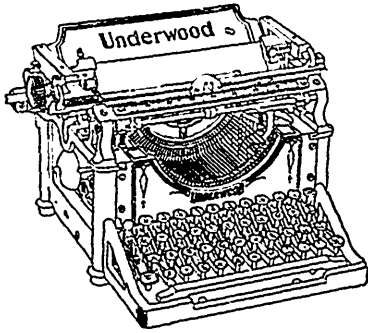


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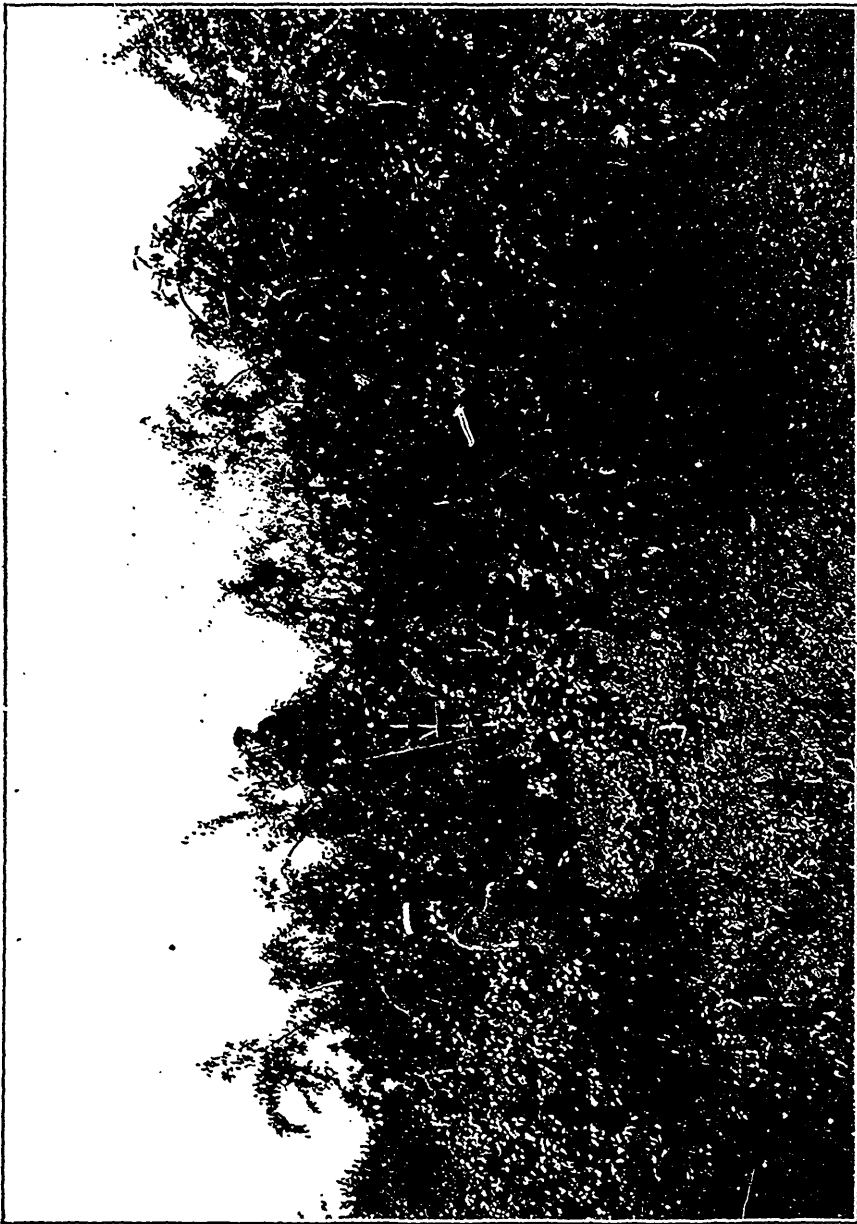
The "Safety" Fruit Picker consists of a rubber covered wire hood, attached to a 12 foot pole, which grasps the fruit the same as the human hand, tilts it up and a single twist releases the fruit and drops it down the chute into a canvas bag at the waist of the operator without bruising or coming in contact with other fruit. It can be operated by a woman or child as easily as by a man.

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**The Safety Fruit Picker Co. of Ontario,**  
Ridgeville, Ont. Limited.



### Fall Work in a Northern Ontario Plum Orchard

The illustration shows Mr. W. J. Justice, of Barrie, harvesting his plum crop. There are about two and one-half acres devoted to this fruit crop and this year the return is about 1000 baskets. They include such valuable varieties as Lombard, Green Gage, Imperial Gage, Yellow Gage, Reine Claude, Pond's Seedling, Maxim, Roman and Burbank. The trees are set 20 feet apart each way. Immediately under them is a row of gooseberries on each side, and between these two rows is a row of currants. The man standing to the left is Mr. Justice.

# The Canadian Horticulturist

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VOLUME XXVIII



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## THE SPRAYING DEMONSTRATIONS

PROF. WM. LOCHHEAD, O. A. C., GUELPH.

**A**LTHOUGH the results of the experiments conducted this season in the Niagara district, spraying grapes, have not been conclusive, yet the careful and impartial observer has been shown that those vines which were sprayed are freer from disease than those which were unsprayed. The main object of the experiments was to test the efficiency of the preparations which had been recommended for the control of the chief insect and fungous diseases of the vineyard and orchard, especially for the control of the grape rots and San Jose scale.

The work was begun and charted by myself, but was carried on in my absence by Mr. P. W. Hodgetts, Department of Agriculture, Toronto; Mr. T. D. Jarvis, O. A. C., Guelph, and Mr. Andrew Haynes, St. Catharines. Experiments were carried on at the following points: Mr. Murray Pettit's, Winona; Mr. Ambrose Pettit's, Grimsby; Mr. R. Kelly's, Beamsville; Mr. Bartlett's, Beamsville; Mr. J. Fretz's, Jordan; Mr. S. Overholt's, Jordan; Mr. Geo. Robertson's, St. Catharines; Industrial Home, St. Catharines; Mr. S. Shearer's, Niagara-on-the-Lake; Mr. Porter Adams', Queenston, and Mr. Berriman's, Stamford.

The first experiments began at Winona, April 13, while the trees and vines were still dormant. Applications of lime-sulphur were applied in some orchards for the control of the San Jose scale. In most cases

this mixture was made without the application of steam. In the vineyards a one per cent. solution (4 pounds in a barrel of water) of copper sulphate was applied to certain check rows. Later applications of Bordeaux mixture were made in the vineyards about the second week in June, the first and third weeks in July, and the first and second weeks in August. A chart of the different experimental vineyards was carefully prepared at the outset and the plan was adhered to as nearly as possible throughout the season. The object of the chart was to determine what sprayings were absolutely essential and what sprayings were unessential for the control of the grape rots. Rows, or portions of rows, were left unsprayed as checks in every vineyard.

During September I visited the different experimental vineyards. The season has been a most favorable one for the grape grower. Even the most careless grower has had very little rot to contend with. For this very reason the season has been an unfavorable one for experimentation. Practically no difference was noticed as to the effects of the different applications. At Winona the check vines, which were left unsprayed, had considerable mildew, but the grapes will not be injured to any extent. In a season, such as that of last year, these mildewed grapes would have been totally destroyed. The color of the foliage was

much brighter on the sprayed vines than on the unsprayed. At Grimsby the Black Rot was found on the vines which had been unsprayed, and, as at Winona, it was found that practically no damage had been done by the mildew, which was quite evident on the unsprayed rows and absent from the sprayed rows.

At Beamsville the check rows were the only ones that had Black Rot to any extent, and the owner of the vineyard was one of the first to recognize the fact that the spraying had kept the Black Rot away from his vines. At Jordan the row which only had the blue stone treatment in April showed considerable mildew. There was, however, one row of Moyer grapes which had been sprayed with Bordeaux five times during the season and which showed more Black Rot than any other row. The owner states that last year the grapes on this row were completely ruined by Black Rot.

At St. Catharines the results were very similar to those observed at Grimsby and Winona, the unsprayed vines showing the most Black Rot and mildew. An interesting lesson by way of comparison may be drawn from a study of a neighboring vineyard which had never been sprayed. Although this is a very favorable season for grapes, yet this graperly showed a great deal of Bird's Eye Rot, Mildew, and Black Rot.

#### PETRIFIED GRAPES.

At Niagara-on-the-Lake, Mr. Jarvis reports, the sprayed vines were very clean, but the unsprayed vines showed considerable Black Rot and Bird's Eye. At Stamford, Mr. Jarvis also reports, there was practically little difference between the sprayed and unsprayed vines—both being

very free from disease. At Queenston a splendid object lesson was observed in a vineyard of Niagaras. On the check (unsprayed) vines "petrified" grapes and Downy Mildew were in evidence, but were entirely absent from the sprayed vines. The owner states that the Delawares which were sprayed were much better and cleaner than those which had been left unsprayed.

A very interesting side experiment was carried out in a vineyard along the Niagara river road. Only a portion of this vineyard was sprayed, but the grapes on the unsprayed portion were shelling very badly, and many of them were "petrified." Downy Mildew was very abundant in the unsprayed portion, and there seems to be no doubt that the "petrified" grape is due to the attack of that disease. The sprayed part of this vineyard had but one application, in July, but even with but a single application the difference between the sprayed and unsprayed vines was very evident.

In most of the orchards considerable injury was done by the Grape Berry Moth. Should this insect continue to trouble us for another season, it may be necessary to add some arsenic solution to the Bordeaux, especially during the June and July sprayings.

On account of the unsatisfactory condition of the season for spraying experiments the Government will be urged to conduct the same series of experiments in the same vineyards for another season at least. Grape growing is a very large industry in the Niagara region, and it is very important that the grape grower should have definite information as to the best ways of controlling diseases on the grape in the most unfavorable seasons.

The power sprayer possesses the following advantages: 1st, the same number of men will cover two to three times the tree surface; 2nd, only about one-half the quantity of spraying mixture is needed; 3rd, the work is much better and more effectively done.—(W. H. Brand, Vinemount, Ont.

It will not do to over-estimate the results of spraying, but I am satisfied that, with one or two exceptions, the growers about Ingersoll, in whose orchards we used the government power sprayer, were well pleased with the results.—(J. C. Harris, Ingersoll, Ont.

## HOW FRUIT SHOULD BE PACKED

**T**HAT Ontario fruit growers are anxious to learn the best systems of packing fruit in boxes was evidenced at the Canadian National Exhibition by the interested crowd of fruit growers present at the packing demonstrations given in the dairy building by Mr. B. T. Boies, an expert packer from Coldstream Ranch, Vernon, B. C. The growers were not satisfied to merely watch the work, but persisted in asking questions. These were answered by Mr. A. McNeill, chief of the fruit division, Ottawa, or by Mr. P. J. Carey, Dominion Fruit Inspector, Toronto.

Mr. Boies showed that he had mastered the art of packing by the neatness and dispatch with which he handled the uneven samples that he was compelled to use. By placing in rows of two, three, four, five, etc., according to size, and the fruit on edge or on end, there are a total of about 60 different arrangements. The main point is to select that arrangement which will fill the box sufficiently full for putting on the cover and leave no slack.

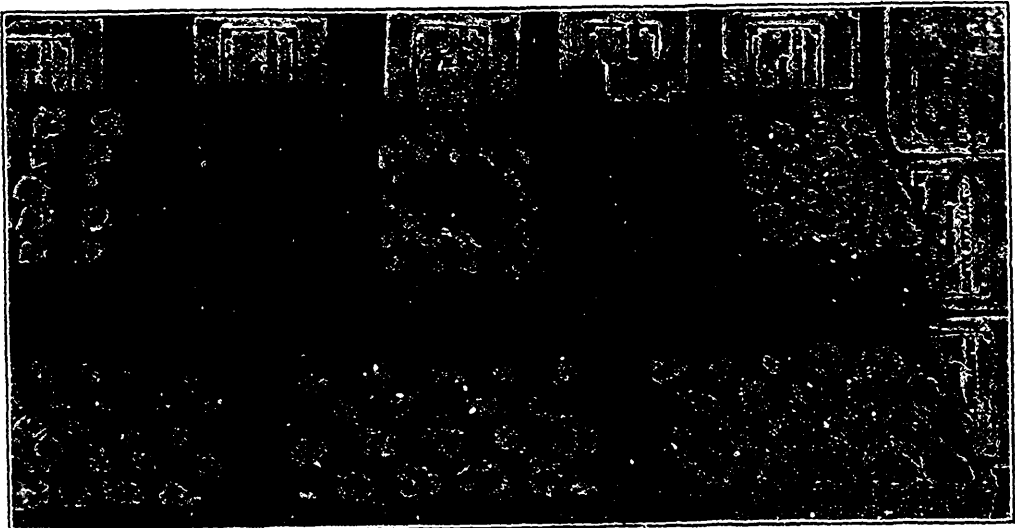
Mr. McNeill was asked if he would recommend making large shipments in boxes. He

replied he would not unless he had large quantities of first-class fruit. In British Columbia the growers use nothing but boxes and find their use pays. They should, he thought, also pay in Ontario. The British people are accustomed to our apples reaching them in barrels, and as they are slow to change they would look on our boxed apples with suspicion. The result at first would be they would not sell. It will take a few seasons to make Canadian boxed fruit popular on the British market.

In reply to a question regarding the use of foreign materials to face the box, Mr. McNeill explained that British Columbia packers use nothing between the face and the apple, but he said that it might be advisable to use pulp paper. Excelsior is condemned all along the Pacific slope.

### THE BOXES ON EXHIBITION.

The boxes which had been in competition in the fruit building were criticized. Some packers had not used boxes of standard size. Others used paper fillers to avoid spaces. If the fruit did not come to the top of the box several folds of newspaper were put in instead. Other exhibitors made



How Fruit Is Packed in British Columbia—Note the Different Arrangements of the Rows

their boxes secure by means of steel bands and screw-nails. These practices cannot be allowed. They will not do in commercial packing. No matter how good the fruit, these defects would warrant the judges in throwing the entry out. Not a single packer had used the proper nails. The best nail is a round, corrugated wire nail roughened so that it holds in the wood. The next best thing is an ordinary nail resined or put in salt so that it will rust. Tight boxes are not wanted. The lids should never be nailed along the edges. Proper nailing at the ends and cleating is sufficient. If nailed along the edges ventilation is hindered and the fruit heats unless continually in cold storage, and the value of elasticity in the sides is removed. There should always be a bilge, and as the apples evaporate the spring due to this bilge goes in to take up the resulting slack. The cleats are essential because when stored the weight of contiguous packages should come on the cleats and not on the bilge. Dove-tailed boxes are not wanted, as they are liable to burst open after being used a short time or if stored in a moist place. White spruce, free from knots, makes the best box. These can be made light and yet be strong, and spruce holds the nails well.

Some one wanted to know the quality of paper used in wrapping fruit. "The paper generally used," said Mr. McNeill, "is the regular duplex packing paper. It is calendered on one side and slightly thicker than ordinary paper. Any grained tough paper will answer the purpose."

An anxious grower remarked that there was no use packing apples in boxes when the Government will not take steps to secure the proper shipment of the fruit. Mr. Carey admitted that conditions were not the best, but claimed they were as good as they had been and growers had shipped with success for years.

"Orchardists object that the individual grower cannot ship his fruit," said Mr. McNeill, "but it is difficult to ship small lots of any commodity. Farmers should club together and ship in carloads.

"Cooperative packing establishments have been a success in several localities. Associations are incorporated for the trifling fee of 50 cents. The Government has lent aid by sending men to lecture on the advantages of these associations." The good work being done by the St. Catharines Packing and Forwarding Co. was mentioned to show what could be done in this line.

In reply to a question as to whether it would pay to use the California package for plums, Mr. McNeill said that it was not advisable for the local market, but that if we are to gain a place on the western markets that style of packing must be adopted.

Mr. Boies has been engaged by the Dominion Government to give demonstrations throughout the fruit districts. From Toronto he went to the Niagara district, and from there he goes east to Nova Scotia.

#### A TALK WITH MR. BOIES.

In an interview with *The Horticulturist* Mr. Boies said: "Growers in British Columbia have made a success of packing in boxes. Why cannot Ontario growers? In the west selling is done according to weight. A box of pears or apples is 30 pounds. Peaches, plums and grapes are put up in basket-crates, four square baskets to the crate, making about 20 pounds altogether. Many styles have been tested and these suit best.

There is a uniform standard along the coast from Mexico to British Columbia. In British Columbia the fruit inspectors will reject all fruit which is not in a standard package. One of the drawbacks in Ontario fruit conditions is the lack of a standard. Packages are allowed to come across the line in any package from a bushel to a

small hand basket. The result is the home grower does not know what he has to compete with.

"Growers in the west have no San Jose scale or codling moth to fight. These pests have been watched for since fruit growing began, and all diseased fruit or trees brought into the country is burned. In this way these fruit destroyers never get a hold in British Columbia.

#### NOT SUCH SLOW WORK.

"Ontario orchardists say that it takes too much time to pack their fruit in boxes. In the west an expert packer averages 70 to 100 boxes per day. He is paid at the rate of two cents per box. Since coming to Ontario I have packed a standard box and had it nailed ready for shipment in seven minutes.

"On the Lord Aberdeen estate at Vernon, B. C., about 40,000 cases of apples are handled in the fall. Pears and plums are handled in the same way but wrapped in paper for protection. To have this fruit keep well it must be picked at the proper stage of maturity and then handled with

care. Along the pacific coast a barrel of fruit is unknown.

"Ontario fruit can be handled in the same way just as successfully if proper care is taken. Early fruits especially could be handled in boxes to great advantage. Since the varieties are tenderer special care must necessarily be taken. Wealthy apples are shipped from British Columbia to Dawson City, and although they have to be transferred four times they invariably arrive in AI condition. The same fruit has been sent to Hong Kong and Sicney with similar results.

"Uniform fruit is the essential to speedy packing, and by putting only uniform fruit in a package the retail trade has something it can depend on. Over half of this grading for size is done when the fruit is small. The fruit is thinned on the trees, leaving each fruit equal chance for development. No patent graders are used after the crop is harvested. Each packer learns by experience to take only fruit of uniform size. The eye readily becomes trained. There are many ways of packing, but the main point is to have the exact package or a full box."

## THE SPREAD OF THE SCALE

J. FRED SMITH, GLANFORD, SAN JOSE SCALE INSPECTOR.

**I**T is impossible to tell just how far the San Jose scale has spread in Ontario during the past year, as in some localities, such as those where very little treating was done, it has spread more than in others. In the county of Wentworth, where some scale has been found, I cannot see that the scale has spread to any appreciable extent during the past year.

This is due to the spraying which has been done by those who have the scale. East of the city of Hamilton, in the county of Wentworth, I do not know of a man who has the scale who did not treat his trees. The local inspectors see that this is done,

and also watch to see how thoroughly the remedies have been applied. In the county of Halton, where there is a small infested district, the work has been done well until this year, when no treating was done. The people thought that they had the scale so well in check that they could afford to miss one year. This is a mistake, for what little scale there is left (and I found some when making an examination last spring) will multiply and become more firmly established.

In the Niagara end of the peninsula the spread has been more rapid owing to the indifference of some of those who have the



scale. There are no local inspectors and it is left to each individual to spray or not to spray as the spirit moves him.

#### HAS SPREAD IN KENT.

In the county of Kent the spread has been by far the greatest, as it is the exception to find a man who sprays. There is one section of this wonderfully fertile county where the work is done systematically. This is near the city of Chatham, where they have a regular cooperative association and where the spraying is all done by one gang of men who spray not only for scale but continue

spraying for fungous diseases as well. I may say, also, that the packing and shipping of the fruit is all superintended by one man, Mr. W. D. A. Ross, and a more thoroughly efficient and practical man it would be hard to find.

In the scale centre of the county of Essex fairly good work has been done until the present year, when owing to the destruction of a large number of trees by the severe winters the people have become discouraged and I fear very little effort has been made to check the spread of the scale.

## THE FRUIT INDUSTRY OF 'THE DOMINION

A. M'NEILL, CHIEF OF THE FRUIT DIVISION, OTTAWA.

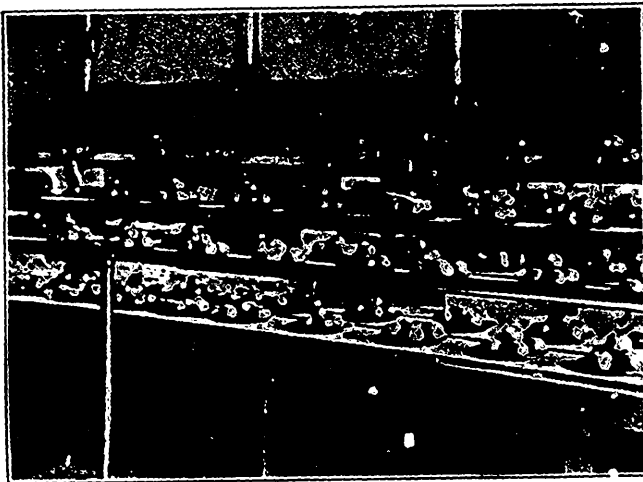
A GENERAL survey of the fruit interests of the Dominion was given at the Canada National Exhibition by Mr. A. McNeill, Chief of the Dominion Fruit Division. The trade, Mr. McNeill said, is in a healthy, perfectly normal, but nevertheless critical condition. Each province has problems of its own. From Prince Edward Island on the east to Vancouver on the west there is a range of climate and soil that gives a great variety of fruits, including the

tenderest apricot at one extreme and the crispy apple at the other.

There is this common experience that production has outgrown the consumption of local markets. Fruit growers, everywhere, are reaching out for the distant market. Many, however, do not realize the necessity of making material changes in their business to conform to the new conditions. It is a common practice to take the surplus that the local market will not absorb and

send it to the distant market with very indifferent success. The fruit arrives in bad condition. Small prices and dissatisfaction is the result. The growers blame the transportation companies and the commission men, who do not fail to retaliate in kind.

As a matter of fact the problem is a new one. Reform must be in the work of all three. The varieties that are most excellent for the one market are not always suitable for the other; transportation facilities good enough for



Shelves Containing Harry Dempsey's Forty Varieties of Apples

a short haul would not do for the long haul; and the commission men would be more than human if they did not occasionally take advantage of the man whose property they controlled absolutely, but who cannot examine the truth of their alleged facts nor make any audit of their books.

The problem resolves itself into four main factors: 1, getting better shipping facilities; 2, producing one or few varieties; 3, securing cheaper freight rates, better cars and quicker dispatch, and 4, instituting a better system of selling.

In speaking of better varieties Mr. McNeill pointed out that private growers could not be expected to produce and introduce new varieties. It was peculiarly the work of the departments of agriculture, dominion and provincial, to undertake this development. The appropriations for this work would not be in the interests of the fruit growers alone. They would benefit less, probably, than any other class. The merchants and mechanics in the distant cities, in getting more and better fruit, would in the greatest degree be affected by the improvements.

Grading, packing and packages are questions with which the fruit growers can deal directly. Speaking particularly for Ontario and the Northwest, he expressed the



St. Catharines Horticultural Society's Fruit Display at the Canadian National

opinion that these questions were fundamental. Having these in view the Canadian Department of Agriculture had secured the services of Mr. B. T. Boies from Coldstream ranch in British Columbia, an expert in grading and packing, with long experience in California and Oregon. Mr. Boies is showing eastern packers that proper packages and packing costs only a slight advance at initial points, and prices obtained have shown that this improvement is appreciated at the selling end.

As to the methods of selling, Mr. McNeill looked forward to the time when the shipping of fruit on consignment would be a thing of the past. The establishment of large fruit farms and cooperative methods among small growers would lead to direct sales where the buyer and seller would meet on equal terms to do business.

## PICKLES—HOW TO MAKE THEM

R. BLANCHE MADDOCK, GUELPH, ONT.

“ARE pickles good for one?” is a question frequently asked. The reply cannot be given in Yes or No. It is something like the “pie” question—harm-

less if properly made and sparingly used, but generally used to excess.

Vinegar, if used sparingly in salads and pickles, has an exciting effect on the diges-

tive organs, causing the digestive juices to flow more freely, thus aiding digestion. However, if many pickles containing vinegar, mustard and such condiments are used the digestive organs are retarded, thus preventing the digestion of other foods.

#### CUCUMBER PICKLES.

The most common pickle is the green cucumber, and perhaps no other vegetable or fruit is so often spoiled in the pickling. I have seen cucumbers of all sizes gathered and put into a salt brine for several weeks. They were taken out and put in jars and hot vinegar and spices poured over them. These pickles, when served, have a color resembling sauer kraut in a stage of final collapse and are about as pleasing to the palate as olives to the untrained taste.

In making cucumber pickles that will retain their green color and give a crisp, dainty flavor, the best brine is made from one gallon of water to one and a half cups of salt. Only small or medium sized cucumbers should be used and left in the brine three or four days or longer if necessary. While in the brine cover them with a flannel cloth that has been rung out of boiling water. This collects any scum that may gather and also prevents mould. Before pickling take the cucumbers out of the brine and place in cold water for 24 hours. Then put in a clean white cloth to drain over night. Wipe and put them in the preserving kettle (not brass) with vinegar, spices, red pepper and sugar. Tie up cloves and small spices in cheesecloth. Add the red pepper and one cup of sugar to three quarts of vinegar. Cook slowly for two hours. Small onions may be done with cucumbers if desired.

#### MUSTARD PICKLE.

An excellent mustard pickle may be made as follows: Take one quart of small white onions, one quart green tomatoes, one quart green cucumbers, three green peppers, one head of cauliflower and three heads of

celery cut fine. Cut the cauliflower, tomatoes (and cucumbers if necessary) in fairly small pieces and add a dressing made of the following. One-half cup flour, one-half cup mustard, one-half ounce mace in water. To this add one cup sugar, one-half ounce butter, and one and a half quarts of vinegar. Cook all together, stirring gently, till boiled. Then pour this over the vegetables and let stand at simmering point one hour before bottling.

#### GREEN TOMATO PICKLES.

Slice one peck of green tomatoes, six green peppers and four onions, strew a cup of salt over, and let stand over night. In the morning pour the water off and put in a kettle with a tablespoonful of ground cloves and the same of allspice and cinnamon tied in cheesecloth. Cover with vinegar and boil until soft, after which they may be bottled.

Chowchow can be made by taking one-half peck of green tomatoes cut fine, one-half peck of small onions, parboiled; one-half peck small cucumbers, nine or ten sweet peppers cut fine, one head of cabbage cut fine, one head of cauliflower (parboiled), one-half cup of salt, a large tablespoonful of turmeric, half pound of ground mustard, one pound of sugar, one-half teacupful of cornstarch, and vinegar to cover. This should be put over a fire and let come to a boil. After standing for one hour on the back of the stove it can be bottled.

Ripe tomato sauce is made from one-half peck ripe tomatoes, four onions, one-half head cabbage, six tart apples, one-half pound raisins, three-quarters of a cup of brown sugar, four tablespoonfuls of salt, three of ground cloves, two of allspice and one quart of vinegar. Chop tomatoes, onions and cabbage separately, and let them stand over night. In the morning drain off the liquor and mix with the other ingredients. Boil slowly for one-half hour or until the tomatoes and cabbage are soft.

## TOMATOES ALL WINTER.

While tomatoes, both green and ripe, may be used in making pickles and sauces innumerable, everyone prefers them sliced and served raw. With care they can be kept fresh and whole all winter. Select only medium sized, round ripe tomatoes. Cut off the green stem carefully in order to leave the top of the tomato sealed. Care should also be taken that the skin is not broken or bruised. Take a large stone crock, with smooth unchipped lining, and half fill it loosely with the tomatoes. Then add water that has been boiled and cooled. Lastly ring a flannel cloth out of boiling water and spread over the top of the crock. In a short time a scum will rise and gather on the cloth. This should not be removed unless it gets very thick, as a slight scum on the cloth collects any germs that may settle and prevents them from injuring the tomatoes.

## PICKLED FRUITS.

Peaches and pears are excellent when pickled. Select small but nicely matured fruit. After peeling put one or two cloves in each pear or peach and drop them into hot vinegar in which sugar has been dissolved (one cup of sugar to one and a half

cups of vinegar. Tie up cloves and cinnamon in cheesecloth and allow all to cook until fruit is tender (about 15 minutes). They should be bottled while hot. Talman Sweet apples make a delicious pickle done the same way. The apples should be cut in quarters and cooked until bright yellow. They should also be dipped out immediately, because if allowed to stand in the vinegar they become dark.

## MAKE USE OF THE CULLS.

Some use should be made of the cull fruit that is allowed to waste year after year. Small peaches, pears and apples may be gathered up, washed and put into the preserving kettle, stones, skins and all. Put on sufficient water to stew without burning. When soft put through a cullender and return to a slow fire with sufficient sugar to sweeten. If allowed to simmer slowly for one-half hour this makes a delicious marmalade for pies or cakes.

In cities large quantities of so-called jam is sold every year, made in most cases of one-half fruit and one-half turnips, carrots, and other vegetables. Girls on the farm might make a good deal of pocket money by gathering the waste fruit, making it into marmalade and selling it at the stores.

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**Wintering Canna Roots**

WM. HUNT, O. A. C., GUELPH.

When should canna roots be taken up and where should they be kept until spring?—(J. W., Kincaidine.

After the foliage of cannas has been blackened by frost, and before the roots are touched, they should be dug with a small quantity of earth adhering to them and placed under the veranda or in a shed or out-house safe from frost, and allowed to remain for about a week or two or perhaps more, being careful not to allow them to be touched by frost.

Remove the roots before severe frosts to a rather dry warm place in the cellar and keep them in a temperature never lower than 45 degrees, and not higher than 70 degrees. Canna roots will not winter successfully in a cold, wet cellar, but be careful to avoid the opposite extreme of a very hot dry position near the furnace, as this is equally as injurious to them as a cold wet position. If the cellar is of necessity very hot from furnace heat, pack the roots in dry sand or earth and keep them in the coolest part. Florists usually winter canna roots under the greenhouse benches.

## THE HAMILTON HORTICULTURAL EXHIBITION

THE fruit, flower and vegetable exhibition held in the Thistle Rinks, Hamilton, on September 12-14, was a complete success in that it created an increased interest in general horticulture. Owing to its being a very busy season with the fruit growers and to the fact that the fruit and vegetable growers of the Niagara District did not seem to fully understand the objects of the show, the exhibits of fruits and vegetables were not as large as might otherwise have been the case, but were very creditable nevertheless.

On Wednesday the school children of the city were given a half holiday and over 1,700 of them attended the show. A most successful excursion to the show was run by the enterprising St. Catharines Horticultural Society. These features added greatly to the success of the exhibition.

The prime object of the promoters was to aid the fruit, vegetable and amateur flower growers of the Niagara district, and in this they were most successful. The opinion of Mr. Roderick Cameron, of the Queen Victoria Park, Niagara Falls, is that the display of flowers in several ways eclipsed anything before held in Ontario. "It is a very creditable show," said Mr. Cameron, "and of special value to the amateur."

The rink in which the flowers were shown grows. A special feature of the work done by the Hamilton Horticultural Society was shown in the great display of window boxes and hanging baskets. The window presented a most pleasing appearance. The cut flowers, especially the gladioli and asters, were excellent. Encouragement had been given to the growing of every variety. Prizes were offered principally to amateur boxes, over 20 in number, added much to the appearance of the building with their profusion of foliage and flowers.

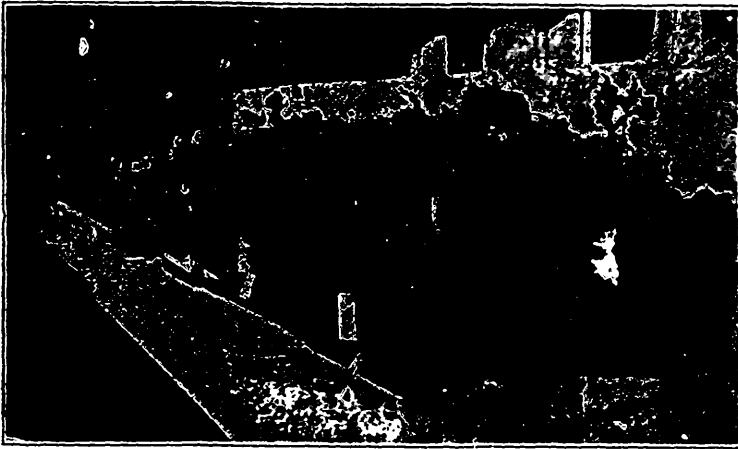
The display of commercial plants, including not less than 100 square feet area, de-

serves special mention. There were four entries, and the judges remarked that for real value they surpassed anything ever on exhibition at Toronto. The special features of the one which got the red ticket were the elegant group of palms of different varieties of which the centre-piece was composed, the *Cocos Weddelliana* palm, which is one of the most graceful for table decoration, and the elegant ferns. A little more color on this group would have made it nearly perfect. In the table which won second prize, the *Araucaria excelsa*, was the best in the show, and the color effect was good, but the centre-piece *Ficus elastica* was rather tall and ragged. The centre-pieces were the weak points of the other two entries.

A fine sample of the work done by horticultural enthusiasts in Hamilton was seen in an excellent display of native ferns by Dr. Storms. The doctor had a collection of 33 varieties of ferns native to Canada, each carefully numbered and the names typewritten so that everyone could get the correct name. Some of the varieties, such as *Asplenium augustifolium*, *Aspidium Goldieanum*, *Polypodium sculari* and three specimens of the royal ferns are very rare. As a further encouragement to fern growing Dr. Storms purposes offering a special prize next year for a collection of ferns.

The pendulous fuchsia, the variegated leaved begonia, the scarlet *Salvia*, the twining English ivy and many specimens, such as the Rubber plant, *Dracena*, *Oleander* and palm, plainly demonstrated the place of the amateur at the show.

It is claimed by Mr. Cameron that Canada is sadly lacking in evergreen shrubs and plants to decorate her landscape in winter and afford shelter and protection to our numerous birds, which are forced to go south when cold weather comes. To show what can be done to change this state of af-



**A Portion of the Cut Flower Exhibit**

fairs he had on exhibition over 100 varieties of evergreen plants which withstand Jack Frost's attacks at Niagara Falls.

**PRIZE WINNERS.**

Prizes were awarded to such well known amateurs as Wm. Colvin, J. Sweetlove, J. O. McCulloch, Dr. Storms, L. C. Hildebrand, A. O'Heir, A. Alexander and numerous other flower lovers of the city. For window boxes Mr. W. Newberry won first, A. O'Heir second, and J. Sweetlove third. Miss Elsie McCulloch won the red ticket for bouquet of garden flowers, Mrs. A. G. Pettit secured second and Mrs. Wm. Cox third.

In professional or commercial plants or flowers the prizes were divided among The Webster Floral Co., Walter Holt. Sones Bros., E. G. Brown. Chas. Mason and H. P. VanWagner, of Hamilton, and P. Murray, of Niagara Falls. The Webster Floral Co. won the silver trophy which was given to the professional making the best display in the commercial class. The Steele, Briggs Seed Co. had a fine display of bulbs, seeds, flower fertilizers and sundry lines handled by that firm, while the Foster Pottery Co. had a show of their well known flower pots.

The show of vegetables was conspicuous

on account of its absence. Many growers who had made entries claimed that the wet weather of Monday previous to the show prevented them from collecting the vegetables, while others decided not to enter the competition because they did not expect the show was going to be in their line. The speci-

mens of vegetables shown were good, and it is to be hoped that next year will find the vegetable department full. The prizes went to F. Simmet, J. Tregunno, M. E. Burton, D. A. Hyslop, A. Davis and G. E. Horning.

**IN THE FRUIT BUILDING.**

The condition of Ontario's fruit crop for 1905 was plainly shown by the exhibit on the benches. Apples were of fair size but very much lacking in color. Peaches, though a good crop, were very scarce, probably because they are late in ripening, and only a few varieties were sufficiently mature for exhibition purposes. Pears and plums were perhaps the best, although there was also a fine display of grapes.

The most creditable as well as the most instructive feature was the display of fruits from the Experiment Stations of the Niagara district. Too much praise cannot be given the Ontario Department of Agriculture for sending this exhibit, nor to Mr. L. Woolverton, of Grimsby, superintendent of the Experiment Stations, for the tasty arrangement of the different fruits. Six tables were filled with the exhibit and everything was carefully labelled. Placards such as "These varieties of Japanese plums

were originated by Luther Burbank, the wizard of horticulture. They are wonderfully productive, but not equal to the European plums in quality"; "First-class commercial pears for home market—Giffard, Clapp's Favorite, Bartlett, Boussack, Anjou"; "The best dessert apples to cover the season are Sweet Bough, Chenango, Fameuse, Louise, Swazie and Spitzenburg," and "The King, Spy, Greening, Baldwin and Russet apples are the leading commercial varieties," were placed here and there on the tables, and Mr. Woolverton was there all the time to answer questions.

The chief object in arranging this exhibit was to give information regarding desirable and undesirable varieties. This point was well brought out with grapes. One large table was filled with varieties from Mr. Pettit's experimental plots, which are not recommended. This could be made a very valuable feature if the same were done with all the fruits and a display similar to the one at Hamilton made at all the leading fairs. There are about 150 varieties of grapes grown in Ontario, and from these the secretary recommends Lady, Green Mountain, Niagara and Diamond for white; Moore's Early, Worden, Concord and Wilder for black, and Lindley, Delaware, Brighton and Agawam for red. These 12 cover the season and are excellent varieties. For the home garden Moyer (red), Early Ohio (black) and Green Mountain (white) are recommended.

From the Burlington station Mr. A. W. Peart sent a mixed collection of currants beautifully put up in formalin. The branches with the fruit attached had been preserved. Besides these there were some good pears and apples from that station.

Three large tables were covered by fruit from Mr. Woolverton's plots at Grimsby. Many bottles were filled with the different fruits nicely preserved in salicylic acid. Japanese plums were a feature on one of these tables. The secretary informed The

Horticulturist that these plums are much inferior to the European varieties and are never likely to take their place for domestic uses. Golden Prolific and Hale are recommended as the best, while Red June and Abundance are good but not yet ripe enough for exhibition purposes.

Another interesting and instructive exhibit was that of insect and fungous diseases. This display was also due to the action of the Department of Agriculture and was in charge of T. D. Jarvis, L.S.A., of the Entomological and Zoological Department of the college. Specimens of fruit from trees infested with San Jose scale had been collected from trees which have been sprayed and from unsprayed trees. Although these samples had not been selected to show the best fruit from sprayed or the worst from unsprayed trees, the benefit of spraying was clearly demonstrated.

Specimens of plums, peaches, cherries and grapes affected with rot, pear scab and grape mildew were in this collection. Small vials containing the different spraying mixtures and the formula for making each, weeds and weed seeds and infested branches, leaves or fruit, showing the effect of insect or fungous attacks made up the balance of this exhibit. Large magnifying glasses were supplied, and under these specimens of the scale and fungous diseases were examined by those interested.

The Women's Institutes had a booth, and anxious housekeepers received many valuable hints on the methods of canning and preserving from Misses Smith and Shuttleworth.

A display of jams by E. D. Smith, of Winona, added much to the appearance of the building, and many went on their way rejoicing with a small jar of this excellent brand of jam. The famous "Little Giant Sprayer" was the only sprayer present.

As the gate receipts were nicely ahead of the estimate the management feels well pleased with the success of their venture.

## SUCCESS WITH APRICOTS

**T**HE apricot is generally supposed to be much less hardy than the plum. There are, however, some varieties which thrive wherever plums do if clean cultivation is given during the early summer and protection by means of cover crop or mulch during winter. A member of the staff of *The Horticulturist* saw two fine trees well laden with fruit in the garden of Mr. John Ewing, of Rosemont, last August.

The garden in which they stand is almost level, but immediately to the north the land slopes to north and west. Protection is given on that side by two rows of walnut trees with a row of Russian mulberries between.

"I procured the trees from a Canadian nursery firm over 12 years ago," remarked Mr. Ewing. "They were set where they now stand as early in the spring as the ground was fit to receive them. Both have done well and I get a good crop every second year. The greatest trouble is keeping them from blooming too early. To retard the bloom I put a heavy mulch of sawdust around the trees after the frost is in the ground. In this way I can delay the blossoms 10 days and sometimes longer.

"The soil is a nice clay loam and is always kept cultivated. They bear as heavily as plum trees of the same size, and the fruit makes excellent preserves. The fruit ripens about August 15, or slightly before the plum crop comes in."

### Cut Out Old Canes

**W**HEN the crop of raspberries is harvested," said Mr. J. A. Pettit, of Grimsby, to a representative of *The Canadian Horticulturist* recently, "I go through the patch and cut out all the old canes and leave them lying on the ground between the rows until the following spring. They hold the snow and thus are a protection during winter. When the snow is

gone I trim off the tops of what canes were left to about three feet high, and all rubbish is removed and burned."

"As soon as the raspberries are done," says Mr. J. M. Metcalf, of Grimsby, "I go through the patch with a spade and take out all old and diseased canes. These are burned so that the diseases will not have a chance to spread. My patch has been running about 16 years and gives fruit of as good quality as it did the second season."

The method adopted by Mr. A. W. Peart, the well known fruit grower of Burlington, is to prune out all old wood and superfluous young wood as soon as possible after the fruit has been harvested. "The sooner it is done the better," said Mr. Peart, "because the strength which goes to the superfluous young wood should be going to the bearing wood of next year. It is not wise to leave the canes which are cut out on the ground because they harbor mice and fungous diseases. They should be burned immediately."

### Buying New Raspberry Plants

**W**HEN getting in a new variety of raspberries from a distance," says Mr. J. A. Pettit, of Grimsby, "it pays best to get only enough to plant a few rows. Then the young suckers can be taken from these the following spring, when just coming up, and the remainder of the patch set out. This can be done with success if the young plants have not to be transferred too far."

Columbia raspberries yield more to the acre than the Cuthbert, but they are not so good for table use.—(W. A. Best, Picton,

We are apt to form our opinions of the people whose homes we pass on our way to and from business by the neat appearance or otherwise of their home environments.—(P. G. Keyes, Ottawa, Ont.



## BULB POTTING AND PLANTING

WM. HUNT, O. A. C., GUELPH, ONT.

**T**O secure early flowers from winter and spring flowering bulbs, the bulbs should be potted early in the autumn. A few of the early flowering Roman Hyacinths should be potted. There are several colors of these easily grown. The white variety is the best.

Three bulbs can be put in a four or five-inch pot. No drainage, excepting the hole in the bottom of the flower pot, is necessary. When grown properly, these and all similar kinds of bulbs require all the room in the pot for roots, without putting in cinders, etc., for drainage. Dutch Hyacinth bulbs should be put one in a four or five-inch pot. These can be had in a variety of colors, single or double.

Almost all varieties of the Narcissus family succeed well when grown in pots for the window. The Paper White is about the earliest flowering and is easily grown. The rather rank odor of its flowers are, however, objectionable to some people. The following varieties will be found to be good for growing in pots: Poeticus, Poeticus ornata, Von Sion (true Daffodil), Golden Spur, Horsfieldii, Emperor, Bicolor, not forgetting a few of the sweet-scented Jonquils. Two or three bulbs of Narcissi can be planted in a four or five-inch pot.

Tulips, Crocus, and Snowdrops will not

give as satisfactory results in pots as those just mentioned. They are better for planting out of doors in beds or borders.

In potting bulbs use fairly rich loamy soil. Press the soil firmly around the bulbs, leaving the surface about half an inch below the top of the pot. Water them so that all the soil is well moistened. Then stand the pots where they can be covered with two or three inches of coal ashes, sand, or light garden soil until the bulbs are well rooted. About five or six weeks in this condition is usually sufficient to enable them to secure good roots. Securing good roots to the bulbs, before they are brought out into the light, or before they make much top growth, is the great point to be gained in the pot culture of bulbs.

A good place to bury the pots is in the garden where they can be protected with leaves if severe frosts set in, or the pots can be put in a cellar or root house and covered up as directed. The pots can—after the bulbs are rooted—be placed in the window at intervals of a week or two to ensure a succession of flowers.

Bulbs of the kinds mentioned may be potted as late as December or even later, but the earlier potted bulbs usually give the best results, as the bulbs lose vitality to a certain extent when kept dry too late in the winter.

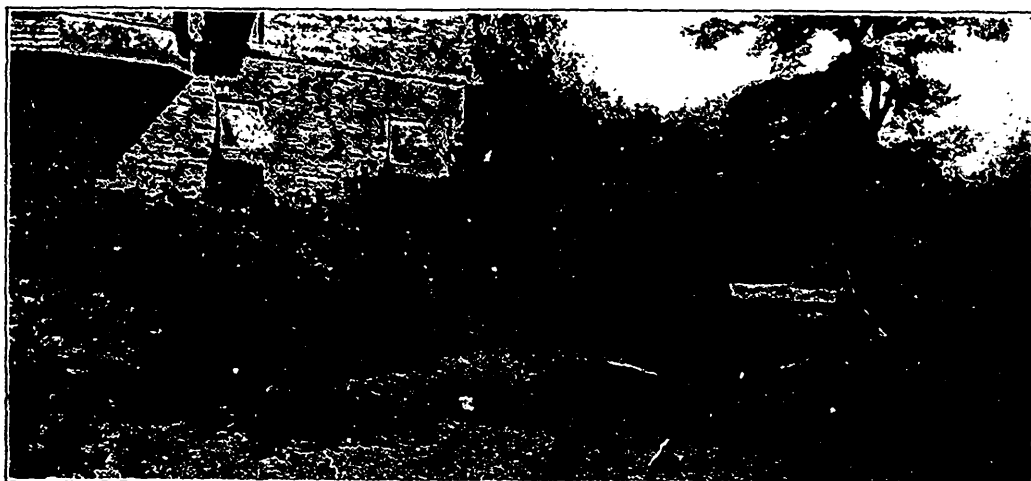
## A GENUINE HORTICULTURIST

RODERICK CAMERON, NIAGARA FALLS SOUTH, ONT.

**R**ECENTLY I enjoyed spending a few hours at the residence of Mr. James Goldie, in Guelph, and was much impressed with all I saw and heard. Mr. Goldie and his good wife seemed to possess the secret of youth and of happiness, which secret I felt was in some mysterious way connected with their daily study of horticulture. Truly they live very near to nature's heart.

With the hope that the readers of *The Horticulturist* may get a glimpse of what so delighted me and perchance an inkling of their secret, I venture a short report.

Mr. James Goldie, of the People's Mills, of Goldie & Sons, Guelph, is a name familiar to most Canadians. As a man of business he has been eminently successful. In early life Mr. Goldie, who is now 83 years



A Corner in Mr. Goldie's Garden

old, and who has retired from active business, took up the study of gardening, which he thoroughly mastered because it was to him a labor of love. After entering on a business career he still devoted much time to his favorite study, until to-day he is not only one of the most ardent advocates of floriculture in the Dominion, but he is also one of the most enthusiastic botanists.

The artistic manner in which the grounds around his fine residence are laid out with the choicest of trees, shrubs and flowering plants bespeaks his knowledge, his culture, and his refinement. They seem truly the visible expression of his inner self. To see these choice and valuable plants in such a variety and in such abundance surprised and delighted me.

Notable among these plants were to be seen the *Gentian Acaulis*, an old inhabitant of British gardens, but in this country very rare. It grows six inches high, producing tubular blue flowers, and is one of the most beautiful of hardy perennials. There was, also, the best collection of *Primulas* I have seen in Ontario, and in many species and varieties. The *Violas* or tufted pansies are the finest in the Dominion. His varie-

ties of perennials are legion. Nor have the orchids been overlooked. They can be seen in large clumps in select spots in the garden. The lily family, too, have a place, and the *Retinospora plumosa*, *R. plumosa aurea*, *R. obtusa* and many other varieties of evergreens also seem to be at home.

The ferns are great favorites with Mr. Goldie. Among his collection may be seen a large number of the rare fern, *Aspidium Goldieanum*, one of the most beautiful native ferns we have. This fern was discovered and named after John Goldie, Mr. James Goldie's father, who, being a great botanist, was sent out to Canada by the British government before the time of trunk railroads, on a botanical expedition. At that time Mr. Goldie had to foot it from Montreal to Albany.

From his father Mr. Goldie has inherited his love for the beautiful, and this heritage he would perpetuate to all within his reach for Mr. Goldie is not content to live to himself alone in his garden of the beautiful, but is ever active in trying to promote more love for floriculture. He has probably imported and exported at his own expense more plants and seeds than any other private in-

dividual in the province. Mr. Goldie is a public benefactor in the strongest sense of the term, though, perhaps because of his quiet method of working there is no other public benefactor who is receiving less cognizance for his achievements.

Mr. Goldie holds the view that horticulture is ever the forerunner of all other successful cultivations, hence his zealous desire to promote the love for flowers. The gardener's position he would elevate; the ideal gardener has to him as large an outlook and as broad a field as that of the so-

flowers, has broadened with his years. Birds and animals now have a share in his affections. The fine arts, too, have a place. Inside his home may be seen many beautiful and costly paintings, statuary and cases of stuffed birds, while outside pans of water and food stand here and there. The birds, the beautiful and now rare wood duck, the English, the Golden and the Silver pheasants, are being domesticated in numbers by domestic hen. The birds from the tiny wren to the proud black swan seem to know their host and to enjoy the provision r.ade



View in Mr. Goldie's Lawn

called learned professions. The pruning knife in the hands of his ideal gardener can be handled he maintains with as much love and dignity as can the knife of the surgeon.

Mr. Goldie's love for the beautiful, though confined in early life mostly to the

for them. Even the English sparrow that is despised by the majority of agriculturists have a friend in Mr. Goldie, and it is pleasing to see the delight he takes in telling in a whisper (so that the farmers do not hear him) that he imported the sparrow.

We should encourage amateur floriculture because well kept gardens and grounds are pleasing to others as well as to ourselves. They make our homes beautiful, and also our city. The love of culture of flowers has a refining influence on all and the presence of flowers must tend to the good of our children.—(E. Mepsted, Ottawa.

The geranium is the most popular window plant, as it is so easy of culture. Given a fair chance, it seldom fails to bloom during the winter.—(Mrs. W. J. McLenan, Appleby, Ont.

For exhibition purposes cut asters with as long stems as possible.—(Wm. Hunt. O. A. C., Guelph.)

### Flowers at the Exhibition

THE exhibit of annuals and perennials at the Toronto exhibition was fully up to the average. Special mention can be made of the sweet peas shown by Mrs. Johnston, of Lennoxville, Quebec; the asters shown by J. H. Lock, and the dahlias and gladioli shown by W. Rennie & Co. Among the many prize winners were the following: W. Rennie, J. H. Lock, Steele, Briggs Co., W. J. Hare, Toronto; C. Scott, J. W. Stockdale, Jas. Ogilvie, H. L. Oaken- den, Peter Stevenson, A. M. Wilson, E. Grainger, Peter Murray, E. Byfield, and others. In was the opinion of different exhibitors that a more unsuitable building would be hard to find in which to exhibit flowers. Nature's most beautiful products should have a better building. No other class of exhibitors have been given as little attention as the flower and fruit growers. It is time for a change.

### Pruning Hedges and Shrubs\*

WM. HUNT, O. A. C., GUELPH, ONT.

What is the best time of year to prune cedar hedges, syringas, etc.?

About the end of April or early in May is the best time to prune a cedar hedge. It should be done before the new growth commences, which is usually about the end of May. Many prefer trimming or pruning evergreen hedges in the fall, as there is usually more leisure time at that season of the year. The objection to fall clipping or pruning of evergreens is that it leaves them bare and rusty looking all winter, the season of the year when evergreens in good color are the most appreciated and admired.

Syringas and almost all flowering shrubs can have all the pruning they require at almost any time from early spring until fall. A large collection of flowering shrubs that I planted over 25 years ago have been kept

in splendid shape by an annual pruning or thinning out of the most prominent shoots here and there where required when the shrubs were in flower. If carefully done they can be prevented from growing too large and kept symmetrical and natural looking as well. Flowering shrubs should never be clipped with the shears in July, as is too often done, as it removes almost the whole of the flowering wood for the next season. Besides, it gives the shrub an unnatural appearance. The *Hydrangea Paniculata Grandiflora* is an exception to this system of pruning. This plant should have the young growth pruned back either in early winter or early spring when the wood has ripened well. The young wood should be pruned back so as to leave three to six inches of the base of the young growth. These spurs will throw good strong blooming wood the following season.

### Flower Notes

IN SELECTING PANSIES for a show it is a strong point to have the belting or margined colors as perfectly defined as possible. To secure this it may be necessary to shade the flowers from the sun should it be very bright weather. Pick the bloom with as long a stem as possible, and in arranging them in the dish or vase keep the colors as distinct as you can, as it will help to bring the different shades into effect.—(E. F. Collins, Toronto, Ont.)

Water your plants well before bringing them in and they will not need much water for the first week or two. After they have become accustomed to the change and begun to grow, water twice a week, and when the days grow longer, three times a week. Perhaps some will need more. I had some pans made to fit my shelves and find them a great improvement on the old way of having saucers for each pot.—(Mrs. W. J. McLenahan, Appleby, Ont.)

\* A question asked at the convention of the Canadian Horticultural Association, held in Montreal during August.

## PERENNIALS FOR CUT FLOWERS

RODERICK CAMERON, NIAGARA FALLS SOUTH, ONT.

COLOR and variety in perennials are legion. For this reason it is a very difficult matter to decide on the specimens which suit best. No two persons have similar tastes in this regard, and perhaps no two would select the same plants. However, there are numerous good species which give general satisfaction.

### PRIMULA—PRIMROSE.

The hardy primroses are among the most beautiful of our spring plants. *Primula vulgaris*, and the garden forms of it, thrive admirably at Niagara Falls. The climatic conditions help in this, but the soil in which they are grown is the principal agent. It is a loose, rich, black loam that is always moist. *Primula officinalis*, or cowslip, and *Polyanthus* thrive under the same conditions. On account of their early flowering (May) they are valuable as cut flowers. They take kindly to pot culture also and are grown for the decoration of conservatories. They grow from eight inches to a foot high, and in several shades of color. They are not reliably hardy in northern sections and should be protected.

### CONVALLARIA—LILY OF THE VALLEY.

This plant is well known to everyone, and is noted as a cut flower the world over in June. It grows to a height of about nine inches.

### PEONIES—PEONY ROSE.

Peonies bloom in June, and are among the noblest and most beautiful of hardy plants. They are practically indispensable as cut flowers and for the border, and are beautiful in foliage without flowers. There are to be found among them every shade of color imaginable. The *Anemone* flowered varieties are the best and most beautiful and they are as hardy as the others. There are several excellent varieties among the tree peonies that should be grown by all lovers

of flowers, particularly the variety *Montana*, upon which I have counted as many as 150 open blooms at one time. The tree peonies are not reliably hardy everywhere; therefore, I would rather advise the planting of the herbaceous sorts. The following half-dozen will be found among the best: *Grandiflora*, pure white; *Carnea triumphans*, large flesh color; *Dr. Andry*, rose, centre light, extra good; *Edulis superba*, extra large, color carmine; *Anemoneflora*, one of the best of the genus, bright rose color.

### ANTHERICUM—ST. BRUNO'S LILY.

I find if these are grown in clumps they are very beautiful, graceful, and fine to cut for small vases. The flowers are pure white and very hardy. They are also very fragrant. I grow two varieties, *Lilium majus* and *Lilium*, height two feet. They bloom in June. I find *Lilium majus* to be the best, yet they are seldom seen in gardens.

### RUDRECKIA—CONE FLOWER.

There are many excellent varieties among these suitable for the border. They are admired by many for the gorgeous display they make when in bloom. They may be classed among the flowers familiarly known as "cut and come again" variety. *Golden Glow* needs no description, but I would advise cutting off one half its growth. This will prolong its blooming season two weeks and do away with the necessity of staking. The flowers will be just as large and produced just as freely as if they were allowed their freedom. The best varieties I find to be *Golden Glow*, yellow, eight to ten feet high; *Californica*, dark centre, yellow, four feet high; *Newmanii*, yellow, dark centre, two feet high, and our native variety, which is not to be despised, named *Hirta*, yellow, dark centre, 2 feet high. All bloom in August and September.

The pinks resemble carnations in foliage and flower and in fragrance, but the plants are shorter. They are equally good for cutting. The following will be found among the best varieties: *Dianthus plumarius*, garden or Scotch Pink; *Dianthus plumarius alba plena*, double white pink; *dianthus plumarius roseus pleno*, double, rose color. They bloom in June and grow to 18 inches high.

#### THE IRISES.

The Irises resemble each other in foliage and habit. Some produce flowers eight to 10 inches across, and in every shade of color found in flowers, many equalling tropical orchids. They are prized highly as cut flowers for vases, and as decorations for bridal parties. I will name six of the Germanicas first: *Atropurpurea*, purple, early; *Aurea*, golden yellow, very good; *Florentina*, white, free, sweet scented; *Flavescens*, primrose yellow, large and fine; *Innocence*, pure white, one of the best; *Mad Chereau*, white edged violet, good. Height two to three feet. They bloom in June.

The *Iris Kœmpheri* bloom after the Germanicas. *Blue Danube*, indigo blue, yellow center; *Eclipse*, reddish purple, very good; *Malmaison*, light veined with blue; *Othello*, rich purple, lighter center; *Turban*, light pink, purple center; *Orion*, reddish pink, are among the best of these.

#### ASTILBE OR HERBACEOUS SPIRÆA.

All varieties of these plants are very free blooming. There is nothing more graceful as cut flowers for all purposes, and they are very hardy and easy of culture in any good garden soil. They flower during June and July, and their color is pure white to bright pink. They grow to a height of two feet to six feet. The following will be found to be the best. *Spiræa filipendula flore pleno*, two feet, producing pure white double flowers; *Spiræa palmata*, two to three feet, flowers bright pink; variety *Palmata*

*alba* is the same in every way, but produces white flowers; *Spiræa palmata elegans* is one of the most beautiful of all, flowers light pink, in long spiral plumes, four feet high; *Spiræa Japonica compacta* is one of the best and is much used for forcing, two to three feet, flowers white; *Spiræa*, variety *Gigantea*, grows to six feet high, flowers pure white in large flat panicles.

#### LILIUMS.

The liliams are pronounced to be the choicest of all cut flowers, but I would not advise the general growth of them unless the soil and situation are suitable to their requirements. They degenerate and are damaged by heavy freezing on ordinary soil in exposed places. They can be grown fairly well in all soils, but there must be fresh imported stock added from time to time, as two years is their limit. Most lilies do well at the foot of a north sloping wooded bank, if the soil is black much and vegetable matter, mixed with fine sand, a foot deep, with a clay loam subsoil. If there is enough spring water in this soil to keep it moist the lilies will do well. The spring water being warmer than the air passing through the soil prevents its freezing. Besides, the soil is not raised up and down by the action of the frost as is the case with other soils. This prevents the bulbs from being broken and destroyed.

The following will be found to give the best results: *Lilium candidum*, Japan lily, or St. Joseph's lily, four to six feet high, flowers white, July; *Lilium speciosum*, *L. speciosum rubrum*, and variety *album*, grow two to three feet, and bloom in August; *Lilium auratum*, or Golden-rayed Lily of Japan, is often seen in yards near the Falls. It is the queen of all the liliams, but like the others does not last more than two years. *Lilium Hansonii*, *Hanson's*, will outlive any that I know in this section, leaves in whorls, flowers yellow and spotted,

flowers average about ten in number. *Lilium Isabellinum* and *candidum* are the commonest grown here. *Isabellinum* grows to five feet, flowers yellow with a reddish tinge, eight to twelve flowers, is one of the best. Bloom comes in July.

#### KNIPHOFIA—RED HOT POKER.

These are known by several names. Seven varieties grow in the park and all are good and worth cultivating. As cut flowers, with bright colors for autumn, there is no flower in the border can equal them. They grow two to five feet high and are perfectly hardy if treated as recommended for the lilliums, all but the situation, which should be an open sunny place. Many of them die because the water is in the clasp-



**Kniphofia—Flame Flower**

ing sheathlike leaves around the crown, freezing there and rotting the crown. Late in the fall all the leaves should be twisted into a knot around the crown, and on this knot should be placed a piece of board or stone to shed the water. The whole should be covered with leaves or soil so as to appear like a hill of potatoes. Varieties *Grandi-*

*flora* and *Pfizerii* are the best. A fine specimen of the latter is shown in the accompanying illustration. Names commonly applied to the plant are *Tritoma*, *Flame Flower* and *Torch Lily*.

#### LATHYRUS—EVERLASTING PEA.

It is only where the lathyrus has been allowed its freedom for several years, and upon damp rich soil, where it can continue growing and be allowed to ramble over some branches at will, that its beauty and value can be appreciated. There is no better flower grown for cutting purposes. There are two varieties that should be found in every collection of perennials—*Lathyrus latifolius* and *Lathyrus latifolius alba*. The one is bright red and the other pure white. They grow six to eight feet high.

#### OTHERS WHICH ARE GOOD.

There are numerous other common plants which can be grown without trouble and which are very beautiful. Of these only brief mention can be made. *Centaurea Montana* produces five or six different shades of color. Bloom comes in July and August, and if the old stems are taken off flowering continues until late fall. *Henckera sanguinea*, or alum root, is fine in July. *Gypsophila paniculata* or chalk plant, *Thalictrum adiantifolium* or Maidenhair Meadow rue, and *Lythrum salicarium* or Loose Strife, a native of Ontario, should be in every perennial border.

*Phlox*, *Helianthus* or Sunflower, *Helenium* or Sneezewort, *Pyrethrum* or Feverfew, *Anemone* or Wind Flower, *Aquilegia* or Columbine, *Coreopsis*, *Callopsis* or Tickseed, *Delphinium* or Larkspur, *Gaillardia* or Blanket Flower, and many others are worthy of mention.

However, the lover of flowers can select from the specimens mentioned, and by getting a few seeds of new ones recommended in catalogues a collection suitable for a border in any garden will soon be found.

## THE BEST STORAGE FOR ROOTS

**A**S severe weather approaches the vegetable grower must attend to the harvesting and storing of his root crops. Light frosts do not damage them much, especially if there is a covering of heavy foliage, but if sufficient frost comes to freeze the ground there is danger of injuring the keeping qualities. Parsnips will stand more frost than beets or carrots. The harvesting of these crops entails considerable work. Different means can be adopted to lessen this labor. Special care must be taken not to injure the crown of the beet. The best plan is to twist the tops off. If a knife is used many of the roots are liable to be cut and rot soon sets in. With carrots and parsnips it matters little whether the roots are cut or not as far as affecting the keeping quality is concerned. When labor is scarce many growers take the tops off with a sharp hoe and then plow out the roots. A better plan is to plow along the row as closely as possible and then pull the roots and cut the tops off with a large knife.

Most growers leave part of the parsnip crop in the ground over winter. The objection to this method is that they cannot be dug before the frost is out in spring and by that time there is a meagre demand.

Where large quantities are grown the storing is usually done in pits. They must be kept cool. If put in a cellar where the

air is dry the roots wilt and become corky unless they are covered with earth or sand. Most growers recommend leaving them outside in pits with scanty covering until severe weather sets in. A temperature near the freezing point suits best.

"I generally leave about one-third of my parsnips in the ground over winter," said Mr. Wm. Naismith, Falkenburg, to *The Horticulturist*. "These can be dug in the spring as soon as they begin to sprout. I put them in a pit and put enough earth over them to keep them dark. If the light gets at them they turn yellow and become of poor quality.

"Frost will not hurt parsnips, and as there is not room enough in the cellar I leave them outside in pits. Only a light covering of earth is necessary. I leave an opening at each end of the pit to carry off the moisture due to evaporation. They keep well in cellars if covered with sand. A good plan is to barrel them in sand.

"Carrots and beets will stand considerable frost when in the ground, but none after they are pulled. Cellar storage, the same as for parsnips, suits them."

"I store beets, carrots and parsnips in an ordinary cellar," remarked Mr. Chas. Plunkett, Woodbridge. "The addition of a little sand around them keeps them as fresh as if they were in the ground."

## STORING THE CABBAGE CROP

**M**ARKET gardeners near towns and cities generally find cabbages a profitable crop. There is always a good sale during the summer for the earlier varieties and in late fall for later varieties, but the large growers have to winter over considerable quantities in order to have a supply for filling orders during the winter months. Every grower should aim at getting rid of the more mature heads or those which are nearly ready to burst, in the fall,

as they do not keep as well as those which are less mature.

Many experienced gardeners claim that a few degrees of frost does not injure the keeping quality of cabbage, but it does them no good, and severe freezing is very injurious. Most growers aim to have them stored before frost comes. If stored when in good condition good keeping varieties can be held over until spring.

Many methods of storage have been test-



ed. The prime requisite is that they be kept cold and moist. Warmth and dampness are sure to cause rot in a short time. Frost does little damage provided they are allowed to thaw out before being disturbed. The general method adopted by large growers is to put them in trenches and cover them with eight or 10 inches of soil and sufficient mulch to prevent hard freezing. Others recommend putting them directly into a cool cellar and storing in bins three or four feet wide so that a free circulation of air is allowed. For small growers who wish to keep a few over winter for home use the best plan is to bury the head in sand or to heel in the roots. In every case all the loose outside leaves should be removed before storing.

"If planted late," said Mr. Guthrie, of Wright avenue, Toronto, to *The Horticulturist*, "the St. Dennis is a good keeper. When planted early 50 per cent. of them crack. Quintal is one of the best keepers. The Drumhead Savoy also gives good satisfaction. As a rule I do not pull late varieties of cabbage before November 15. They should be pulled and left roots upward for a week or so to allow all the water to drain out. If water remains in the head rot soon develops.

"I store them root and all because they keep much better. They require too much room in a cellar, so I put what is not sold before winter into long pits. Large ones can be laid two deep, while smaller ones will keep well if three layers are placed. They are put on the surface and furrows turned in with just enough space between to allow the cabbages to be placed roots together and heads outward.

"Then they are covered with clay. The less soil is put over them the better as long as they are covered. I want them to be frozen as hard as frost will freeze them, but alternate freezing and thawing would spoil

them. An air hole is left at each end so that there is no danger of their heating.

"In the fall I always store some in the cellar for present use. When more are needed a pit is opened and enough are brought in to fill sales for two or three weeks."

"I have a special frost-proof cellar for celery and cabbage," said Mr. J. E. Terrill, of Picton, to a member of *The Horticulturist* staff who visited his place recently. "The cabbage are pulled about the first week in November and the roots cut off. Then they are piled in this storeroom in pyramidal heaps, bottom side up, so that the water drains out. If they are put in when wet, rot sets in. They do not rot so quickly with the roots cut off and piled this way as they do with roots on. I can have nice solid cabbage up to May 1 easily."

The method practised by Mr. Jas. Gibbard, of Doncaster, is to plow two furrows toward each other, leaving space enough for piling two rows of cabbages with the roots together. "When one layer is put in," said Mr. Gibbard, "I cover it with earth. Then another tier of cabbage is put on and again a thin layer of earth is added. Cabbage are then put along the centre to round the pit up nicely, and the whole is covered with eight or 10 inches of earth. In case heavy frost comes without any snow it is well to cover with long manure. If the deep covering is not added until hard frost comes there is no need of air holes.

"Some growers claim that heavy frost does not hurt cabbage, but I find that those on top are always the first to go, and in the winter of 1903 I lost many, so I have decided that hard freezing damages them."

I prefer using compost as a fertilizer in the fall on my garden, and then there is no need for spring plowing.—(Geo. Benner, Burlington, Ont.)

## VEGETABLES AT THE EXHIBITION

THE display of vegetables at the Canadian National Exhibition was not as large as the extent to which truck gardening is carried on in Ontario would warrant. Whether this is on account of poor treatment at the hands of the exhibition management or because of poor crops this season could not be definitely learned from the gardeners. A general lack of interest seems to be the real cause. One exhibitor claimed that some valuable prizes had been withdrawn from the vegetable prize list, while another explained that fourth prizes had been added in several sections to make up for this withdrawal. To say the least, the competition was not as keen nor were the entries as numerous as they should be. The prize winners could almost be counted on the fingers of one's hands.

Growers from Humber Bay carried off many prizes. In beets the awards went to J. B. Guthrey, Dixie, and W. Harris and J. Dandridge, Humber Bay. The prizes for the different varieties of cabbage were divided among R. J. Taylor, Brantford; W. Harris, Brown Bros., and J. Dandridge, Humber Bay, and J. B. Guthrie, Dixie, while Harris and Brown Bros. carried off first and second for best collection of cabbages.

The display of onions was very good.

The prizes went to Harris, Brown Bros., Guthrey, Dandridge, Taylor and F. W. Krause, Guelph. The prize parsnips were owned by Chas. Plunkett, Woodbridge; Wm. Naismith, Falkenburg, and Taylor. A fine collection of peppers owned by R. J. Taylor deserves special mention. S. D. Furminger, Guthrey and Harris shared the prizes with Taylor for peppers. W. Harris won first and Guthrey second for collection of table squash.

### WINNERS FROM MUSKOKA.

The vegetable-growing qualities of Muskoka soil were shown by the fine specimens shown by Mr. Wm. Naismith, of Falkenburg. His fine collection of potatoes won first place this year for the fourteenth time in succession. This year he carried off every first but one in potatoes. When Mr. Naismith gets a new variety of good quality he does not hide it in one corner of his cellar for fear some other grower might get some for seed. He brings the best of them to the Toronto exhibition, so that others may see what can be grown, and sells all he has to spare.

The prize for collection of garden herbs went to Chas. Scott, of Melville Cross. For collection of vegetables W. Harris won first, J. B. Guthrey second and Broadview Boys' Institute, Toronto, third.

## EXPERIMENTS IN GROWING POTATOES

THE effect of certain arsenites on potato foliage is dealt with in Bulletin 267 of the New York Experiment Station. Experiments were carried on with Paris green and arsenite of lime. The former was applied four times by the three common methods: with water, with lime water, and with Bordeaux mixture. Rows were left unsprayed for checks. As high as four and a half pounds per acre were used without injury.

The experiment showed that Paris green

has a fungicidal value at least one-third as great as Bordeaux. Rows treated with Paris green and water yielded 46 bushels per acre more than untreated rows, while those on which Paris green and Bordeaux were applied gave a slightly higher yield than those on which Bordeaux alone was used. It was further shown that arsenite of soda may be much more safely used with Bordeaux than with lime water, and the conclusion was that it should only be ap-

plied with Bordeaux mixture. The Paris green, if applied in moderate quantity and evenly distributed, is not injurious to foliage when used with lime water or Bordeaux mixture. Rows treated with Bordeaux alone out-yielded those treated with arsenite of soda in Bordeaux by 34 bushels per acre. This suggests that, perhaps, the soda arsenite may do damage to the crop though not showing any effect on the foliage. The use of arsenite of soda and lime is attended by considerable risk. The part which copper sulphate and lime plays in spray mixtures is plainly given. Those interested in spraying should write for this bulletin.

#### QUALITY TESTS.

"Quality in Potatoes" is discussed in Bulletin 230, Cornell University. It is pointed out that the quality depends on the amount of water, the amount of starch, and the richness of the potato in nitrogenous matter. After careful investigation it was considered that the quality and mealiness of a potato when boiled depended on the daily

range of soil and atmospheric temperature during the growing period, on the degree of ripeness of the tuber when the plant dies, and on the physical condition and type of the soil. Since tubers grow at regular nodes on the stem above the planted tuber it is recommended that planting be five or six inches deep in good soil so that enough nodes may be formed to accommodate the tubers which the plant is capable of bearing. If planted deeper than six inches moisture and temperature conditions are unsuitable for tuber development at the lower nodes and the result is small and scabby potatoes. If planted shallower than three inches the variation in temperature and moisture is too great for proper development. The result is small, compound and sunburnt potatoes. Long tubers which grow sloping in the ground show a difference in quality in the different halves. The desirable conditions, 65 to 75 degrees temperature and uniform moisture, are most nearly approached at a depth of two to six inches, and it is there that the best tubers are found.

### WINTERING THE CUCERBITS

**S**PECIAL care in handling is necessary if the gardener wishes to have success when storing squashes, pumpkins, melons and such crops. Little handling should be given before the skin has become thoroughly hardened. They are injured by very slight frost, although the injury may not be apparent for some time. Those who have had experience in harvesting and storing these crops recommend that they be pulled before frost comes and put in piles in the field. There they can be left exposed to the sun by day, but should be covered at night to prevent injury from frost. In case a stem is broken off rot soon develops. For this reason it is recommended that the stems be cut off to not more than

one inch long when harvesting so that they cannot be used as handles when loading them on wagons. When hauling them to the storehouse they should be placed on a bed of hay or straw to prevent bruising.

The best storage is dry atmosphere and cool temperature, although they keep for a considerable time if the temperature is comparatively high. Authorities recommend placing them on shelves one tier deep.

"I always aim to have the squash harvested before frost comes," said Mr. T. W. Stephens, of Aurora, to *The Horticulturist* recently. "They should be off the vines in early October to escape early frosts. They must be kept dry and cool, but never frozen. I always put them in a dry shed

or feed room where there is no dampness. They keep much better in a dry room free from frost than in a cellar. If put in the cellar in early fall the heat and moisture causes them to rot in a short time. By

keeping them in a dry room just above the freezing point I have had them until May 24. Citrons and watermelons can be kept the same way, but the latter will not keep longer than Christmas."

### Tomatoes Until Christmas

"I CAN have ripe tomatoes for use until near Christmas," said Mr. Jas. Gibbard, of Doncaster, to a member of The Horticulturist staff who visited his place a short time ago. "Just before frost comes the green ones are picked and stored in a cool dry place. Where there is a dampness they soon rot, and if there is much heat they ripen quickly.

"I have taken fresh tomatoes to England in that way. When I reached the Old Country they were not quite ripe. If they get any frost before being put away they will not keep."

### Marketing Tomatoes

"THERE is good money in growing early tomatoes for the local market," said Mr. Wm. Waller, of Bartonville, to The Horticulturist recently, "but we cannot get rid of all our crop in that way. A local commission buyer takes great quantities, and although more might be obtained on the Hamilton market for a few at a time it pays to sell to him.

"Selling to the canning factory, also, is not so profitable for the same quality of tomatoes. The commission buyer wants good quality and pays a good average price."

### The Asparagus Bed

ALTHOUGH asparagus is a wholesome and most profitable garden vegetable it is not widely grown. It is perfectly hardy and comes in early in the spring when there are few garden crops fit for use.

Speaking to a representative of The Canadian Horticulturist who visited his place at Picton recently, Mr. J. E. Terrill said: "I have about four acres of asparagus. I take a good harvest from early in the spring until about July. Then I cease cutting and harrow the beds well. This destroys most of the weeds. The patch is left throughout the summer and in the fall before it ripens the whole is cut off level with the ground. A thorough cultivation is then given with the Acme harrow and a light coat of well rotted manure added.

"The bed is left in this condition over winter. In the spring as soon as warm weather renders the ground fit for cultivation the Acme harrow is again used to partially mix the manure with the soil. In a very short time the crop is fit for cutting. I prefer to cut when about six inches above the ground, as underground stems are liable to be tough."

"After we stop cutting the crop," said Mr. W. A. Best, gardener for Earl Spencer, Picton, "the asparagus bed is let run until October. Then all the old stems are cut off and burned. After that a disc harrow or some such implement is run over the patch and a heavy coat of rotten manure applied. In the spring it is disced both ways to work the manure into the soil."

Tomatoes can be had for slicing up to April or later by taking solid specimens from the vines, being careful not to detach the calyx from the tomato, and preserving them in a solution made of five quarts of water to one of vinegar.—(W. H. Armstrong, Cornwall, Ont.

# The Canadian Horticulturist

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## The Only Horticultural Magazine in the Dominion.

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table Growers' Association.

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### THE HAMILTON SHOW.

The Hamilton Horticultural Exhibition, for a first effort, was a success, but it can be greatly improved another year. In spite of the best efforts of those in charge, the fact remains that the bulk of the fruit and vegetable growers of the Niagara district did not realize that the show was established for their benefit and that they were expected to take a prominent part in its management. Should the Ontario Department of Agriculture decide to continue the show another year a committee which will represent all the horticultural interests of the Niagara district ought to be selected to have charge of it.

This committee should start work early in the season and should be composed of one or more representatives of each of the horticultural societies, of the Ontario, Niagara district and Burlington fruit growers' associations, of each of the several vegetable growers' associations, and possibly one or two members of the Hamilton City Council. Much of the success of the Canadian National Exhibition has been due to the work of the members of the Toronto City Council. Sub-committees could be appointed

for fruit, for flowers, and for vegetables, and to these committees would have to be left largely the making of all arrangements connected with these departments of the exhibition.

It would be well, for convenience of management, to have the president and secretary located in Hamilton. For these positions it would be difficult to secure two better men than Mr. McCulloch and Mr. Dickson, the president and secretary of this year's exhibition, as the success of this year's show was due in a large measure to their faithful, efficient work. Small local committees could have charge of the details of management. If this exhibition is to fulfill the objects for which it was started the best men the Niagara district can produce should be on the committee of management.

### THE DOMINION CONFERENCE.

The conference of fruit growers from the different provinces of Canada, which the Dominion Department of Agriculture is arranging to hold next winter, will be the most important gathering of fruit growers ever held in Canada. Such a meeting has long been needed. Each province has difficulties of its own which its growers will have to grapple with by themselves, but there are larger questions which affect all the provinces, and their proper consideration can only be secured through a conference of growers from each province.

One of the most important subjects that can be dealt with is the advisability of forming a permanent body, representative of the fruit growers in the different provinces, which could meet annually or at least once every two years. Such a body, owing to the expense of attending its meetings, would have to be small. It might be constituted of the presidents of each of the provincial associations, and could meet in turn in the different provinces at the time of the holding of their provincial convention, but separately.

The associations could hardly use a portion of their funds to better advantage than in sending delegates to such meetings. In this way it would be possible for fruit growers to have a direct say in all matters of Dominion legislation relating to their interests. The honor of representing a provincial association at one of these conferences would be highly prized and would add to the interest taken in the work of the provincial organizations. A determined effort on the part of fruit growers will easily result in the formation of such a body.

The advance of the times is forcing vegetable growers, as well as growers in other lines of work, to devote more attention to improving their methods. Varieties of vegetables and practices which proved profitable a few years ago are no longer so, and the growers who realize this first and are the quickest to grasp the demands of the situation will reap the largest returns. The recently formed vegetable growers' association has already done much to

awaken an increased interest in matters of this kind. Greater advances will be made during the next five years than have been during the past ten. Is it not strange that with all the fruit, flower, bee, poultry and other publications there is none devoted exclusively to the growing of vegetables?

Most of the provincial fruit growers' associations in Canada have committees at work preparing the programs for their annual conventions which will be held during November, December and January. Care should be taken to see that time is allowed for a discussion of the best method of bringing pressure to bear on the Minister of Agriculture to see that the chief of the Dominion fruit division, instead of being under the control of the dairy commissioner, is given full control of his department. The fruit interests of the Dominion are of sufficient importance to require a commissioner who shall be independent of the heads of any of the other branches of the government service.

Evidence of the value of The Canadian Horticulturist as an advertising medium continues to accumulate. The latest one of our readers to win one of the prizes offered to readers who purchase from advertisers is Mr. R. H. Ellis, of Leamington, who bought goods to the value of \$270 from Pilkington Bros., of Toronto, and \$8.50 worth from the Foster Pottery Co., of Hamilton, through seeing their advertisements in The Canadian Horticulturist.

There are few of our readers who have not a few friends who would not profit were they to subscribe for The Horticulturist. This they would do were the good points of the paper properly drawn to their attention. If our readers will help us gain a few subscribers it will enable us to improve the paper and everyone will benefit. Won't you do your part by getting us at least one new subscriber for the balance of this year and all of next year for only one dollar?

### Boxes Not Profitable Packages

W. R. DAVIS, OAKVILLE, ONT.

I find it is not as profitable as I could wish to pack apples in boxes, except for really good stock. Last year I put all firsts in boxes, and seconds in barrels. The returns showed that the firsts, except Blenheim Orange, did not bring a high enough price to warrant my doing so this year, considering the extra price of boxes and trouble of packing. Baldwins seemed to sell better than Spys in boxes.

I did not have, as a rule, very much trouble securing boxes. Last year I got them from Burlington. They were 9 x 12 x 18, and ran four to the barrel, but I would rather use the larger box, that runs three to the barrel, which is the size adopted by the Fruit Growers' Association.

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## THE ONTARIO HORTICULTURAL EXHIBITION

Arrangements are rapidly being completed for the Ontario Horticultural Exhibition, which will be held in Massey Hall, Toronto, November 14-16. The Governor-General has been invited to open the exhibition on Tuesday afternoon, November 14.

A committee representing the various organizations interested in the exhibition visited Massey Hall recently to arrange for the allotment of space. It is intended to have striking exhibits of flowers, fruits, vegetables and honey both upstairs and down, so that people who visit the hall will be pleased with the general effect of the exhibition. All commercial exhibits will be shown in the basement of the hall, where the demonstrations in fruit packing, etc., will be given. The prize lists this year have been considerably increased, and owing to the advertisement the exhibition received last year, it is expected there will be an increase in the number of exhibits this season.

At a meeting of the committee of manage-

ment held during September it was decided to sell three coupon tickets for 50 cents, to place the general price of admission at 25 cents, and to have a special children's day on Saturday, when children will be admitted for 10 cents, or three for 25 cents. Members of the Ontario Fruit Growers' Association, the Ontario Vegetable Growers' Association, and of the other bodies interested in the exhibition will be sold 50 cent tickets which will admit them to the exhibition at all times during the week.

An effort is being made to secure the use of a large building immediately adjoining the hall, in which it will be possible to hold the convention of the Fruit, Vegetable and Bee Keepers' Associations simultaneously. Committees are at work preparing programs for these conventions. It is intended to secure noted authorities as speakers. This will be the first annual convention of the Ontario Vegetable Growers' Association, and a great deal of interest is being taken in it on that account.

## THE WORK OF THE HORTICULTURAL SOCIETIES

During September horticultural societies in the different cities and towns of Ontario demonstrated that their labors have not been in vain. Flower shows were held by many societies, while several also had a concert in the evening at which music and practical addresses made up the program.

### DESERONTO'S FINE EFFORT.

The show of the Deseronto society was most successful both as regards the quantity and quality of the exhibits, especially when it is considered that not a dollar of the funds of the society is paid out in cash prizes. The strongest evidence of the good work that is being done is the large number of lawns and gardens which are kept in first-class condition among the working classes. Many of the back yards and gardens would do credit to the professional gardeners. The judge was Mr. E. F. Collins, of the Allan Gardens, Toronto, who writes to *The Horticulturist* as follows: "Some of the exhibits would put to shame many I have seen at much larger places. Special mention may be made of the *Rex* begonias and *Tuberous* begonias, which were very fine for the amateur classes."

### KINCARDINE FLOWER SHOW.

The annual show of the Kincardine society was held August 30, and at the special request of some influential citizens the president and secretary kept it open the following evening. Costly plants of rare excellence and beauty, as well as many equally fine though less valuable, filled the side tables. The center tables were filled with cut flowers tastefully arranged on the tables by some of the ladies of the society. To say that the display was grand conveys but slightly the striking effect of a large hall filled with healthy and vigorous plants and gorgeous bouquets of the choicest flowers, all grown by amateurs. This shows that the seven years' life of the society has cultivated the tastes of

the citizens. It has also been the means of beautifying many gardens and homes belonging to members and their friends. The premium list of the past year consisted of 14 collections, made up of fruits and flowers. Each member on paying one dollar is entitled to one of the premiums free, and besides we make a present of a year's subscription to *The Canadian Horticulturist*, a dollar magazine. It is the neatest, cleanest and most instructive magazine on the subject that I know of, and ought to be found on every center table. Every year adds new flowers, shrubs and trees to our list. Many of the progressive farmers and fruit growers are becoming members, as the cost is little and the gain great.—(Joseph Barker, Sec'y.)

### A SUCCESS AT CARDINAL.

The Cardinal society held its annual exhibition September 6 and 7, afternoon and evening. Notwithstanding the fact that several of the old officers and active workers of the society have left the organization during the past year, and the idea that the exhibit this year would be a failure, our exhibition, though late in the season, was the best in quality and selection of house plants and cut flowers that the society has put before our villagers. That our flower show is popular and becoming more so was evidenced by the hall being crowded both evenings.—(E. E. Gilbert, Sec'y.)

### GRATIFYING RESULTS AT CAYUGA.

The Cayuga society has completed its work this season with gratifying results. Increased interest has been awakened. The public gardens at the Court House Park, the high and public schools, and many private gardens are more beautiful than ever. Our country school director, Principal Neale, is making a show place of the Decewsville public school grounds. Our distribution to members included 1,000 Norway spruce trees, 480 geraniums, 450 coleus, and several hundred gladioli. The well defined plan

of this society that a horticultural society should be a factor in the public improvement of its neighborhood has been followed closely again this season with good progress. I cannot too highly praise our officers in their zealous and unpaid efforts, and the courtesy of our official florist, L. H. Weaver, of Dunnville, and the energy of our secretary, F. G. Lishman.—(A. K. Goodman, Treas.

#### THE FOURTEENTH SHOW AT GALT.

The Galt society held its fourteenth annual exhibit on August 30 and 31. There was a good exhibit in all classes, the specimen ferns and coleuses being especially fine. The cut flowers were also of a high quality and comprehensive in character. The show was not patronized as well as it deserved to be. W. Hunt, of the O. A. C., Guelph, was the judge of pot plants, and A. H. Ewing, of Woodstock, awarded the prizes for cut flowers. H. S. Peart, of the O. A. C., judged the fruit and vegetables.

#### NEEDLEWORK AT PRESTON.

The Preston society held a successful show in the skating rink on September 6 and 7. The exhibits were of a high order and competition in many classes very close. An exhibit of ladies' needle and fancy work gave an added interest to the exhibit. The attendance was good. W. Hunt, of the O. A. C., Guelph, judged the plants and flowers, and E. Lane, of Galt, awarded the prizes for the fruit and vegetable display.

#### SCHOOL CHILDREN SHOW AT SIMCOE.

In the spring the Simcoe society distributed seeds among the children of the public schools, with the understanding that a big flower show would be held in the fall. The show was held in the drill shed September 7 and the success of the scheme can be judged from the fact that there was almost four times as many entries as in 1904. The display on the tables was grand, and the competition was so close that it is thought more than three prizes should have been awarded. Judge Robb and Mr. W. S. Tisdale awarded the prizes. Many vegetables were on exhibition. In the evening band music and appropriate recitations added to the enjoyment of the visitors.—(Henry Johnson.

#### EXCELLENT SHOW AT BRANTFORD.

The executive of the Brantford society were well pleased with the results of their distribution of about 6,000 packages of seeds to the school children. The exhibition of flowers held on September 15 was a huge success. The secretary recorded about 600 entries of asters, verbenas, phlox drummondii, scabiosa and salpiglossis, besides about 50 entries of baskets of cut flowers. In all about 130 prizes were awarded. The premiums given consisted of

fine specimen plants of palms, ferns, draenas, araucarias and bulbs. The evening meeting was presided over by Mr. Dempster, president of the society. In a very interesting address Mr. Wm. Hunt, of the O. A. C., Guelph, commended the action of the Brantford City Council in granting the society the sum of \$100 as being one of the best outlays the city had ever made. Those present heartily endorsed the outlay by loud applause. Directions for the care and culture of the plants awarded as premiums were given by the speaker in his address, as well as a practical demonstration on the potting of bulbs and their after culture and care.

#### ELMIRA'S SECOND ATTEMPT.

The directors of the Elmira society are to be congratulated on the success of their second flower show, which was held August 24. A large number of fine specimens of the floral kingdom were on exhibit. The children's exhibit of asters grown from seed given to them by the society was particularly fine. The admission receipts show that over 2,000 people, besides the children, visited the show.

#### KEEN COMPETITION AT BELLEVILLE.

Last spring the Belleville society distributed flower seeds among the children of the different classes in every school in the city. In September the scholars from the high, public and separate schools were in their glory displaying the flowers. The total number of entries was about 300. Each school had its display upon one of the large tables which are in the building, and it was rather difficult to tell which school had the best exhibit. In the afternoon the building was open to the public and many of the parents and others visited the show, all being apparently much pleased.

#### FEWER ENTRIES AT STRATFORD.

The City Hall was the centre of attraction for a large number of citizens on the evening of September 6 at the opening of the Stratford society's annual show. Flags and bunting along with the numerous tables of beautiful plants and flowers made the hall a pleasant place to spend the evening. There was a noticeable falling off in quantity but no deterioration in quality. The flower and plant department was very attractive. Among the flowers were some very fine sweet peas, single petunias and asters, while several superb specimens of the rubber plant and begonia were highly admired. The judging of flowers and plants was done by Mr. Wm. Gammage, of London. In pot plants Messrs. Wm. Sanderson and S. B. Webb carried off most of the prizes.

The vegetables were somewhat of a disappointment, the display being quite small. The fruits occupied one table. Apples were a fine sample, but inferior to last year's.

### Report Your Meetings

Officers of horticultural societies are earnestly urged to send notes regarding the doings of their societies to the society editor for publication in each issue. Programs of meetings held,

copies of addresses read, and subjects discussed are all interesting to our readers. Let us have all you can. The more the better. Contributions can be received up to the 22nd of each month.



## VEGETABLE GROWERS ORGANIZING

The Ontario Vegetable Growers' Association has set to work in earnest to organize branch associations throughout the province. A special effort is being put forth to have thorough organization through local associations in the different vegetable centres before the Horticultural Exhibition in November. During August Mr. Andrew McMeans, of Brantford, made a tour of western Ontario for the purpose of forming local associations and met with varied success. As a result of his trip Mr. McMeans hopes to have several flourishing associations at different points. Growers around Leamington were enthusiastic and a strong association was formed with J. S. Fraser as president; J. L. Hilborn, vice-president, and E. E. Adams, secretary-treasurer. It was decided that the best means of getting the different members in line would be to hold meetings at their respective homes.

Flourishing organizations are promised for several other centres. At Woodstock Messrs. Doyle and Gabriel Elliot were well pleased with the move and have promised to do what they can. The good work at Chatham was left in the hands of such enthusiasts as Messrs. Ross, Collins, Clarke, Findlay and Everetts.

The growers in the Windsor district are chiefly French Canadians and know merely enough English to make sales. However, at Cabbage Point, a few miles from Amherstburg, Mr. Hilare Gignac was sure that an association could be formed and 150 members secured before fall. Messrs. Wigle, of Ruthven, and Coatsworth, of Kingsville, can also be counted on for support.

There is a general feeling among the growers that their crop should be protected by a duty at least equal to that imposed on similar Canadian products going south.

## FRUIT CROP CONDITIONS

Reports received by The Horticulturist during September from the leading fruit sections of Ontario tend to verify the report published last month that the apple crop of the province this year will be light and prices high as compared with last year. In many sections the crops have been sold and the growers regret they did not hold out for better prices. The United States and British crops are, also, behind the average, and a keen demand from the Old Country is expected.

Grapes and plums will be larger crops than last year. The quality generally is reported to be good. The following are some of the reports that have been received:

### ESSEX COUNTY.

The apple crop is not more than 40 or 50 per cent. of last year's. The greater part is already disposed of. Some of the best orchards sold for a lump sum on the trees. Other buyers are giving \$1 per barrel and do their own picking. There does not appear to be any regularity in prices given as the quality is not uniform.—(W. W. Hilborn, Leamington.

### KENT COUNTY.

Our crop of apples this season promises to be very fine, especially where thoroughly sprayed. In quantity it will be about half of last year's crop. Sales so far are very satisfactory, and we are looking forward to a very successful season.—(W. D. A. Ross, Chatham.

### WENTWORTH COUNTY.

Japan plums and Lombards are a heavy crop, while other varieties are only about one-third. Fancy lots sold at 30 to 40 cents. Japan varieties and Lombards brought 10 to 25 cents. About 50 per cent. of the Lombards are rotting. Grapes are not more than half a crop, but clean and ripening early. Some Concorde and Niagaras have sold at 15 or 16 cents per nine pound basket. There is only a light crop of apples, probably 25 per cent. full crop. Winds and codling moth are playing havoc and not more than one-half of the crop will be packed as No.

1 or No. 2, and there is every likelihood that a No. 3 grade will find a market. As high as \$1.50 per barrel has been obtained for No. 1 and No. 2 on the trees.—(Joseph Tweddle, Fruitland.

The grape crop is in every way better than last year, very clean of rot and quality never better. Plums are heavier than last year and prices much lower. The apple crop is very light, quality fair, prices ruling high, about \$1.50 per barrel on the trees, purchaser furnishing labor, barrels, etc. Some have done better than this.—(E. M. Smith, Winona.

### THE ST. CATHARINES DISTRICT.

Apple prospects have not improved. Some isolated orchards have nice crops, but majority of orchards have very little fruit. Plum crop has been disappointing. Market was oversupplied with Japan varieties, and it has not been possible to secure ready sale for the later kinds at satisfactory prices. Many kinds have not been harvested in full on account of low price and poor demand. Grape crop promises to be of excellent quality and fair proportions. If weather remains warm a good demand is expected at reasonable prices. Growers are marketing heavily.—(W. H. Bunting, St. Catharines.

### BURLINGTON DISTRICT.

Apples are one-half of last year's crop. Prices range from \$1.50 to \$2.55 per barrel for No. 1 and No. 2 stock, grower to pick and deliver at the station. Grapes are 100 per cent. better crop and prices run two to four cents per pound gross. Plums are double the crop, with the price 17½ to 25 cents per 11-quart basket at station.—(A. W. Peart, Burlington.

### GEORGIAN BAY SECTION.

The apple crop in the Georgian Bay district from Collingwood to Owen Sound and in the Beaver Valley, is exceedingly light, not more than 10 per cent. of a full crop. There are, however, some very good apples, especially Russets. The winds of the last few days have very much reduced them. In the Simcoe dis-

trict the crop is better, but the orchards are generally small. It is nearly all bought by one man. He has said there will be about 7,000 barrels. The price paid is 75 cents to \$1.45 per barrel.—(J. G. Mitchell, Clarksburg.

#### SOUTH ONTARIO.

The apple crop in the southern part of Ontario county will be heavier than last year. The crop along the lake is light, but further north is exceedingly good. The apples are clean and of good size, but there is quite a lot of wormy fruit. Apples have been bought at all prices up to \$1.60 per barrel for everything on the trees in one good orchard. Almost all the apples are sold.—(Elmer Lick, Oshawa.

## THE DOMINION FRUIT GROWERS' CONFERENCE

Arrangements are being made by Mr. A. McNeill, chief of the fruit division, for the conference of fruit growers from the different provinces of Canada which will be held in Ottawa next winter. An outline of the subjects that will probably be discussed has been prepared and it has been suggested that the various provincial associations had better consider these matters at their annual conventions so that the delegates they send to Ottawa may be prepared to debate them.

The suggested subjects to be discussed at the proposed conference are :

1. The preparation of statistics and fruit crop reports, including acreage of small fruits by counties; number of fruit trees by counties; estimation of value and quantity of fruit crop; preferred varieties; bi-monthly or monthly reports of fruit crop conditions, including the weather, insects, fungous diseases and market quotations.

2. Transportation by rail. Rates; classification; discrimination in rates between individuals and firms, between long and short hauls, between places or territories, between commodities; station accommodations; speed of service and delays; supply of cars (delays in supplying cars); facilities for tracing cars en route; delay in settling claims; special facilities for fruit shipments, "decking" cars for baskets, ventilated cars, refrigerator and frost-proof cars, heated cars, transportation for attendants in charge; bills of lading, shipper's count, exemption; demurrage charges; competent station employees; transportation by express.

### Items of Interest

Cases of deceitful packing have been cropping up lately at the Toronto market. In one case it is claimed a lady packer is responsible for the fraud. The apples on top of the package were beautiful specimens of Duchess, but underneath were scrub Greenings. Another similar case was found with a basket of peaches. Both cases were reported to the authorities and investigation is promised.

A freak of the horticultural world was noticed in an orchard near Enderby, B. C., in August. A bunch of freshly opened blossoms were found

#### NORTHERLY SECTIONS.

Apples are as large a crop as last year, but the fruit is much larger and finer. Not so many codling grubs in the fruit apparently even where not sprayed, and that is generally. I do not hear of any sales being made so far, and I have inquired a good deal.—(Stanley Spillett, Nantyr.

The apple crop this year in Grenville county will be easily double that of last year, chiefly Fameuse. I should judge that two-thirds of the crop has been sold on the basis of \$1 on the tree for No. 1 and No. 2. Many orchards will grade low, as the spot spread rapidly in August in orchards that were not sprayed.—(Harold Jones, Mattland.

Transportation by water. Freight rates; ventilated and refrigerator chambers; the dock accommodations for loading and unloading; bills of lading.

3. Packages. Berry boxes; baskets; fruit boxes; barrels; crates and other packages; uniformity in minimum, maximum or definite size.

4. Markets and marketing. Agents and commission men, domestic and foreign; direct sales and consignments; cooperation in selling; opening new markets; commercial agents abroad.

5. Adulteration of fruit products. Jams, jellies, canned fruit, fruit extracts.

6. Nurseries. Varieties and novelties; diseases and pest inspection; responsibility of agents.

7. The Fruit Marks Act. Definition of No. 2.

8. The Dominion experimental farms and provincial experiment stations. On what new lines should the work be prosecuted?

9. Horticultural education. Fruit conventions and institutes, orchard meetings, school gardens, agricultural college short courses.

10. Orchard practices, including varieties, planting, tillage, fertilizers, winter protection, pruning, thinning, spraying, orchard soil culture, picking, storing.

11. Fall fairs and fruit exhibitions generally. Prize list; judging and judges, score cards; displays.

12. The formation of a Canadian Pomological Society or Dominion Horticultural Society.

13. Horticultural publications.

14. Miscellaneous.

on the limb of an apple tree with fruit almost ripe on the same limb only a few inches away.

British Columbia fruit growers met the Tariff Commission at Nelson and urged that the duty on fruit be maintained and that the same strictness be kept with regard to inspection. The Winnipeg vendors had hoped to have the duty lowered, but British Columbia growers claim they can supply the whole northwest and have some left to ship to England. They said that duty might be taken off oranges, lemons, and such tropical fruits, but went so far as to advise a stiffening of the duty on apples.

## THE FRUIT SHIPMENTS TO THE WEST

The trial shipments of fruit being made by the St. Catharines Cold Storage and Forwarding Co. are not, as some seem to suppose, being assisted by the Ontario government. Shipments made this year receive no aid and are the result of the enterprise and push of the company.

One year ago when the Government sent Prof. Reynolds to the Niagara district to secure two carloads of fruit to be forwarded to Winnipeg, the members and growers of the St. Catharines Cold Storage Co. volunteered to load a car and forward it on commission free of any expense to the Government, while Prof. Reynolds had to guarantee a fixed price for the bulk of the fruit sent in the other car. Owing to the guarantee this car cost the Government over one hundred dollars, while the St. Catharines car was sold at prices satisfactory to most of the shippers.

During the winter and early summer the growers at St. Catharines held several meetings and at last decided to arrange with some of the commission houses in Winnipeg to handle their fruit. A committee of four growers was named to assist the directors of the company to load two cars a week under the direction of the committee.

About 25 growers agreed to pack and ship their share, so that the cars would have enough fruit on the shipping days. Arrangements were made with The Ottawa Fruit Exchange, Winnipeg, to sell the fruit and to send statements to each shipper and also to send a copy of the whole to the storage company. A portion of each car was to be packed and put up in special packages, and the remainder in the regular shipping baskets. The committee has a copy of all details of the fruit and shippers in each car, giving the grade of fruit, ripeness and style of packing and packages used. To this will be attached the copy of sales and condition of car on arrival. Mr. Moore, Chief of Markets Division under the Dominion Government, has been placing thermographs in most of the cars, and the records of the temperatures during the trip will also be attached to the statements.

Good results are looked forward to from these records. At date of information 16 cars have gone forward. Shipments have increased

to three cars per week, and two carloads have been sold to go as far west as Calgary, and other sales will follow.

Some of the results have been disappointing and others very satisfactory. The largest shippers appear to be sanguine that the venture will be very successful on the whole and that they will be able to locate the weak points which have caused low prices in some shipments and to some growers.

The railway commission induced the railway companies to give transportation to anyone the growers might choose to accompany a few cars to test the efficiency of the several makes of refrigerator cars. Inspector Carey, of the Fruit Division, was chosen to accompany the first, a G. T. R. refrigerator, on September 8, and Mr. A. D. Broderick accompanied the one sent on September 15. Mr. Broderick goes out solely in the interest of growers, receiving nothing for his expenses or time, but it is felt by the growers that the Ontario Fruit Growers' Association or the Ontario government should bear his expenses.

Later in the season ventilated cars will be tried. The sending to the west of such large quantities of fruit will help to stiffen prices here and prevent gluts and over-shipments to our own markets.

A report from The Ottawa Fruit and Produce Exchange, of Winnipeg, of the car which reached there September 20 states that the fruit was in great demand and sales made as follows: Pears, 12-quart basket 65 cents, trays 95 cents, and boxes \$2.30; tomatoes, 40 to 50 cents; peaches, 70 cents; grapes, 30 to 43 cents. The report also says that the cars are arriving in much better condition than they did earlier in the season.

The Canadian Horticulturist is becoming an important publication and must be a great help to fruit growers and lovers of flowers.—(Mr. Thomas Kerfoot, Minesing, Ont.)

Congratulations on the greatly improved condition of The Horticulturist. It is very noticeable.—(J. Thos. Murphy, Simcoe, Ont.)

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## FRUIT AT THE CANADIAN NATIONAL EXHIBITION

The magnitude of the fruit display at the Toronto exhibition can be judged from the fact that apart from boxes, baskets and barrels over 2,000 plates were required to place the entries on the shelves. The entries were more numerous than in 1904, but that this is an off year in most fruits was shown by the quality and lack of color in most cases. It would be difficult to single out any one fruit that was particularly fine. Plums, perhaps, were the best, but many rotted on the plates. Peaches were plentiful, but noticeably immature. The same lack of development was characteristic of nearly all the fruits.

The surprising feature of the display was the show of pears. Reports from all sections quote that crop as being light to a failure. Despite this fact the entries were up to the average and the specimens good in most instances. The grape shelves were well filled, but very few of them were ripe enough to warrant the placing of the placard "please do not handle."

The reports which have been published in The Horticulturist stating that Ontario's greatest apple crop this season is to be found in eastern Ontario was borne out by the number of prizes awarded to the Dempsey's and other growers near Trenton. Several prizes, however, went to Hamilton growers and a few to St. Catharines. The interest taken in modern packing was evidenced by a greatly increased exhibit of boxes packed for export. In this class, also, the Trenton growers seem to be the most expert. Many prizes were awarded to Harry

Dempsey, of Rednerville, both for packages and specimens on the shelves. For the ninth time in succession Mr. Dempsey has won the red ticket for collection of 40 varieties. The second prize for this collection went to Harry Marshall, of Hamilton, who also won numerous prizes for the different individual varieties on plates and first for collection of 20 varieties.

A valuable part of the apple exhibit was the collections of five varieties for export, five for dessert, and five for cooking. In the class for export Harry Marshall got first with Ribston Pippin, Baldwin, Rhode Island Greening, Northern Spy and King of Tompkins County. Frank Onderdonk, of Albury, secured second with King, Spy, Baldwin, Ben Davis and Golden Russet. For dessert apples the first went to Harry Marshall, who had Fameuse, Swazie Pomme Grise, Ribston Pippin, Gravenstein and Spy, while Harry Dempsey came next with Trenton, Ribston, McIntosh Red, Swazie and Fameuse. J. F. Dempsey, of Albury, secured first for cooking apples with Duchess, Spy, King, St. Lawrence and Rhode Island Greening. Second prize was awarded to H. Marshall for Duchess, Alexander, Cayuga Redstreak, Greening and Spy.

### EDUCATIONAL FEATURES.

In former years the Fruit Experiment Stations have made exhibits of fruits, good, bad and indifferent. This year a change was made and only the best varieties were shown. A division was made to bring out three main classes: The best eating varieties, the best varieties for commercial purposes, and the varieties best adapted

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to colder sections. In the last class were such varieties as Duchess, Longfield, Sweet Bough, Swazie, Pewaukee, Wagner, King, Wealthy, Tolman Sweet, Greening and Spy. A mere glance over this exhibit enabled the anxious farmer to select varieties suited to his locality,

## Classified Advertisements

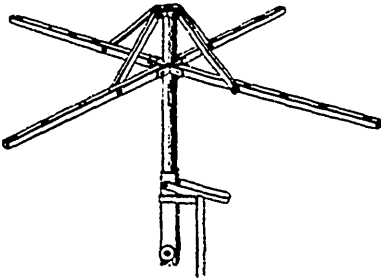
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and also most profitable for whatever purpose he intended growing. Another creditable feature for which the Ontario Department of Agriculture was responsible was the excellent display of insects and fungous diseases which worry the fruit grower. This fine exhibit was in charge of T. D. Jarvis, B. S. A., lecturer in entomology and zoology at the Ontario Agricultural College, and either Mr. Jarvis or Mr. Andrew Haynes, of St. Catharines, who has been assisting in the spraying experiments in the Niagara district during the summer, was present to answer questions and give information regarding the pests. Great interest was taken in the plates of fruit illustrating the value of spraying with the lime sulphur wash. Treated and untreated fruit were shown side by side. Specimens of fruit and branches of plums, pears and apples affected with San Jose scale were shown, along with such troublesome fungous diseases as apple scab, bitter rot, black and brown rots, pear scab, mildew of the grape, and other diseases which destroy the different fruits. The exhibit, also, contained a collection of injurious insects in the different stages. Beside these were specimens of leaf, twig, or fruit showing the work of these insects and diseases with the life history of each.

Microscopes were supplied so that the spores could be distinctly seen and the orchardist taught to identify them in his own orchard or garden. Small bottles contained samples of commonly used insecticides and fungicides, and beside them were the formulae for making the solutions. There were also in this instructive

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collection weeds and weed seeds, common clovers and other leguminous crops which are used as cover crops, bottled to show the nitrogen-gathering nodules on the roots, and mounted specimens of three of the commonest bees which fertilize the red clover.

"The object of this exhibit," said Mr. Jarvis, "is to teach the farmer to know the insects and fungous diseases which cause him endless trouble, to show him the work done by each, and by use of the microscopes to arouse a deeper interest by showing him the forms described."

**THE PRIZE WINNERS.**

Lack of space prevents the publication of the prize winners in detail. In peaches the prize winners were: Messrs. E. Freel, Niagara-on-the-Lake; Gordon Bunting, St. Catharines; Robt. Cameron, Homer; Stanley Prest, Stamford; Alex. Glass and A. D. Broderick, St. Catharines. Awards for grapes went to F. G. Stewart, Homer; Lewis Haynes, S. D. Furminger, J. H. Smith and A. D. Broderick, St. Catharines; H. P. Secord and Wm. G. Selby, Homer, and Stanley Prest. For grapes grown under glass John Chambers, Toronto, and F. R. Merritt divided the honors. S. D. Furminger, Harry Marshall and G. Bunting had the best quinces. The prizes in the different sections for pears were awarded to Geo. H. Wild and Harry Marshall, Hamilton; W. M. Robson, Lindsay; Harry Dempsey, Rednerville; S. D. Furminger, A. D. Broderick, J. H. Smith, G. Bunting, C. Riordan and Alex. Glass, St. Catharines; Thos. Delworth, Weston, and Robt. Cameron, Homer. The prize plums were owned by

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Among those who were awarded prizes for apples were Harry Dempsey, Rednerville; Harry Marshall, Hamilton; Frank Onderdonk, J. F. Dempsey and S. Pem Peck, Albury; James B. Guthrey, Dixie; W. M. Robson, Lindsay; Mrs. Boyd Burk, Brougham; Dr. Foster, Oakville; Norman Brown and Edwy Brown, Eglinton; R. Houston, Dixie, and Alex. Glass, St. Catharines. For packages J. F. Dempsey got first and Frank Onderdonk second for one barrel for export, while the prizes for apples in boxes were divided among Harry Dempsey, J. F. Dempsey, Frank Onderdonk and Gordon Bunting.

First prize for best display of fruits went to St. Catharines Horticultural Society, while the South Fruit Growers' Association, of St. Catharines, got second. A. D. Broderick won first and G. Bunting second for fruit decorative centre piece.

### The Tomato Situation

The weather around Hamilton for the past four weeks has been most favorable for the tomato crop, but notwithstanding this the late varieties are a short crop and most of the supply received by the canners has been early varieties. In former years, when canners accepted these, the growers were generally docked a number of bushels on each delivery, but this year they were very glad to receive them without resorting to this imposition. The price paid for late tomatoes on the Hamilton market

during this season has ranged from 35 to 50 cents per bushel. From this a good idea of the scarcity may be gained. On account of the refusal of the canners to pay 30 cents on straight contracts a number of the growers have shipped almost their entire crop to outside points.—(E. J. Mahoney, Hamilton.

### AROUND ST. CATHARINES.

The favorable weather has brought the tomatoes around rapidly, and this week all the factories have been busy. Prices remain the same except that a few of the surplus tomatoes have, I believe, been sold for 25 cents.—(W. C. McCalla, St. Catharines.

### PRINCE EDWARD COUNTY.

The tomato fields are doing well owing to excellent weather. Factories are running full capacity.—(John W. Hyatt, Westlake.

### Improved Service

Now that the service for the exportation of apples and other green fruits is about to commence, the question of facilities furnished by the steamship lines from Montreal is of vital importance to exporters of these commodities. The improved service and equipment installed on the vessels sailing from the port of Montreal in recent years are largely responsible for the increasing demand for Canadian fruit, which can now be landed in Great Britain in first-class condition. The progressive spirit of the managers of the steamship lines has this season inaugurated a steamship service far in advance of anything that has been done heretofore. It

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### Montreal and Glasgow Service

S. S. Lakonia, cold storage and fan ventilation, Oct. 5th  
 S. S. Salacia, fan ventilation, " 12th  
 S. S. Kastalia, cold storage and fan ventilation, " 19th  
 S. S. Tritonia, fan ventilation, " 26th  
 S. S. Marina, cold storage and fan ventilation, Nov. 2nd

SPECIAL ATTENTION GIVEN TO STORAGE AND HANDLING OF APPLES.

FOR SPACE APPLY TO

## THE ROBERT REFORD CO., LIMITED

STEAMSHIP AGENTS

Montreal, Toronto, Portland, Me., St. John, N. B.

TORONTO OFFICE: Room 110, Union Station

D. O. WOOD, Western Agent

Money Given Free to People who buy Goods from Advertisers in this Issue.  
 See Notice in Advertising Columns.

is needless to mention the record beaters placed in the Liverpool service by the Allans this season, as a perusal of the daily papers from week to week clearly shows that there is nothing on the Atlantic that is superior to this service either for freight or passengers.

On the Glasgow service of the Allan Line such vessels as the Ionian, Mongolian, Pretorian, Sicilian and Corinthian speak for themselves. These vessels make the passage from Montreal to Glasgow in eight to 10 days and are equipped with the latest system of refrigerator and ventilated compartments for the carriage of perishable freight. The loading and unloading is not done by the ordinary stevedores, but by special and experienced men employed exclusively by the Allan Line for this purpose, thereby ensuring the best results. The vessels of this line sail regularly from Montreal every Thursday throughout the season of St. Lawrence navigation, so that the shipper may time his freight accordingly and be sure that it has been forwarded on the steamer for which it was intended. Exporters of fruits would do well to get into communication with Messrs. H. and A. Allan or their representatives, who will be pleased to furnish all information required.

**Process Showing at the Fairs**

A feature which is coming into vogue at the agricultural exhibitions is the exhibition of the process of manufacture of various articles. Where the article shown is one of common use, the process of making it is always of great interest. At Toronto the process building was

always crowded. At the Western Fair at London the Waggoner Ladder Company set up a bench and one of their workmen, with his appliances, worked away as if in the factory for several days of the fair, putting in the steel wire reinforcement which is one of the advantages of the Waggoner Extension Ladder. A very much interested crowd stood around the place the whole time, and the result was—several times larger sales than the company ever made at the fair before.

Showing the process produces interest, and if it illustrates a really good thing the man who sees it is convinced. At the West Middlesex fair, at Strathroy, the company showed the process again with similar results. There is a general feeling on the part of the managers of these fairs that it will pay to encourage these process showings and keep out the "midway" shows, which have for some time been discrediting our fairs.

**Spraying Machines at Toronto**

One of the most interesting exhibits at the Toronto National Exhibition for the fruit growers was the Little Giant Sprayers, shown by the Perkins & Paine Co., of Port Dover, Ont. As they were the only power sprayers on the grounds these machines attracted much attention. Besides being the cheapest machine on the market, it is also the only one that automatically sprays two rows of grapes or small fruits at the same time.

Many United States fruit growers expressed themselves as being highly pleased with the

**HYACINTHS      ❁      TULIPS**  
**NARCISSUS**  
**CROCUS      ❁      SNOWDROPS**

**OUR BULB CATALOGUE**

describes the above and many other other kinds. **It tells how to plant, when to plant, where to plant, and what to plant.**

**PAEONIES, HARDY PHLOX, CRIMSON RAMBLER AND HARDY HYBRID ROSES, ORNAMENTAL AND FLOWERING SHRUBS.**

**CATALOGUE ON APPLICATION.**

**J. GAMMAGE & SONS, = London, Ont.**

A Handsome Premium will be Given Free to all Readers who buy goods from Advertisers.



machines and as being anxious to have them manufactured in the States. The firm was offered a large amount for the right to manufacture these machines across the border. Mr. Perkins stated that they have booked enough orders this fall to keep their factories working full time all winter. These machines are now in perfect working order, having long since passed the experimental stage. Fruit growers may feel assured that they are obtaining the best when they purchase a Little Giant Sprayer.

#### Loading and Stowage of Apples on Steamers

One of the most important points about safe carriage of apples to Europe is the loading and stowage on the vessel. The Donaldson Line to Glasgow has a most enviable record in this respect, and shippers will do well to look into this feature when asking for space.

The refrigeration and fan ventilation of the steamers on this line is almost perfect, and inspection of them is invited. Another feature of this line is that the vessels take a north Atlantic course, thus giving the apples the benefit of the coolest sea voyage, so that with proper loading and stowage fruit on this route, especially during the early part of the season, should arrive in first-class condition. (See advertisement.)

#### A Useful Novelty for Everyone

Stone and Wellington have pleasure in offering to their patrons and the general public another new novelty in the shape of the handy

saw. This is a steel saw, not only useful for trimming trees, but for cutting iron or other hard metals. Will cut through bolts, nails or any iron metal without injuring, and with perfect ease. It is handy for the farmer, fruit grower, and townsman. By taking large quantities we are enabled to offer them at 50 cents each, or they can be obtained through any of our reliable agents for the same money.

**Little Giant Sprayer.**—In a recent issue of The Horticulturist there was published an advertisement, including a photograph of a Spramotor outfit, under which it was stated that the illustration showed one of these machines being operated on the premises of Mr. E. D. Smith, of Winona. This was an error on the part of the printer, as it should have read Mr. E. M. Smith, of Winona. Messrs. Perkins & Paine, of Port Dover, the manufacturers of the Little Giant Sprayer, inform us that Mr. E. D. Smith, of Winona, is using one of their sprayers and that he does not possess one of the Spramotor machines.

**Write For It.**—A valuable and beautifully illustrated catalogue has been sent out by the Steele, Briggs Seed Co., Limited, of Toronto, who also have branches at Hamilton and Winnipeg. Special mention is made of bulbs and house plants for winter decoration. The growing of bulbs is claimed to be simple, and this progressive firm offers a pamphlet on "Bulbs and How to Grow Them" free.

## MONEY EASILY MADE BY OUR READERS

**\$10.00** will be given away free by The Canadian Horticulturist to readers who purchase goods from its advertisers. All you have to do is to tell the advertisers you read their advertisements in The Horticulturist

#### HOW TO OBTAIN THE MONEY

**\$5** will be given to the person who buys goods to the greatest value from advertisers in this issue before October 30, 1905.

**\$5** will be distributed, one dollar to each, among the next five persons making application, who have purchased goods from our advertisers.

We have secured a limited number of an up-to-date work "The Orchard and Fruit Garden," recently published by E. P. Powell, one of the best known authorities on this continent. It contains 320 pages, and is well illustrated. We will give one of these books to any of our readers who would prefer it to one of the one dollar prizes. This book retails at \$1.50.

Readers must tell the advertisers they saw their advertisements in The Horticulturist.

A valuable premium will be given to all who do not win cash prizes. A premium will thus be given to everybody who buys something from advertisers in The Horticulturist.

When applying for a prize readers must inform this office of the name or names of the advertisers they purchased from and the value of their purchases. Application for this bonus must be made before November 15, 1905. Address

#### ADVERTISING MANAGER,

The Canadian Horticulturist, - Toronto, Ont.

## The Belleville Nurseries

for hardy varieties of

**Fruit and Ornamental  
Trees, Shrubs, Vines  
and Evergreens**

guaranteed true to name.

Special prices on Norway Spruce, 3 to 5 feet, good stocky trees, and several varieties of the best Winter Apple, good healthy trees,  $\frac{3}{4}$  in. and up, grade, 6 to 7 feet high. Send list of wants for prices before placing your order.

**W. C. REID, BELLEVILLE, ONT.**