering in position.

As the rose has enemies of several types, Mr. MacGrady has tried a mixture which he thinks is fairly effectual against insects and fungous troubles. It is made by him as follows: "Steep one-half pound of cheap tobacco in one pail of water. Then add to this half a pound of powdered hellebore, a few teaspoon-

fuls of Paris green and about half an ounce of sulphide of potassium. The sulphide of potassium is added not to ward off insect attacks but to guard against mildew and leaf-spot, fungous diseases to which some varieties are very subject. The tobacco extract kills the plant lice, the Paris green and hellebore poison the eating insects and slugs." He finds, like most growers, that the sickly plants are generally those which are attacked by insects and fungous diseases.

#### RENOVATING OLD PLANTS

Mr. MacGrady has had good success in renovating old rose plants and it may be well to pass on the idea. Old plants which, from any cause, have become feeble in growth and unproductive, may be made to take on a new lease of life by taking them up early in the spring, when they are dormant, pruning the roots of all old dead wood, cutting back slightly the green wood and then replanting in a new position. After such treatment they will in most cases form fine satisfactory plants. This same method is also practiced in the autumn we believe with very good success.

To again quote Mr. MacGrady: "My ambition has been to have an old-fashioned garden in contra distinction to the more formal types." Therefore, in addition to his garden being a rose garden it is a galaxy of color during many seasons owing to the fine clumps of well known flowers scattered here and there both among the roses and bordering the walks. Foxgloves, Canterbury Bells, Larkspurs, Sweet Williams, Lychnis, Oriental Poppies, Phloxes, Hollyhocks, Tulips, Pansies, Primulas, Hyacinths, and many others, thrive in ideal condi-

tions and brighten and cheer with their blaze of colors.

#### PAEONIES STRONG FAVORITES

There is one flower which has not yet been mentioned, but which in this garden is prized next to the rose. This is the Pæony. The Pæonies, together with the early roses and several other flowers of that season, make the most gorgeous show of the year. About three hundred Pæonies are grown, many of which are fine named varieties. In one year fifty of these plants were bought from Dessert, the noted Pæony grower of France.

In addition to imported plants, Mr. MacGrady has about thirty seedling plants of his own raising. These were produced from seed sown in the autumn, and which germinated the following spring. But it was three or four years before any of the plants reached the blooming stage. Three very noticeable ones bloomed this year for the first time, one fine satiny pink, another a good red, and the third a pretty single.

Mr. MacGrady receives quite a number of visitors in his little secluded garden and he takes a pardonable pride in showing his much beloved flowers.

#### House Plants for Fall and Winter

P. D. Powe

Although we will soon have to give up our outdoor favorites we can still resort to the house window. A good south window is best, but where not obtainable an east window is next choice. In these fix up two layers of shelves upon which to place your plants.

The plants which will be found to give greatest satisfaction to the house window gardener are the geraniums. Young plants from September cuttings bloom best. Fuchsias, Mysatiens, Oxalis, Primrose and Abutilions are easily grown and give good results. Cyclamen, with its marbled foliage and unique bloom, makes a very beautiful plant for the table or window. Palms and rubbers are also fine for the house. A few pots of bulbs should be grown, as nothing can be more beautiful, and they require but little room.

#### BULBS FOR THE HOUSE

The double and single Tulips, Hyacinths, Frœsias and Narcissis, make a grand display. Obtain your bulbs as early in September as possible, getting as much of a variety as you can. Take some four inch pots, place drainage in bottom and fill up with good soil. Take your bulb and cover till only the very tip is showing. Water well and place in a damp cellar or under heavy shade, and cover with litter for eight weeks. Then bring them to the window, and the beautiful bloom will soon make you feel repaid for your labor. If a prolonged period of bloom is desired remove a lot to the window each week.

# Preparations for Winter and Spring Flowers

Henry Gibson, Staatsburg

Quite naturally September is looked upon as the end of the gardening season. But to those who would have those early blooms next spring, it is just the beginning.

The peony, which has very truthfully been described as the "Queen of spring flowers," should be planted this month. It is of easy culture, and enjoys that immunity from insect pests and disease that few other plants possess. An open border is the most suitable place to plant peonies, though they will thrive almost equally well in partial shade.

Spade the ground to the depth of two feet and incorporate a good dressing of thoroughly decayed barnyard manure. If the ground can be prepared some time previous to planting it would be a decided advantage, as there would be less likelihood of the manure coming in contact with the roots, which undoubtedly is the cause of many failures.

## SETTING THE PLANTS

Set the roots just deep enough to allow four inches of soil over the crowns, and place them four feet apart in the rows. Quite frequently it is found that too deep planting is a cause of failures that were attributed to uncongenial soil and weather conditions. The roots exhaust their food supply before the young growths reach the surface of the soil.

As the peony season lasts a month at the most it is well to give some attention to the selection of varieties, so as to have a fair range of colors. Don't be misled by the extravagant claims made for some of the novelties, which are high in price, and very often unsatisfactory. Many of the old varieties are still unsurpassed by any of the recent introductions, and for the amateur are likely to prove the most satisfactory. The following is a list of varieties that have proved all that is claimed for them:

White—Festiva Maxima, Couronne d'Or, Duchess de Nemours, Marie Lemoine, Octavie Demay and Marie Jacquin.

Pink and white—Umbellata Rosea, Golden Harvest, Madame Coste, Madame de Vetry, Princess Beatrice and Beaute Francaise.

Red—Augustin de Howe, Louis van Houte, Henry Demay, Dr. Caillot, Felix Crouste and De Cardolle.

Red, various shades—Meissonier, Monsieur Marchel de McMahan, Madame Burquet, Rubia Superba and Emperor Nicholas.

Deep pink—Madame Ducal, Livingstone, General Bertrand, Modeste Guerin, Alexander Dumas, and Modele de Perfection.

## PURCHASE BULBS NOW

Now is the time to purchase your stock of bulbs which are to furnish you with flowers during the winter indoors,

and out in the beds and borders in the early spring. Don't buy cheap bulbs; they are dear at any price. You will feel amply repaid for any extra outlay by the increased quality and substance of your flowers compared with the poor, weak specimens produced from cheap bulbs.

One of the greatest mistakes the amateur makes in purchasing bulbs is that he wants too many varieties. If you only want a few dozen bulbs don't get as many varieties as you would if you were getting a few hundred.

Of all spring flowering bulbs, tulips are perhaps the most popular. Their brilliancy of colour, beauty of form, and gorgeous shades render them the most effective of all bulbous plants for bedding and planting in groups or borders. For pot culture and forcing for winter bloom in the window garden there are many desirable varieties.

Tulips should not be planted too soon out of doors as they are liable to get caught by late spring frosts. Wait until the early fall frosts have cut down your bedding plants, and then set them out. Plant the bulbs five or six inches apart, each way, and six inches deep. In the meantime if you have received your bulbs, spread them out on a dry, cool, cellar floor, where there is a free circulation of air. They will then keep in first class condition until you can plant them.

## DWARF VARIETIES FOR POT CULTURE

Duc Van Thol tulips are of dwarf habit, growing only about six inches high, and are the best for pot culture.

Five or six bulbs to a six inch pot will be enough. Plant them deep enough so as to allow the top of the bulb to come on a level with the soil, which when firmly pressed down should be at least half an inch below the rim of the pot. Give them a good watering and set them away in a cool place, covering them with about five inches of sand or ashes.

Dutch hyacinths are indispensable where a variety of bloom is required. They are not only suitable for pot culture and planting in the open ground, but they are admirably adapted for growing in glasses. For pot culture select heavy bulbs, and plant as early as possible, using a four inch pot for a single bulb, or three of one variety may be put into a six inch pot. Plant and set away as directed for tulips.

For planting in the open ground these subjects like a deeply cultivated soil. The bulbs should be planted as evenly as possible, about six inches deep and from five to six inches apart, setting each bulb in a handful of sand to ensure drainage.

## BULB CULTURE IN GLASSES

Bulb culture in glasses is not practiced nearly so much as it should be. It is one of the most fascinating phases of indoor gardening. A glass with a wide top is required so that the bulb can be rested on it without falling into the water. Glasses made for this purpose can be purchased from almost any florist for a nominal sum. Single hyacinths



An Avenue of American Lindens  
Canadian Cities Need More Streets of this Character.

do best in glasses as they produce a much finer spike. Place the bulb in the glass which should be filled with water so that it touches the bottom of the bulb. Put away in a cool place or on a shelf in a dark part of the cellar for six or seven weeks, changing the water every two weeks.

## Preparing and Packing Vegetables for Market

By P. D. Powe, *Cainsville Ont.*

**W**E Canadians are just ten years behind the times in regard to the marketing of our goods. Very few firms in Ontario use the up-to-the-minute methods employed in the United States and European countries. Having made a careful study of their methods, I will describe those that will have the most effect, and bear more directly on our conditions.

I would advise the reader somewhat as did the French cook, "You will first procure your rabbit before cooking it." I would say grow your vegetables in such a manner as to produce the best on the market. Not only are such vegetables far more saleable, but the quantity will appear larger if carefully sorted and packed, thereby increasing the returns.

All root vegetables should be sorted, washed, topped and tied in neat bunches. Be very careful in grading, discarding all small mishapen ones (these we sell to cheap boarding houses.) Washing must be carefully done or the effect is spoilt. This may be done thoroughly with a spray having a good pressure. Potatoes look far better washed, though they will not keep long.

### CAREFUL GRADING NECESSARY

All other roots should be washed and sorted both summer and winter, and carefully graded to size. Cabbage should be graded and all yellow and insect eaten leaves cut away. Never pick beans when the dew or wet is on them, or they will rust and be spoilt for sale. They sell best packed in boxes or baskets.

I know one dealer who keeps twenty boys employed sorting the fruit and vegetables he buys. In talking to him he said he made from fifty to one hundred per cent. profit by this work, owing to poor packing on the part of the grower. Why should you not make this profit yourself?

If you would have success these days you must advertise. Every box, basket and bag should bear your name and slogan printed in plain type so that he who runs may read. Your business will soon show the effect of such a course.

### THE HOME HAMPER

The home hamper is truly a Yankee dodge and one that does credit to the originators. To those who have not followed the idea, the following may be of interest:

At the end of that time remove them to the light in a cool room with an even temperature. They will produce spikes of bloom that will keep fresh for a surprising length of time. A piece of charcoal placed in the water absorbs any obnoxious gases that may arise and helps to keep the water sweet.

Procure to start with, a hundred or so card board boxes, such as florists use for large designs. These are cheap and neat in appearance and will do until you get well started. You will then want some neat, light, wooden boxes, such as drapers use. Your name will be printed on the same and be a good advertisement. Use plain lettering, as it looks neater for this work.

The prices obtained vary from one to three dollars each. The vegetables are picked in the cool of morning, so that they are fresh. The hampers are in demand by all the select trade in every large town or city. In the early season, of course, the variety is limited, but as the season progresses we supply as large a variety as possible. In buying the hampers the housewife obtains a selection of all the seasonable vegetables without the trouble of going to market. At the same time she gets the best and earliest vegetables that are growing. The size of the hamper depends of course upon the family of the patron. As the price goes up with the size, one has no kick coming.

### FILLING THE HAMPER

The filling of the hampers is one of the chief matters of importance. Put in two to three bunches of asparagus, beans of various kinds (sown at intervals of ten days to extend the season), beets (planted every three weeks) made into bunches of from six to eight, Brussels sprouts, a strawberry box full, to a hamper, cabbage, all varieties, cauliflower, spring, summer and fall planted, (leave the leaves one inch above the head and pack so as to avoid bruising as they are easily discolored). Carrots are both ornamental and useful. Celery is indispensable. Sweet corn is a favorite with all. A bunch of herbs of all kinds finds favor with the cook. Parsley is highly prized, as are also early potatoes as soon as they are the size of a large marble. Tomatoes, when smooth, nicely colored and without blemish, find favor the year round. They may be had from the garden from July to December if one understands growing them. Last year our out door grown tomatoes lasted until Christmas. Each hamper contains berries of all kinds in season (from one to two boxes), and a bunch of flowers once a week. We also supply a quart or two of cherries, plums, peaches, pears, or

early apples, while in our best hampers we place a two quart basket lined with fancy paper and containing a couple of rosy apples, two peaches, two pears, a couple of bunches of grapes or some other choice fruit.

One thing about the hamper is the show it makes. I know of nothing that will give a better appearance and do it cheaper than a few rolls of different colored crepe paper.

## Methods of Blanching Celery

Can you give me some up-to-date information on the blanching of celery? I have tried blanching with earth, but this method caused the leaves to rust. I have been advised to draw the stalks of single plants together with strings and then wrap with brown paper. If there is any better method would you advise me of the same? I have only seventy plants, and could therefore follow a method that might be unprofitable on a large scale.—H. H. W.

The methods employed in blanching celery depend largely on whether the variety grown matures early or late. In blanching early varieties the use of soil is apt to rust the plants. This is probably the reason for the trouble that you have experienced.

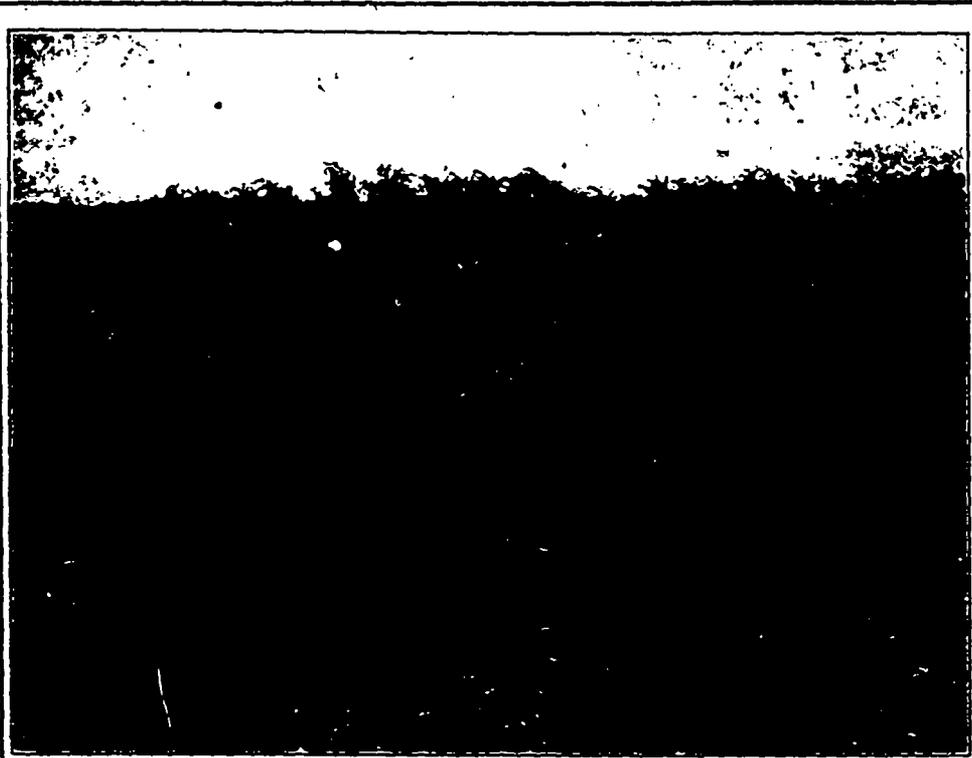
When grown on a large scale the blanching of early varieties is accomplished by the use of boards. For your purpose the method that you speak of (tying paper around the stems) would be just as convenient, as the plants need to be grown in long rows to make the use of boards advantageous.

The best method for blanching celery on a small scale is by the use of ordinary unglazed drain tile of about four inches inside diameter. The stalks are first loosely tied together with light twine and a few of the outside leaves removed. The tile is then slipped down over the plant. The leaves spread out over the top of the tile and exclude the light. When not in use the tile can be stored away and thus be used from year to year.

For the blanching of late varieties the soil method is usually conceded to give the best flavor. Good late varieties will not rust when banked with soil. Care should be taken to prevent soil from getting into the heart of the plant as it causes decay.

When celery is to be stored over winter it will keep better if not blanched too much. It can be safely stored in a cool cellar if some of the roots are left on the plants and covered with moist sand.

In digging the crop in the autumn, it is an excellent plan to save the potatoes from the very best hills to be used for planting in the following season.—Prof. C. A. Zavitz, O.A.C., Guelph, Ont.



A Sample Yield of Onions in the Famous Leamington, (Ont.,) District.

## Rotation of Vegetable Garden Crops

H. F. East, North Toronto, Ont.

**T**HIS is a subject worthy of the attention of those who aim to attain the largest possible results and the highest possible quality with every kind of vegetable crop, for it concerns the natural relations of the plant and the soil as to their several chemical constituents. The principle may be illustrated by considering the demands upon the soil of two of the most common vegetable garden crops.

We submit a cabbage to the destructive agency of fire and analyse the ashes that remain. We shall find in them, in round numbers, eight per cent. of sulphuric acid, sixteen per cent. of phosphoric acid, four per cent. of soda, forty-eight per cent. of potash, and fifteen per cent. of lime. It is evident that we cannot expect to grow a cabbage on a soil that is destitute of these ingredients, to say nothing of others. If we submit a potato tuber to a similar process the ashes will be found to contain fifty-nine per cent. of potash, two per cent. soda, six per cent. lime.

Now the lesson for the cultivator is that to prepare a soil for cabbage, it is of the utmost importance to employ a manure containing sulphates, phosphates and potash salts in considerable quantity. As for lime, that can be supplied separately, but the cabbage must have it. On the other hand to prepare a soil for potatoes we must strongly charge it with salts of potash and phosphates. But it need not be highly charged with soda and lime for we find but a small

proportion of these elements in the potato.

There are soils so naturally rich in fertilizing constituents that they may be tilled for years without the aid of manures, and still yield an abundant return. But these soils are exceptional. Those that constantly need manuring are the rule. In almost every soil, whether strong clay, loam, poor sand or chalk, there are to be found all the minerals required by plants. Indeed, if there were not, we should see no herbage on out of the way places; for instance at the top of limestone rocks. Usually, however, a considerable portion of those mineral constituents on which plants feed are in an insoluble form, and are slowly made available as the rain, the dew, and sunshine operate upon them.

As the rock slowly yields up its phosphates, alkalies and solutions of silica to the wild vegetation that clings to it, so the cultivated field (which is but rock in a state of decay) yields more readily its constituents for the service of plants. Because it is the practice of the cultivator to stir the soil and continually expose fresh surfaces to the transforming power of the atmosphere, it has been said that the air we breathe is a powerful manure. So it is, but not in the sense that is applicable to stable manure or guano. The air may, and does, afford to plants much of their food. Every fresh exposure of the soil to the air, and especially to frost and snow, is as the opening of a new mine of fertilizers for

the service of those plants upon which man depends for his subsistence.

### SCIENTIFIC PRINCIPLES APPLIED

The practical application of these considerations is an extremely simple matter in the first instance, but it may become complicated if followed far enough. Here we can only touch the surface of the subject. Suppose that we grow cabbage or cauliflower on the same plot of ground, one crop following the other for a long series of years, and never refresh the soil with a scrap of manure. It must be evident that we shall some day experience a crop failure because of the exhaustion of the soil.

But if this soil were allowed to lie fallow for some time it would again produce a crop of cabbage, owing to the liberation from the unavailable state of mineral matters which when the crops were failing were not liberated fast enough. But as this method necessitates keeping the ground idle for some time, it is obviously an unprofitable mode of procedure and tends to still further exhaust the soil. Whether a soil can be brought to a stage of utter exhaustion is at present unknown. Instead, however, of following an exhaustive practice, we enrich the soil with manure, and change the crops on the same plot so that when one crop has largely taxed it for one class of minerals a different crop will tax it for another class.

Let us consider the arrangement of a rotation. Beets contain very little sulphur, but both turnips and beets are strongly charged with potash and soda (common salt.) If we take a piece of ground on which is cabbage (which is low in soda content) and wish to avoid the failure that may follow the continual growing of this crop, we may expect to do well by giving the ground a dressing of common salt and alkalies and then crop it with beets.

### DEEP VS. SHALLOW FEEDERS

Crops differ in their mode of seeking nourishment. For instance if we grow cabbage and other surface-rooting crops until the soil begins to fail, a good crop of parsnips or carrots might be obtained from it for the simple reason that these send their roots down to a stratum that the cabbage never reached. Parsnips can thus thrive on land that has been badly tilled for years because the root pushes down to a mine that has been but little worked.

It is quite proper to say that good land, well tilled and abundantly manured cannot be soon exhausted. But even in this case a rotation of crops is advisable. A good rotation will include both chemical and mechanical differences. We grow deep feeders after shallow feeders, and potash-loving plants, say, after those that draw more heavily on other fertilizing ingredients.

# The Canadian Horticulturist

COMBINED WITH

## THE CANADIAN HORTICULTURIST AND BEEKEEPER

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The Canadian Bee Journal.  
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AND OF THE ONTARIO BEEKEEPERS' ASSOCIATION

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1. The Canadian Horticulturist is published in two editions on the 25th day of the month preceding date of issue. The first edition is known as The Canadian Horticulturist. It is devoted exclusively to the horticultural interests of Canada. The second edition is known as The Canadian Horticulturist and Beekeeper. In this 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 interests of Canada.

2. Subscription price of The Canadian Horticulturist in Canada and Great Britain, 60 cents a year; two years, \$1.00, and of The Canadian Horticulturist and Beekeeper, \$1.00 a year. For United States and local subscriptions in Peterboro (not called for at the Post Office), 25 cents extra a year, including postage.

3. Remittances should be made by Post Office or Express Money Order, or Registered Letter.

4. The Law is that subscribers to newspapers are held responsible until all arrearages are paid and their paper ordered to be discontinued.

5. Change of Address—When a change of address is ordered, both the old and the new addresses must be given.

6. Advertising rates, \$1.40 an inch. Copy received up to the 20th. Address all advertising correspondence and copy to our Advertising Manager, Peterboro, Ont.

### 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 copies, 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.

January, 1912.....	9,966	August, 1912.....	11,146
February, 1912.....	10,437	September, 1912.....	10,997
March, 1912.....	10,877	October, 1912.....	10,971
April, 1912.....	11,766	November, 1912.....	11,562
May, 1912.....	12,112	December, 1912.....	11,144
June, 1912.....	10,946		
July, 1912.....	10,966		132,556

Average each issue in 1907,	6,627
" " " " 1908,	8,685
" " " " 1909,	8,970
" " " " 1910,	9,067
" " " " 1911,	9,541
" " " " 1912,	11,000
August, 1913.....	12,300

Sworn detailed statements will be mailed upon application.

### OUR GUARANTEE

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 subscriber, we will make good the amount of his loss, provided such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement 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 subscribers and honourable business men who advertise, nor pay the debts of honest bankrupts. Communications should be addressed

THE CANADIAN HORTICULTURIST,  
PETERBORO.

## EDITORIAL

### POWER FOR PRE-COOLING

A factor that in the near future is going to have a large bearing on the development of wider markets for Canadian fruit is the practice of pre-cooling before shipment. Most particularly does this apply to the more perishable classes of fruits such as peaches, plums, grapes and small fruits. When fruit is placed in the ordinary refrigerator cars several days elapse before the fruit becomes properly cooled. When pre-cooled the heat is removed from the fruit in a few hours, thus increasing the distance for safe shipment and extending the market.

The greatest difficulty that must be met is the question of procuring cheap power. At the present prices at which power can be obtained or produced, pre-cooling proves economical on a large scale only.

In California, from which thousands of carloads of citrus fruits are shipped annually, pre-cooling plants with capacities as high as twenty to thirty cars daily have been established. When applied on such a large scale as this the economical use of power is assured.

This power question is "the thorn in the flesh." Growers in the Summerland district of British Columbia are this season working out a solution of the problem. The Provincial Government, the Canadian Pacific Railway and the municipality are all cooperating to make the venture a success. In this instance the fruit is to be pre-cooled in a portion of the warehouse, the cost of fitting being met by the department. The Canadian Pacific Railway will provide free ice for one season, the part played by the municipality being to supply the electric power gratis.

The carrying out of this scheme will be followed with interest by Canadian fruit growers in general. The establishment of pre-cooling plants in the Niagara district has often been suggested and is a development that is bound to come within the next few years. Hydro-Electric may furnish the solution of the power problem of this district.

### MARKETING VEGETABLES

To grow good vegetables is one thing; to market them to advantage is another. Not a few growers have reaped but a scanty reward from a whole season's work, because they lacked a knowledge of the essentials of good marketing practice.

Any ordinary grower can get the ordinary price. In the endeavor to obtain a fancy or even a fair price on a glutted market, the most necessary essential is for the producer to study the consumer's needs. He who originates a method of marketing which places his produce in the hands of the consumer in a more attractive form than that of his competitors is the man who wins out. In this respect our neighbors across the line seem to be leading the way. The "Home Hamper" method of marketing vegetables described in an article in this issue, shows one example of what can be done to build up a trade in a high class product.

But this is only one of many ways in which the progressive grower, who is courageous enough to break away from time-worn methods and blaze a new trail, can find an outlet for his produce at remunerative figures. Instead of sticking to the

style of package that has become common in his neighborhood he can originate one that would catch better the fancy of the buying public. Then, too, he can provide his packages with an appealing label that will also serve as a trade mark. The trade will become accustomed to his brand and will call for it. Many growers make a great mistake just in this respect. They place both the poor grade and the high grade article in the same style of package. The package therefore does not become a criterion of the grade.

Grading is most important. And the standard for each grade should be rigidly maintained in the face of all price fluctuations. Oftentimes greater returns will be realized by marketing only the higher grades and discarding the rest, than by offering the entire lot as ordinary stock.

The development of marketing methods offers wonderful possibilities for the grower to exert his ingenuity. Only the fringe of this phase of the vegetable growing industry has yet been touched. Producers will do well to give this matter serious attention.

### CENTRALIZATION JUSTIFIED

The Central Selling Agency organized in British Columbia this season is already proving its worth. The organization is to handle an order for thirty thousand boxes of apples to be shipped to Australia. The benefits of cooperation on a large scale are at once apparent in a case such as this. Only a large organization could handle an order of this size.

The securing of this order indicates that Australia may become an extensive purchaser of British Columbia fruit. This would relieve to some extent the situation in the west through the withdrawal of considerable quantities of fruit from that market. Cooperation on a large scale is all that can bring this about. The relief it would effect is much needed as this year Washington State growers are giving both British Columbia and eastern growers a harder run than ever on the prairie markets. Freight reductions on the railroads controlled by J. J. Hill are enabling them to compete with us to greater advantage than ever before.

The United Fruit Companies of Nova Scotia is proving the salvation of the apple growers in that province. For example, steamers are chartered outright with the result that the traffic congestions that were once so annoying are largely a thing of the past. With such examples of the benefits of centralization before us it is not too much to expect splendid results from the recently organized Central Selling Agency for Ontario.

The number of complaints emanating from fruit shippers and commission men indicates that the employees of express companies are far too careless in the handling of fruit shipments. If the companies are not able to impress upon their employees the fact that they are responsible for the safe delivery of fruit handled by them, then it is time that outside influences were brought to bear on the matter. If an inspector or inspectors could be appointed to investigate the extent of the loss that fruit shippers experience in the same manner that Mr. McIntosh has handled the question of freight rates, the amount of damage reported would soon convince the Government of the need of remedial measures. Some action should be taken without delay. The express companies have managed affairs in their own way too long.

There are two organizations in Canada directly connected with the development of the horticultural interests of the Dominion, as distinct from the fruit growing industry. These are The Canadian Horticultural Association and The Ontario Horticultural Association. The former is composed of wholesale flower growers, retail florists, and professional gardeners, and deals almost exclusively with the professional side of floriculture. The latter represents the amateur interests. The sixteenth annual convention of The Canadian Horticultural Association took place last month in Peterboro. The papers presented were of a high order of merit, particularly that by Park Commissioner C. E. Chambers, of Toronto, which dealt with Parks and Boulevards. We are pleased to notice that since the convention it has been published in full by a number of local dailies. Separated as its members are by the great distances which prevail in Canada, this Association is accomplishing a valuable work in the face of considerable difficulties. It deserves the support of all who are interested in any branch of professional floriculture. By identifying themselves with it, florists and gardeners will advance their own interests as well as those of the other members of their profession.

**PUBLISHER'S DESK**

This is the season of the year when the minds of progressive fruit growers are occupied with thoughts concerning the marketing of their season's crops. More and more are they striving to see that their goods are placed on the markets, both at home and abroad, in the best possible condition. This is why the Annual Exhibition and Fall Packing Number of The Canadian Horticulturist, issued the first of September each year, is awaited with interest by fruit growers from one end of Canada to the other.

This is our third annual number of this kind. We anticipate that it will meet with the expectations of our readers. The articles are particularly timely and helpful. One of the most important discussions that took place at the Dominion Fruit Conference held last year, pertained to a possible change in the size of the standard apple box. One of the leaders in the discussion was Mr. R. M. Winslow, of British Columbia. At the Dominion Conference final action was deferred until the views of the growers might be more fully ascertained. In the introductory article in this issue, Mr. Winslow has summed up very ably the arguments for and against the two sizes generally advocated. It will be noticed that he favors what might be called the United States as against the Canadian box. As the subject is a timely one, fruit growers are invited to continue the discussion.

In Quebec and Eastern Ontario our fruit growers are awakening to the fact that in the Fameuse and McIntosh Red apples they have two varieties that for dessert purposes are unsurpassed. For all such growers, as well as for growers of other varieties of apples, the article by Rev. Father Leopold contains much that should be instructive and helpful.

In Eastern Canada, at least, the great majority of apple growers are still packing their apples in barrels. The contribution by Mr. A. G. Turner, Provincial Horticulturist for New Brunswick, was secured for their benefit. A glance through the flower

and vegetable departments of this issue will show that they also are filled with timely, helpful information. While the handling of the apple crop is always emphasized in this issue, it has been our desire that none of the other departments should be neglected, and in this we trust our readers will see we have been successful.

\* \* \*

Because The Canadian Horticulturist is published only monthly its space is very limited. This makes it absolutely impossible for us to publish as soon as they are received, many of the articles that we accept for publication. In each month's issue we strive to have those articles that are the most timely and seasonable. Thus it frequently happens that an article crowded out of one month's issue may be held over and not used until the corresponding month of the year following. When correspondents do not see their articles published as soon as they expect, they are asked to remember that its non-appearance is not an indication that it is not the editor's intention to publish it.

\* \* \*

The circulation of The Canadian Horticulturist and its companion paper, The Canadian Horticulturist and Beekeeper, continues to increase. It is now greater than ever before in the history of either paper. We are pleased that this is the case because we do not use any methods to force an increase in circulation. Premiums are not given to subscribers to take the paper. The circulation of both papers is high class and good. This is probably the main reason why The Canadian Horticulturist and The Beekeeper are such valuable advertising mediums.

\* \* \*

This year as usual The Canadian Horticulturist will be represented in the Horticultural Building at the Canadian National Exhibition in Toronto. Readers of this paper are invited to pay us a visit.

**Potato Canker Danger**

H. T. Cassow, Dominion Botanist, Ottawa

Potato canker should not be allowed to obtain a foothold in Canada. It is a disease that makes slow progress but where once broken out it has defied every known means of control. With the approach of the potato harvest all growers are particularly requested to examine their potatoes for signs of canker. A case of potato canker escaping detection forms a source of future infection.

The appearance of this disease has been well illustrated by the Farmers' Circular, No. 3, obtainable free of charge from the Publication Branch of the Department of Agriculture, Ottawa. On discovery of any signs of potato canker farmers should immediately notify the Dominion Botanist, Experimental Farm, Ottawa, of the outbreak, at the same time submitting specimens, when an inspector will be sent to assist and advise the farmer as regards the treatment to be given.

In accordance with the new regulations if diseased tubers are found no part of the crop can be sold. Before being used for any purpose all tubers, whether sound or unsound, must be boiled, which destroys the disease. No potatoes from an infected field can be used for seed. The land upon which diseased potatoes have been raised is unfit for the production of potatoes for an indefinite number of years.

All potato growers should acquaint themselves with the publications furnished by the Department of Agriculture in reference to this disease.

**Niagara Peninsula Crop Outlook**

The Niagara Peninsula Fruit Growers' Association reports an increase over last month in the plum and pear prospects, and a slight decrease in grapes. The average set is as follows:

- Japan Plums, 58 reports, 79%.
- European Plums, 55 reports, 71%.
- Early Cling Peaches, 51 reports, 80%.
- Early Free Peaches, 84 reports, 59%.
- Late Peaches, 93 reports, 71%.
- Early Pears, 39 reports, 81%.
- Bartlett Pears, 63 reports, 80%.
- Later Pears, 54 reports, 74%.
- Grapes, 83 reports, 72%.
- Early and Fall Apples, 46 reports, 56%.
- Winter Apples, 57 reports, 45%.
- Early Tomatoes, 39 reports, 81%.
- Late Tomatoes, 53 reports, 75%.

The raspberry crop was very disappointing. The first early tomatoes were inclined to be small but they are now coming in freely—quality good. On moist, sandy soil, the crop promises well, but on the heavier soils the plants are suffering severely from the excessive drought. Peaches are seemingly not suffering badly as yet from little peach and yellows, but both may develop later. Blight on pears is reported in several cases as being bad, and the pear slug has also done damage.

Grapes have suffered badly in some cases from flea beetle and rose chafer in Pelham, Thorold and Stamford townships, and rot is reported in several vineyards around St. Catharines. Apples are still reported light, and the yield may possibly be even further reduced as many growers have not sprayed their small crop, and codling moth and scab are reported bad in unsprayed orchards. In every case the well sprayed orchards are reported comparatively free from such troubles. Cover crops went in late because of drought.

While so many complain of the lack of rain, it is a debatable question whether the growers who are cultivating, spraying and caring for their orchards as they should be cared for, are not in a better position. There will be no loss from rot and the fruit will carry better than if there were to be a little too much rain.

The peach crop will be large owing to the large number of young orchards coming into bearing. The growers should endeavor to place as many orders as possible and also let their customers know that there will be plenty to supply all demands.

**SOCIETY NOTES**

**St. Catharines**

Preparations are under way for the annual fall exhibition of the St. Catharines Horticultural Society. Situated as St. Catharines is in such a splendid fruit producing section this exhibition has become one of the finest flower and fruit shows in Canada. This season no efforts are being spared to make the event the most successful yet. September 11 will be the opening date.

That Ontario can produce apples second to none was proved at the International Apple Shimmers' Association which met recently at Cleveland, Ohio. In competition with fruit from Nova Scotia, the New England States, New York, Michigan, Wisconsin and Minnesota, Ontario fruit won the President's Cup, a sweepstake for the entire show. Fifteen winter, five summer and ten fall varieties were shown.

## An Essential Point in Good Marketing

F. E. Ellis, B. S. A., Peterboro, Ont.

IT was an interesting group that gathered together in front of the Norfolk county exhibit at the last Horticultural Fair in Toronto; interesting because it represented the two classes concerned, the producers and the consumers. With representatives of these two classes whose interests are so often considered antagonistic, with the fruit all around them, the remarks exchanged are apt to be enlightening. I joined the group.

"Yes, we are getting marketing down to a science in our county," the Norfolk man was saying. "Practically all the growers worth considering have joined our association and we have put the old-time apple buyer out of business. As we progress we will probably go even further towards eliminating the middleman: and that will be of advantage to you as well as to me," he added turning to the City Man who stood at my right. "Cooperation is the whole thing for both of us."

The Norfolk man's enthusiasm when he spoke on cooperation was contagious, but the City Man still looked doubtful. "Don't you think," he suggested, "that you are putting cooperation on a pedestal that is a trifle too high? I don't know much about fruit, but I do know something about marketing and I should say that the very first essential for the consideration of the grower is to produce and pack fruit that will be most satisfactory to the consumer. If you don't please the consumer then your cooperation will be all for nought."

Finding that his audience was interested, the City Man was encouraged to continue. "I can remember," he said, "when fruit and apples were almost synonymous terms. We had to buy apples or go without fruit. You fruit growers have now more competition. Bananas can now be had at very reasonable prices, thanks to the pedlar, at any time of the year. Oranges too have gotten down where they are within the reach of everyone in moderately good circumstances. If apples are not put up to suit us we have bananas and oranges to fall back on."

"But aren't we putting the apples up to suit you?" interposed the Norfolk man.

"No, you are not," was the immediate retort. "I should judge from this show that you have discovered the value of the box pack for displaying your fruit at the fair. You haven't got wise to its value as a market package. You send your commissions abroad to study cooperation. I have never heard of a commission coming to Toronto to study the way people live. Take myself for instance. I, my wife and two children live in a flat of four rooms. Our kitchen is not as big as the ordinary farm pantry. Where could we store a barrel of apples? We can handle a box quite nicely. We can stand it up on end and use it for a seat if stuck for room. The whole tendency of city life nowadays is more and more towards the flat. I'll guarantee that while the majority of people in my city can handle a box of apples nicely there is not one in five that wants a barrel. How do you pack your apples?"

The Norfolk man admitted that the most of them went into barrels.

"When you get your cooperation down so fine that you want to get right next the consumer," remarked the City Man as he turned away, "you will have to change to the box."

It was later in the day that I ran across the Western Man. Here it was even more

natural that we should talk fruit as it turned out that he was a large dealer in Saskatoon. Strangely enough in his first remark he struck exactly the same chord as the City Man had done.

"Do you know," he said, "that the fruit growers of British Columbia, Oregon and Washington are ousting the Ontario producer from the prairie markets just because they are not meeting the consumers' demands. I am afraid that your Ontario men don't study the consumer as much as they should."

The Western Man was full of his subject. When I asked him for his ideas on packing and meeting the consumers' demands generally he was right ready to talk.

"Ontario fruit men," said he, "would be wise to adopt a standard box of about sixty or seventy pounds for the apples and harder pears. For many reasons the box is preferred. The barrels from my standpoint as a dealer are altogether unsatisfactory. They are too heavy for one person to

handle and have to be rolled or dropped to the place required.

"Then take the consumer's side of it," the Western Man continued. "Many people prefer to buy two or three kinds of apples or one or two boxes of apples and one box of pears. Or they may be driving many miles into the country with a buggy, which a box of pears or apples is all they can accommodate. Another and altogether too frequent reason why the box is preferred, is that many have only \$2 or \$2.50 which they feel they can spare to buy apples. All of these appeal to me as valid reasons why the producer should comply with the requirements of the consumer."

The Western Man had much more to say. He talked of dishonest packing, of unattractive packages and of the shipping of poor varieties. But all of his talk came back to the same point—the demands of the consumer must be considered first. He had spent all of his business life dealing directly with the consumer. He knew what they wanted and realized even more keenly than does the grower, that the most essential point in marketing is to market so as to please the man who must pay the price for the product.

## Canadian Peaches on the British Market

J. A. Ruddick, Dairy and Cold Storage Commissioner, Ottawa.

There is a market for a considerable quantity of peaches in Great Britain if they are properly packed and shipped just in the right condition under careful supervision. If that market were the only outlet Ontario peach growers have in addition to the local market it would probably be developed to a considerable extent, but with the Northwest market available, and constantly expanding, the attention of the growers is naturally turned in that direction. I am of the opinion that the returns on the whole from the West will be quite as satisfactory as any from the Old Country.

Mr. C. A. Dobson, who has been the largest shipper of peaches to Great Britain, is turning his attention to the northwest trade, and Mr. Dobson has been as successful in his shipments to the Old Country as any one could hope to be. I have not been able to learn any particulars of the financial returns from Mr. Dobson's shipments, but I presume they have been fairly satisfactory, or he would not have continued to make shipments year after year.

As far as the actual transportation of the peaches is concerned we feel that we have now pretty accurate information.

To thoroughly test the market for Canadian peaches in Great Britain, as described in one of our bulletins, the department made a few trial shipments in 1910 in order to procure accurate data respecting the proper degree of maturity at picking time, the best method of packing, proper temperatures during transportation, etc., especially as the acreage under peaches in Ontario has been increasing rapidly in recent years.

It was decided to make shipments during the weeks ending September 17, 24 and October 1, to London, Liverpool and Glasgow, and one shipment to Bristol on September 15. In all twelve hundred and eighty-four cases were shipped.

All the peaches were closely watched by our cargo inspectors at Montreal. Care was taken to see that the peaches were promptly loaded in the steamers and that proper care was exercised in handling the packages and in stowing them in the cham-

bers. The cases were well dunnaged in the steamers (by dunnage is meant the placing of strips of wood between the tiers of cases, both horizontally and vertically, so as to insure a good circulation of air) and thermographs were placed in each chamber. At London, Liverpool, Glasgow and Bristol our inspectors were also on the alert, and remarkably quick deliveries were made.

All the peaches shipped by the department were disposed of by private sale, excepting the two Liverpool lots of fifty-one and one hundred and two cases, which were sold under the hammer. Cardiff made the highest price, viz., 6s. 6d. (\$1.58) per case of 23 'Crawford' peaches, while the highest average price received was \$1.45 per case for 72 cases 'Old Mixon,' sold in London. At the same time 78 cases of 'Elbertas' made an average of \$1.39. In Cardiff 25 cases 'Crawfords' averaged \$1.30 per case; Manchester made \$1.33 per case for 12 cases, and Leeds \$1.22. On the other hand 198 cases 'Elbertas' sold in London for 94 cents per case, 24 cases sold in Birmingham for 83 cents per case, and 177 cases in Glasgow for 85½ cents per case. The whole shipment of 1,224 cases sold at an average of \$1.04 per case, while the charges averaged as follows:—

Freight from St. Catharines to Montreal, four cents per case; ocean freight, 26 cents; selling charges in Great Britain, including commission, 9.7 cents; total charges, 33.3 cents per case, leaving an average net return f.o.b. cars St. Catharines of 80.7 cents per case, or about 13½ cents a pound. From this must be deducted of course the cost of the package, packing material and extra labor.

It is obvious that if any plan can be devised whereby the chilling of fruit can be accomplished in a few hours instead of taking days, the fruit will carry much farther and in a better condition.—J. A. Ruddick, Dairy and Cold Storage Commissioner.

The bulk of our apples are sold in grocery stores and every buyer knows what a barrel contains. I should like to see a standard barrel for Ontario.—Eben James.

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**THREE BANDED and GOLDEN ITALIANS**  
 Vigorous Queens from clean, healthy colonies.  
 Safe delivery at your Post Office guaranteed.  
 Write for prices  
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**PRODUCE WORKERS**  
 That fill the supers quick,  
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 They have won a world-wide reputation  
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 Select untested, \$1.25; six, \$6.00; 12, \$11.00.  
 Safe arrival and satisfaction guaranteed.  
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 I now have 750 nuclei and am filling orders  
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**Regulations re Imported Fruit**

The recent amendment to the Inspection and Sales Act affects chiefly imported fruit. According to the new regulations every importer of fruit must have all grade marks found on closed packages containing imported fruit erased or obliterated when such marks are not in accordance with the act or the new regulations. This must be done when the packages are being taken from the railway car, steamship or other conveyance in which they have been brought into Canada. The importer must place on the end of such packages the proper grade marks, the correct name of the variety of fruit, and his own name and address.

Persons violating such regulations are liable to a fine of not more than fifty dollars and costs or, in default of payment, to imprisonment for a term not exceeding one month. The packages of fruit not properly marked may be confiscated.

Copies of the circular may be obtained, free of charge, from the Publication Branch, Department of Agriculture, Ottawa, or from any Dominion Fruit Inspector.

**The Market Outlook**

Up to the time of writing there has been a very brisk demand throughout the Dominion for all kinds of small fruits and prices have consequently been rather above the average. Whether such a demand will maintain during the latter part of the season when the larger fruits will be upon the market, is questionable, but in view of the fact that in nearly all sections of the Dominion the crop of apples is considerably below average, it is more than likely that so far as this commodity is concerned

**DOUGLAS GARDENS, OAKVILLE ONTARIO**

**PEONIES**

In Peonies, the trend is to select the finer sorts rather than the low-priced ones. In plants of such a permanent character as these the first cost should be a secondary matter: quality should be the first consideration. Too much cannot be said of the following sorts, viz.:

- WHITE**
- No. 8. Avalanche, strong grower, free bloomer, fragrant, late, extra fine. Each \$2.50.
  - 40. Dupont, Mons. tall, free bloomer, fragrant, midseason. Each \$1.
  - 50. Festiva Maxima, tall, strong, vigorous grower, early, very popular. Each 50 cts., 10 \$4.50.
  - 76. Duchesse de Nemours (Calot), vigorous grower, medium height, fragrant, early. Each 75 cts.
  - 79. Or, Couronne, d', splendid grower, free bloomer, late, one of the best whites. Each 80 cts.
- PINK**
- 18. Calot, Madame, pale Hydrangea pink, extra fine. Each 60 cts.
  - 42. Edulis Superba, strong, upright grower, fragrant, early. Each 40 cts., 10 \$3.50.
  - 43. Elle, Mons. Jules, very large blooming, strong grower, fragrant, early. Each \$1.25, 10 \$12.
  - 61. Golden Harvest, dwarf grower, free bloomer, fragrant, midseason. Each 75 cts.
  - 96. Umbellata Rosen, very strong, upright grower and free bloomer, very early. Each 75 cts., 10 \$7.25.
- RED**
- 25. Crousse, Felix, vigorous grower, med. height, fragrant, midseason. Each 75 cts.
  - 36. Devred, Constant, med. height, strong, erect stems, fragrant, very late. Each \$1.
- We have many other fine sorts described in our Fall Planting List, which is now ready for distribution.  
 The buying of fine Peonies is a good investment.  
 These prices include carriage prepaid.

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**BEAUTIFUL OLD  
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there will be no appreciable lowering of prices.

Last year the English merchants for the first time in several years did not advance money to local buyers. Apparently they are adhering to this resolution this year. The itinerant buyer is, however, abroad in the land. We have reports of these buyers offering 75 cents per barrel on the trees. This, of course, is an absurdly low price. There is absolutely no reason why every apple in Canada should not be sold this year at a price that would bring back to the grower at least \$1.25 per barrel on the tree. On the other hand, we find reports of some independent cooperative associations asking \$3.50 per barrel for No. 1 Spies. It is quite as absurd for the grower to accept so small a price for his apples as to leave him no profit as to ask so large a price that the merchant who handles his fruit will have no profit.

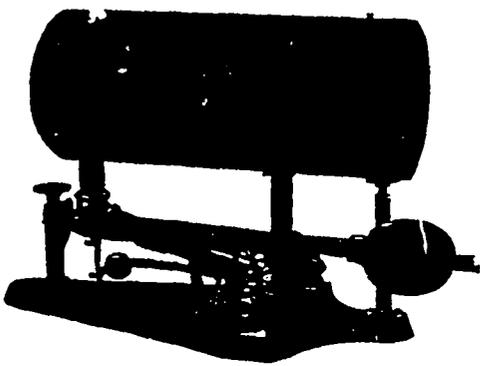
The present market conditions are extremely critical. On two or three occasions we have had within the last decade somewhat similar conditions, and in each case very grave mistakes have been made in placing the fruit upon the market. In 1910 many dealers, noting the short crop, went into the field early in the season, paid fairly high prices to those who knew the market conditions, and paid extremely low prices to the large majority who knew nothing about the market conditions, and in all cases they stored the apples, and when the fruit was all in the hands of the dealers, immediately it was held for high prices. A single incident will show the results.

A large retail merchant in an eastern city offered a dealer \$3.50 per barrel for a very fine line of Northern Spy apples. This was refused about the middle of November. About the first of December, following a slump in prices in the British market, the dealer offered the merchant these apples at the dealer's original price of \$3.50 per barrel. The dealer, however, refused. Four weeks later, in January, the apples were offered at \$2.75 to the merchant, who refused them absolutely at any price, giving as his excuse that his customers were not calling for apples, considering them much too expensive, and even though the price were reduced to a reasonable one, he did not consider the chances for sale good. Later these apples were sold at public auction at \$2.50 per barrel.

Any prices that may be given yet are purely speculative, but it is safe to say that no differences in the crop that are likely to take place, whether it is an increase or a decrease from the present prospects, are likely to change the price either above or below the normal price obtained as an average over several years.—Report of Dominion Fruit Division, A. McNeill, Chief.

### Items of Interest

According to the latest report of the Dominion Fruit Division cooper's stock is going to be both scarce and high priced. Barrels are being bought quite freely at 50 cents apiece, and only a few of those who have purchased stock can get the material alone. The package this year will net less than one-third the value of the fruit on the tree. This puts the grower who packs his own fruit and all cooperative associations in the position of no return in cooper's stock and barrels, and if competition becomes keen, as it is likely to become in the near future, those who have the package end of the apple business the best under control will be the most likely to succeed.



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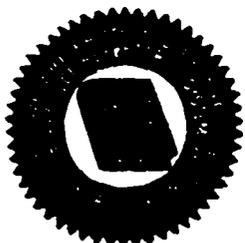
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References: The Canadian Bank of Commerce, (Market Branch) and Commercial Agencies.

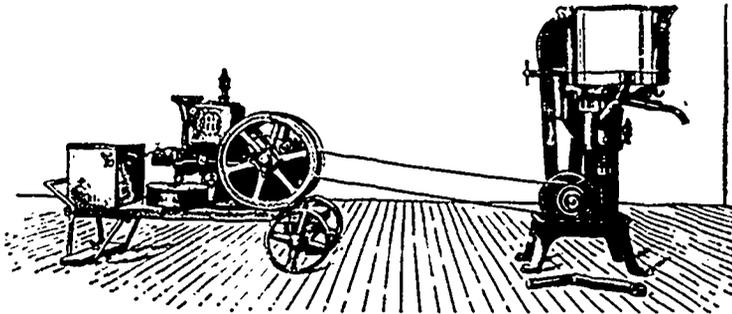


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## Eliminating the Middleman

How to obtain a fair share of the price that the ultimate consumer pays for his fruit has long been a problem of the fruit grower. Probably in no part of Ontario has this difficult question been solved to better advantage than in that section of Lambton county in the neighborhood of Forest. President Dan Johnson, of the Ontario Fruit Growers' Association, has done much to solve the problem of how to market fruit without the assistance of the "apple agent."

Last year Mr. Johnson and his brother sold their entire crop of six thousand barrels of apples direct to retailers in western Canada. This crop was the production of a number of orchards either owned or leased by the Johnson Brothers. In addition to their own holdings the Johnson Brothers have rented a number of run-out orchards, and by practicing up-to-date cultural methods have been able to bring them up to a stage of production that has netted good profits.

### SELLING TO RETAILERS

Mr. Johnson, who was a member of the Forest Fruit Growers' Association, had urged that organization to market their fruit directly to the retailer instead of through wholesale firms. The association felt that the expense necessary to build up a trade with the retailers would be more than the increase in price received. Mr. Johnson, however, had the courage of his convictions, and decided to act in accordance with his own judgment. He engaged an agent, who travelled through the west and secured orders from retailers. The result was that after deducting twenty-five cents a barrel to defray the expenses of this agent Mr. Johnson came out almost fifty cents a barrel ahead of the association price. The impression must not be held, however, that the association price was a poor one. While the average price received by apple growers in Ontario last year was not more than one dollar fifty cents a barrel, the average price received by the associations was two dollars fifty cents.

A large portion of Mr. Johnson's income is derived from peaches. The entire crop of five thousand baskets, from his four-year-old trees, was disposed of to a firm in a large Ontario town at prices ranging from seventy-nine cents to ninety cents a basket. One peach tree produced a crop of fourteen baskets. Another record tree was a thirty-five-year-old Baldwin, from which were picked twenty-six barrels of apples, and which when sold gave a net profit of eighty-four dollars.

The marketing of the fruit is not the only phase of fruit growing in which Johnson Brothers have eliminated the middleman. They have a cooperage shop where they make all their own barrels. In addition, they have a private evaporator plant where all the culls and scrubs are disposed of to advantage. Even the skins and cores are prepared and shipped to Germany, where they are utilized for the manufacture of jelly. They also have their own packing and storage house and have their own traveller in the west.

The Niagara fruit district will be well advertised at the Panama Exhibition to be held in San Francisco. Arrangements are being made by A. W. Despard, of the Dominion Government Department of Immigration, for the preparation of an exhibit there of fruit grown in that district.



## FLOWER POTS

Hanging Baskets and Fern Pans  
FOR THE SPRING TRADE

We make the "Standard" Pot, the best Pot in the world—uniform, best of clay, well burned, in every respect superior to all others.

All our pots have rim on shoulder, thus allowing them to be placed together perfectly and preventing breakage in shipping and handling.

Place your Spring Order NOW.

A complete line and large stock of all sizes kept on hand to ensure prompt shipment.

Send for NEW CATALOG and PRICE LIST.

The Foster Pottery Co.  
HAMILTON - ONTARIO  
Main Street West

See Open Top Tub  
Room to Work  
See How the Wringer is Attached



## MAXWELL'S HIGH SPEED CHAMPION

The Wringer Bead extends from the side, out of the way of the cover. This allows practically the whole top of the tub to open up—makes it easy to put in and take out clothes.

No other washer has so large an opening. No other washer can be worked with crank handle of side as well as top lever.

Do you see Maxwell's "Favorite"—the churn that makes quality butter?

Write us for catalogue if your dealer does not handle them.

DAVID MAXWELL & SONS, ST. MART'S, Ont.



Darr Farm, Niagara-on-the-Lake.

August 1st, 1911.

“Regarding the large block of Pedigreed Cherries, Peaches, Pears, Plums and bush fruits we planted last fall, am pleased to tell you the results are in every way satisfactory. The few trees put in this spring do not compare with the fall plant, either in growth or take. We lost considerably more of the spring planted trees, and the growth is much shorter. In future we plant in the fall.

D. A. RODGERS

**PEDIGREED CHERRIES, planted November 1910, 99 per cent. thrifty, July, 1911**  
**The property of D. A. R. ROGERS, Darr Farm, Niagara**

We strongly recommend the fall planting of all fruits excepting yearling plums, which are inclined to freeze back, and should be planted in the spring. Where the land is suitable and the work well done, fall planting has in every case proved more satisfactory than spring planting. Particularly is this noticeable this dry season. The land is usually in fine planting condition in the fall, the trees quite dormant, the weather cool, and more time can be given to plant carefully. Fall planted trees are well established by spring, and make a much heavier growth than spring planted orchards. These are a few reasons why fall planting pays.

Orders should be sent in early and we are prepared to make quick delivery as soon as stock is thoroughly matured

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Nurseries at QUEENSTON, OAKVILLE, SIMCOE

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Solicits your consignments  
 Write for particulars early  
 Highest references given

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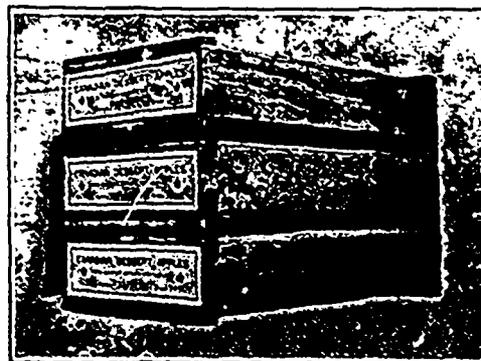
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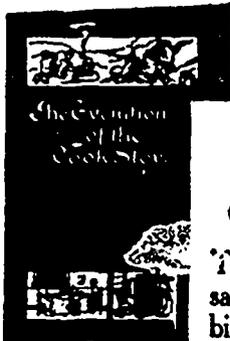


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**J. N. WARMINTON**

207 St. James Street

**MONTREAL**



Let us send you our book "The evolution of the Cookstove"—an interesting history of cooking. It also gives a clear, simple description of the Dominion Pride Range—complete in every detail. Reading this book is like examining the range itself.

Send for a copy.

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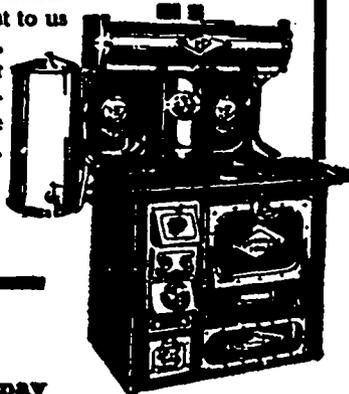
That's about \$20.00 isn't it? And you can save it by ordering direct from the factory (the biggest malleable range plant in Canada.)

Dominion Pride Range is the range you would choose at any price—a beautiful steel range with unbreakable doors, castings and lids of malleable iron—a range that saves coal—a range so solidly built that with care it will last a lifetime.

And you can secure a Dominion Pride Range by making a small payment with your order—the balance on terms to suit your convenience.

### Dominion Pride Range

Thousands upon thousands of Canadians have sent to us direct for their ranges, and we have yet to hear a complaint. Our unconditional guarantee goes with every range.



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Canada Malleable & Steel Range Manufacturing Co., LIMITED OSHAWA.

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Wepay Freight

### SPECIAL OFFER.

The Canadian Garden, Mrs. A. L. Jack, 75c. Regular Sub. to Canadian Horticulturist, 60c.

\$1.35

During September, 1913, Both together only

\$1.00



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## Sulfur Dusters

For Fighting Every Disease of Cultivated Plants

Knapsack, Pack Saddle or Horse Drawn Power Sprayers

Send for Catalogues and particulars to: **VERMOREL** VILLEFRANCHE (Rhone), FRANCE

## GINSENG

For the season of 1913 we are offering one-year-old Roots, two-year-old Roots, Stratified Seeds and New Seeds at greatly reduced prices. Write for Price List.

I. E. YORK & CO., Waterford, Ont.

## Specially Selected Plants

To Suit Canadian Climate

**KELWAY & SON**

The Royal Horticulturists Langport, Somerset, England

### The Fruit Situation

Advices from England hold out poor prospects for the pear crop in that country. The same applies to France. For these reasons there should be a splendid opening for Canadian pears on the English market. This market demands a high class product and all pears should be wrapped separately and packed in the most careful manner. Last year over six hundred thousand hundred weights of pears were imported into England.

It is expected that the English apple crop will be smaller than usual. The season is opening much more auspiciously than has been the case for several years past. For the last few years there have been large crops in all countries producing a surplus of apples. This year the general condition of the United States crop is officially estimated at fifty-nine per cent. of a normal crop as compared with sixty-seven per cent. for last year. The Nova Scotia crop is estimated at three quarters of a million barrels as compared with one million in 1912. Blenheims, Ribstons and Greenings will be the heaviest yielders. Baldwins and Gravensteins will be very light. Nova Scotia apples are reported to be quite scabby.

Taking the Dominion as a whole the apple crop will be not much over fifty per cent. of a full crop. In Ontario Spies and Baldwins are light as is also the Fameuse in Quebec. British Columbia will have about fifty per cent. of a full crop but the quality is not up to the average.

In the Lake Erie district pears promise to be a good crop. Elsewhere the crop appears to be rather poor. In the Okanagan Valley the crop is fair but the British Columbia crop as a whole is below the average.

Plums are yielding well in the Niagara district. There is a fair crop in British Columbia except on the coast. In Nova Scotia plums are light but better in Prince Edward Island.

The Niagara district reports a fair crop of peaches. There appears to be little trouble from fungous diseases or insects. In British Columbia the crop is good and will likely be harvested in good condition.

Grapes are expected to yield a medium crop. Many vineyards have suffered from the ravages of the rose bug and flea beetle.

### Bulletins and Circulars

Other bulletins and circulars recently received by The Canadian Horticulturist are: Entomological Circular No. 2, Flea Beetles and their Control, issued by the Dominion Department of Agriculture; Bulletin No. 164, volume 16, Strawberries, and Bulletin No. 165, volume 16, "Tomato Investigation," two splendid publications issued by Perdue University Experiment Station; circular No. 24, of the New Jersey Agriculture Experiment Stations, contains much valuable information on the home preparation of lime and sulphur spraying mixtures; Bulletin No. 137, Nebraska Agricultural Experiment Station, "Growing Forest Trees, Shrubs and Ornamentals in Nebraska."

The Canadian Horticulturist is in receipt of a valuable book written by a Canadian, Colonel Geo. T. Denison, of Toronto, entitled "A History of Cavalry." The first edition of this work was published in 1877, and gained the Emperor of Russia's first prize for the best work on the subject in competition with officers of all armies. It was translated into several different languages. It is published by the McMillan Company of Canada, Limited, Toronto. Price \$2.50.

# Perennials

## For Fall Planting

Set them when ground is moist and sun low. Don't wait till spring, with its strong sun, drying winds, and rush of work.

### HOLLYHOCKS.

Double mixed. Chater's celebrated English strain. Specially pot grown, so that every one you set will grow.

10 cents each; \$1.00 per doz.

### PANSIES.

At 30c per doz. or \$2.00 per 100: Seed from Mette, Germany. Twelve named varieties, ranging from white to black. (Customers please say what colors they wish to predominate.)

### ENGLISH DAISIES.

(Not the small old-fashioned sorts). The Bride, Giant White long-stemmed, Monstrosa Rosea, Giant Rose.

### FORGET-ME-NOT

(Everybody loves it), blue or white.

### COLUMBINE.

Long-spurred Hybrids. Few know the exquisite grace of a vase of these as cut flowers.

### CALLIOPSIS GRANDIFLORA.

A splendid subject to help fill the need of more yellow in the perennial border.

### SWEET ROCKET, White.

Also

### WALLFLOWERS,

35c per Doz., \$2.50 per 100.

From finest English seed.

These are not hardy in Canada, but can be carried through winter with greatest ease in cool conservatory.

Every plant a healthy transplanted one.

Please send cash with order.

Express shipments only.

All Plants Ready Sept. 15th.

ORDER NOW.

# RYERSE BROS.

Simcoe, Ont.

## British Columbia

Fire blight is reported to have again broken out in the Vernon district. This means that decisive measures will have to be taken by the growers for its eradication. Investigation has proved that this disease is controllable. If, upon the discovery of an outbreak, the diseased wood is cut out at least a foot below where the disease has made its appearance, fire blight can be kept in check. An outbreak was also reported from the Similkameen Valley, but it has since been authoritatively denied.

Australia is proving to be a growing market for Okanagan fruit. A contract for thirty thousand boxes of Jonathans (fifty car loads) at one dollar twenty cents to one dollar forty cents a box, f.o.b. shipping point, has been made by Mr. Duffy, who makes a specialty of shipping apples to Australian markets. Mr. Duffy is at present in Europe, and the original contract has been taken over by the Central Selling Organization. Although the price is not a fancy one, it will net the grower over one dollar a box.

The British Columbia consumer will benefit by the recent amendment to the Provincial Horticultural Act. This amendment empowers inspectors and agents to destroy all trees, plants, fruits, and vegetables offered for sale, that have been damaged by frosts or otherwise injured. Imported apples, oranges, and other fruits have been foisted upon the public as being of first quality, but which soon afterwards showed signs of decay because of having been frozen.

There has been much conjecture as to the freight and express rates that would apply to fruit shipped to the prairie provinces. The matter has been finally settled, however, and although all expectations have not been fully realized, decided reductions have been made. It was hoped that the twenty per cent. reduction on express rates ordered by the railway commission would apply to the special rates on fruit and vegetables, but such is not the case. At the request, however, of the British Columbia Fruit Growers' Association the Dominion Express Company has made some reduction on the rates of these commodities. The fruit growers of Wenatchee, Wash., have secured from the Great



## This Book Sent Free

Write for a copy to-day

It is mailed for the asking

"Spraying, a Profitable Investment," will help you grow better and more profitable crops. It is a book of 120 pages, containing over 50 illustrations and telling how, why and when to spray. It was compiled from data gathered by experts, and gives complete information regarding the important insect pests and the most efficient method of exterminating them.

Some of the spraying materials that are advocated and used by the largest fruit growers are manufactured by The Sherwin-Williams Insecticide Dept. Probably the most widely used insecticide is Arsenate of Lead, but owing to the great demand there have been a number of Lead Arsenates put on the market which, being made to produce large profits for the manufacturers, do not combine the qualities that are essential for efficiency and economy. These Leads are often Acid in their nature, that is the Arsenic Acid is either not wholly combined with the Lead, or else is very loosely combined, so that the action of the sun and the atmosphere, after spraying, causes disintegration or freeing of the Acid from the Lead. When this occurs foliage burning results, also russetting of the fruit.

### SHERWIN-WILLIAMS

NEW PROCESS

### ARSENATE OF LEAD

is made by a process that thoroughly combines the Arsenic Acid with the Lead. This is known as a Neutral Arsenate. There is no danger of foliage burning or fruit russetting when S-W New Process Arsenate of Lead is used. It has further advantages in that it is light in gravity, very finely divided and of a fluffy nature, so that it remains well in suspension, and not only sprays evenly, but it also covers greater area of foliage. For these reasons it is a great deal more economical in use and more effective in destroying the pests.



THE SHERWIN-WILLIAMS CO.-

of Canada, Limited

Insecticide Manufacturers

Offices and Warehouses: Montreal, Toronto, Winnipeg, Calgary, Vancouver, Halifax, N.S., London, Eng.

## THE TENTH ANNUAL

# Horticultural Exhibition

Under the auspices of the St. Catharines Horticultural Society, will be held on

WEDNESDAY AND THURSDAY

Sept. 10th and 11th, 1913

At the

## Armory, St. Catharines

Unexcelled Displays of Fresh and Preserved Fruits, Cut Flowers and Greenhouse Plants.

Single fare from all stations on Grand Trunk where single fare does not exceed \$2.50.

The famous 19th Regimental Band in attendance.

Prize Lists and other information on application to the Secretary.

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MISS L. A. RADCLIFFE, Secretary

114 Queen St., St. Catharines, Ont.

# Twenty Different Fertilizers

There are 20 different Harab Fertilizers—each one the best for its particular purpose. Our Free Guide Book indicates the correct fertilizers for cereals, potatoes, berries, orchards, beans, sugar beets, tobacco, corn,

# Harab FERTILIZERS

radishes, lettuce, hot house vegetables, flowers, lawns, grape vines, etc., etc. Be sure and write for a copy of this book. Using the correct fertilizer means growing the largest crop, making the most profit.

The Harris Abattoir Co., Ltd.  
TORONTO

Northern Railway considerable reductions in rates on shipments to Canadian ports. This means that the British Columbia growers will not benefit to as great an extent as was hoped by the reduction in Canadian Pacific Railway rates as far as competition with the Wenatchee growers is concerned.

Of the forty-seven thousand dollars which has this year been granted to the Provincial Department of Agriculture by the Federal Government, the fruit industry will benefit directly to the extent of five thousand dollars. This is to be spent for demonstration work and for winter short courses with Farmers' Institutes throughout the province. In addition, fruit growers will receive a share of the seven thousand five hundred dollars which is to be devoted to the up keep of instructors and inspectors along the various lines of agricultural instruction and education. Twenty-five hundred dollars has been set aside for the publishing of bulletins and circulars.

For the benefit of English girls who desire experience in local methods of farming and marketing, the Colonial Intelligence League has established an experiment station at Vernon. Fifteen acres of land on the Coldstream Ranch have been purchased and are being laid out for this purpose. It is proposed to send out each year eight or ten women from the Old Country who have already had experience and training to act as instructors. It is proposed to get the institution on a paying basis as soon as possible. Mixed farming, fruit growing, market gardening and poultry keeping will be gone in for, and the products marketed to best advantage.

## Nova Scotia

Conditions have greatly changed as regards the apple crop in the Annapolis Valley during the last month, and prospects that looked very rosy in blossom time have now a much paler shade. Unsprayed orchards, and orchards lacking in vigor did not set a large proportion of fruit; but where full attention was given the set was good and at first gave promise of a full crop. This promise in the light of later events was not entirely carried out. The June drop was unusually heavy, due no doubt, to the cold weather in blooming time. Black spot, both on the leaves and fruit is the worst in the history of the Valley.

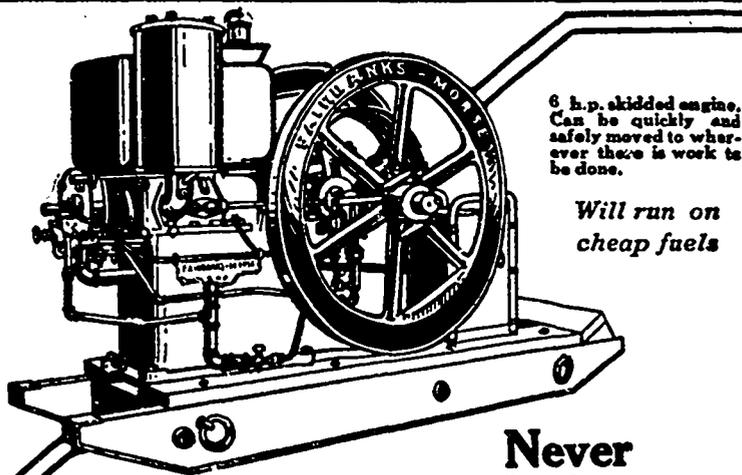
As usual Gravensteins seem to suffer the worst, and are a light crop of poor quality. Ribstons, Nonpareils, Kings and Greenings are fair, with Blenheims and Fallwaters almost a full crop, and Baldwin good where they did not bear last year. About three-quarters of last year's crop, and of no better quality, would probably sum up the situation.

## Tulips For Design Bedding

Artus, red; Chrysolora, yellow; La Reine, white; Cottage Maid, pink; the four finest bedding Tulips grown. Bulbs first size and choicest quality. Price \$1.15 per hundred by express. This is a snap.

Quantity limited, so order early.

C. Mortimer Bezzo, Bulb Importer Berlin, Ont.



6 h.p. skidded engine. Can be quickly and safely moved to wherever there is work to be done.

Will run on cheap fuels

## Never balks

"While I hear of others in my vicinity who experience difficulty in starting engines manufactured by other companies, I must say that my Fairbanks-Morse engine purchased a year ago has never given me the least trouble."—Wm. G. Tewrie, Athena, Ont.

## Fairbanks-Morse Farm Engines

are built for farm use. Their construction makes them adaptable for practically every class of heavy work met with on the average farm, whether it is sowing, hoisting, grinding, threshing, pumping, pulling stumps, cutting ensilage, or any of the other innumerable tasks that the ingenious Canadian farmer can devise.

Because of their special fitness for farm work, Fairbanks-Morse Farm Engines are thoroughly dependable at all times and under the most exacting conditions. There are more than 115,000 in use today. Any size from 1 to 200 h.p. Vertical or horizontal, portable or stationary. Equipped with Bosch magnets and made to run on gasoline, kerosene or low grade distillate, the cost of the last being less than one-fourth that of gasoline.

Send for this booklet—  
"49 Uses for a Farm Engine."  
It is full of valuable information for the farmer, and is free. Fill in the coupon and mail now.

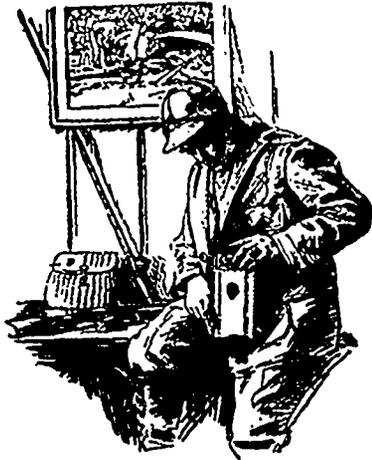


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Address

The Canadian Fairbanks-Morse Co. Limited  
Montreal



Make the most of every trip with rod and gun.

Take a  
**KODAK**  
with you

Illustrated catalogue at your dealers or by mail. Free.

**CANADIAN KODAK CO., LTD.**  
TORONTO, CAN.

The other fruit crops as cherries, pears and plums, all suffered from the wet weather while in bloom and have been a light crop. Strawberries on the other hand have been good both in crop and price, there not being enough to supply the demand. An average price of twelve cents a box for the season to the growers, looks as if our farmers were not living up to their opportunities.—M.K.E.

**Eastern Annapolis Valley**

*Eunice Buchanan*

At the beginning of the season apples appeared to set well, but later the blossom clusters withered and vanished. The general opinion is that spot is very common and worse than last year, although east of this district the fruit is cleaner.

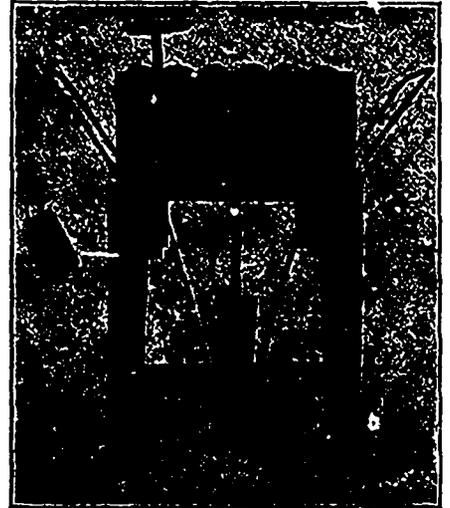
A greatly increased amount of spraying has been done; most second sprayings were intended to catch the blossoms just before opening, but owing to the cold weather this did not occur until about two weeks later. In cases where the spray was applied just before and after the blossoming, the apples are clean. One grower, who sprayed every ten days, has a very clean crop.

Gravensteins are about a quarter of a crop. General varieties mostly have formed fruits of good size on account of apples setting one in a place. In districts the set has been very irregular, some orchards almost bare, others a quarter of a crop, while others are from three-quarters to a full crop.

Plums are proving to be scarce. Wild blueberries are plentiful. The San Jose Scale inspectors are now looking over trees imported from Ontario. Aphids are swarming on young trees, especially Blenheims,

**Quick and Easy**

That is the way the **DAISY APPLE BOX PRESS** works. A simple pressure of the foot brings the arms up over the ends of the box, automatically draws them down and holds them in place while being nailed. The fastest and only automatic press on the market.



Pat. No. 104,535

If you pack apples in boxes, this machine will be a great convenience to you and will save you time and money. Write for prices to

**J. J. ROBLIN & SON**  
Manufacturers Brighton, Ontario

**DON'T FAIL**

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**The Hardie Sprayers**

AND THE

**Fruit Sorting  
Machines**

**AT OUR EXHIBIT IN  
TORONTO**

Just the Machines for Up-to-date Growers

**The Biggs Fruit & Produce Co., Ltd.**  
BURLINGTON

Our Exhibit Back of Grand Stand



**LISTEN!**

The heavy shipping season for Berries, Fruits and Vegetables of all kinds will soon open.

Have you completed your arrangements for the handling of your shipments this year?

If you haven't we will be pleased to hear from you, and supply you with shipping stamps and pads, and any information you may require regarding Toronto market.

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32 West Market Street TORONTO

## SPECIAL EXHIBITION OFFER

Of The Canadian Horticulturist. Good only till September 30th

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For every New Subscription of \$1.00 to The Canadian Horticulturist received before September 30th, 1913, The Canadian Horticulturist will be sent from September, 1913, till December, 1915.

*Cables :—Flourish, Manchester*

# William Darlington

Fruit Salesman

## MANCHESTER

Population within a fifty mile radius 9,800,000. Send your consignments to **THIS MARKET**, which is the most important Apple Distributing Centre in the World—All business done on up-to-date lines—My terms are *moderate* and your goods are sold to the best buyers at the best prices—Please write me.

due to dry weather. Tobacco extract to be used for these in the early spraying which was ordered from Kentucky, reached us too late on account of the flood there.

### See This Exhibit

One of the most interesting exhibits nursery stock at the Toronto Exhibition that of the Auburn nurseries, situated west of the old Machinery Hall, to the left of the main entrance to the grounds. The exhibit consists of an extensive and magnificent collection of evergreens, fruit shade trees, embracing every variety suitable for the Ontario climate.

The exhibit of evergreens is particularly worthy of special attention. This company is making a specialty of evergreens. Mr. Roderick Cameron, their landscape expert spent the past winter in Europe, gathering together the collection. Each specimen carefully transplanted and the company prides itself on the fact that their evergreens can be moved any month of the year without setback. Their specimens *Picea Grandis*, *Picea Pyramidalis*, *Picea Pungens* *Glauca*, are exceptionally fine.

The display of shade trees consists of rooted specimens, showing the results of repeated transplanting.

The exhibit also includes a very fine collection of fruit trees and splendid fruit specimens in glass, grown from their selected strains. The cut flower section of the exhibit is magnificent, and is also grown from their own stock. The whole display is an example of great care in the selection of stock, and a careful inspection will repay those interested.

The company has a capable staff of salesmen. Mr. Roderick Cameron, the landscape expert, is in attendance. Visitors are cordially welcomed.

## WHITE DUPLEX FRUIT WRAPPER

This wrapper is a product of many years of experimenting by the larger fruit packers. It protects, as no other wrapper can, the individual fruit from spread of any decay which may accidentally get into the box. The thinner tissue wrappers cannot give the protection from bruising, given by the thicker substance of our Duplex.

9 x 9    10 x 10    12 x 12  
Corrugated, Pulp and Lace Barrel  
Heads. Corrugated, Lace and Wax  
Papers for Boxes. Tissue Fruit Wraps.

*Samples and prices upon request*

**J. H. GAIN**

124 RICHMOND ST. W. - TORONTO, ONT.

## Greenhouse Glass

We manufacture a special line for greenhouses. It is of good quality, flat, squarely cut and even thickness, virtues which cannot be dispensed with for lapping or butting.

Shall be pleased to quote prices on application to any of our Canadian depots:

MONTREAL  
Becky Lane

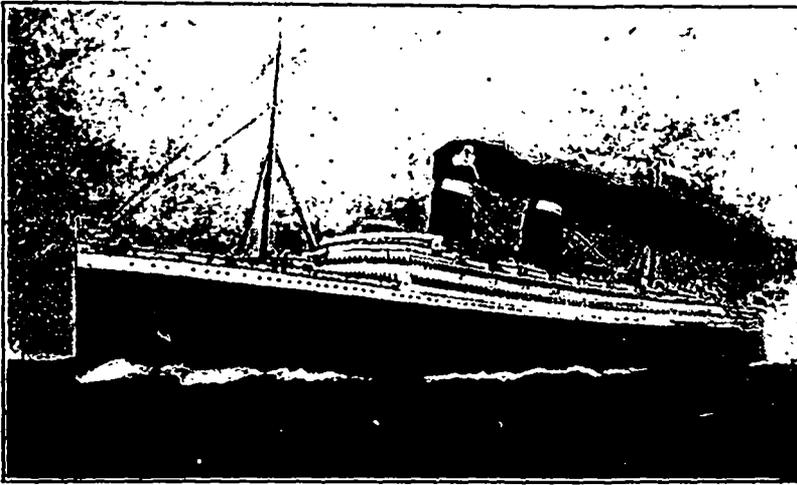
TORONTO  
Mercer St.

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VANCOUVER  
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**Pilkington Bros., Limited**

Works at St. Helens, Eng.



**New Steamers for the Allan Line**

SHIPPERS of perishable traffic will be interested to learn that the Allan line will shortly place on the Liverpool route the "Alsatian" and "Calgarian," vessels of 18,000 tons each, which will be the largest and most modern ships in the Canadian trade.

This Company has been foremost in the installation of the most scientific machinery for the safe carriage of fruits and other perishables.

The Liverpool service sailings are so arranged that exporters may distribute their shipments throughout the week in such a

manner as to avoid the heretofore necessity of having goods arrive all at the same time, and frequently to face an over-stocked market.

The Glasgow, London and Havre services will also be kept up to their usual high state of efficiency and so long as Canadian shippers continue to give the Allan Line their patronage, the Company will, as in the past, improve the services to meet all requirements.

The Company looks for a record-breaking amount of perishable traffic during the current year.



**SMALL FRUIT PLANTS**

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

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

**HAPPY HOMES**

Depend far more on good cooking and well served meals than many people think. The backbone of the meal is the BREAD, and if the bread is not good the meal is spoiled. Make sure of good meals with the main item, the BREAD, a delicious sweet wholesome palate pleaser, by using

**REINDEER FLOUR**

A Home product to be proud of and ensures sweet tasty bread.

Supplied by Best Grocers

PETERBOROUGH CEREAL CO., Simcoe St., PETERBOROUGH, 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; costs

ABOUT 70 HOURS ON 1 GALLON OIL

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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). Award will date from 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 in whom we can rely on. Write quick for our 10 Day Absolute Free Trial Proposition, Agent's Wholesale Price, and learn how to get ONE FREE.

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- 1 Choice House Fern, Bostonensis.
- 1 Splendid Kentia Palm.
- 1 Large Asparagus Fern.
- 1 Mrs. Cherry (in fruit).
- 1 Pine Cyclamen.

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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.

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## Fruit Baskets Scarce

Fruit growers in the Niagara district are up against it in the matter of securing sufficient fruit baskets. Factories are working over time in an effort to supply the demand, although the manufacturers say they can hardly do more than fill orders received early in the season.

A number of growers are complaining too of the poor quality of some of the baskets. They attribute the damaged condition in which some of the fruit is arriving at its destination to this cause. One grower in St. Catharines made a special trip to points to which he had shipped fruit and found that it had arrived in a condition that was anything but satisfactory.

## Items of Interest

The Ontario Ginseng Growers' Association will hold their next meeting at R. T. of T. Temple, 1087 Queen St. West, on Sept. 3rd, 1913. It is hoped that all growers will make it a point to be present.

To see ten thousand roses blooming in one garden is a treat not usually experienced. One of the finest collections of roses in Canada is that of Mr. John T. Moore, of 33 St. Clair Ave., Toronto, where such a sight was seen in June. The collection contains varieties of most unusual beauty of the hybrid teas, teas, and hybrid perpetuals. Many of these are imported from Ireland, being sent over in wooden cases and packed in sterilized peat.

A change from the usual custom will be followed this year in conducting the annual Toronto exhibition of the Canadian Horticultural Association. The exhibition has always been conducted as an independent one and devoted entirely to the interests of the association. This year the show will be held at the exhibition grounds in conjunction with the new dairy and live stock exhibition which is being organized by the City of Toronto. One price will cover the admission to both exhibitions.

At the request of the Board of Control of the Horticultural Experiment Station at Vineland, Ont., the Ontario Department of Agriculture has appointed G. J. Culham, B.S.A., to investigate the possibilities for fruit growing in New Ontario. So far Mr. Culham has met with a very encouraging reception. The fruit growers that he has visited have been willing to give what information they could, and are anxious to learn more. He reports that there are several large orchards on St. Josephs Island and also an excellent orchard of five hundred trees near Sault Ste. Marie. The fruit growing possibilities of New Ontario are only beginning to be realized.

During the week November 17 to 22, the American Pomological Society, The Society for Horticultural Science, The Eastern Fruit Growers' Association, and The Northern Nut Growers' Association, will meet in Washington, D.C., as a unit event designated as Fruit Week. Exhibits are assured from Cuba, Porto Rico, Hawaii, the Philippines, Canada, and all the leading fruit growing sections of the United States. Ample cold storage has been provided. Requirements for exhibit space should be filed before October 15 with the secretary of the American Pomological Society, 2033 Park Road, Washington, D.C. Exhibits of fruit and nuts will be confined to plates, trays and cartons.

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## Horticultural Convention

If one may judge from the opinions expressed by those who were present, the 1913 Convention of the Canadian Horticultural Association, held in Peterboro, Ont., Aug. 5th-7th, was a most successful one. The attendance from outside points was large. Montreal, Ottawa and Toronto were well represented, over two hundred coming by special trainload from Toronto on Wednesday, the second day of the convention.

On Tuesday afternoon the convention opened with an address of welcome from Mayor Bradburn, of Peterboro, which was neatly replied to by Mr. E. I. Mepsted of Ottawa. Then came the address of the President, Mr. Walter Muston of Davisville, and the report of the Secretary-Treasurer, Julius Luck, of Montreal. A committee was then appointed to act as judges of the trade exhibit. In this exhibit, methods of greenhouse construction were demonstrated by the King Construction Co., and Lord & Burnham, of Toronto, and the Parks Construction Co., of Hamilton. The floral exhibits were excellent.

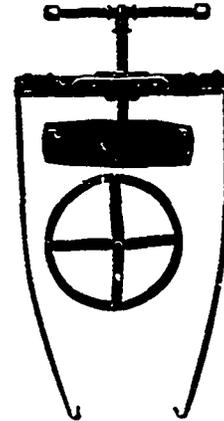
Most interesting papers were delivered at the different sessions. Among the best were "Parks and Boulevards," by Park Commissioner C. E. Chambers, of Toronto; two on greenhouse construction by Messrs. Cobb and King; Retail Store Management, by Cecil Hopton, Montreal; Good Annuals and Perennials, by Thomas McHugh, Dorval, Quebec.

The outings and amusements proved enjoyable features. They included a trip

to the Kawartha Lakes, a moonlight excursion over the famous Peterboro locks and various sports.

The new officers are: President, H. B. Cowan, Peterboro; 1st Vice-President, Geo. Hopton, Montreal; 2nd Vice-President, F. W. Adams, Toronto; Secretary-Treasurer, Julius Luck, 1,018 Queen Mary Road, Montreal; Executive Committee for three years, R. L. Dunn, St. Catharines; S. J. Jordan, Peterboro; H. Eddy, Montreal; for two years, A. Ferguson, Montreal; John Milford, Sherbrooke, Que.; Frank Wise, Peterboro; for one year, J. Graham, Ottawa; A. H. Ewing, Woodstock; H. G. Muliss, Brampton.

The 1914 Convention will be held in Toronto.



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