

Fall Suggestions for Orchard, Garden and Lawn

The Canadian Horticulturist

OCTOBER, 1907

Volume 30, No. 10

TORONTO

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Summer Season

FROM MONTREAL
AND QUEBEC

STEAMER

FROM
LIVERPOOL

FROM MONTREAL
AND QUEBEC

STEAMER

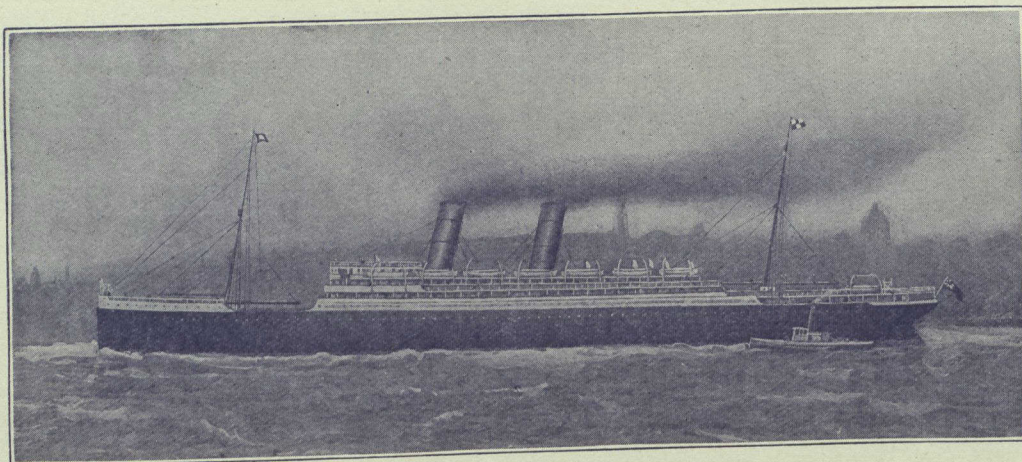
FROM
LIVERPOOL

[According to Steamer]

Sat. Sept. 28.....Lake Champlain.....Wed. Sept. 11
Fri. Oct. 4.....Empress of Ireland.....Fri. " 20

[According to Steamer]

Sat. Oct. 12.....Lake Erie.....Wed. Sept. 25
Fri. " 18.....Empress of Britain.....Fri. Oct. 4



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Yours truly,

H. L. HUTT.

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Description of the Herbert Raspberry

By Prof. W.T. Macoun of Ottawa

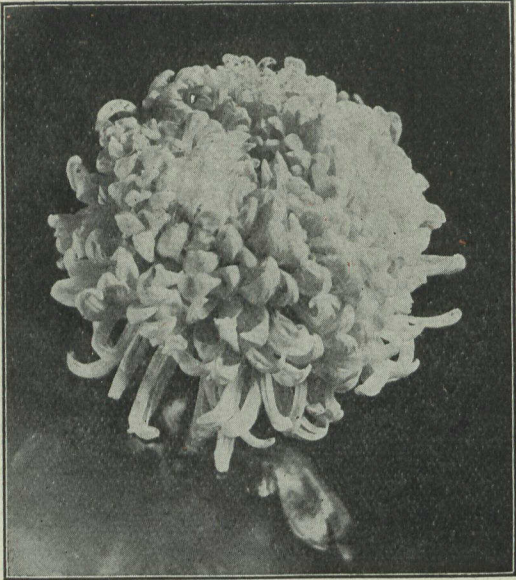
HERBERT (No. 17) — A chance seedling, originating with R. B. Whyte, Ottawa, Canada, in 1887. One of 30 seedlings, probably of Clarke A very strong grower, hardy and very productive. Fruit large to very large, obtusely conical, bright to rather deep red; drupes medium size, not crumbling; moderately firm; sweet and sub-acid, sprightly, juicy and of good flavor. Quality very good. Season begins a few days before Cuthbert. **THE BEST RED RASPBERRY TESTED HERE.** It has all the good points required in a berry for local market, being hardy, vigorous, productive, with fruit of large size, good color and very good quality.

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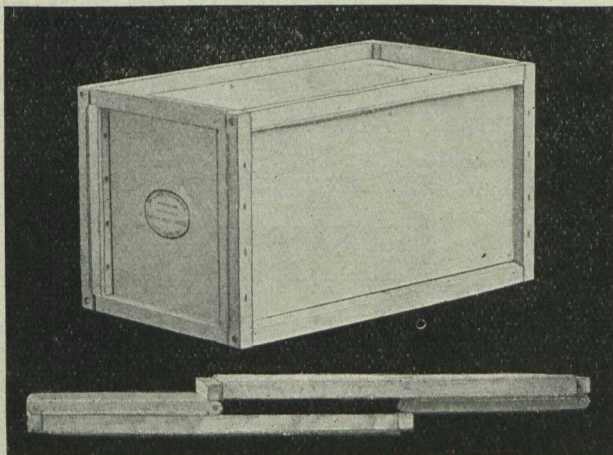
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SEEDS, BULBS, PLANTS

TORONTO, ONT.

The Canadian Horticulturist

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Photograph by Sallows

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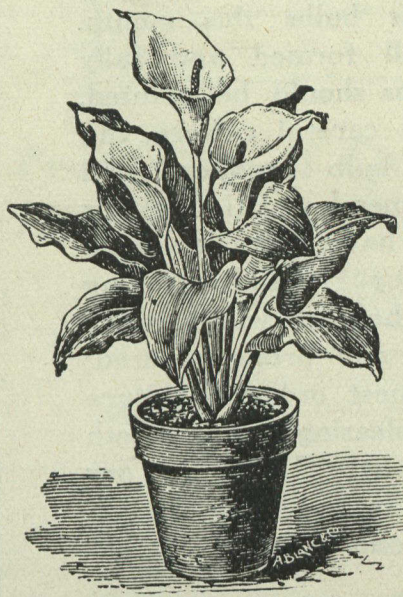
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The Canadian Horticulturist

Vol. XXX

OCTOBER, 1907

No. 10

Apple Growing in the Province of Quebec*

R. Brodie, Westmount, Quebec

ON the Island of Montreal, in the early days, when the Fameuse apple was supreme, followed closely by the Pomme Gris, Bourassa and Canada Reinette, one would realize as much for one barrel of Fameuse as for two of winter apples from Ontario. Pomme Gris were sold in half-barrels at fancy prices. The late Hon. E. Prudhomme sold, in one year, \$7,000 worth of apples. These results stimulated a great many to go largely into apple growing, with the hope that in a few years their fortunes would be made, and that in their old age they would take their ease, but the old saying of the poet Burns came true: "The best laid schemes of mice and men gang aft a-glee." When their young orchards came into bearing, the insects became numerous, especially the codling moth and plum curculio, with an occasional deluge of caterpillars; then followed the fungous disease known as the apple scab, which for a number of years ruined the crop.

Some farmers got discouraged and chopped down their orchards. All sorts of remedies were tried, until a French scientist, in Bordeaux, France, discovered what is now called the Bordeaux mixture. This remedy is now used in all the fruit-growing sections of the world. All up-to-date fruit growers have a good spraying outfit. Those who spray find that it pays.

The severe winters of 1903-4 were very hard on the orchards, in some sections killing out whole orchards. The introduction of Russian varieties of apples by the late Mr. Chas. Gibb, encouraged a great many in the colder parts of our country to grow these varieties with a great measure of success. There are seedlings and hybrids of these apples propagated at the Central Experimental Farm at Ottawa that will be a great boom to the country. This is the past with its successes and failures, its ups and downs, but altogether more success than failure. Those who come after us make use of our experience.

Now, what is the outlook for the future? Our worthy Premier, Sir Wilfrid Laurier, truly said that "The nineteenth century was for the United States, but the twentieth century is for Canada." What share shall the fruit growers of Quebec have in the prosperity of our vast Dominion? Can we share with Ontario and British Columbia in supplying the great provinces of the west with fruit that they can not grow?

With the shipping ports at our doors, and with improved transportation facilities, including cold storage and ventilating fans, we have access to the markets of Europe, but we, in the province of

pears, grapes, and even tobacco, can be grown successfully.

What is wanted is more care in the selection of locations and soils in setting out orchards. Trees are set out in land with cold, wet subsoils. They make a healthy growth for a few years, and, when the roots strike the cold bottom, they lose vigor and gradually die.

More care should be taken, also, in the selection of varieties. In the last report of the Quebec Pomological Society is a valuable list of varieties, prepared by a committee of the society, that should be distributed over our province.

Greater care should be taken in the preparation of insecticides and their applications. I know of a case where a man lost over \$2,000 worth of apple trees. It was recommended by a lecturer to paint the trunks of the trees with good paint, so as to prevent the ravages of the borer. There was spirits of turpentine in the paint and it caused the damage.

More care should be taken in the packing and marketing of our apples. I strongly recommend cooperation. Every grower should read Mr. Alex. McNeill's (Chief, Fruit Division, Ottawa) Bulletin on cooperation, also his bulletin on packing apples in barrels and boxes. They are replete with valuable information. I would suggest that they be printed in the annual report of our society.

The great trouble in many orchards is that the trees are neglected, while much care and fertilization is given to other crops. Some men are looking for better varieties of apples to supplant the old kinds. If the old Fameuse could only speak, you would hear the echo from hill to hill: "Oh, for a better class of farmers to take care of us!"

THE RESOURCES OF THE PROVINCE

The province of Quebec is a land of boundless possibilities. It excels in the manufacture of butter and cheese, as well as in fruit production. It leads in the manufacture of maple products.

Of Much Interest

Please accept my congratulations on the attractive appearance and interesting contents of THE CANADIAN HORTICULTURIST.—S. W. Fletcher, Professor of Horticulture and Landscape Gardening, Michigan State Agricultural College.

Quebec, are not taking advantage of these great opportunities. We are plodding along in the old rut, and are allowing the other provinces to get ahead of us. Some say that we cannot grow apples to a large extent in Quebec. It was an eye-opener to one of my friends from Ontario recently, when he saw the fruit-growing regions of the Island of Montreal, and of the Counties of Rouville, Chateauguay, Huntingdon, Vaudreuil and Lake of Two Mountains.

It was amusing, at the Dominion Conference of Fruit Growers, held in Ottawa two years ago, to hear the delegates from British Columbia and those from the Maritime Provinces vie with each other in praising their respective provinces in relation to fruit growing. The delegates from Quebec were too modest to do so. They are not given to blowing their own trumpets. They have erred to the other extreme and have not made known the fruitfulness of their own province. Apples, plums, cherries,

* One of the papers read last week at the summer meeting of the Pomological and Fruit Growing Society of the Province of Quebec.

We have all kinds of minerals; asbestos can only be found in Quebec. Our forests and streams are the sportsman's paradise. We have the leading city in Canada, Montreal, with a population of nearly 500,000. It is a great consumer of fruit; two hundred carloads of Cali-

fornia fruit is an average per year, the freight and duty being about \$1,200 a car. About 150,000 bunches of bananas per year are used in Montreal. If tropical fruits can be shipped at such a cost to Montreal, why shouldn't the fruit grown at L'Islet find a ready market for

an increased production of their valuable plums and cherries? Instead of being a frozen waste, with ice palaces for our amusement, as some of our American friends to the south believe, we have a land of great possibilities and resources.

A New Fruit Market Wanted in Toronto

THE Scott St. Fruit Market in Toronto is a market only in name.

It is nothing more than a freight shed that has been turned over for the handling of fruits and vegetables. It is not a fit place in which to have fruit, as it is not large enough nor light enough. From all sources—from dealers, buyers and growers—complaints are heard. There is not enough room to handle fruit on ordinary days, and the congestion is unimaginable, unless seen, on rush days. It is not fair to the fruit grower nor to the man who buys his fruit. The loss to the fruit grower lies in the fact that the buyer has no chance to examine his fruit. To learn something about the state of affairs at the markets and to secure the opinions of some leading commission men, a re-

There is scarcely need for asking questions on the subject. You have simply to look and you will see at once that the building is overcrowded. Most of the time during the fruit season we cannot move, the baskets are piled so high. Baskets of fruit should not be piled more than five high (that is ten baskets in the pile)."

Belknap & Son said that their business demands at least three times as much room as they have at the present. "We should have a proper market. This building is nothing more than a shed. There is not enough room, and the light is bad. The large firms are obliged to fill the passageways and the smaller ones are shut off from buyers." Mr. Jas. Bamford said that there should be twice as much floor space.

said White & Co. "We cannot handle stuff properly, as there is no place to display it. To properly display the fruit handled by our firm, we could use space equal to half the space of this building. From early morning till night we have fruit coming in, with no space to put it in. We are compelled to sell the stuff already inside before any more can be brought in. Sometimes we have to carry fruit back to the cars or put it outside on the platform so that we may have room enough to do business, and the fruit in the hot sun is injured. Much of our fruit cannot be seen unless the piles in front of it are climbed over."

The situation was referred to by Mr. D. Spence somewhat as follows: "This building is certainly not a proper place in which to handle fruit. Many mornings we have not enough room to walk around. The building is not large enough nor properly laid out. The city of Toronto should build a proper market, and it would give a revenue. The fruit men would be glad to pay to the city the same as they are now paying the Grand Trunk Railway for space in the market. They are paying half a cent for each eleven-quart basket, one-quarter of a cent for each six-quart basket, one cent for each twenty-four quart crate, and two cents each for barrels and sacks. If the city got this money, it could pay for a market in a short time. Every day between 30,000 and 40,000 packages pass through the market. The fruit trade is increasing rapidly, but the market space is not keeping pace in proportion. Sometimes stuff that comes in during the night will not be sold until two o'clock the next afternoon because of lack of space for displaying it. Occasionally we have to give stuff away to make room for later arrivals. I do not think that the wholesalers should go to the St. Lawrence Market. We should have a wholesale market away from the retail, and in connection with it there should be cold storage apartments." In speaking of transportation facilities, Mr. Spence said that the Dominion Express Company was the only company that was trying to do the right thing. They endeavor to handle fruit



A Scene at the Toronto Fruit Market on an Ordinary Day.

On rush days the congestion is even more pronounced. There is not room to handle fruit properly for sale or display.

representative of THE CANADIAN HORTICULTURIST recently secured the following information:

When Mr. Stronach, Sr., of Stronach & Sons, was approached, he said:

He suggested that a few electric lights should be placed in the building to improve matters until a new building is secured.

"We have not half enough room,"

with dispatch and properly. When cars arrive at times when it is impos- Canadian Express Company. Mr. Spence referred also to the unsatisfac-

thrown around like sacks of potatoes.

"We have no facilities for handling fruit, and no place to show it," said Vance & Co. "Already the fruit men have paid the Grand Trunk Railway ten times as much as the building is worth, and yet the company will not give us proper accommodation." "Not one man on the market has enough space," said Mr. H. W. Dawson. "The appearance of the market is a disgrace. Sometimes we have to crowd two or three shipments together, and it causes confusion. From the grower's standpoint the situation is bad, as his fruit does not receive the care and attention that it should and, as buyers cannot examine it properly, it does not always bring as good prices as it might. Sometimes the packages are piled so high that they get smashed and the fruit is injured. I think that the wholesale men should do business in the St. Lawrence Market. Some 25,000 packages are handled in this market every day." Messrs. H. J. Ash, McBride Bros., and others expressed similar opinions.

From these interviews, it would seem that this market is not satisfactory to any person concerned. Something should be done and done soon. The opinion is general that a new building is required, and that the city of Toronto should erect it. It is to be hoped that the corporation will see the need and remedy it.



Fruit is sold at a disadvantage in Toronto market. There is no room and poor light.

sible to transfer the fruit at once, it is kept in a shed and not dumped out in the rain and sun, as is done by the tory methods of handling fruit on the docks. There, packages from the Str. Lakeside and other boats are

Feed Orchard Trees with Proper Manures

AS soon as the fruit harvest is past, growers will commence once more to think of the fall and winter care of their orchards. An important item in the work that should be performed is the application of manures and fertilizers. This is necessary to maintain the fertility of orchard soils. No orchard can continue to bear abundant crops of good quality year after year, unless the trees are fed with essential fertilizers. All up-to-date orchardists use fertilizing materials either applied directly to the soil or in the form of cover crops. Some of the methods practised by readers of THE CANADIAN HORTICULTURIST are as follows:

ORCHARD FERTILIZATION

The proprietor of the Auburn Orchards, Queenston, Ont., Mr. Walter O. Burgess, wrote: "I have given the matter of orchard fertilization a great deal of attention, particularly since my orchards have come into heavy bearing. I think highly of Marchment's manure and, where a heavy wood growth is desired, find it more desirable than ordinary barnyard manures, and prefer it,

even at the high price it costs laid down in the orchards. I shall probably use several hundred tons of this manure during the coming season. I do not use manures on bearing orchards or vineyards, however, as I do not care to run the risk of introducing fungous troubles in this way.

"In feeding bearing orchards, I practise a system of green manuring, in conjunction with chemical manures. I put our orchards in crimson clover or hairy vetch, the end of July, plowing this cover crop under the following spring, and at once drilling in, with a fertilizer drill, 600 to 800 pounds of a home-made mixture of one and one-half parts of granulated bone, and one part muriate of potash, well mixed together. This routine is followed annually. It does not give us a superabundance of nitrogen, as with our system of intense cultivation, we can use large quantities of humus. As our light soils require a large quantity of nitrogen, we sometimes add a little nitrate of soda to the mixture. We are satisfied with home-mixed fertilizers. We are not only sure

of the purity of the goods, but save considerable money, as we have no make-weight to pay for nor handle."

SPREAD MANURE BROADCAST

A well-known gardener in Clarkson,



Fruit Collections at Niagara District Exhibition.

These were well arranged. Spectators and judges could observe and examine from all sides. A few flowers added to the attractiveness of the display.

Ont., Mr. W. G. Horne, who is a frequent contributor to the columns of THE CANADIAN HORTICULTURIST, has this to say: "I have used Marchment's Sure Growth Compost for a number of years. It is hard to beat when properly mixed and composted. The liquid that he uses in mixing with the horse and cattle manure keeps those manures from heating too much, and fang-burning, and probably stops the escape of the ammonia contained in those manures which is one of our most valuable plant foods. Without question, this manure should be used broadcast; in fact, all manures should be used that way. The sooner after being drawn out to field that it is plowed under the better.

"I have had very little experience with commercial fertilizers. The best results I have had from them was from a brand stamped (H); it was horse flesh, from the Harris Co., of Toronto. I used it for a melon crop.

"The ideal way in fertilizing an apple orchard is to cultivate shallow in spring until foliage is well advanced, then mulch with good fresh horse manure. This is one of the best of manures, which when shaded by the trees, does not dry out quickly, and it gives protection for windfall apples."

CARE AND MANURE PAYS

A successful fruit grower in the Niagara District, Mr. S. H. Rittenhouse, Jordan Harbor, wrote: "My orchard experience is confined almost entirely

during the early winter months. My ten-year-old orchard has a fair crop this season and the drouth has very little effect on it. This season's crop and results prove to me very conclusively that care and manure pay well in the peach orchard."

APPLY MANURE IN FALL

The experience of the well-known nurserymen, Brown Brothers Company, Nurserymen, Limited, is as follows: "We have used very little of the so-called commercial mixtures, but have confined ourselves almost entirely to barnyard manure and have used considerable quantities of Marchment's Sure Growth Compost. Our practice, as far as possible, is to plow this under in the fall, so that it is well rotted and incorporated in the ground when we come to planting in the spring. We use one good-sized car, about twenty tons to the acre. We find this more satisfactory on our soil than any commercial brand. It seems to remain in the soil longer, most of our soil being quite porous."

British Columbia Inspection

H. Gordon, Coldstream, Vernon, B.C.

The suggestion for the establishment of a station at Revelstoke specially for the inspection of nursery stock arriving from the east, has caused much discussion. There is no doubt that importers of eastern stock, as well as those who

question is, however, an economic one for the Government. Now that attention has been called to it it is possible that some improved arrangement may be made.

It must not be forgotten that there is an increasing number of nurseries within the province, and that the importation of stock by fruit growers is likely to decrease as these nurseries increase. The existing nurseries at the coast and elsewhere are developing rapidly and supplying admirable stock, well adapted to the different districts which they take care to study. It is probable that in the near future these nurseries will be the chief, or only, importers of stock—certainly they will always be the largest. The subject is likely, therefore, to become of less general concern, and the enterprising nurserymen may be trusted to look after their own and their clients' interests.

Use Sand in Transplanting

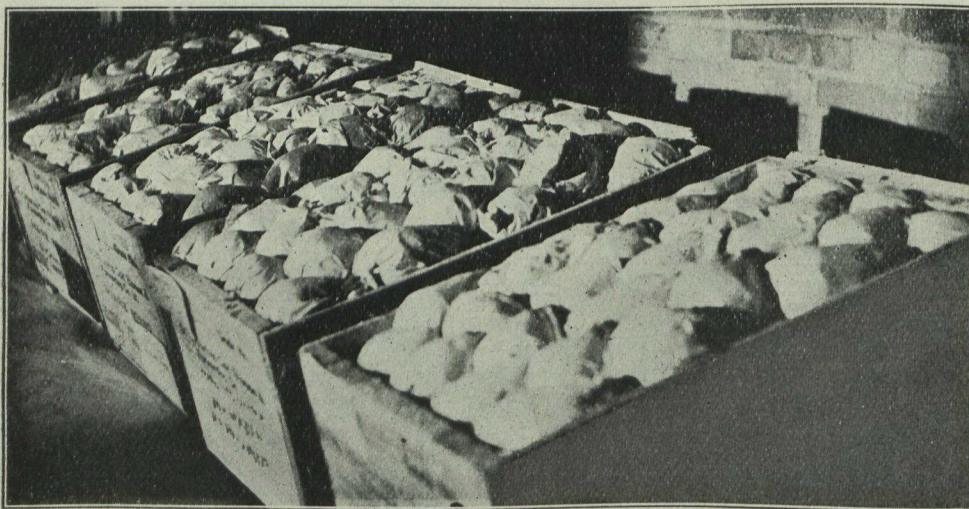
It has always been understood by gardeners and planters that, when transplanting trees, it is necessary that the soil must be made to fit closely to their roots when in their new position. In later years, much has been said and written of firming the soil about potted plants and transplanted trees, all looking to the accomplishing of the same object, the close contact of roots and soil.

Recently another excellent suggestion has been made, a suggestion made because of noticing what a help it had been already to a great many; it is to use sand for the filling in around the roots of trees until all roots are covered.

There is no question of the sand's value; it does exactly what no other plan will do as well, namely, fill in completely all the air space about the roots, and fill them better than all the tramping, pounding, and watering otherwise found necessary to accomplish the same object. Dry earth is often recommended for filling in about the roots, and well recommended too, because being dry, it crumbles up nicely, better than wet soil will, but dry sand is far better than anything else.

Nurserymen took the hint of the value of sand from noticing its usefulness for heeling in purposes, as a sand heap is known to be a necessary adjunct to all packing houses, cold storage houses, and every building where plants are to be handled.

Let florists, landscape gardeners, and all others recognize the value of sand and use it in their operations, and they will have greater success than ever before in their future work. Its use is simply to fill in about the newly set tree until the roots are covered, then ordinary soil is used to fill the hole.



Boxes of Pears Wrapped and Packed for the Western Market.

to peaches. I practise thorough cultivation during May, June and July, use barnyard manure and Marchment's Sure Growth Compost, prune and spray, and have been fairly successful. I have been using some chemical fertilizers, but cannot give any intelligent information in their favor. I use manure sparingly on young orchards, but when the orchard comes in bearing I seed to cover crop about August 1 and apply manure

take the trouble to introduce new varieties from Europe, suffer considerable annoyance, and even loss, through the present somewhat clumsy arrangements. It might perhaps be fairer, and more patriotic, if all stock for the upper (eastern) part of British Columbia were inspected at some point like Revelstoke; the suggestion of discrimination in favor of Oregon and Washington stock would thus be dissipated. The



The Fruit Exhibits at the Canadian National Exhibition, Toronto

The most creditable feature was the educational exhibit of the Ontario Department of Agriculture which is to be seen in the foreground in the form of a square. Most of the general exhibits were disappointing, owing to peculiarities of the season. A few vases of flowers would have enlivened the tables. Further comments are published on page 262.

The Plum Glut This Year and Its Causes

Cecil C. Pettit, Fruitland, Ontario

THE handling of the plum crop of the present season has meant a heavy loss to a great many dealers and shippers, especially those who bought crops on an extensive scale. There are several reasons why this has been the case.

In the first place, the dealers paid too much to the grower. When the fruit came to be put on the market, by the time it reached the consumer the price was altogether too high for the retail market. While we, as growers, are in the business for what there is in it, I think that it will be quite generally admitted that the price paid this year was too high, especially for the shipper to realize anything on the deal. The average price paid this year are as follows: Lombards, fifty cents; fancy plums, seventy-five cents; and Reine Claude, from eighty cents to one dollar a basket. One can readily see that by the time the shipper would get his profit, the express company its slice, and the retailer his profit, the consumer would be paying pretty dear for a basket of plums. There were a great many more plums in the country than was at first supposed.

Another thing that worked against the business was the season, as it has been a peculiar one. In the first place, it was from two to three weeks late. Then it was so dry that plums seemed to ripen all at one time. In some orchards, Lombards were ready to pick all at once, and, of course, the growers rushed them off as fast as possible; as a consequence, the market was glutted and the bottom went out of it.

I heard Mr. E. D. Smith's foreman say that they took in 10,000 baskets of Lombards in one day. I also heard it said that one of the canning factories in this district threw out 10,000 baskets of Lombards in one day that they paid fifty cents a basket for. They were so far behind that the plums spoiled on their hands. Usually the Lombard season lasts from ten days to two weeks, but this season it was practically all over in about one week. This was largely due to the very dry season. Reine Claudes were ready before Lombards were finished. It seems that everything was working against the dealer, who had bought heavily.

Those growers who got fifty-five

cents and sixty cents for Lombards and from seventy-five cents to one dollar for other varieties, were in luck at the expense of the shipper. Everything seems to go better when all make a little profit. It is far more encouraging for the dealers. Had the dealers paid the growers about forty cents for Lombards and sixty or seventy cents for other varieties, the plum crop could have been handled with a profit to all concerned. As it was, the dealers had to quote so high that the retailers could not handle the fruit in sufficiently large quantities to keep the markets cleaned up. It will be a long time before the dealers will get caught again, or before the grower will get such fancy prices for his plums as he did this year.

Pewaukee apples are inclined to drop early. They should be picked before they reach the stage of full maturity. I pick them about the same time as Blenheim Orange, a week or ten days before Snows. The Pewaukee is a wonderful bearer, and is a good cooker; but its appearance is not up to the mark. — W. G. Watson, Dixie, Ont.

Grapes Near Lake Huron

The engraving on the front cover of this issue illustrates a thirty-year reader of *THE CANADIAN HORTICULTURIST*, in the person of Mr. W. Warnock, picking grapes in his garden at Goderich, Ont., which is on the eastern shore of Lake Huron. Mr. Warnock has nearly forty

without fruit and without being nipped. These are allowed to run over the top wire so as to mature leaves sufficient to recuperate the roots from the severe pruning and from over-bearing, which tends to shorten the life of the vine.

"The annual pruning is done as soon as the leaves fall. I prune all canes at



The Display of Grapes at the Niagara District Horticultural Exhibition was Excellent

varieties of grapes, many of which do well in that locality. In a recent letter to *THE CANADIAN HORTICULTURIST* Mr. Warnock states that he owes much of his success and pleasure in gardening and fruit growing to *THE CANADIAN HORTICULTURIST*. He wrote also: "I consider *THE HORTICULTURIST* indispensable to a complete and progressive life in horticulture. I have gained so much profit and pleasure through reading the experiences of correspondents and writers in *THE CANADIAN HORTICULTURIST*, that I feel it may interest others to learn of my experience in growing grapes at Goderich.

"My grapes are planted ten feet apart in rows. A post is placed between each vine and on these, five wires are strung, the first being ten inches from the ground. On the first wire are trained two arms five feet long, one in either direction. From this low-trained parent vine grow the fruit-bearing canes each year. As they grow, they are fastened to the upper wires. When the canes produce four or five leaves above the upper bunch of grapes, the top is nipped off. All lateral growth, also, is nipped. I allow one or two canes to grow, however,

a point one inch above the first good bud above the parent vine. In less favorite localities than Goderich, it would be necessary to lay down the parent vine and cover with earth before the ground freezes in the fall. The covering would be removed as soon as the ground thaws the following spring, and then the vine would have to be tied once more to the wires. At one time, I covered my vines, but during the past ten years, I have not done so, and have not lost any of them by winter freezing. The canes mature more perfectly near the lake than they do inland. The deep water of the lake tempers the climate of the shore and keeps off frosts. I have grown thirty-two ounce bunches on Wilder and Eaton vines, and twenty-six ounce bunches on Campbell's Early and Agawam. This year the fruit looks well, but is late in ripening."

Cranberries should be picked this month, after which the bog should be covered with water a foot deep to prevent the plants from heaving, to protect them from frost and to drown out bugs and insects. Cranberries should be grown more extensively in Canada.

Packing Apples in Boxes

A. McNeill, Chief, Fruit Division, Ottawa

Never attempt to fill a space with an apple decidedly smaller than the rest of the apples being packed. If the row cannot be tightly filled by turning the apples slightly, it can be assumed that the wrong style of pack has been chosen, and another must be tried. A partial exception to this rule is sometimes seen in the case of the diagonal pack, even in the work of good packers. It is one of the characteristics of a good packer that he almost instinctively chooses the right pack.

It sometimes seems necessary for beginners, and indeed for all but the most skilled, to deviate somewhat from the regular pack. For instance, in a four-tier box, straight pack, it is occasionally convenient to pack the second, or the second and third layers on the side, and the others on the end. Such expedients must be a confession of partial failure, and only to be tolerated till more skill is acquired.

In selecting a style of pack to suit a particular size of apple, the beginner will find it a great help to make a preliminary trial with a single row of apples across the end of the box, then from the bottom to the top, and lastly from end to end, maintaining the apples in the same position for the three dimensions.

The art of packing can only be learned by *packing*. It requires a deft hand and a well-trained eye, so that slight differences of size and shape may be recog-



Apples in Boxes at Canadian National

Note the difference in length. The one in foreground was not legal in size and it received a prize.

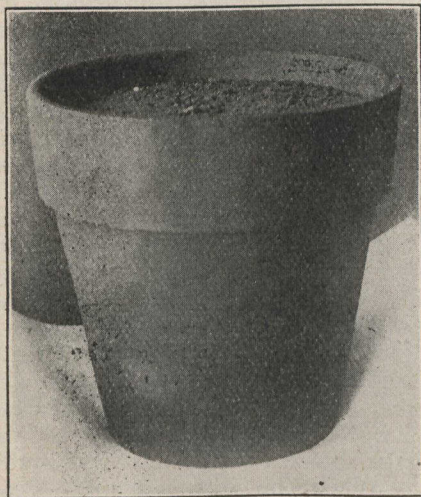
nized and utilized to fill the box, not only full of apples, but so tightly packed that the box may be put on end with lid off, and yet no apples fall out. This is rather a high standard, but one that should be aimed at by all who expect to become proficient in the art.

Windfall apples should be destroyed or fed as soon as possible.

How to Have an Attractive Window in Winter

Wm. Hunt, Ontario Agricultural College, Guelph

NO class of pot plants gives more pleasure and better results for the time and labor expended on them than do a well-selected collection of autumn potted bulbs. They are particularly well suited for the



1. Pot Properly Filled With Soil
Showing depth of space allowed for water.

amateur flower lover as, by a little care in their culture, a succession of their beautiful fragrant blossoms can be had from Christmas until Easter, or even later in the season. Bulbs can be potted from September until the end of November, but early potted bulbs give best results. Bulbs of Roman hyacinths and early paper white narcissi potted at once can be had in flower by Christmas and New Year's.

SELECTION OF BULBS

To insure success in the pot culture of bulbs especially, not only must the species and varieties be carefully selected, but good, sound, firm bulbs of the best quality should be obtained. A soft, spongy, ill-shapen bulb is of little use to produce a flower spike under any conditions, more especially in pot culture. Cheap bulbs are usually very disappointing. Buy the best. Avoid mixed collections, as oftentimes many of the varieties in collections are useless, or not wanted. Named varieties give the best results, especially in Dutch hyacinths. A good selection of bulbs for a young beginner are: First, white Roman hyacinths; second, named Dutch hyacinths; and third, narcissi in variety. Tulips and crocus do not give as good results under pot culture as do hyacinths and narcissi.

ROMAN HYACINTHS

The white flowering variety of Roman hyacinth is the best. The other colors are not as pretty in form or as

free or early flowering as the white, although the pink, rose, and blue shades make a pleasing variation in color effect. The colors should be potted separately, especially the white, as it usually flowers earlier than the other kinds. Roman hyacinths should be planted three in a five-inch pot, or more bulbs in a larger sized pot or box to be effective. Single bulbs can be planted in a five-inch pot, but unless the bulbs are extra good and large the effect is slim looking and disappointing. They look best grouped in larger pots, boxes, or jardinières, so that there is about one and a half inches of space between the bulbs when set in the soil.

DUTCH HYACINTHS

The single flowering varieties of Dutch hyacinths usually give the best



2. Dutch Hyacinths Planted, but too Shallow
The top of the bulbs should have been one inch below the top of the pot.

results. The following list gives a good selection of single and double varieties: Single white, Grand Vedette, Grand Vanqueur, Mont Blanc; single red or rose, Gertrude, Moreno, Norma; single blue, Charles Dickens, Baron Von Thuyll, Queen of Blues; double white, Flevo, La Tour d'Avergne; double red or rose, Koh-i-Noor, Regina Victoria; double blue, Bloksberg, Laurens Koster.

The selection of Dutch hyacinths is largely a matter of taste in colors and shades, as all named varieties are usually of standard excellence. Dutch hyacinths look very well planted one bulb in the centre of a four or five-inch pot, and equally well in groups of three, five, or seven in bulb pans or jardinières. There should be about two inches of space between each bulb if planted in groups.

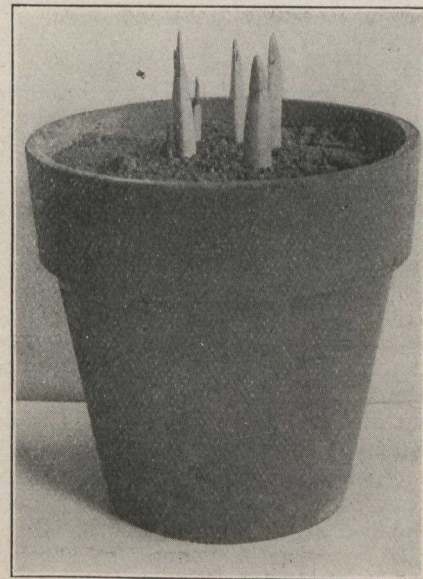
NARCISSI IN VARIETY DO WELL IN POTS

Most varieties of the narcissi are suitable for pot culture. Among the double ones, the Von Sion, or what is generally known as the English daffodil, ranks first in value, *N. alba plena odorata* and *N. incomparabilis* being two other good kinds. The single or trumpet narcissi afford an almost endless selection of varieties. Among the best are Golden Spur, Horsfieldi, Princeps, Trumpet Major, *N. poeticus ornatus*. A pot or two of jonquils, a variety of narcissus, must not be omitted, their delicious fragrance giving them an extra value as a pot plant.

The bunch, or polyanthus narcissi, are also very acceptable, the early paper white being one of the best on account of its earliness. Potted early it can be had in flower easily at Christmas. Gloriosa is another variety of this type of narcissus. The Chinese sacred lily as figured in the cut is a favorite variety of the bunch narcissi. The foregoing will make a good selection to ensure a display from Christmas until Easter.

CULTURE AND CARE OF BULBS

The soil for the pot culture of bulbs does not need to be very rich in fertilizers. At the same time they will not give the best results in very poor soil. A potting compost of four parts well-rotted sod and one part barnyard



3. Top Growth of Bulbs
Showing stage at which it is advisable to bring them into the window.

manure or cow manure, with a one-eighth part of fine sand mixed in, makes a good compost for bulbs. This compost, however, is not always ready

to hand, unless perhaps it could be obtained of some florists, or at a seed store. In case it cannot be obtained, get some good, light, loamy garden soil, mix with this some pulverized dry cow



4. How to Handle a Pot of Bulbs

Showing position of hand when desiring to knock bulbs out of pot to examine roots.

manure, four parts of soil to one of manure. Or about one quart of fine bone meal to half a bushel of soil will make a good compost, or some of the commercial fertilizers sold at seed stores could be used to mix with the garden soil. If the soil is heavy, mix in a little fine, sharp sand as before recommended. The soil should be fairly dry when used for potting.

DRAINAGE

No broken crock, charcoal, and so on, need be used for bulbs. Care should be taken, however, that all boxes or pans used should have holes in the bottom sufficient for drainage.

HOW TO POT BULBS

First of all fill the pot or box from one-half to about two-thirds full—according to size of bulbs—with the soil, press the soil down slightly. Then place the bulbs in position at proper distances apart as before mentioned, so that the top or apex of the bulb is about an inch below the top of the pot or box. It may be necessary to take the bulbs out and add more soil, or remove some, perhaps, before the bulbs are placed at the proper depth. When this latter point is assured, fill the pots loosely full level to the brim, then press the soil fairly firm around the bulbs until the surface is about half an inch below the edge of the pot or box, leaving the surface quite level. Give the pots sufficient water to moisten well all the soil in the pots. Two waterings may be necessary for this purpose. Then stand the pots away in a cool, damp, dark place in a temperature of from forty to fifty degrees

to secure good roots on the bulbs. The cellar floor, or a dark basement, or close cupboard or box will suit them for this purpose.

The pots should be buried in sand, sawdust, or dry soil to induce good root growth. This material should be packed closely around the pots and cover the pots to the depth of an inch or two. The pots seldom require water again until rooted, unless the place they are in is very hot and dry. Early potted bulbs can be placed out of doors and covered in the manner described, but must be protected from sharp frosts so that they can be got at easily to be brought indoors when rooted. The bulbs usually take from about four to five weeks to root well. To secure good roots to bulbs before bringing them into the window is absolutely necessary to ensure the best flowering results.

WHEN TO TAKE BULBS INTO WINDOW

After the pots have been in their dark cool quarters for four or five weeks, they can be examined. If their delicate white roots appear through the holes in the bottom of the pots the



5. Pot of Bulbs Nicely Rooted

Ready to be brought into window for flowering.

bulbs can be brought into the window. If no roots appear the pots can be taken out and carefully examined. This is best done by taking the pot in both hands as seen in cut No. 4, and then turning the pot upside down and striking the edge or rim of the pot on a solid bench or table, until the ball of earth and roots is removed, as seen in cut No. 5. If the bulbs are as well rooted as seen in this picture, the pot should be placed over the ball of earth while still in the position shown in cut No. 5, and then restore the pot with the plant to its proper position.

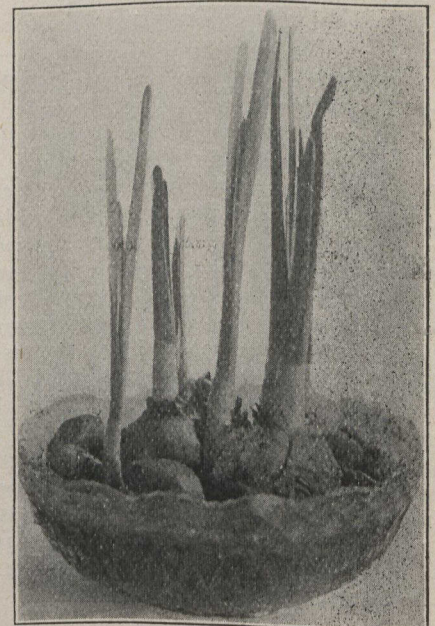
Examining the roots of bulbs is a delicate operation, and should be done as seldom as possible, as there is dan-

ger of breaking the ball of earth, and the roots, which latter would seriously injure, if not ruin, the bulbs altogether. The bulbs should be watered at once again after being examined to settle the earth around the roots. The bulbs can remain in their cool, dark quarters for several weeks after being rooted if desired, but must be brought into the window when the top growth has attained to a height of about two inches, or the flowering results will not likely be as good as they should be. Cut No. 3 gives a good idea as to the stage of top growth when it is advisable to bring the bulbs into the window. When brought into the window, place them in a not too sunny position, and see that the soil is kept well moist by regular and copious waterings, always giving enough water to moisten all the soil in the pot.

Bulbs grown in pots in the winter are seldom of any use for the following season, and it is better to purchase fresh bulbs every year. After flowering the bulbs can be dried off gradually. When the foliage is quite dead, no more water should be given them. Stand the pots away in a cool place until spring or summer, when the bulbs can be planted out in the border, where they may throw a few blossoms the next season, especially the narcissi. The hyacinths are not as likely to give good results in this way, especially the Roman hyacinths, as the latter are not hardy out of doors.

GROWING HYACINTHS IN GLASSES

Dutch hyacinths can be grown in glasses made specially for this purpose.



6. Chinese Sacred Lily

In glass bowl ready for the window.

The glasses should be filled with rain water so that when the bulb is placed

on the top of the glass the water barely touches the bottom of the bulb. The bulbs should be stood away in this position for a few weeks in a dark cellar or cupboard to root. When the vase or glass is fairly well filled with roots, the plants can be gradually introduced into the light to flower. The water should be changed occasionally when looking stagnant or dirty. Rain water or clean water that has been exposed to the sun and air is best for this purpose. The bulbs must not be

removed from the vases after they are once rooted until the flowering is over. Good sound bulbs of best quality are absolutely necessary for success in the culture of hyacinths in glasses.

The Chinese sacred lily can be grown by placing a few gravel stones in a dish or saucer, and the saucer kept nearly filled with water. Set the bulb or bulbs firmly in the gravel. The bulbs should be placed in a cool, dark place to root in, the same as recommended before. When top growth has

advanced as seen in cut No. 6, the bulbs should be brought into the window. These bulbs can also be grown in soil, sand, or moss successfully. Grown among pebbles in water in clear glass bowls or in Japanese bulb bowls, it is very interesting to watch the action of root development.

STORING BULBS

Bulbs not potted early in the season should be kept in a cool room or cellar until wanted so as to prevent them starting into top growth.

Lawn and Garden Hints for October

OCTOBER is the great bulb planting month. Prepare the beds at once. No matter how cold the locality in which you live, do not be afraid to plant bulbs. They will grow where weeds will grow. Set them three or four inches deep. Mulch the ground a little and they will come through all right, and bloom as soon as the snow is off. If you want a beautiful display next spring, select the best varieties and plant the bulbs now.

Canna roots should be dug before being frozen, and placed under the verandah or in a shed for a week or two to dry a little. A small quantity of earth should be left on the roots. Later place them in a temperature of about forty-five degrees, not lower, for winter.

Dahlia roots will keep in a cooler temperature than cannas. Thirty-five or forty degrees suits them. These will keep better in a more moist cellar or room than will canna roots. Wherever potatoes will keep through the winter in real good condition, dahlia roots can be preserved.

Go over the perennial plants, divide and transplant those that are overgrown. Every two or three years it is generally necessary to go over many of the perennials and weed out weak parts, and renew wherever necessary.

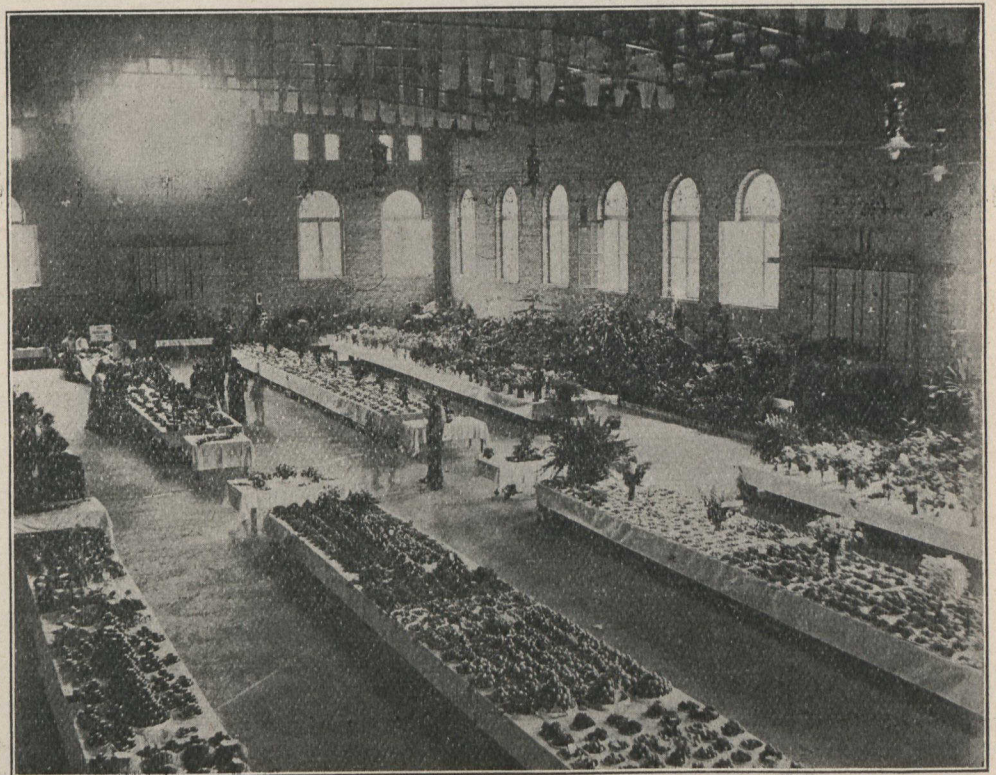
Renew the old lily clumps by taking the bulbs or offsets, divide them and re-plant this fall. Do this at once, so that they may become established before freezing weather.

The corms of gladioli should be dried off partially before being placed in the cellar or stored for the winter. A fairly dry cellar and a temperature of forty-five degrees will suit them. Be careful in digging, as the tops are easily pulled off. Loosen the soil well before pulling out.

It is a good plan to do many odd jobs in the fall that will save work in the spring and summer. Collect all stakes and other things of like nature. Store them in some good place where they can be ready for use next season.

Rake and give the garden a good cleaning. Rake the leaves off the lawn and

freezing comes. Many plants will have to be protected. Have on hand a



General View of the Niagara District Horticultural Exhibition

In the background were the groups of decorative plants. On the centre table in foreground, where they could be examined easily, were the general collections of fruit. They were not heaped in an out of the way corner as were the collections at the Canadian National. Note, also, the vases of flowers on the fruit tables; this arrangement added much to the general appearance of the exhibition.

put them on your compost heap. If you have not provided a store of potting soil for use this winter, do so at once and be prepared for emergencies. Look after tools of various kinds. Clean them and put away where they can be found.

Beds for flowers next spring should be manured and spaded now so that the frost will have free access to the soil. It helps to pulverize it and to kill insect larvæ. Beds spaded in the fall will dry earlier and work sooner in the spring than otherwise.

A little forethought will save much regret and loss when frosts and winter

supply of spruce boughs, straw, or strawy manure, and gather fallen leaves for protection.

Prepare an earth mulch for the lawn. Take good, clean soil and well-rotted manure. Mix in equal proportions, turn occasionally and apply in November. A mulch of this kind will fertilize the soil, and is not so likely to contain weed seeds as ordinary stable manure.

Pot house bulbs and have a succession of flowers through the winter. Read the illustrated article on this subject on another page.

Air the house plants every nice day,

and do not give them heat until necessary. Watch for insects and use insecticides. Spray well to get rid of red spider.

IN THE KITCHEN GARDEN

Beets, carrots, parsnips, turnips and winter radish should be taken out of the ground and stored. Some parsnips and salsify may be left in the ground all winter to be dug in the spring.

Rhubarb may be planted or the old patch renewed by digging the roots, dividing them and re-setting. Rhubarb may be grown in the house cellar for winter use. Dig some roots now, leave them on the surface of the ground or put them in a cold frame to freeze. Later, place them in the cellar on the

It will stand a little frost without injury. Store either in trenches or in a cellar, preferably the latter in our climate.

If you want home-grown lettuce and radish for Christmas and New Year's, sow the seed now in a mild hot bed. Watch the young plants closely and protect against heavy frosts.

A winter supply of parsley may be had by transferring some of the roots from the field to a pot or box, and growing them in a light cellar or in a shed.

Mushroom beds may be made any time in fall. There is just enough uncertainty in the culture of this crop to make it of particular interest. Try a bed this fall. Watch it carefully, take photographs occasionally, and when

usually the first of April. The half-hardy kinds, such as Margaret Dickson, whose bloom is borne on the top of long stems, are better layered, then covered with straw and boards, care being taken not to smother the plant. Crimson Ramblers may be treated in the same way as the hardy varieties, but for profusion of bloom, old canes must be cut out after they have borne two years. The best results are obtained if all their canes are shortened to six feet. Dorothy Perkins is best pruned as one would prune a grape vine.

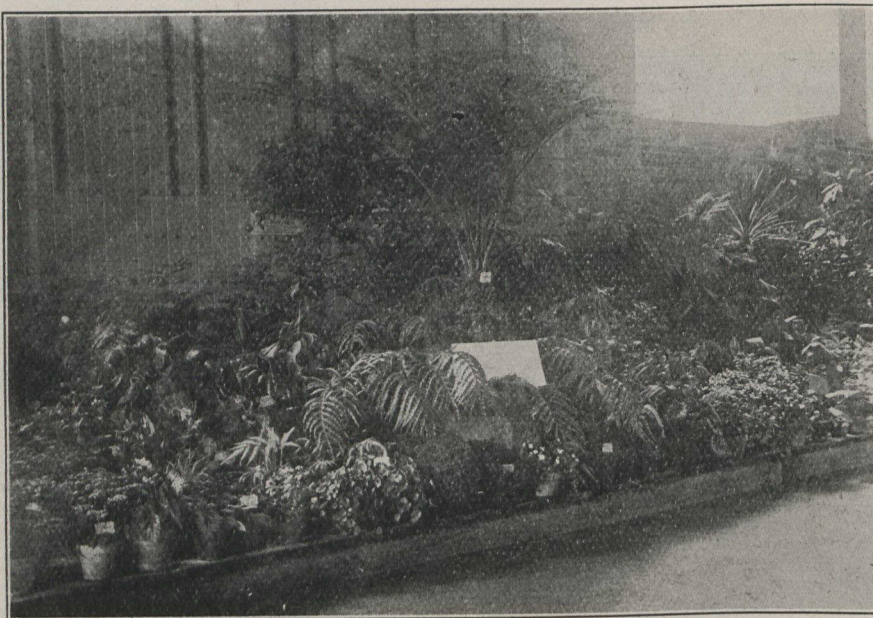
Outline your garden with rose hedges. Crimson Ramblers are the best and need the least care. If you only wish one hedge, a pretty idea is to start with six Crimson Ramblers, then six Dorothy Perkins, then six Baltimore Belles. These will shade from the darkest red to the palest shade of pink and make a very effective hedge for a garden.

Preservation of Seeds

From September on, seeds of trees and shrubs ripen rapidly and those who wish to obtain them for sowing need to watch the ripening so as to secure and preserve them in good condition. Of the various kinds, the greater number can be sown in autumn, all, in fact, excepting the coniferous sorts. On the other hand, it must not be forgotten, that where impracticable or undesirable to sow in autumn seeds can be preserved and sown in spring.

Taking maples, ash, tulip, poplar, linden and all similar sorts, to have them do their best they must not be kept in a dry state too long. Maples soon suffer if allowed to become dry; linden and tulip will keep a longer time without moisture. Magnolia seeds soon become worthless if allowed to dry. The safest way is to prepare the seed beds in early October, and then sow all the seeds when they ripen and fall from the tree. A week or two's delay in sowing them does not hurt them, but a longer period is very apt to do so.

When impossible to sow in the fall, the seeds should be kept in a slightly moist state and in a temperature that is low all winter. It is not essential that they be mixed with soil if the air is moist, but the conditions mentioned are better attained when in soil, and then it is not necessary that the air of the building be damp. It is quite essential that nut seeds be damp all winter. These do just as well sown in spring as in autumn if well preserved in damp material, as they but require to absorb a certain quantity of moisture to cause the shells to part. A great deal regarding the care of seeds has to be learned by practice.



A Group of Rare and Valuable Plants at the Niagara District Exhibition
Exhibited by Mr. Roderick Cameron, Queen Victoria Park, Niagara Falls, Ont.

floor or in a barrel, where they will produce tender and juicy stalks.

When the tops of asparagus are sufficiently dry for them to be broken by a harrow or rake, gather and burn. Work a top dressing of well-rotted stable manure into the soil.

Harvest squash, pumpkins and melons before danger of frost. In harvesting, leave an inch or so of the stem so as to prevent rot. Store in a dry place. Late celery should be harvested before the end of the month.

the crop is all harvested, write a letter, stating your experience, to THE CANADIAN HORTICULTURIST.

If you contemplate changing the vegetable garden next season, early in October is the best time to begin the work. The ground should be cleared of all trash and vegetation. A good dressing of manure should be applied and plowed under, and the ground left in that condition until spring. Better results are had by changing the location of most crops every year.

The Fall Care of June Roses

A. K. Goodman, Cayuga, Ontario

THE fall care of hardy roses is a vital question for the amateur flower lover, and one which he is apt to shirk; yet, the foundation for next season's success must be laid at this time. To obtain perfection in June roses, grow them in the open sunlight and in a clay soil. In November, spade around the

bushes, working in well rotted-manure; cut off tips of canes to assist nature in maturing the wood (but do not prune till spring), then bank earth around each plant. When the ground is frozen solid, tie up the hardy varieties with straw. Leave this cover on till the cold winds have ceased in the spring,

Forcing Plants by Ether

J. E. Howitt, M.S., Ontario Agricultural College, Guelph

THE forcing of plants by means of ether and other anæsthetics is a subject which has attracted the attention of the commercial florist in France and Germany for a good many

years. It is only within the last year or two, however, that the florists of Canada and the United States have had this method of forcing plants brought to their notice by articles that appeared in several American papers, giving accounts of the experiments on the use of ether in forcing plants, conducted in the department of horticulture at Cornell University. The results of these experiments would seem to indicate that ether might be profitably employed by the commercial florist to force many varieties of plants into bloom for the Christmas and Easter trade, and by gardeners who have charge of private greenhouses. A short account of the methods employed and of the results obtained from the experiments conducted at Cornell University should therefore be of interest to readers of THE CANADIAN HORTICULTURIST.

dodendrons, and azaleas were placed in a cool cellar as soon as they arrived from the nursery, the packing of earth around the roots being left intact. When the plants were required for use, they were brought out into a warmer room several hours before it was time to begin the experiment, in order that they might become comparatively dry before being placed in the etherization box.

for every fifty-six gallons of air in box. Later trials were made using fractions of this amount, as one-half, one-quarter, one-third, and so on. Various periods of etherization were tried, as was the effect of etherizing plants at different temperatures. Most of the plants were etherized before being potted, and when potted plants were etherized, if the earth in the pots appeared damp, a layer of dry sand was placed over it, as moisture absorbs ether and thus prevents its action. After the plants were placed in the box, the required amount of ether was poured on a ball of felt, which was placed on the top tray of the box, and the box shut and clamped down as quickly as possible. On the box being opened, the plants were left for several hours in order that they might be thoroughly aired before being potted and placed in the forcing house. When this was done, check plants of each variety were also placed in the forcing house, and both the etherized and check plants were given exactly the same treatment. Observations were made on these plants from day to day, and a record kept as to date of first indications of growth, date of opening of first leaf bud, date of opening of first

METHOD OF WORK

The box in which the plants were etherized was an air-tight, galvanized iron box made especially for the purpose. The dimensions of the box were four feet six inches long by two feet three inches square on the end. Two trays were made to set in the box, so that three tiers of pots could be placed in it if necessary. These trays were made of heavy wire mesh. The wire mesh was used in order that the ether might permeate to every part of the box. In order to have the box as air tight as possible, the cover was so made that it would come down over the body of the box about five inches, and rest on a thickly felted ridge. When the box was closed the lid was firmly clamped down, two clamps being put on the front and the back of

the box, and one on each end. With these precautions it was possible to get the box almost air tight.

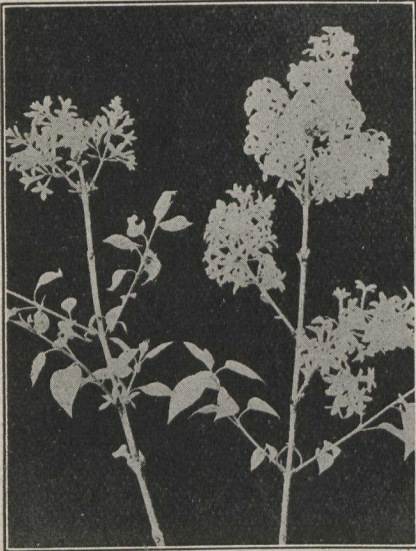
HOW TO USE THE ETHER

The ether used in the experiments was the ordinary commercial sulphuric ether. In the first experiments the amount of ether used was four ounces

flower bud, date of full flower, and general health and vigor of plants.

THE WORK IS VALUABLE

The results obtained from these experiments, though variable, were on the whole very pronounced. The experiments with golden rod, asters, golden glow and aquilegia gave only nega-



Lilacs Unetherized and Etherized

Bloom cut on December 26th



Astilbe Japonica—Unetherized Plant on Left and Two Etherized Ones

KINDS OF PLANTS

In the experiments carried on at Cornell the following kinds of plants were used: golden rod, golden glow, aquilegia, *Astilbe Japonica*, lilacs, deutzia, Japanese quince, rhododendron, rhubarb and asparagus. These plants were secured in the fall just as soon after cold weather commenced as possible. The herbaceous material, including rhubarb and asparagus, was placed in a cold frame and the roots covered with earth. The shrubs, rho-

tive results. On the other hand, etherized plants of *Astilbe Japonica* (varieties *Spiraea astilboides* and *S. compacta*) came into flower from ten to thirty days earlier than plants forced by the ordinary methods. Etherized lilacs flowered from six to ten days sooner than those unetherized. One etherized Japanese quince flowered five days before the check plant, while another made a gain of seventeen days over the check plant. Rhododendrons failed entirely to respond to the action of the ether fumes, while etherized azaleas came into flower several days before the untreated plants. Good results were obtained from the experiments with rhubarb, the shoots of the etherized roots being ready to cut fully five days before those of the unetherized roots. Not only were the shoots of the etherized roots earlier than those of the unetherized, but there were also a great many more of them, the ether apparently causing every bud on the root-stock to produce a shoot.

The foregoing is just a brief summary of the results obtained from a long series of experiments carried on at Cornell on the use of ether in forcing plants. It should, however, be sufficient to bring before the Canadian florist the possibilities of the subject.

The Fragrant Freesia

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

No winter flowering bulb gives more acceptable results than do the pretty little bulbs of *Freesia refracta alba*. Plant at once about five or six good sound bulbs in a four or five inch pot in fairly good potting soil, soil that will grow geraniums will suit them. Use a little broken flower pot, coal cinders or gravel for drainage. Put the bulbs at equal distances apart, four around about half an inch from the inside of the pot in a circle, with one or two bulbs near the centre. The top of the bulbs should be about half an inch below the surface of the soil when potted, and the surface of the soil about half an inch below the top of the pot when the soil is pressed down firmly. Give water sufficient to moisten all the soil.

Place the pot in the window at once; do not bury them in the cellar as many have done, and had failures. Avoid over-watering the bulbs until growth and root action has well commenced, then more water may be given. Keep them in a sunny place in the window. Stake the plants to support them when the grassy-like growth is four or five inches in height, and wait patiently for several weeks for the flower stalk. Do not throw them out, as often has been done, because they were slow in

flowering, thinking that the seedsmen had deceived them and given them grass plants. Wait for the flowers. If the bulbs were good, the flowers will come in due time, and will well repay for care and patience shown. When the bulbs have done flowering, water them less frequently until the growth has dried up yellow, when no more water should be given them. The pots should now be stood away in a cool, dry room, and the soil kept dry until next September, when the bulbs should be shaken out of the soil and the large ones repotted and treated as before.

When staking freesias put four or five small stakes about a foot in height around close to the inside of the pot. Around these tie tightly some fine twine or raffia four or five times around the stakes from top to bottom, crossing and re-crossing the twine between the stakes a few times across the pot to help support the tender growth. This is better than staking each stalk singly, besides giving the plants a much neater appearance. Small thin stakes should be used for this purpose.

Making Root Cuttings

The autumn is a better time to make root cuttings than spring. Many of the small fruits, such as the dewberry, blackberry and raspberry, are readily increased in this way, as are many trees and shrubs.

The roots of the plants mentioned and those of any trees or shrubs of about the same habit of growth, should be cut into three-inch lengths, and if not time to set them outdoors, cover them up in a cool cellar, in damp sand, soil or moss, there to remain until the planting out time arrives. By making the cuttings in advance of planting them in nursery rows there is given time for the forming of a callus, and the developing of buds, hastening the appearance above ground of the growing shoots in spring. When setting out the roots, a shallow trench may be prepared and the roots spread in it.

Autumn Leaves

For decorating rooms in the home and public buildings autumn leaves may be used with advantage. Out along the water front and among the swamps you will find the brightest colored leaves, but your florists can supply you with autumn foliage. The cut-leaved oak and the red or sugar maples are the best.

Many sentimental people consider autumn leaves with a tinge of sadness and shudder at their use. Be careful of such. The foliage is distinctly appropriate for any form of decoration. For table decorative work, care should be taken not to use ill-smelling or rough autumn leaves; instead, use a few well-colored

tips of *Ampelopsis Veitchii*, which can be had from the nurseries, from florists or from the walls where they are grown.

Growing Celery Easily

J. W. Rush, Humber Bay, Ont.

An experiment that I have conducted in growing celery without the use of barnyard manure, may be of interest to the readers of THE CANADIAN HORTICULTURIST. I have a piece of damp, sandy soil that inclines to the north



Some Well-Grown Celery

and west. About May 20 I plow and harrow it finely, then mark the rows east and west, twelve inches apart. I use young plants about two inches high and well rooted. They are taken directly from the seed boxes and planted five inches apart in the row. Once a week they are hoed or raked until about July 15, when no more hoeing is needed, as the plants cover the ground. On the plot were 5,000 celery plants. I use about 150 pounds of Harris' Fertilizer applied at three different times, and no other manure.

For forty years I have been growing celery, but have never had a better lot than was grown on this plot. The stocks were ready for market on September 1. When planted in the manner described, no boards are required for blanching.

There was no sign of rust or blight. I believe that the fertilizer, having

been applied when the plants were growing, kept them moving, and aided them to grow away from the blight. The variety was Simmers' Self-blanching. About 175,000 to 200,000 stalks of celery can be grown per acre in this way. Why, then, do we use so much good land and so much manure in growing only about 25,000 of poor quality?

[NOTE.—Mr. Rush kindly sent two or three bunches of this celery to THE CANADIAN HORTICULTURIST. They were all large-sized and well blanched, crisp in texture and excellent in quality. The illustration on page 246 gives some idea of their appearance. They were a credit to Mr. Rush's skill as a gardener.—Editor.]

How the Famous Montreal Muskmelons Are Grown

R. Brodie, Westmount, Quebec

THE muskmelon is usually regarded as a southern crop. Only in recent years has the great Rocky Ford melon district divided honors with Maryland and Georgia. New England has been content to accept second or third place, or to go without home-grown melons altogether. Meanwhile, Montreal has made a reputation in melon-growing, which while not so much noised in the newspapers, is something to be fairly proud of.

While we grow fewer muskmelons than are grown in Rocky Ford, Colorado, we consider that we make up in quality, to some extent at least, what we fall short in quantity. Our first melons go to market about July 1, and bring \$12 a dozen wholesale. In other words, we get more for a single melon than the southern growers usually get for an entire crate of thirty to forty-five. My neighbor says he has sold \$3,000 worth of melons from three acres. It will be seen, however, from the following statement of our methods, that we put ourselves to much greater expense than the southern grower.

Seeds are sown the end of March in a hotbed, in four-inch pots, strawberry boxes, or inverted sod, buried in the earth in rows close together. Five melon seeds are planted to each pot, or box, and the seeds are buried about half an inch deep. When the plants come through the ground air is given by raising the sash when the sun shines during the day, closing and covering it at night to retain the heat and keep out the cold. By the end of April, the plants should be large enough to set out in the permanent hotbeds.

Any light soil, that will give a good crop of corn or potatoes, should grow melons. Trenches should be dug the previous autumn eighteen inches deep and thirty inches wide, and as long as required for the number of hotbed frames. The action of the frost through the winter pulverizes the soil, and puts it in good condition to receive the plants. These trenches are filled with hot manure trampled down firmly to within four inches of the surface, and covered with about eight or nine inches of soil. In growing melons on a large scale, we

cover the manure with the plow, putting in little posts to mark the centre of the trench, making a ridge or bed about eight feet wide (a foot broader than the hotbed frame), raking this smoothly, leaving a slight rise on the middle of the ridge, and then putting on the hotbed frame and sash. In a day's time the soil should be warm enough to receive the plants from the nursery hotbed. They are watered freely, so that they may come easily from the pot. (I prefer the berry boxes, as they cost less and can be easily broken away from the roots.) One pot containing four stout plants is put to each sash. They are watered after planting and shaded with boards or matting for a few days, till the plants take root. Shallow cultivation is practised, for the roots extend near the surface as far as the vines above ground.

About the beginning of July, when the vines have filled up the frames and little melons appear the size of a cocoanut, the glass and frames should be removed, doing this gradually to harden up the plants. As soon as a good crop of fruit is formed, the end of the vines should be nipped off and all the growth sent into

the melons. Some varieties, like the Hackensack, produce far too much vine and too few melons under this system of growing. One of the strong points in favor of the Montreal muskmelon is its productiveness, as well as good quality.

The melons should be turned every few days, care being taken not to injure the vine. Some growers, as soon as the melons are well netted, do purposely give the stem a twist to hasten ripening, spoiling the quality for the sake of having them earlier. When they are nearly full grown, pieces of wood or shingle should be put under each one to prevent rot and to keep the worms from them.

Sometimes good melons are grown by a somewhat simpler method. Holes are dug about one foot deep and eighteen inches in diameter, and these are filled with warm manure, which is well trampled down. Each hill is then covered with eight inches of soil, and is set with plants from the nursery hotbed. These hills are shaded for a few days with a box or something of the sort. Such melons ripen in September, but there is not the demand for them in the markets that there is during the sultry days of July.

Forcing Lettuce Under Glass

Eugene Davis, Grand Rapids, Michigan

THE soil mostly used in this section is a fine, light sand, finely manured. It gives good drainage, and never gets hard. Use the best seed obtainable. It should be water-cleaned, which gives a plump, heavy seed, and a more uniform crop. Ventilation should be given at all times when weather permits, but it is not well to let cold winds blow directly on the plant. Watering requires considerable judgment, especially during dull, cloudy weather. It is better to water in bright, clear weather and in the forenoon, if possible, so that the plants will dry off by night. Always water thoroughly when needed. Lettuce needs water when the soil taken in the hand will not pack but crumble.

For aphid or green fly, fumigate twice a week with tobacco stems, or

use tobacco dust sprinkled on plants and ground. Use after each watering until the plants are one-third grown; if put on full-grown plants, it is difficult to wash off. It is better also not to fumigate when the crop is nearly ready to sell, as it will smell and taste of the tobacco. We carry a night temperature of forty-five to fifty degrees; day, sixty to seventy-five. Have a self-registering thermometer and thermostat with electric bell in the dwelling-house; it pays, as some firemen are careless about keeping an even temperature at night.

We get better results in starting the seed bed under glass even in August, when seed is sown for first crop. The plants are not so apt to get brown rooted or rusty, with which there has been very much trouble here in the

past three years. The rust is known locally as "shot-hole" rust, as the leaves are eaten full of holes. The crop is often completely ruined.

THE KIND OF FERTILIZER

For fertilizers, livery stable manure, partly rotted, or in a short condition, is used. If run through a manure spreader, it is put in a fine condition to mix with the soil. My houses are 29 by 280 feet, with double doors in each end, so that the soil and manure can be drawn in with a team and

wagon. In preparing for a crop, two inches of the top soil is shovelled to one side, then four inches of manure is evenly spread, then it is thoroughly mixed with a horse and plow, levelled off, well watered, and the top soil replaced. Eight-inch boards are used for walks, which practically gives all the space for the crop. This is all the fertilizer used for the three crops usually grown during the season. The lettuce is planted in rows six inches each way, with double-rooted plants six weeks old.

The crop is usually ready for market in seven to eight weeks. It is sold by the pound, and packed in sugar barrels and bushel baskets paper lined. Competition is keen. Prices vary and usually average eight to twelve cents a pound for the season. For the past three years, instead of changing the soil, we have sterilized it with steam. It is less work, renews the soil, makes the crop grow faster, prevents damping off, kills weed and insects. It will pay anyone who is having trouble in growing lettuce to try it.

The Oldest and Largest Nursery Firm in Canada

As was pointed out in the September issue, THE CANADIAN HORTICULTURIST is desirous of determining and making known the status of some

In the growing department, about 75 to 100 men receive constant employment. Although the grounds of the nurseries are of great extent, they are

kept like a garden, free from weeds and attractive. By the liberal application of manures and by good cultivation, the stock is vigorous and thrifty, showing perfect healthiness and freedom from disease.



Office, Grafting House and Greenhouses at Fonthill Nurseries

NEARLY THREE MILLION PLANTS

In the nurseries, where are growing fruit trees of all kinds, ornamentals, shrubs, evergreens (of which this firm has the largest collection in Canada), small fruits, roses, and an immense block of herbaceous stock, there are probably between two and three million plants of all ages.

HOW THE STOCK IS SOLD

The stock is sold, through the retail department at Toronto, by an army of over 300 travellers, who send in their orders weekly. By selling in this way and by receiving frequent reports from their agents, the firm avoids selling anything that they cannot furnish. They always know just where they stand, and orders are not taken for stock that is not available. Were canvassers not employed, this check could not be kept,

of the leading nurseries of Canada. The immense nurseries at Fonthill, owned by Morris and Wellington, comprise over 800 acres of nursery land. This firm has been established for over thirty years and has done business over the same territory for that length of time, the business being conducted under the name of Stone & Wellington. This nursery is the largest in Canada and one of the largest in the world.

AN ENTERPRISING CONCERN

The business conducted is enormous. Nursery stock of all kinds is shipped to points in Canada from Halifax to Vancouver. Many large orders are received, also, from European centres. That the packing of the nursery stock is done carefully, is evidenced by the fact that after being six to eight weeks on the way, the stock comes out of the boxes in perfect condition.



In This Block There are 100,000 Peach Trees One Year Old

In the foreground stands Mr. E. Morris, senior partner, who looks after the growing of all the stock.

as direct orders come at the last of the season, and in that way, many varieties would be sold out while, perhaps, better ones are left in stock.

REPRESENTATIVES ARE RELIABLE

Reliable men with good references always can obtain employment. The firm is particular, however, in the matter of employing agents. Good references regarding the character and reliability of the applicants are necessary. While most of the stock is sold by canvassers, the firm will sell direct to customers who desire it. An up-to-date catalogue is furnished upon application. Stock is shipped twice yearly, in October and in April. During the shipping season, fully 200 men are employed in the different departments, under skilled foremen, in billing out and shipping the stock.

NOVELTIES ARE TESTED

All the latest and best novelties are



A Block of 60,000 Two-Year Plum Trees



A Block of 75,000 Two-Year Cherry Trees

grown in these nurseries. In fruits, any new variety with supposed merit is obtained immediately and grafts are put in the trees growing in their testing orchard, so that such new varieties may be tested before selling. The public secures the benefit of these tests. In the apple testing section of this orchard alone, there are over 600 distinct varieties. Those that are worth fruiting and of being disseminated, are offered for sale to the public.

STOCK IS HEALTHY

A special point in respect to the stock at the Fonthill Nurseries is the healthiness of the trees. The climate at Fonthill, which is situated between the two great lakes, Ontario and Erie, is tempered by the influence of these large

bodies of water. The lakes so modify the temperature in winter, that the young trees are not damaged by freezing and are free from black heart. It is well known that black heart is caused by young trees being frozen in winter, by pruning at the wrong season, or by too close pruning, which is often done by smaller concerns who are not posted in the business. The writer was offered \$100 if he could find a single tree in the nursery with black heart. It is the heavy fall of snow, which is protective in its influence, and the situation, tempered by the water, that makes the trees so healthy. The climate in winter is just cold enough to keep the trees thoroughly dormant throughout the season, and to prevent the premature swelling of buds, which otherwise might be frozen, and not cold enough to cause severe freezing and injury.

HARDY VARIETIES

Of late years Stone & Wellington have



A Block of 100,000 Norway Spruce, Twice Transplanted, Eighteen to Twenty-Four Inches High



A Block of 50,000 Standard Pear Trees, all Leading Varieties, Two-Years Old

devoted a great deal of attention to the growing of hardy varieties suitable for Manitoba and the west and have been very successful in that respect. They have catered also to the wants of the British Columbia fruit growers, and their trees have given the greatest of satisfaction. In the western prairies, many farmers are planting trees. This firm is growing millions of seedlings which farmers can buy at low rates and soon obtain wind breaks, which will aid them very materially in being able to grow fruits.

TREES INSPECTED THREE TIMES

All the trees, shrubs and plants in the nursery are carefully examined for insect pests and the greatest care is exercised. Before a tree is shipped, it passes through the hands of three ex-



300,000 Three-Year-Old Apple Trees as Good as Earth Can Produce



In This Block are 150,000 Gooseberry Plants

pert inspectors, whose business it is to make sure that nothing but first-class trees are sent to customers.

The representative of THE CANADIAN HORTICULTURIST was much impressed by the size and appearance of this great nursery. A few photographs were taken, but they do not convey a proper idea of the full extent of the establishment. Some of them are reproduced on these pages and give some idea of the magnitude of the operations of this long established and well-known firm.

Harvesting Potatoes

When harvesting potatoes, dig only as many at one time as can be dried and gathered before quitting; this applies to each half of the day. Where possible pick the tubers as soon as they are dry. The length of the drying period depends on the weather and on the nature of the soil. In dry weather, potatoes in sandy soil should be ready

in an hour; in moist clay, two or three hours may be necessary. Never leave the tubers on the ground overnight. Frost is liable to destroy a large number.

Another point in the harvesting of potatoes is the advisability of grading while picking. Two classes at least should be made, gathering the best ones first and leaving the smaller size until later. The most satisfactory package is the bushel box or crate. These are easily distributed, filled and loaded; and they also lessen the possibility of bruising. Every gardener should have a number of these where such crops as potatoes are grown.

This month will probably be the last chance you will have to build an ice house. The most important thing is perfect drainage. The house should either be on an elevation, or must have tile laid to carry off the water formed by the melting ice.

OUR QUESTION AND ANSWER DEPARTMENT

Readers of The Horticulturist are Invited to Submit Questions on any Phase of Horticultural Work

Legal Weight of Apples

What is the standard allowance in weight for a bushel of apples?—T. B., Forest, Ont.

We do not know of any standard weight per bushel for apples in this country. In the state of Wisconsin, the standard weight is fifty-seven pounds, and in Kentucky only twenty-four pounds. By this, you will see that there is a great difference between legal weights in the various localities. In Iowa, Massachusetts, Michigan, Missouri and Ohio, the weight is 48 pounds; New Jersey, 50; Vermont, 46, and so on. It is difficult to decide upon a definite weight per bushel for apples, as the various varieties are of different specific gravity. Stark will average about 56 pounds; Kings and Spitz, 44; Baldwin and Roxbury Russet, 50; Ben Davis, 47; Greening, 52; Golden Russet, 53; and Spy, 46.

Varieties of Plums

Kindly suggest varieties of plums for planting on a fruit farm in this locality?—A. J. C., Listowel, Ont.

The following varieties probably would give best satisfaction: Lombard, Yellow Egg, Quackenboss, Arch Duke, Coe's Golden Drop, Reine Claude and a few Red June for early. If you wish to plant a few prunes, we would suggest Prune D'Agén.

Enquiry from Finland

As the cultivation of gooseberries in our country is in great danger of destruction by the fungous disease, *Sphaerotheca mors uva*, and as we have been informed that you cultivate species of gooseberries that are not disposed to this disease, I request that you name some of the varieties, hardy enough for a cold climate, and mention also where they can be obtained.—B. W. Heikel, State Pomologist, Helsingfors, Finland.

The American varieties of gooseberries are practically free from the disease mentioned. The leading varieties are Downing, Pearl, and Red Jacket. They may be secured from the nursery firms that advertise in THE CANADIAN HORTICULTURIST.

Cropping an Orchard

What crops may be grown in young orchards, without evil results?—C. M., Sherbrooke, Que.

Only those crops whose treatment will improve the physical condition of the soil and will aid in conserving moisture should be grown in young orchards. Grain, hay and succulent

crops should not be grown, although it is claimed that corn will to a certain extent shade and protect newly-set trees from winds. Hoed crops and small fruits are the most satisfactory. Sod should not be allowed in an orchard except when desired to check the vigor of trees that are making too much wood at the expense of fruit, although, in localities where there is an excess of humidity in the atmosphere and soil, orchards in sod have been found to give good results.

Value of Hellebore

Has hellebore any particular value over other poisons as an insecticide?—L. R., Barrie, Ont.

The particular value of hellebore lies in the fact that it is less poisonous than most other compounds used as insecticides, and that on being exposed to the air, it soon loses its strength. For this reason it is safe to use it on fruits that are almost mature and ready for market.

Fruit Tree Borers

What is the difference between the peach tree borer and the apple tree borer?—B. T., Essex, Ont.

The adult of the peach tree borer is a moth, while that of the apple tree borer is a beetle. The larva or the borer itself that works on the peach and plum has eight pairs of legs, while that of the apple has three pairs. This is an easy way to distinguish between them. The peach tree borer works from the crown of the tree downwards into the roots. There are two apple tree borers, one of them works in the trunk near the ground, the other higher up and sometimes in the larger branches.

Multiplying Ivies

How can the various ivies be propagated and at what time of the year?—R. T., Vancouver, B.C.

The Virginia creeper or woodbine, *Ampelopsis quinquefolia*, may be propagated by hardwood cuttings taken in the fall. The Boston or Japan ivy, *Ampelopsis Veitchii*, is best grown from seeds sown under glass or outdoors as soon as ripe. It may be propagated also by cuttings of green wood taken in spring, and inserted where they may receive a gentle bottom heat. The English ivy, *Hedera Helix*, may be propagated at any time during the growing season by cuttings of half-ripened wood.

Germination of Seeds

How can the germination of seeds, whose coats are more or less impervious to water, be hastened?—L. A., St. Stephen, N.B.

The germination of seeds whose coats are only fairly hard may be hastened by soaking in cold or lukewarm water. Others more hard may be softened by pouring over them scalding water, but they should not be boiled, as sometimes has been recommended. With large nut-like seeds, the practice of stratification is necessary. This consists in exposing the seeds, mixed with earth, to frost and moisture for a time. Bony seeds are sometimes filed or bored to hasten germination. At some of the experiment stations, machines are kept for this purpose.

A Tomato Pest

I had some trouble with a worm destroying my tomatoes in a greenhouse. It looked like a cut-worm, being dark brown in color. What is it?—A. J. C., Listowel, Ont.

The worm that attacked your tomatoes was probably the variegated cut-worm, *Peridroma saucia*. It was very abundant and destructive this year. During the day they are buried about one inch deep in the earth, usually near the roots of the plants they are attacking. The best remedy for them in greenhouses, or on small areas, is to scatter poisoned bran among the plants. The formula for making this is as follows: Mix one pound of Paris green with fifty pounds of bran, and moisten well with water sweetened by black strap or sugar. Be sure that the Paris green is well mixed, as it tends to sink to the bottom.—Answered by L. Cæsar, O.A.C., Guelph.

New Tomato Pest

I have heard of a new worm that eats the tomato, fruit and leaves. What is the best way to fight them?—A. J. C., Listowel, Ont.

I have heard of but not seen the so-called "New Tomato Worm," so cannot tell what it is until I see a specimen. Probably the best treatment for limited areas will be to dust with pyrethrum powder. Take one pound of pyrethrum powder, and mix with four pounds of flour, keep in a closed vessel for twenty-four hours, and then dust over the plants. This is not poisonous to human beings, and hence will be safe to use on your tomatoes.—Answered by L. Cæsar, O.A.C., Guelph.

The Canadian Horticulturist

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|-------------------------|--------|
| August, 1906..... | 4,220 |
| September 1906..... | 4,300 |
| October, 1906..... | 4,330 |
| November 1906..... | 4,775 |
| December 1906..... | 4,814 |
| January 1907..... | 4,947 |
| February 1907..... | 5,520 |
| March 1907..... | 6,380 |
| April 1907..... | 6,460 |
| May 1907..... | 6,620 |
| June 1907..... | 6,780 |
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EDITORIAL

EXHIBITORS SHOULD PROTEST

It is becoming more evident each year that the main object of continuing the Canadian National Exhibition is to make money. The original purpose for which the show was organized, namely, the display of the agricultural products of the country, is being sacrificed for gain. The excuse given by the management is that the horticultural hall costs more for attendants, and so on, than any other building, and it must produce a revenue. The cost for labor during the show for the building should not warrant the management endeavoring to overcome this expenditure by permitting booths to obstruct the building, spoil the display and decrease the space for the proper exhibiting of large groups and individual plants, merely for the sake of a revenue. The exhibitors were unanimous in their protest against the curtailing of the space and what promises to become a nuisance.

A few improvements could be made in the building that were impossible to see before the building had been in actual use. More light from the roof would show up the exhibits to better advantage. Although the prize list has been slightly altered, there is still room for originality. There is nothing so attractive to the public as something that they cannot see every day. The chairman of the horticultural committee deserves great credit for introducing some new features. It would have shown interest on the part of others on the committee if they had attended and given their support and assistance in placing the exhibits. Greater enthusiasm on the part of the committee should be productive of new ideas. Such could make the horticultural hall a leading attraction, instead of being a place for fakirs and the selling of pink lemonade.

DISGRACEFUL FACILITIES

The fruit dealers of Toronto and the growers who supply them have strong reason for the dissatisfaction they feel with the treatment afforded them by the Grand Trunk Railway and the Canadian Express Company. The fruit market in Toronto, which belongs to the former company, is a disgrace, and the manner of handling fruit practised by both companies is abominable. While the trouble is not altogether a new one, it has been accentuated during the past few weeks. The difficulty lies in the fact that the fruit growers of Ontario and their representatives in the city are naturally animated by a desire to secure the most rapid and most satisfactory connection between the growers and the general public. In the accomplishment of this desire they find that the two companies mentioned are not helpful factors.

There is much delay in the matter of unloading fruit after the cars arrive at Toronto. The staff employed by the Canadian Express Company is not large enough or capable. Sometimes fruit that arrives early in the morning is not unloaded until that evening. Where from twenty-five to thirty men ought to be actively engaged in handling the 30,000 packages of fruit that pass through the Toronto market on an average day, on one occasion recently, one foreman with three assistants were engaged in the work. It is not surprising, therefore, to hear the retail dealers in the city complaining of the poor condition in which they receive fruit. Under the conditions mentioned, it is impossible to deliver fruit early and in a fresh condition.

It is charged, also, that the fruit is not properly sorted when taken from the cars, that great difficulty arises sometimes in straightening things out, and that not a little is injured in transmission. The company does not forget, however to present its bills of charges, and

often before the cars are unloaded and the contents checked off.

The fruit market itself is unfit for the proper handling and display of fruit. It is altogether too small. There is not enough room for the immense quantities of fruits that pass through it. While the fruit industry is increasing rapidly and continually, the Grand Trunk Railway is not providing facilities in keeping with the requirements. Sometimes the packages must be piled twenty-five and thirty high to make enough room in which to move about. It is impossible, even on ordinary days, and much less on rush days, for buyers to examine fruit. It will be seen, therefore, that not only do the dealers suffer but also the men who grow the fruit. Thousands of dollars are lost each season to the fruit growers of Ontario through inadequate facilities afforded the commission men to whom they consign.

In view of this fact, it would seem that something should be done to remedy the situation. The city council of Toronto has been approached on different occasions by the dealers and asked to build a suitable market. Promise after promise has been made but nothing has been done. While it would cost a few thousand dollars to erect a suitable building, the expense would be mitigated by the fees collected. Arrangements should be made to have a joint deputation of fruit growers and dealers wait on the city council. This deputation should be sufficiently large and influential to command immediate attention and thus ensure something being done to improve the prevailing unsatisfactory conditions.

A USEFUL ORGANIZATION

The horticultural societies of Ontario will be acting in their own best interests if they rally to the support of the Ontario Horticultural Association. This association was organized with the object of assisting the individual horticultural societies of the province. Its success to date has been remarkable.

It was through the efforts of those enthusiasts who first interested themselves in the organization of the Association, that the need for a new act relating to horticultural societies, and for a larger grant for the work, was first drawn to the attention of the department of agriculture. Later, when the department was considering the new act governing horticultural societies, it discussed its main provisions with the officers of the Horticultural Association, who thus were enabled to make suggestions that since have proven to be of great value to horticultural societies. More recently the Provincial Association has succeeded in securing a government grant to assist its work and in inducing the department of agriculture to print annual reports relating to the work of the horticultural societies of the province. The first report of this nature has been distributed recently. Its contents should be of great interest to the members, and particularly to the officers of horticultural societies.

It is hardly to be expected that any society in the province will refuse to identify itself with the Horticultural Association, the membership fee of which is only \$2.00. The next convention of the Association will be held in Toronto at the time of The Ontario Horticultural Exhibition. An outline of the subjects to be discussed is published elsewhere in this issue. It is to be hoped that the horticultural societies of Ontario will be well represented at the meeting.

The action taken by the Board of Control for Toronto, in expressing themselves in favor of cooperating with the Dominion Government in the appointment of a local fruit inspector for Toronto, and paying part of the expense, is commendable. Such inspection is necessary on account of the increased export of fruit which leaves the poorer grades in the domestic market.

So much trash is displayed in the store windows of the city and offered for sale that the wisdom of making seizures, where deemed advisable in the public interest, is evident. The best class of the trade also would receive protection from less scrupulous competitors. In their own interests, the other large cities in Canada should follow the example of Toronto in this respect.

Reports indicate that there will be a fairly large quantity of very small apples, otherwise fairly good. Shippers should not forget that there is no lowering of the standard and that the size for No. 1 or No. 2 is not the medium size as grown in 1907, but the medium size in an ordinary season. There will, therefore, be a large number of apples that will be marked No. 2, or even No. 3, for no other reason than that they are too small to qualify for a higher grade. The fruit inspectors have already recommended the prosecution of some shippers who have offended in this particular.

Visitors at the Canadian National Exhibition on Fruit Growers' Day were greatly disappointed in not being permitted to see the fruit at close quarters. The judging was not completed until late in the afternoon, and the spectators were "roped off." The judging of the packages should have been done on the preceding day, and the plate fruit early that morning. An effort should be made next year to have the judging completed in time.

THE CANADIAN HORTICULTURIST recently was favored with some specimens of dwarf or Spanish figs, grown by Mr. J. A. Wallace, Beechwood Cemetery, Ottawa. They were perfect in size and appearance and were of excellent quality. THE CANADIAN HORTICULTURIST would be pleased to receive contributions of rare fruits, flowers or vegetables and new varieties for mention in our columns.

While the new horticultural hall at the Canadian National Exhibition is a building to be proud of, it has one or two defects. One of them was betrayed by the heavy rains that fell during one or two days near the close of the exhibition. The building leaked, and damaged the appearance of some of the exhibits. It is to be hoped that the fault will be remedied before exhibition time next year.

Recently THE CANADIAN HORTICULTURIST was favored with a basket of fruit and a few stocks of celery, both from Mr. J. W. Rush, of Humber Bay, Ont. In the basket were a large number of Burbank plums, clean and of large size, as well as some excellent cherries. The celery was about the best that has ever come under our observation.

During the past few weeks a number of unsigned letters have been received by THE CANADIAN HORTICULTURIST. Some of them should have been answered long ago, but we do not know to whom to address the replies. Readers and enquirers, who may think that they have been neglected, are requested to bring the matter to our attention and to sign their names.

We regret to announce that we are unable to publish in this issue the diagram of a hardy herbaceous border that was promised. It will appear in the November number, and will be of much value to amateur gardeners.

Several park experts from the United States, who attended the convention of the American Association of Park Superintendents in Toronto this fall, expressed considerable surprise

that the sidewalks in Toronto were placed next the curb instead of leaving a space for grass between the walk and the roadway. A better effect, they said, would be produced by placing them along the property line. This is a point worthy of consideration in all towns and cities where new walks are to be made, or old ones re-laid. The more green to be seen on a city street, the more attractive it is.

To Improve Varieties

Editor, THE CANADIAN HORTICULTURIST: We desire to get into touch, through the columns of your excellent paper, with the apple growers of the province with the aim in view of inaugurating a plan whereby we hope to effect improvement in the varieties of apples now most largely grown. A great number of attempts are being made in this country and elsewhere with this object in mind, but so far as we are aware no one has yet applied the principle of rigid selection of parent stock in any of the tree fruits because of the difficulty experienced in securing accurate observations on large numbers of individual trees. Much of value has been accomplished and will continue to be achieved through hybridization, but variations in trees of the same variety are often so pronounced as to seem to give ground for hope of improvement through straight selection. Several apple growers in the province are already following the practice of cutting all buds and scions used for propagation purposes from selected trees. There is no question as to the wisdom of the practice and the proposed plan is simply an enlargement of the same idea.

We desire apple growers all over the province who have trees of exceptional merit to register the same with us. We will record all individuals by number and will require accurate annual reports on such important features as age, bearing habit, vigor of tree, yield, color and quality of fruit, method of culture practised and the number of trees under observation. Blank forms for use in recording "performance records" will be furnished and need not be at all complicated in nature. We desire particularly to record those trees already known to possess merit and request that no specimens be entered without having been under observation for a short time at least. The varieties chosen are Spy, Baldwin, Ben Davis, Greening and Snow, but no restriction is placed on any variety that may be entered in sufficient numbers to justify competition.

We trust that we may have the assistance of the fruit growers in carrying out the project. We believe that when, in a few years, we are able to point out the very best trees in the country, we shall have obtained information of direct value both to the growers and to the apple-loving public in general.—H. L. Hutt, Department of Horticulture, O.A.C., Guelph.

Ontario Hort'l Association

At a meeting of the executive committee of the Ontario Horticultural Association held in Toronto during September, it was decided to hold a two days' convention of the association this year, in Toronto, on Nov. 14-15, at the time of the Ontario Horticultural Exhibition. The following program was prepared:

Thursday afternoon—President's address, W. B. Burgoyne, St. Catharines; Statement of the Secretary-Treasurer. Address on "The Work of our Horticultural Societies," by Supt. J. L. Wilson, of Toronto. Address, "How Shall we Spend our Funds to the Best Advantage?" Mr. Hamilton, London; Discussion led by Rev. A. H. Scott, of Perth. Address, "Best Methods of Increasing the Membership of Horticultural Societies," A. McNee, Windsor, Ont.; Discussion led by Dr. J. S. McCallum, of Smith's Falls, Ont. Address, "What Can a Horticultural Society do to Promote Civic Improvement?" Major H. J. Snelgrove, of Cobourg, Ont.; Dis-

ussion led by Rev. P. C. L. Harris, of Guelph, Ont.

Friday morning—Election of officers; Address "Should the Horticultural Act be Amended?" H. B. Cowan, of Toronto. Address "The Selection and Classification of Flowers," John Cavers, Oakville; Discussion led by W. T. Macoun, of Ottawa; Unfinished business.

Friday afternoon—Address "Perennials, New and Old," Roderick Cameron, Niagara Falls South, Ont.; Discussion led by E. Byfield, Toronto. Address, "The Growing of Peonies," by Hon. F. R. Latchford, Ottawa; Discussion led by John Cavers, of Oakville. Address, "Fruit that Can be Grown in a City Lot, 66 x 99 ft.," A. McNeill, Chief of Fruit Division, Ottawa; Discussion led by R. B. White, Ottawa. Address, "Orchid Growing by Amateurs," J. M. Dickson, Hamilton. Most of the persons whose names appear on the program have agreed to speak on the subjects mentioned.

It was decided to make a special effort to interest the horticultural societies of the province in the work of the Ontario Horticultural Association. An attempt will be made to organize new horticultural societies in centres where none exist, such as Brockville, Cornwall, Oshawa, and Chatham. The first annual report of the association has been distributed recently to the members of horticultural societies. Free copies may be had upon application to the Department of Agriculture, Toronto.

Ontario Hort'l Exhibition

The interest manifested already in the Ontario Horticultural Exhibition, which will be held in Toronto Nov. 12-16, is much greater than that shown up to this date in any previous year. The railway companies have notified the management of the exhibition that they will run half-rate excursions from all parts of Ontario, to the exhibition, on Wednesday and Thursday, Nov. 13-14. People desiring to attend on other days may leave home as early as Friday, Nov. 8, and by securing railway certificates, will be able to return free as late as Nov. 20, irrespective of the number in attendance. They will have to have their certificates vised at the exhibition before being given a free return ticket.

This year a new rule has been adopted regarding the making of exhibits. A member of either the fruit, vegetable, or honey growers' associations, can make exhibits in any section of the exhibition. It will not be necessary for him to join any of the other associations.

Several first-class bands and orchestras have been engaged with the object of making the musical features of the exhibition as attractive as possible. The Ontario Horticultural Association and Ontario Vegetable Growers' Association have both completed interesting programs for their annual conventions, which will be held in Toronto at the time of the exhibition. Outlines of these programs appear elsewhere in this issue. The conventions of the Fruit Growers' Association and of the Bee Keepers' Association promise to be equally interesting.

At the Canadian National Exhibition some excellent asters were shown. Specimens of the J. H. Locke strain secured all the first prizes, and were a credit to the producer and the growers.

The Guelph branch of the Ontario Vegetable Growers' Association, which was organized this year, held its first annual picnic recently at Riverside Park, near Guelph. There was a representative attendance of the vegetable growers of the vicinity. The afternoon and the early part of the evening was spent in games and athletic contests. Keen interest was taken in some races for which prizes of books relating to vegetable growing were offered by the Ontario Vegetable Growers' Association.

Vegetable Crop Situation Has Improved

THE vegetable crop outlook in Ontario, as reported by the crop correspondents of the Ontario Vegetable Growers' Association, is much better than it was last month. Most crops look fairly well as the situation has been greatly improved by rains. The crop with most gardeners will yield more than was anticipated as good growth is being made. Since the rains started, the growth has been steady and sure. Prices in general have been good.

The reports indicate that the cabbage crop will be good. The same may be said of cauliflowers except in the districts around Toronto and Kingston. Celery promises to yield a good crop of excellent quality. Tomatoes turned out a little better than was expected, but the crop on the whole has been very light; prices have been high. The onion crop will not be up to much; in some sections it will be fair, but in others the reports are discouraging. In the district around Scotland, where large quantities usually are grown, there will be only two-thirds of a crop and it of fair quality. There has been an excellent crop of melons. Squash and cucumbers are scarce. Sweet corn is less than half a crop. Late beans are fair to plentiful. Table roots, such as carrots, beets, parsnips and turnips, are good in all localities except that the parsnip crop around Ottawa will be short, and that turnips are a failure in the Kingston district. There has been some improvement in the potato outlook, but on the whole the crop will be only fair.

LAMBTON COUNTY

Sarnia—Vegetables of all kinds show a marked improvement this month, the weather conditions being good for rapid growth. Late cabbage and cauliflower are looking well. Carrots, beets and parsnips show the effects of showery weather and will be a good crop. Melons are better than was expected, although late in ripening. Seed onions are green yet, but will be a good crop if they mature. Late potatoes are green but give promise of a good crop. Tomatoes are better than was expected and in full swing now with good prices, 50 cents a bushel. Celery is growing well and is being marketed. The outlook for the gardener is much better than it was a month ago.—W. A. Broughton.

KENT COUNTY

Chatham—The recent rains have greatly improved the vegetable crop outlook. Celery, which has been standing still for the past six weeks, has now commenced to make fair growth and will be a good crop. Carrots and parsnips, good; onions, fair, but not ripening good. Tomatoes ripened slowly but are fairly plentiful. They are selling at from 75 cents to \$1 a bushel.—Fred. Collins.

BRANTFORD COUNTY

Scotland—The onion crop will only be a two-thirds one and the quality not so good as last season. They will not be so good a color on account of being late. Potatoes are a poor crop. Cauliflowers are beginning to head and promise a good crop. Cucumbers are through bearing and were a very poor yield. Melons are a good crop and are being marketed freely. Tomatoes, scarce and high in price.—F. Smith.

ESSEX COUNTY

Leamington—Since the August drouth, we have had splendid rains and everything looks nice and fresh. Tomatoes are ripening nicely and while the crop is light, the sample is good. The canning factory is now running full blast. Melons are about all harvested, although some late fields are just coming on nicely. The blight has taken all the vines of Osage, Hackensack and some Rocky Fords, but some other varieties are still showing splendid foliage and will likely ripen the crop in good shape. Osage sell at \$1.25 a half-bushel crate; Hackensack, \$1 a crate; Rocky Fords, 40 cents a 16-quart

basket. Celery is doing well, some very good stock now being marketed. Potatoes show results of drouth and are not a very good sample and the prospect is for a light crop. Onions, in some cases, are being shipped now, price not stated. Field root crops are good in favorable locations; on higher lands they will now come on faster since fall rains have come. The season on the whole has been fair.—E. E. Adams.

WELLAND COUNTY

Niagara Falls South—The rains of the past couple of weeks have improved things greatly. Late beans are just making their appearance on the market. Cauliflowers, cabbage, and Swede turnips, vegetables usually badly affected by aphid in this locality, are remarkably free from pest and of first-class quality. Late celery continues to improve and will be a good crop. Roots are growing fast and may yet be an average crop. Onions continue to grow and although late will be a good size. Medium and late corn is maturing fast and of fair quality though scarce. The usual amount of fall spinach, lettuce and radish looks fine and healthy. Late potatoes are still growing, and in some cases exceptional yields will be obtained, but the average will be small owing to late planting. Late tomatoes cannot be a large crop under any circumstances. They failed to set well, and what did set were late and are rotting. Early ones are about done and the demand is good. Late squash are a failure owing to drouth and blight. Cucumbers are scarce; melons, getting plentiful; also peppers. Field mushrooms have come in, and are a feature of the local markets.—Thos. R. Stokes.

HALTOW COUNTY

Burlington—Late tomatoes are ripening very slowly owing to the recent wet spell, although the rains have somewhat improved the outlook for a fair crop. Late potatoes have improved very little since last report. Melons are nearly done, the crop being an average one with good prices. Cauliflowers and late cabbage are promising well. Onions have not been helped any by the recent rains, and will be somewhat small. Egg plants and peppers are nearly done. The crop has been fair with good prices.—J. A. Lindley.

PEEL COUNTY

Clarkson—Potatoes have looked most promising all season, but the continued dry weather has told on them heavily. The crop will be short on account of having to discount so many small ones. Where land was moist the crop is good, approximately speaking. There will be a good half crop of late sweet corn, if good. Onions will be a medium crop. Carrots, beets, and turnips are very good. Late melons are a good crop. Late tomatoes are a good crop but are ripening slowly. The tomato worm has been very bad this year, and has done considerable damage.—W. G. Horne.

TORONTO DISTRICT

Humber Bay—Since the rains during the early part of the month vegetables have made fine growth. Cauliflowers are heading well, as are also cabbages. The latter will likely be a short crop. Both green and yellow beans are plentiful. Lettuce is doing well. Spinach is also doing well but there is a slow sale as yet. Brussels sprouts will be a good crop. Quite a large quantity is being grown this year. The tomatoes are a light crop and are spotted badly. The high tariff on melons has made them plentiful and very cheap. The late varieties of celery looked very poor a few months ago, but is looking well now. All roots are doing well.—Jos. Rush.

KINGSTON DISTRICT

Portsmouth—The general outlook for vegetables in this district is not the most encouraging, although the recent showers have made a

great difference to the late cauliflowers and late cabbage, which at one time did not look at all promising. The crop with most gardeners will yield more than was anticipated. The late celery will be far below the average and, with some, the crop will scarcely pay to harvest. Turnips are a failure; very small and the green fly troublesome. Tomatoes have been slow in coming in, which resulted in their being considerable quantities shipped in from places where they were more plentiful. Onions are small as well as short.—John Watts.

OTTAWA DISTRICT

Tomatoes are coming in fast. Corn has come in so irregular that the price has kept good; it is more plentiful now. Celery is plentiful and good quality. Winter celery is reputed good. Onions are a good crop. Carrots, turnips, and beets are good and plentiful. Cauliflowers are plentiful and of good quality. Parsnips are short of the usual quantity. Winter cabbage is making up fast, and if weather permits will be a heavy crop. Pickling onions are plentiful. Cucumbers are scarce. The drought held back all crops, but since the rain started the growth, it has been steady and sure.—T. Mockett.

Vegetable Growers' Program

A meeting of the executive committee of the Ontario Vegetable Growers' Association was held in Toronto during September. It was reported that the Ontario Government will issue shortly a bulletin relating to the canning factories of the province. This bulletin will show the number of factories, their location, the principal varieties of vegetables and fruit that they can, the prices that have been paid the growers for their products, and other similar information. It was decided not to attempt to organize the vegetable growers who supply vegetables to the canning factories until after this bulletin is in circulation.

The secretary was instructed to write to Hon. Wm. Paterson, to ascertain what steps the Dominion Government has taken regarding the appointment of an appraiser whose duty it will be to see that vegetables are not imported into Canada at prices less than their real value.

It was decided to hold the next annual convention of the association in Toronto on November 14 and 15 at the time of the Ontario Horticultural Exhibition. A meeting of the full board of directors will be held on Wednesday, November 13. The following program was prepared: Thursday morning—Address, "Greenhouse Construction for Vegetable Growers," by J. D. Fraser, of Leamington, Ont.; Discussion opened by T. Delworth, of Weston, and A. McMeans, of Guelph, Ont. Address, "Greenhouse Management," by Serles Brothers, of Toledo, Ohio; Discussion by L. Cole, London.

Thursday Afternoon—Address, "Melon Culture," by T. J. Gorman, of Montreal; Discussion led by W. A. Emery, of Aldershot. Address, "The Growing of Tomatoes," by W. C. McCalla, of St. Catharines, Ont.; Discussion led by George Awrey, of Hamilton, Ont.

Friday Morning—Address, "The Marketing of Vegetable Crops," by F. Williams, of Ottawa South; Discussion led by George Syme, Jr., Carleton West. Address, "Asparagus Growing," by A. McInnis, of London, Ont.; Discussion led by John McKay, of Doncaster.

Friday Afternoon—Address, "Insects that Trouble Vegetable Growers and How to Combat Them," by Dr. James Fletcher, of the Experimental Farm, Ottawa. Address, "Fertilizers for Vegetable Crops," by a speaker to be secured from the staff of the Agricultural College, at St. Anne de Bellevue, Que.

Please find enclosed \$1 for one new subscription and my own renewal. THE CANADIAN HORTICULTURIST is the best paper that I take. I always speak a good word for it whenever possible.—H. W. Bumstead, Meaford, Ont.

Shall We Dip or Fumigate?

This is a question that has been puzzling nurserymen, orchardists, farmers and tree-planters considerably of recent years, therefore any new light on this subject we are quite sure will be greatly appreciated by our readers. While this problem has not yet been completely solved, there have been great strides made in determining the value of dipping in comparison with fumigating. Fumigation is very effective when properly done, but it has some disad-

vantages in that few are capable of doing the work without some injury to the trees. Another objection is that it must be done at a time when the nurseryman is extremely busy.

W. Va., on the subject of "Dipping vs. Fumigation," we find several quotations from prominent horticulturists, and owing to the fact that they are practical illustrations on this topic, we have reprinted some of them herewith. It seems to us that these "experience lessons" are what our readers are looking for. Theory on subjects of this kind is all right, but actual demonstration beats it. This kind of information is worth reproducing, as it leaves nothing to guess at. If you have been in doubt as to the

for five years he has dipped his stock before planting. He has also dipped and given instructions for dipping for many large planters in a number of states. In no case has there been any injury reported, but on the other hand the most satisfactory results have been obtained."

We believe that the bulletin sent out by the American Horticultural Distributing Co. is one of the best articles on this question that we have had occasion to read, and that it is a practical talk on this subject. We recommend that our readers write to them for a copy, as we understand that it will be mailed free to any orchardist in Canada. They have kindly loaned us the illustration accompanying this article, which shows both methods of dipping, the one where the bodies only of the trees are dipped, and the other where both root and body are dipped. In writing for the above bulletin kindly mention THE CANADIAN HORTICULTURIST



Mr. C. Ernest Woolverton, landscape gardener, who has been laying out and beautifying many parks, cemeteries and private grounds in western Ontario, has made engagements in the United States for the winter. He will be located at Boston until further notice.

One of the most interesting and best prepared catalogs we have received is that of M. J. Henry, Vancouver, B.C., in which are listed all kinds of seeds, plants and trees for growing in the amateur garden or in commercial plantations. That Mr. Henry's stock is well grown and gives excellent satisfaction is evidenced by a number of testimonials that we have seen. Among them, one from Mr. H. Grosvenor, Trail, B.C., states: "I received the trees safely, well packed and in good condition. Am pleased to say that they are doing well."

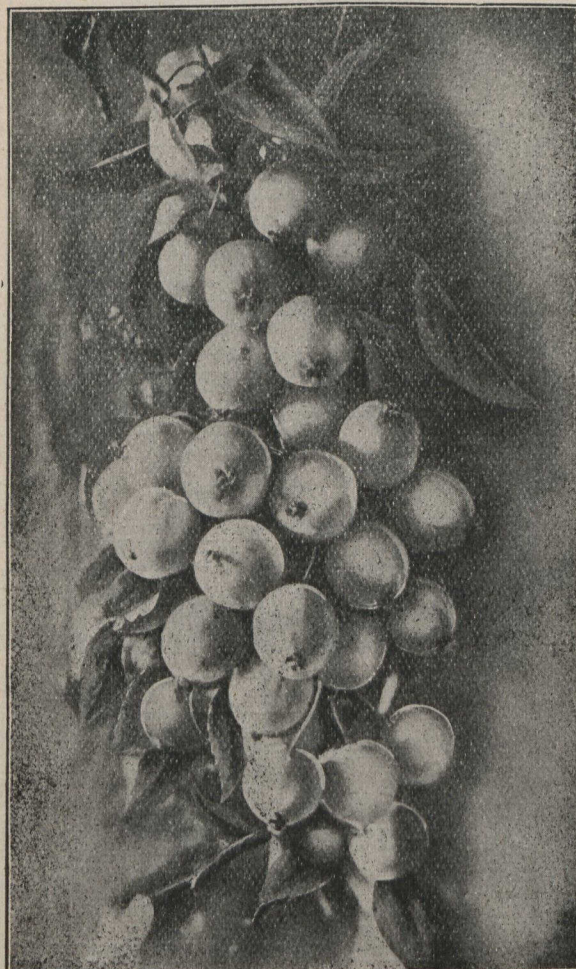
Of recent years we have heard more or less of the success resulting from the dipping method. It would seem from the experience of those who have been dipping their trees instead of fumigating them that it is an efficient operation.

In a recent bulletin issued by the American Horticultural Distributing Co., Martinsburg,

advisability of dipping, perhaps some of these letters will help you out, two of which we take pleasure in reprinting herewith

"Mr. S. F. Wallbridge, Belleville, Ont., wrote: Dipping trees I believe far preferable to fumigation. If the experts at the experiment farm consider it just as effective it should be at once adopted in lieu of fumigation."

"Mr. A. N. Brown, of Wyoming, Del., one of the earliest advocates of dipping nursery stock and who has made careful observation, says that



Canadian Grown Stock for Canadian People

Now is the best time to place your orders for Nursery stock "True to Name." Hundreds of thousands of *Apple Trees* and *Plums, Pears, Peaches* and *Cherries* in unlimited quantities.

I offer for spring delivery the following specialties:

HERBERT RASPBERRY—The new sensational red raspberry.
PERFECTION CURRANT—One of the finest red currants that has ever been put on the market.

HYBRID APPLES (Baccata Crosses)—The only apples guaranteed to stand the Northwest winters unharmed.

Also numerous specialties in the ornamental line—*Frau Karl Druschki Rose, Baby Rambler Rose* and a general assortment of *Standard and Bush Roses*, all field grown.

A FEW VACANCIES FOR AGENTS WITH FIRST-CLASS CREDENTIALS

E. D. SMITH

Helderleigh Nurseries (Established 1/4 Century Acreage, 800 Acres) Winona, Ontario

The Photograph is a branch of Hybrid Apples grown on a young tree in Helderleigh Nurseries.

Mention The Canadian Horticulturist when writing

The Apple Situation and Crop Reports

DURING the past few weeks there has been very little change in the apple situation. Only a small proportion of the fruit has changed hands. Those in possession of the quantities that go to make up the apple crop of Ontario, feeling they have a good thing, are holding at a high figure.

American dealers and buyers are quite numerous. Although they complain of prices being too high, yet, in spite of the high duty and heavy freight, many purchases have been made. The prices paid will, after adding the expenses and a few profits, make rather expensive eating for Uncle Sam.

Some of the cooperative associations have sold at a good price. The others are holding out stiffly, with every prospect of realizing the price they demand. Here and there, some men, who are in possession of a little more of what the apple men call "nerve," are buying out orchards and "packs," allowing to first purchasers handsome profits. All kinds of deals are reported. One dealer sold out his pack and afterward re-bought it at an increased cost of \$500.

Hundreds of barrels of immature fruit are being hurried forward. Baldwins were picked as early as Sept. 15, and lacked almost every characteristic of typical Canadian Baldwins, except in name. This is unfortunate, especially this season which is more than two weeks late. Even the fall varieties that are being shipped are small and lacking in finish. The crowding forward of such stuff is a bad fore-runner on a market where later we expect to place the bulk of our high-priced fruit.

The weather has been very warm for shipping. Inspector Carey examined a car on Sept. 21, and found decayed specimens in every barrel

that he opened. This was an ordinary box car, and when closed Mr. Carey says the temperature inside was nearly 100 degrees. The shipper of this car need not be surprised to hear that the fruit arrived in bad condition.

The two chief features of the apple business are the securing and purchasing of the fruit, and on the other hand, the handling and marketing. No matter how good the demand, or how badly the fruit is wanted, it must be properly packed and placed on the market in good condition or failure is sure to follow. The following fruit crop reports have been received from correspondents of THE CANADIAN HORTICULTURIST:

KINGS COUNTY, P.E.I.

Aitken's Ferry.—The plum crop is irregular, some varieties being heavily loaded while others have only a few scattered fruits. In apples, Transparent, Duchess, Wealthy and other summer and fall varieties are a full crop, while winter apples, with the exception of Ben Davis, are a total failure. There are very few pear trees in this locality, and these with a poor crop.—D. J. Stewart.

YARMOUTH COUNTY, N.S.

Carlton.—The apple crop is a failure in this county. It will not average over 25% of other years.—A. J. Dryden

HUNTINGDON COUNTY, QUE.

Maritana—Lake fruit is doing well. Fameuse are clean and sound, and even in size, although three weeks behind. Spys and Kings are developing well, although not as heavy a crop as Fameuse. Flemish Beauty pears are fine and trees are heavily loaded. I have several kinds of superior crabs, heavily loaded and sound. Alexander and St. Lawrence are doing well although late. I have been offered \$2 on the tree but prefer selling right out.—Wm. G. Parham.

MONTREAL DISTRICT

Westmount—Apples are a fair crop and clean, but a little undersized. Prices are good for good stock.—R. Brodie.

CHATEAUGUAY COUNTY, QUE.

Chateauguay Basin—The apple crop is about one-third of a usual crop. They are good in all respects except in size. Prices range from \$1.25 to \$2 for fruit on the trees. One orchard sold for the last named price for all grades.—Peter Reid.

LINCOLN COUNTY, ONT.

Jordan Harbor—Peaches are light. St. Johns sell for \$1.25 in the orchard. Plums are light; apples, light, selling from \$2 to \$2.50 f.o.b. for Nos. 1 and 2; Pears, medium, 50 to 60 cents a basket; grapes, medium to good. Only a few in yet along the lake.—H. S. Peart.

KENT COUNTY, ONT.

Chatham—The fruit crop is very light. In some orchards that have been well sprayed, occasionally there is a good showing of winters, but no falls. Buyers are offering \$1 to \$1.85 on the tree, but I have not heard of many sales. Possibly this is because there are very few in the market. Heavy rains recently have helped considerably.—W. D. A. Ross.

GREY COUNTY, ONT.

Meaford—There is a very good crop in this locality. The apple crop is not quite so heavy as last year, but the plum crop is better. The month of August was dry, consequently the

apples made but little growth, but recent rains have improved them greatly. Most of the apples have been bought up at from \$1 to \$1.25 a barrel. Those who have not yet sold their apples are holding for higher prices or intend selling through the Georgian Bay Fruit Growers' Association.—H. E. Gifford.

ESSEX COUNTY, ONT.

There are practically no apples to sell in this county. It is doubtful if there will be sufficient to supply the local market. I never saw such a complete failure in fruit as there is here this year.—J. L. Hilborn.

Flowers for Hospital

Recently the directors of the Napanee Horticultural Society sent a request to the members to contribute such cut flowers as they could spare to send to the Kingston General Hospital. The response was so hearty, that the committee in charge filled 20 good-sized boxes and forwarded them by express. That the gift was appreciated is evident from the following letter received from the Superintendent of Nurses:

"Mr. W. S. Herrington, President, Horticultural Society, Napanee, Ont.—Kindly convey to the members of the Napanee Horticultural Society the grateful thanks of the Board of Governors for the supply of cut flowers you were good enough to send to us through the Woman's Aid Society. The flowers were beautiful, and the quantity sufficient to allow some for every room. I assure you we appreciate your thoughtfulness very much in helping in this way to make the rooms bright and cheerful for our patients.—E. A. Hunter, Sec. Kingston General Hospital."

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Mention THE CANADIAN HORTICULTURIST



NOTES FROM THE PROVINCES
By our Regular Correspondents and Others

Montreal

E. H. Wartman, Dominion Fruit Inspector

Montreal Island is noted for melons, onions, and Fameuse apples. Melons are a good crop. The finest quality is put up for New York and selling at f.o.b. here at \$10 to \$12 a dozen. Those of fair quality sell at \$5 a dozen for local trade. Once in a while you will see a beauty in a store window with a card attached, stating "Weight 30 lbs. price \$2.50." Seed onions are the heaviest crop that I ever saw in any country.

Last month I visited the orchard of Mr. C. P. Newman, of Lachine. It is 50 acres in extent, planted largely with apples of the Fameuse type, which are clean of fungi, due to the practice of spraying annually. We have had no dry weather since vegetation started in spring. With so much moisture in the air and ground, and with occasional extreme heat, one naturally would look for apples spotted with fungi. There are many of this kind where the spray pump was idle. One barrel of clean Fameuse is worth at least two barrels of spotted ones.

Duchess, Tetovsky, Yellow Transparent, and Astrachan, are picked and marketed in 11-quart baskets, which retailed in Montreal at 50 to 60 cents. The apple crop of the island is an average one. Those who did not spray or thin the fruit, will lose. I saw one orchard of 100 Wealthy trees, all drooping like an umbrella, but with fruit that will not amount to much. This season two-thirds of the poorest specimens should have been removed.

NOTE—The foregoing arrived too late for insertion in the September issue. The regular October letter follows. —Editor.

OCTOBER REPORT

As an Ontario man, I see many sights in the neighborhood of Montreal that make one feel sorry that such things prevail. Recently I strolled about two miles west of Westmount. I met boys, girls, men and women on their way to the city carrying apples in bags holding about a peck to one bushel each. A short distance behind them, I met two men with double-barrelled shotguns going in the same direction.

The apples going forward so far this season are not satisfactory. Generally they are immature, small and off color. When I was a buyer and shipper in Prince Edward County, Ont., I thought that Sept. 20 was early enough for the picking of Colverts, Jennettings, Alexander and 20 Ounce Pippin. This year, apples got a late start and as they were picked as early as Sept. 25, is it reasonable to expect that these varieties would have color sufficiently good for No. 1 grade? Picked at that stage, they are uninviting; in fact, so green that they are unwholesome for food. Were they left until better colored, they would bring more money. I have known Colverts to get so red that when opened in Liverpool they sold for nearly as much as Kings.

The apples going forward are really too green for evaporating purposes. Greenings are coming forward. Oct. 1 is early enough for this class. A case illustrates my point. A friend of mine who had a well-kept orchard, largely of R.I. Greenings, became uneasy for fear the wind would blow them off, and commenced to pick about Sept. 25. It was the lesson of his life. He graded them and packed them in barrels, leaving the heads out. Two weeks later he re-packed them, and it took three barrels to make one. The immature fruit had spotted so badly as to necessitate the throwing of two barrels out

of every three; they were nearly worthless. This year I have noticed even No. 3 quality of Colverts, Jennettings and Greenings going to the best market that we may ever hope to have. They are not fit for cider. I say, Shame! shame!

British Columbia

C. P. Metcalfe, Hammond.

The plum and prune shipments are over for this season. The crop was considerably below the average, and the prices were good. Growers have had no difficulty in disposing of the crop as the demand exceeds the supply. The demand in the markets of the Northwest provinces has increased so rapidly for plums and prunes, especially Italian prunes, that they have been obliged to import Washington prunes at increased cost, as British Columbia was unable to keep pace with the markets.

Winter apple trees are fairly well loaded and should yield a good crop of clean fruit. There have been no severe winds as yet and wind-falls are few.

Exhibitions are in full swing again. Every agricultural society that can possibly secure the required 50 members is entitled to a government appropriation, if it desires to have an exhibition. I think it a mistake the multiplication of so many small shows all drawing government money, which could be spent to better advantage in the development of the larger exhibitions, and in the encouragement of district or municipal exhibits at these exhibitions. Large growers will not go to the expense of preparing exhibits for these small shows, where the prizes offered are insufficient to cover the trouble and expense, and where the commercial aspect of fruit growing is seldom introduced.

There has been a record crop of blueberries in New Brunswick. The berries have been of large size and the market good.

Apples promise a fair crop in Nova Scotia, and the quality is good. Gravensteins and Spys show some spot. Other varieties appear clean or nearly so. Prospects indicate that there will be exported about 350,000 barrels of fairly good fruit.

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TARGET BRAND SCALE DESTROYER is a positive and reliable agent for the destruction of San Jose Scale. If your orchards are infested with this troublesome pest you can clean them out with this preparation, and make your trees healthful and prolific fruit-bearers. It never fails, but can be relied upon to do the work when used according to instructions. It is

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harmless to trees or fruit, and effective in operation. It is a soluble oil, which, when diluted—one gallon of oil to 20 gallons of water—can be applied with any good spray pump without clogging the nozzles or giving any trouble whatever. This method is much more rapid and effective than a Lime-Sulphur wash, requires no skilled labor, and there is no risk of injuring the tree.

Target Brand Scale Destroyer

is more effective, less disagreeable to handle, and costs no more than Lime-Sulphur Wash. Try it if you want satisfactory results. Endorsed by leading fruit-growers everywhere. Write for our new illustrated Spraying Catalog and price-list, and Bulletin, "Dipping vs. Fumigation." **SENT FREE.**

AMERICAN HORTICULTURAL DISTRIBUTING CO., Box 705, Martinsburg, W. Va.

W. H. BRAND, Canadian Representative, JORDAN STATION, ONT.

The Climate of the Okanagan Valley

H. Gordon, Vernon, British Columbia

THERE is one meteorological station in the Okanagan Valley, situated upon the Coldstream Estate; it is only of the second class, but I have been able to obtain the following figures by analyzing the records kept during the past five years, and courteously placed at my disposal by Mr. E. F. Lloyd:

| | AIR TEMPERATURE | | | Mean |
|-------------|-----------------|------|-------|--------------------------------|
| | Max. | Min. | Aver. | |
| January.... | 27.0 | 15.9 | 21.5 | for six years 1902 to 1907 |
| February... | 32.2 | 18.9 | 25.6 | |
| March..... | 43.0 | 25.5 | 34.3 | |
| April..... | 58.5 | 35.1 | 46.8 | |
| May..... | 65.7 | 42.3 | 54.0 | |
| June..... | 73.1 | 47.6 | 60.4 | |
| July..... | 83.2 | 52.8 | 68.0 | for five years 1902 to 1906 |
| August.... | 81.2 | 51.0 | 66.1 | |
| September.. | 67.4 | 43.5 | 55.5 | |
| October.... | 55.3 | 36.4 | 45.9 | |
| November.. | 40.8 | 28.4 | 34.6 | |
| December.. | 32.4 | 22.5 | 27.5 | |

The highest recorded temperature, 101°, July 21, 1905.
 The lowest recorded temperature, 24° below zero, Jan. 14, 1907.
 The highest minimum temperature recorded, 63° Aug. 7, 1905, July 7 and Aug. 13, 1906.
 The lowest maximum temperature recorded, 20° below zero Jan 14, 1907.
 The maximum temperature reached 90° or over on 28 days in June, July and August, 1906; on 20 days in July and August, 1905; on 23 days in June, July and August, 1904; on 5 days in June and July, 1903, and on 4 days in June and July, 1902, only.
 The maximum temperature did not exceed

zero on 8 occasions only, all in Jan. and Feb., 1907.

The minimum temperature stood at or below zero on 22 days in Jan. and Feb., 1907; 9 days in Jan., Feb. and Dec., 1905; 6 days in Jan., Feb. and Dec., 1904, and 5 days in Jan. and Feb., 1902, only.

The minimum temperature reached 60° on 15 days in July and Aug., 1906; 4 days in July and Aug., 1905, and 3 days in July and Aug., 1904, only.

| | DATES OF FIRST AND LAST FROSTS | |
|-----------|--------------------------------|--------------|
| | Last Frost | First Frost |
| 1902..... | 26 April | 28 September |
| 1903..... | 8 May | 3 October |
| 1904..... | 11 May | 19 September |
| 1905..... | 18 May | 9 October |
| 1906..... | 5 May | 19 October |

The above analysis shows clearly that the climate is far from being free from extremes of temperature. The figures tend to prove that the district experiences a summer day temperature which is characteristically continental, tempered by cool nights due to the elevation above sea level; and that its winter temperature is, on the whole, moderate, when judged by the standard prevailing in the inland districts of the northern portion of this continent. The records of the precipitation of snow and rain are complete for four years, as follows:

| | SNOW Inches | RAIN Inches |
|-----------|----------------|----------------|
| 1903..... | 46 | 13.28 |
| 1904..... | 55 | 10.64 |
| 1905..... | 6 | 11.91 |
| 1906..... | 46 | 10.27 |

It would be a great advantage to the fruit grower if the present meteorological station were

raised to the first-class and observations taken of the relative humidity, sunshine, cloud, wind, etc. A similar station should also be established in the southern Okanagan, whose climate is believed to present differences in a few particulars from that of the northern Okanagan. Observations taken scientifically over a series of years are required to reveal these differences.

IRRIGATION

The comparatively small rainfall confirms the necessity for irrigation. Irrigation works are either already installed or in course of construction in every district of importance. The system of distribution of water through Copoletti weirs, which is to be introduced at Vernon, promises to be more satisfactory to the user than the present haphazard method.

"The Fruits of Ontario"

A publication that has been promised to the fruit growers of Ontario for some time, has just been issued by the Ontario Department of Agriculture. It is entitled "The Fruits of Ontario," and is exceedingly well prepared. The selection of varieties with descriptions is worth much to every fruit grower of our country. The selections are based on the results of varieties tested at various experiment stations in the province. The descriptions were carefully prepared by Mr. Linus Woolverton, who had most of the work of preparing the volume in charge, and deserves much credit for his labor and enterprise.

The information given on cultural methods is worth much to fruit growers in general. A large number of half-tones of fruit varieties enliven the pages and make the accompanying description of greater value than it would be otherwise. The entire work is well worth the trouble and anxiety that has been spent in its preparation. It is a credit to the Ontario Department of Agriculture and to its authors.

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|-------------------|----------|
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| S.S. "SOUTHWARK" | " 12th |
| S.S. "CANADA" | " 19th |
| S.S. "OTTAWA" | " 26th |
| S.S. "DOMINION" | Nov. 2nd |

Above steamers all carry passengers.

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| | |
|-------------------|-----------|
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POULTRY DEPT.
Conducted by
S. Short, Ottawa

What books shall I read to inform myself on the subject of poultry-keeping for a livelihood?—Subscriber, Toronto.

It depends somewhat on the locality in which "Subscriber" intends to establish his plant as to which is the best publication or poultry literature for him to read. Presumably he intends to operate in Toronto or in Ontario. If so, I would recommend publications of that province. Experience and information gained under the same climatic conditions as the locality in which "Subscriber" intends to operate, will be most valuable to him. Climate in Ontario, especially in mid-winter, plays an important part in deciding the success, or otherwise, of the beginner in poultry keeping. If, therefore, "Subscriber" intends to establish his poultry plant in this province, provincial publications are undoubtedly the best for him to study. I would recommend the annual report of the Central Experimental Farm, Ottawa; also the bulletins and pamphlets that are issued from time to time by the same institution; bulletin No. 157 on "Farm Poultry" sent out by the Ontario Agricultural College, Guelph, and lastly, *The Poultry Review*, published in Toronto. The two former publications may be had on application; simply address a post card to either or both institutions. The yearly subscription to *The Poultry Review* is 50 cents.

The Experimental farm report contains general information, covering the whole field of poultry-keeping, gained by actual experience and observation by Mr. A. G. Gilbert, the manager of the poultry department. The bulletins are from the pen of the same writer and the matter therein is carefully prepared and reliable. The bulletin on "Farm Poultry," prepared by Mr. W. R. Graham, B.S.A., poultry manager and lecturer at the Ontario Agricultural College, contains information that should be valuable to beginners. It treats of poultry-keeping from A to Z, hatching, feeding and rearing of chicks, and housing, feeding and treatment of the laying stock. The table in the bulletin on the manner of feeding and cost of egg production from April to August must not, however, be taken as a basis on which to build future hopes of profit from poultry, for it must be borne in mind that the fowl that produced the eggs that cost an average of six cents a dozen during the summer had to be kept during the other seven months. Whether they paid for the food consumed during that time, the bulletin does not say.

The Poultry Review is ably conducted. Its articles are written by the best known authorities on the respective subjects treated. Full reports of poultry institute meetings and all shows and exhibitions are published. This is important, for there are two phases of poultry-keeping; viz., farm poultry and fancy poultry. The combination of both, in my opinion, offers the best chance of success. There are several sources of revenue—winter eggs, the sale of dressed birds, the spring sale of eggs for hatching, the perpetual sale of stock and exhibition fowl. More could be written on farm poultry and fancy poultry. This subject concluded in next issue.

Before closing I would like to suggest to "Subscriber" that he gain some experience in poultry keeping before embarking in it as a livelihood. There are several opportunities for doing so. If practicable, take a course at the Ontario Agricultural College, then hire with one of the large poultry producers, and then start quietly and enlarge the establishment as circumstances and profits warrant.

The Kincardine Horticultural Society deserves much credit for the excellent flower show that was held recently in that town. The show

far exceeded expectations. A large number of exhibits of fair quality, considering the season, attracted much attention.

A successful flower show was held by the Toronto Horticultural Society on Sept. 21. There were 487 entries, mostly of asters, with

a few dahlias and gladioli, contributed by pupils of about forty schools in the city. The display was most creditable and showed that the children are taking much interest in the work. The awards were given in bulbs for fall planting. These are to be grown for competition at a show next spring.



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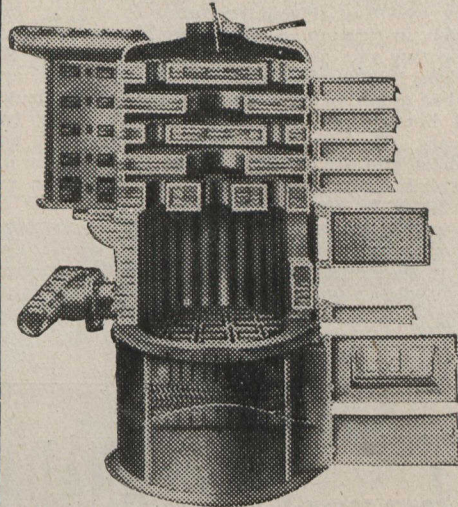
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A Dominion Conference Next Winter

THE fruit growers of Canada are anxious to hold a Dominion Fruit Conference in 1908. This is evidenced by various expressions of opinion that have been received by THE CANADIAN HORTICULTURIST since the July issue, which contained similar letters from secretaries of provincial fruit growers' associations. The fruit growers are justified in feeling as they do regarding the matter. The Hon. Mr. Fisher assured the delegates to the conference last year that another would be called within a reasonable time. Our fruit problems and questions of national importance are multiplying so rapidly, in pace with the general development of the industry, that it is quite reasonable to consider next winter the proper time for holding the third Dominion Fruit Conference. The following letters state the opinions of some of the delegates to the last conference:

Mr. R. W. Starr, Wolfville, N.S.: "I am glad to find a move in favor of a fruit convention next winter. I think the last one was of great benefit to the industry at large. If possible, the meetings should be continued biennially, as there is, and always will be, subjects of great importance to discuss, and which can only be decided after careful consideration by such a gathering as we had in Ottawa in March, 1906."

Prof. G. Reynaud, La Trappe, Que.: "A second conference would be very useful, as the program of the last meeting has not been completely fulfilled, especially as regards the fruit trees trade. This question, a very important one, should be taken up in the program of the next fruit growers' conference. If all parties interested in fruit culture would suggest just a few of the questions which have not yet

been elucidated there would be room for still more than one conference."

Mr. A. W. Peart, Burlington, Ont., writes: "I am somewhat disposed to think that a meeting once every three years would be about the correct thing. Too frequent meetings are less impressive and are wanting in substance. I consider the following subjects of sufficient importance to discuss: 1. Fruit statistics for the Dominion and several provinces; 2. Transportation and cold storage; 3. Markets and marketing. These are essentially of general interest and importance, and doubtless there are others as well."

Rev. Father Burke, Alberton, P.E.I.: "I am very much in favor of another horticultural conference at Ottawa, next March, and have no doubt but that the Minister will convene one in fulfilment of the promise made to the last one held there in 1906. As you say, I was the framer of the resolution asking for the formation of a Canadian Pomological Association, but fearing that the time was not quite ripe for so pretentious an organization, and knowing well that it requires funds to support any such institution, I took the liberty of interrogating our amiable chairman, the Hon. Mr. Fisher, as to his view of the situation and what might be done to assemble the headmen of horticulture nationally at least every two years. He was quite frank in his reply, and whilst you are right in saying that he gave no explicit promise, as clearly as words can express it, he gave us all to understand that he sympathized with the movement to convene this body biennially, and had no doubts but that he could easily induce the Government so to do. For my own part I have little doubt then but that the Minister has already this matter in mind. With you, however, I am

fully convinced of the absolute necessity on the part of the associations of Canada of preparing the matter of the agenda paper as early as possible. There was much done and much left undone the last time. There are new conditions to be considered since, too. I understand that the reason given why much more legislation did not follow our efforts was that the findings on at least one or two important questions were perhaps too hurriedly made. So far as I am concerned I am ready to-day to stand by the decisions taken then, but I am ready, too, to hear the arguments contra of those who are said to have changed their minds. By all means, let us have the second conference this winter; we will be in a position to do much better work, and the work is wanted and will well repay the country any expenditure made on account of it. It would be well, then, to ask the Minister to name the day."

Origin of "America"

During the past year, a lengthy controversy has been going on in the horticultural press of Canada and United States as to the original source of the gladiolus "America," a variety that was used to decorate the yacht *Mayflower* for the Russia-Japan peace conference.

Recently Mr. H. H. Groff, of Simcoe, Ont., placed a declaration, made by competent authorities in the United States, in the hands of the leading trade press of New York and Canada, giving him the credit without the slightest doubt. Canada is thus sustained in the claim of having been the source of this feature of declaration of that historic gathering.

The 5th annual fruit fair of the Nelson, B.C., Agricultural and Industrial Association was held at Nelson on September 18-20.

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Following is the average yield for three years of the leading kinds as fruited at the Central Experimental Farm, Ottawa:

| | | |
|------------------|---------|--------------|
| Herbert..... | 36 lbs. | 7 3/4 ozs. |
| Columbian..... | 11 " | 9 1/4 " |
| Marlboro..... | 7 " | 12 1/2 " |
| London..... | 7 " | 12 " |
| Shaffer..... | 6 " | 10 1/2 " |
| King..... | 5 " | 15 " |
| Golden Queen.... | 4 " | 15 1/2 " |
| Cuthbert..... | Failure | —too tender. |

A. E. Sherrington of Walkerton, Ont.

Ontario Government Experimenters reports in 1906, Report of Ontario Fruit Experiment Stations: Herbert—Plant, strong, vigorous and very hardy; fruit, very large, larger than Cuthbert; yield, 592 ozs.; ripe July 13th. This variety is by far the heaviest cropper of all raspberries.

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At The Canadian National Exhibition

EXCEPT in the plant section, the horticultural features of the Canadian National Exhibition were not as good as in past years. This was due, in the case of the fruit, vegetables, and cut flowers, largely to the backwardness of the season in spring and to the dry weather during the summer. There were some excellent collections of decorative plants. They were superior to any that have yet been seen in Toronto.

THE FRUITS

In many respects the fruit exhibit was disappointing. Most of the specimens shown were not as mature as usual at that time of year. The tables used for displaying the fruit were not satisfactory. Those against the walls were altogether too wide both for display and for judging. It was almost impossible to examine the plates at the back of the table, and the visitors got a very poor view of them. The tables in the centre also were wide, when the manner of placing the exhibits was considered. If the tables had been divided in the centre and the classes arranged on either side so that the judges and the spectators would not have to look more than half way, they would have been satisfactory.

The tables for the box fruit were too high, and as the boxes were placed upon them in a level position, the onlooker could see little or nothing more than box. The box exhibit was valueless from an educational viewpoint. The tables for these packages should be six inches lower in front and gradually slope upwards towards the back. Had this been done, the appearance would have been more attractive. The collections of fruit from the St. Catharines Cold Storage Company, The Grantham Township Fruit Growers' Association, The Niagara Township Fruit Growers' Association, and The St. Catharines Horticultural Society, were very good, but should have been given a better posi-

tion. They would have appeared better on a table in the centre, where they could have been viewed from every side. In the boxed fruit entries, some boxes that were not of standard size received prizes. It is said that the exhib-

with green grapes—a difficult task. In the peach section there were some excellent plates. It was the general opinion, however, that a few mistakes had been made in placing the awards. A few of them are as follows: In a class calling for Chair's Choice, Elberta was entered and was given 2nd prize. In the section for Foster, ripe St. John received 1st and 3rd prizes. In



Display of Fruit in Boxes at Canadian National Exhibition

Showing how it appeared to the passersby. The arrangement was most unsuitable for best display

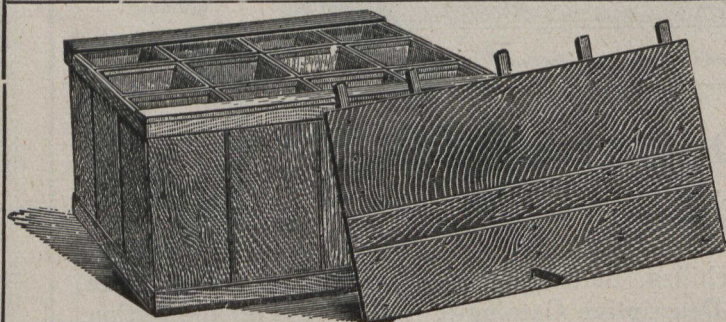
itor made a mistake and had his boxes made 10 x 11 x 20 inches, outside measurement instead of inside. Even so, the packages were the wrong size and not what was called for and, therefore, should have been disqualified. But for these few points, the exhibit of boxed apples and pears was creditable.

The grapes were better than was expected for the late season. The awards were placed well considering the fact that the judge had to work

one plate of 2nd prize Early Michigans were two early Rivers. In the pear section some fine specimens were to be seen, but in one or two cases the varieties were wrongly named. Tyson was entered for Gifford, and given 2nd prize. Louise Bonne was entered in the section for "any other fall" but was ruled out by the judge. Tyson was also entered for Lawson and was given 1st prize. The plum exhibit was better than was expected for the season and date.

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The entries in the apple classes were not up to much. The date was too early for securing well-matured specimens and this year the immaturity of fruit was particularly marked. As the specimens were not normal in condition or appearance, the judge had some difficulty in placing the awards and a few errors occurred. Alexander was entered for Wolf River and, as should be expected, was disqualified by the judge. In the section for Swayzie Pomme Grise, Montreal Bonne Grise were entered and given 1st and 2nd prizes; 3rd prize was given to a true Swayzie. Road Island Greening got 1st prize for North-West Greening. The 1st prize Roxbury Russets were not truly named and the 1st prize Colvert were not typical by any means. 2nd prize Ribston were wormy.

THE GOVERNMENT EXHIBIT

An educational exhibit comprising fruits from the various experiment stations in Ontario was a creditable one. It was in the charge of Messrs. P. W. Hodgetts and T. B. Revett, of the Department of Agriculture. The recommended commercial and hardy varieties of the various fruits were exhibited, and the best varieties for home use. Some time ago the department

published a bulletin on "Varieties Recommended for Planting in Ontario." The object of the exhibit was to bring together for the benefit of visiting fruit growers, specimens of the varieties so recommended. Two new varieties of apples, Lowland Raspberry and the Lubsk Queen, from the C. E. F., Ottawa, attracted much attention. The O. A. C., Guelph, contributed 50 varieties of tomatoes.

THE VEGETABLES

Except in the case of onions and cabbage, the vegetable exhibits were not as heavy nor as good as in past years. This, also, was due to the unfavorable season. The collections were very good. The 1st prize was won by Mr. J. B. Guthry, Dixie, Ont., and the 2nd by Brown Bros., Humber Bay. There was an excellent show of cabbage, the best for years. Cauliflowers were not plentiful and only fair in quality. Squash was poor; citron, small; carrots, only fair; beets, poor; parsnips, fair; turnips, rough; kale, fair; leeks, good but not enough shown; celery, fair to good; winter radishes, good; peppers, medium; sweet corn, poor; tomatoes, smooth but small; potatoes, good; onions, exceptionally good and clean.

number of vases. The gladioli were particularly good. The school children's exhibit of asters was good, but perhaps not so fine as last year, owing to the dry season and to the depredations of variegated cut-worms; they were decidedly creditable, however, and showed the result of much care and interest on the part of the children. The regular classes for cut bloom grown by amateurs were well filled with specimens of excellent quality. The bloom could scarcely be beaten anywhere.

One side of the immense building in which the exhibition was held was one mass of foliage. The showing of decorative plants was an education in itself. The space occupied by these plants was 165 by 8 feet. The specimens in the various banks from the greenhouses and from

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The Niagara District Exhibition

ONE of the best exhibitions of its kind that ever has been held in Canada, was held in St. Catharines, Ont., on Sept. 18 and 19. It was the Niagara District Horticultural Exhibition. In number of entries, in quality of exhibits and in the matter of arrangements, it surpassed the horticultural show at the Canadian National Exhibition. Of course the exhibition in St. Catharines had the advantage of being held two weeks later than the one in Toronto, and as a result, better fruit was to be had. The arrangements and display of the exhibits showed, however, that those in charge had a keen conception of the artistic, which was

sadly lacking at the Canadian National. The difference is shown in the illustrations that appear in this issue. The St. Catharines Horticultural Society has reason to be proud of the character of the exhibition. The citizens of the city of St. Catharines and the fruit growers throughout the Niagara District should have given it greater support in the matter of attendance.

The flower and plant show was exceptionally good. The cut bloom was excellent. There was a fine collection of dahlias. Possibly they would have shown to better advantage had the same number of bloom been placed in a larger

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professional florists, were exceptionally well grown. The display that attracted the most attention was one shown by Mr. Roderick Cameron of Queen Victoria Park, Niagara Falls, Ont. It demonstrated Mr. Cameron's skill and enthusiasm in the art of growing rare things.

The floral designs were much admired and, with a couple of exceptions, the work was done well and with good taste. The table bouquets were good. The decorated dining tables looked exceedingly well. They were decorated by the ladies and not by professional florists and, consequently, could not be expected to equal those usually seen at the Ontario Horticultural Exhibition, held in November.

THE FRUIT EXHIBITION

In the number of entries and in quality, the fruit was excellent. The exhibit of grapes was superior to anything before shown in this country; there were 166 entries. The other entries were as follows: apples, 146; pears, 149; peaches, 100; plums, 102; quinces, 13; specials in fruit, 134; commercial packages, 61; and preserved fruit, 171. Considering the dry season that we had during the past summer, it was surprising to see fruit of such excellent quality. The peaches were high class. The apples were fair; from the limited number of entries it was evident that the Niagara District is not paying as much attention to apples as to more tender fruits. Deserving of particular mention were the large collections shown by Mr. Furminger and Mr. Bunting, the former winning first prize. Both were of exceptional merit and the first prize one was the finest that has ever come under our observation.

An excellent feature of the exhibition was the contest of packing fruit in boxes. The competitors were young ladies, daughters of prominent fruit growers in that locality. The contest was educational; it showed the spectators how the various fruits and sizes of fruits might be packed in boxes properly. The young ladies showed much skill and the judge found it diffi-

cult to place the awards. Practically the only thing that the competitors lacked was speed, and time is money during the fruit season. Being conscientious young ladies, they appeared to have more concern for the way in which the wrapped specimens appeared in the package than they had for rapidity. In the vegetable packing contest, the competitors were at great disadvantage as the specimens given to them for work were a fierce lot.

THE VEGETABLES

The display of vegetables exceeded that of last year three-fold. There were 260 entries. The samples shown were well grown and true to type. In some instances, however, the varieties were wrongly named. It is only fair to the exhibitors to say that the judgments appeared to have been made with little or no consideration for the merits of the various entries. In celery, turnips, pumpkins, and tomatoes, particularly those in bushel crates for canning purposes, and in some other classes, reliable observers believe that the awards were wrongly placed. Other than this the vegetable exhibit was exceedingly good and did much toward making the exhibition attractive.

The horticultural department of the Manitoba Agricultural College, Winnipeg, has had the lawns around and about the college levelled and planted. The nature of the work would indicate that the college grounds will present a sight to be proud of in the course of a few years. A greenhouse is being built for the use of horticultural students.

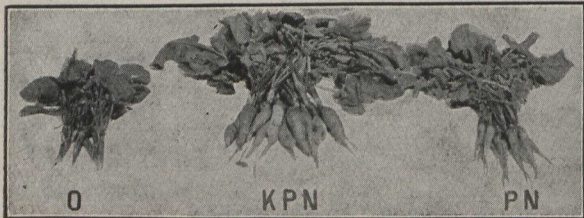
The Ottawa Fruit and Produce Co., Winnipeg, intends to enlarge their warehouses in that city. The increase in the fruit trade with the consequent increase in the firm's business, makes this move necessary. Mr. McNaughton, the manager, who has been the main factor in the development of the firm's business, deserves credit for his enterprise.

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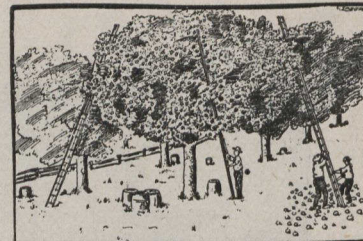
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is, by inducing your friends to subscribe for it. By giving us your support, you not only secure a better paper, but you benefit the horticultural interests of the Dominion.

The St. Lawrence Route

This seems to be an opportune time to place before our readers the advantages of selecting the St. Lawrence route for shipments of perishable freight. The St. Lawrence being the Canadian route, it is but natural that those who have spent so much time and money in building up the port of Montreal should expect Canadians to patronize their own route. This expectation is not born of loyalty alone; the St. Lawrence route offers to shippers many advantages not possible of attainment by other routes. The ships of this route have been equipped with the most modern appliances for the safe carriage of fruit, dairy products and bacon; and in addition, vessels take the North Atlantic course, thus getting the advantage of the coolest trans-Atlantic voyage.

A glance at the history of shipping via the St. Lawrence should be of interest at this particular time, when so much is being said of fast Atlantic services, imperial unity and colonial preference. In taking a retrospect of the improvements, one cannot do better than look at the history of the Allan Steamship Company. The year 1852 saw this company with four steamers aggregating 3,400 tons. Since then the growth has been marvellous, and always in keeping with the requirements of the times. As soon as it became evident Canada would contribute largely to the food supply of Great Britain, the ships of the line were gradually fitted with cold storage refrigerators and other appliances for the safe stowage of perishable property, until to-day the Allan Line fleet consists of 32 steamers, aggregating 175,000 tons, with a cold storage and cool air capacity of say, 371,000 cubic feet, whilst the ordinary holds of the ships are equipped with



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sirocco fans, thus giving exporters a choice of whatever stowage is required for the particular commodity being exported.

Not only has the company been keeping pace with the necessary ship improvements, but by interesting warehousemen and others, has succeeded in the establishment of modern cold storages at the steamers' docks in Liverpool and London, so that now those who invest largely in perishable commodities, feel secure when entrusting this property to the Allan Steamship Company. To those who have been fortunate enough to visit the new cold storage warehouse at Surrey Commercial Dock, London, Eng., it is unnecessary to expatiate, but for the benefit of those who have not had an opportunity to see this warehouse, be it said that competent judges have pronounced it one of the best equipped in Europe. This last year has also seen the completion of the Imperial Cold Stores at Canada Dock, Liverpool, where similar arrangements to those prevailing at London are in existence.

When the railway refrigerator service, by which traffic is safely and quickly transported to the seaboard, is taken in conjunction with steamship arrangements both on sea and land, one feels quite safe in recommending the St. Lawrence route to all classes of shippers.

The apple season being almost at hand, a word to the exporters of this commodity seems opportune. It is most advisable that apple exporters give shipments a reasonable time to make connection with the ship. The commerce of this country has increased to such an extent as to make it almost impossible for the railroads to keep up with it, and it is only fair to them that the shipping public should render every possible assistance to the transportation companies, and, in the matter of exports, this can best be done by shipping in ample time to enable the railway company to deliver the property to the ship.

Apples are handled most carefully at the steamship shed; mattresses are used to break the fall of the barrels when being unloaded from the drays; the ship's slings are carefully utilized in lowering the barrels down into the hold. A feature introduced by the Allan Line last year has proved eminently successful and that is the building of "trunk-ways" in the holds of the ship, thus ensuring a current of air throughout, and making the use of the sirocco fans much more beneficial than if the holds were closely packed with apples.

The discharging of ships is a most important operation, especially when unloading apples. This is most carefully watched so that damages are reduced to a minimum.

The services of the Allan Line have been very much improved for the season of 1907. The new S.S. "Corsican" rounds out a Liverpool service which cannot be surpassed on the St. Lawrence route. The steamers are "Virginian," 12,000 tons; "Victorian," 12,000 tons; "Corsican," 11,000 tons; "Tunisian," 10,576 tons; two 7-day and two 8-day vessels.

The advent of the "Corsican" makes it possible to place the twin-screw S.S. "Ionian," 9,000 tons, in the Glasgow service, and when the new twin-screw S.S. "Grampian" is placed in commission, September 21, the Glasgow service will be furnished by the "Ionian," "Grampian," "Pretorian," "Corinthian" and "Sicilian."

The favorite S.S. "Parisian" has been added to the London service, so that all three ports will be served with the best fleet the Allan Line has yet given to its patrons.

I do not see the advantage of an inspection station at Revelstoke. All fruit trees from the south are inspected at the coast. I find that all nursery stock from the east is free from disease.—A. Clemes, Spence's Bridge, B.C.

I have received a few copies of **THE CANADIAN HORTICULTURIST**, and think it is just the thing for fruit and flower growers.—A. E. Hennigar, Chester Basin, N.S.

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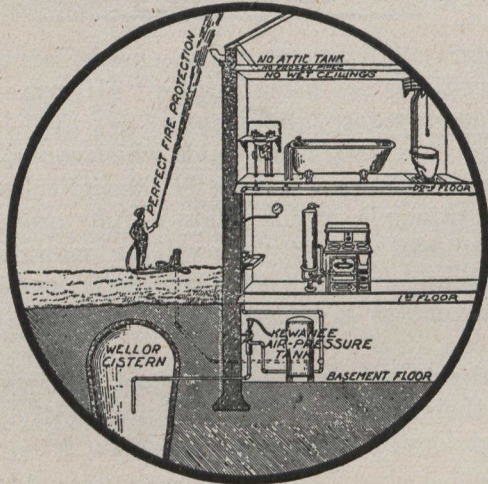
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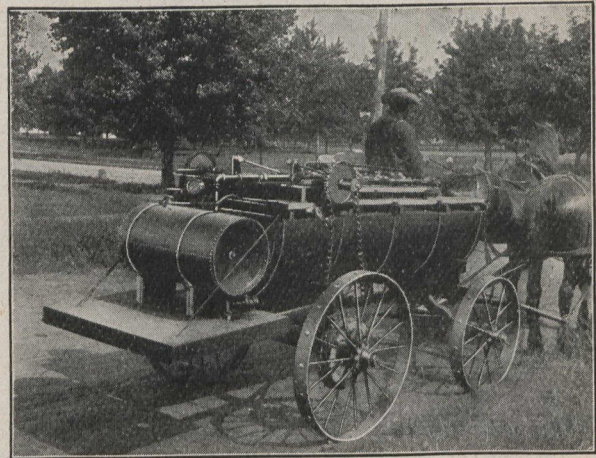
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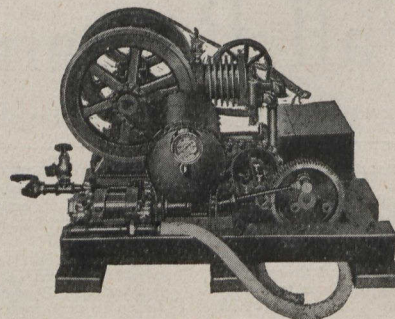
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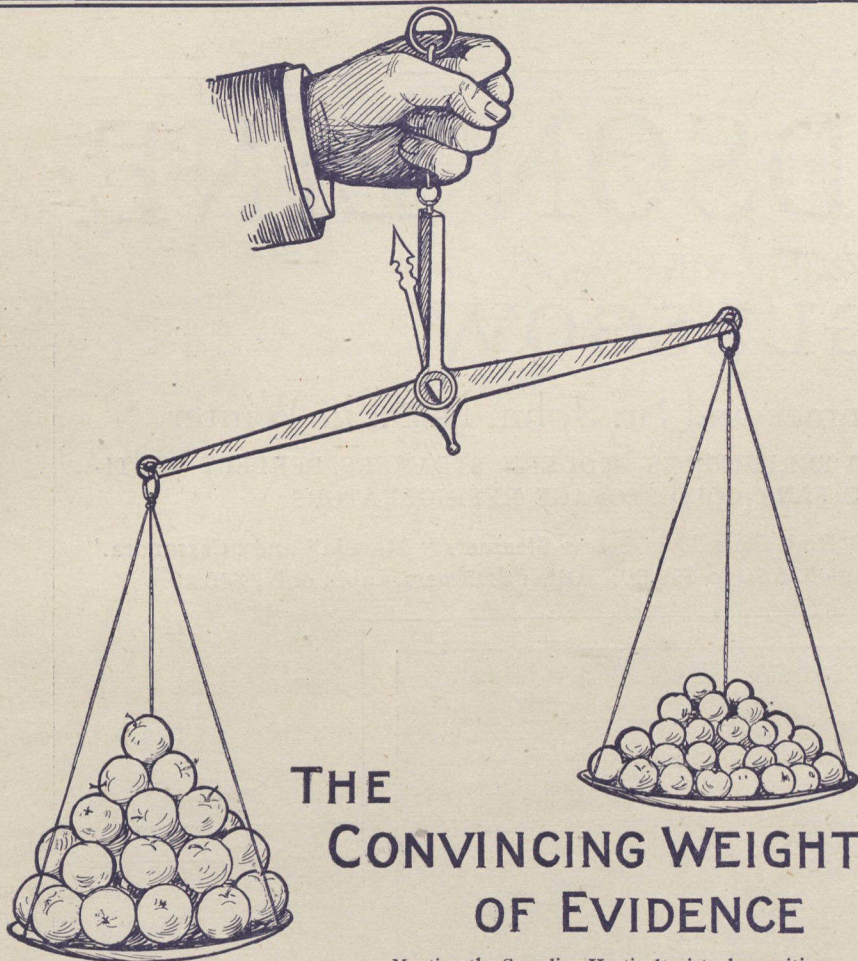
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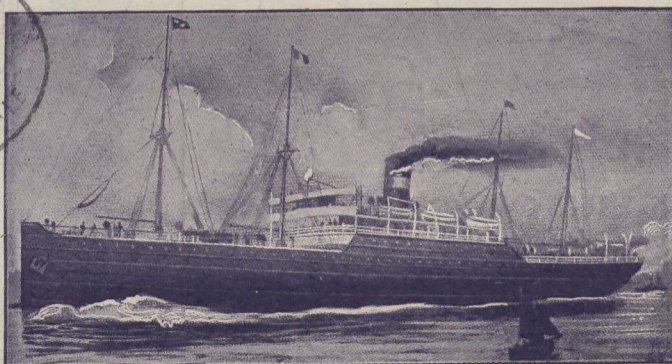
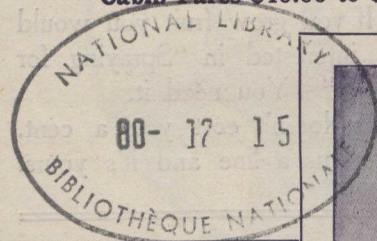
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