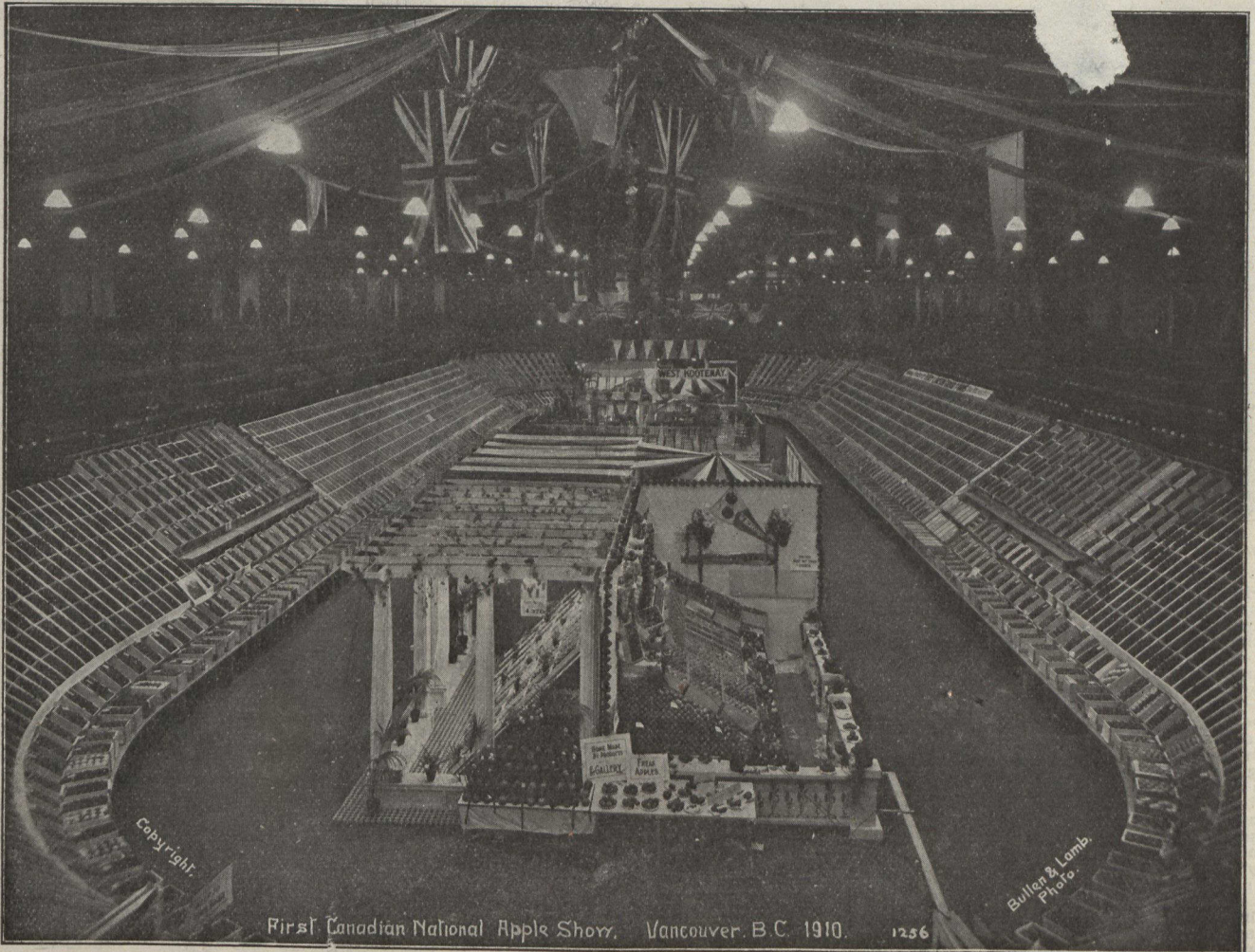


# THE CANADIAN HORTICULTURIST

DECEMBER, 1910  
Vol. 33 · No. 12

PETERBORO, ONTARIO

5 Cents a Year  
\$1.00 for 2 Years



THE ONLY HORTICULTURAL MAGAZINE IN CANADA  
FOR FRUITGROWERS, MARKET GARDENERS & AMATEUR HORTICULTURISTS  
ISSUED ONCE A MONTH

# FRUIT FARMING AT KELOWNA, B. C.

THE ORCHARD CITY OF THE FAMOUS OKANAGAN VALLEY



## IRRIGATING FIVE YEAR OLD TREES AT KELOWNA, B. C.

If you knew you could get more for your energies and worries than you do now, would you be contented to live just as you do now?

If you knew you could become independently wealthy within a reasonably short time, on less than the average farmer of the East has invested, and that you could have a most profitable and attractive home and orchard, in a land of refinement and plenty, would you still be contented to live as you do now?

The Company we represent has settled one valley in the Kelowna District and we are just offering to the public the choicest valley fruit lands of British Columbia. We know they are the best because we have been over practically every proposition in B. C. These lands have been owned and held by the Central Okanagan Lands Ltd., for four years, while they were settling the other valley, which was under a less expensive irrigation system than the one installed this season. This new irrigation system cost \$350,000 and is the finest on the American Continent. The fruit grown under irrigation at Kelowna has swept the world at all the large apple shows both in U. S. and Canada. Irrigation is cheap insurance, and we get a crop EVERY YEAR. Our fruits at the recent National Apple Show, Vancouver, took the two big (\$1000 cash and gold medal each) prizes of the show, as well as nearly \$2000 in smaller prizes, and seven medals. One beautiful gold medal was for the largest number of first prizes taken at the show. We were not the largest exhibitors by any means, but we took the most prizes. Kelowna surprised the world again, as she did at Spokane in 1908, when she took \$4423 cash, two gold medals, and a silver cup.

on 43 boxes of fruit, against the most famous districts of the American Continent.

The markets are unlimited. The population of the Prairie Provinces is steadily increasing, and we cannot even now begin to supply their demands. Australia and China cannot get their orders filled for winter apples.

The climate of Kelowna is unequalled in any part of the temperate zone. Her climate is ideal. No severe winters; no deep snow; no severe thunder or wind storms; no prostrating summer heat; no hot summer nights. Kelowna and district has a population of over 10,000, and has every modern convenience. The city is beautifully located on the Okanagan Lake. It has beautiful churches and public buildings, all necessary industries connected with fruit growing—canneries and packing houses. Growers ship through packing houses and realize high prices through their organization.

Many full bearing orchards are producing over \$1000 per acre per year. Seven year old McIntosh Red trees are paying \$17 to the tree nett. One instance of \$27 on seven year old tree, nett  $1\frac{1}{2}$  acres Buerre d'Anjou Pears paid \$2620 nett, or nearly \$2000 per acre. These trees are 14 years. Fourteen year old Northern Spys paid \$40 per tree, and we plant 50 trees to the acre—figure it out; 40 year old trees paid \$40 per tree; 52 year old trees paid \$45—figure it out. Three year old Jonathans paid \$50 and better per acre. Beat it if you can. One car load of Jonathans won \$1000 cash and gold medal at Canada's National Apple Show last month, and pronounced by the Judges "The finest carload of apples ever

exhibited on the American continent." Beat it if you can. Some of the most successful fruit growers in our section came there without any knowledge of fruit growing, but they learned by keeping an eye and an ear open. You can do the same.

Eyes are on the West. It is the country for energetic people and Kelowna is the place for people who find eight weeks of winter enough—and that not severe. If you want to make more money than you are making now, investigate. A number of Ontario people live there. One Ontario man bought a place five years ago for \$5000 on easy terms and would not sell for \$60,000 to-day, it pays him so well. Two young brothers from Ontario came there with less than \$1000 each three summers ago, and now refused \$20,000 for their young orchard. They did not understand fruit growing. They said they would sell for \$25,000 cash, and take more undeveloped land. Mr. Reader, investigate.

You can live in the finest climate in Canada, can do just as well as others (or better, because you will benefit from their experience) you can live an ideal life, and your family can have every social and educational advantage. Absolutely no pioneering. We want the best people of the East to investigate. The property we are selling will be the garden spot of Canada. Soil, 12 to 16 feet deep. Free from trees, stumps and stones. All been plowed. Write for our literature. Let us tell you how much Easterners bought. We ran two excursions to our property this autumn. We have the goods. Your opportunity to investigate.

**C. A. & H. H. MacLEAY,** 751 St. Catharines St. West, Montreal, Que.  
Russell House Block, Ottawa, Ontario.

Sole Eastern Agents for Central Okanagan Lands, Limited, Kelowna, B. C., Capital \$1,000,000

## The Canadian Horticulturist

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## TALKS ON ADVERTISING

By the Advertising Manager

No. 3

### CONCENTRATION OF CIRCULATION

When an advertiser can place his announcements before the people who want to buy what he has to sell, he is assured of the maximum returns for the money spent. The true value of advertising space is measured by the results it obtains for the advertiser and in no other way. Space in a paper with only 1,000 subscribers, everyone of whom is interested in one particular subject is worth actually more to the advertiser who wishes to reach this class of people, than space in a paper with 10,000 subscribers of which only 1,000 are interested in this subject.

In the one case, the paper is read by all its subscribers for the special information it contains. It caters to a special class of readers who regard it as an authority in its particular line and who, when they read it, are looking for just such information as it contains. In the case of the publication with a circulation ten times as large, there are only 1,000 subscribers from whom he can hope to get business. Even these are apt to have their attention attracted to other subjects which occupy nine-tenths of the paper and so not be in the buying mood when they see his advertisement. The other 9,000 is circulation for which the advertiser is paying, but from which he gets no returns. Instead of getting ten times as much business from an advertisement in the paper with the larger circulation, the chances are that he will not get as much. Were the advertising rates in the two papers the same, his advertisement in the paper with the smaller circulation would probably pay him the best. The experienced advertiser considers not so much the number of people his advertisement will reach, but the number of sales it will make.

The Canadian Horticulturist is a journal that has concentrated quality in its circulation. Every reader is interested in some branch of horticulture. The paper reaches those interested in fruit, flower or vegetable growing, and them only. Its readers refer to it when they want information along horticultural lines. They are personally and vitally interested in its reading columns and to almost as great an extent in its advertising columns, for it is there they learn where they can buy the goods they want to use in their orchard or garden. For the advertiser handling such goods, The Canadian Horticulturist offers the maximum number of possible buyers per 1,000 readers with the minimum amount of waste circulation.

The Canadian Horticulturist brings results for those who use its columns to reach the orchardist and gardener. This is shown by the way such advertisers are increasing the amount of space used from year to year. Renewal contracts already received for next year show that some of these advertisers are increasing the amount of space used by 100 to over 500 per cent. over last year.

The advertiser who uses large space in any publication, especially in a publication which concentrates its circulation among one particular class of readers, impresses its readers with the size and importance of his business and with his facilities for filling orders promptly and satisfactorily, and reaps a correspondingly large reward.

*Next Month—Why it Pays General Advertisers to Use The Canadian Horticulturist.*

# Grape Vines

(Wood taken from our own bearing Canes)

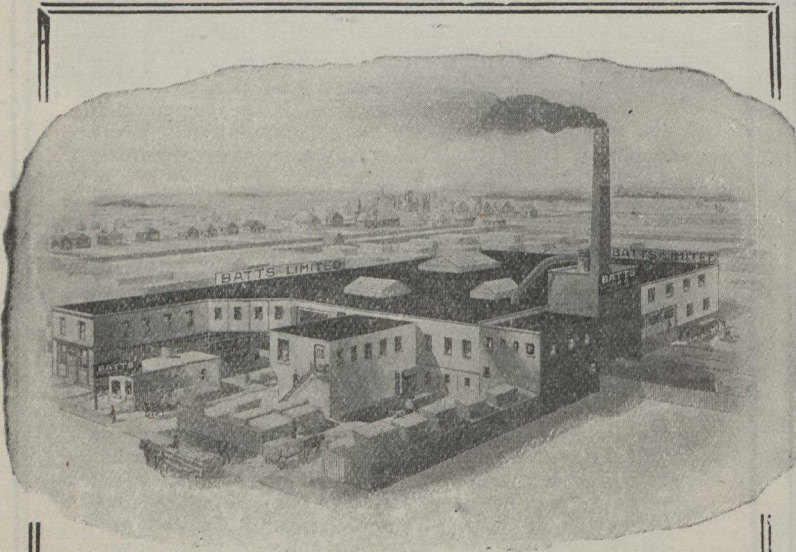
"Helderleigh" 2-year old Vines are strictly 2-year old and are NOT inferior old Vines cut back year after year until they have root enough to pass. Seeing is believing. Samples will be sent on application.

## E. D. SMITH

Helderleigh Nurseries

### WINONA, ONTARIO

Photograph has been taken to show the roots of our 2-year old Vines.



FACTORY OF

## BATTS LIMITED

MANUFACTURERS OF

### CYPRESS GREENHOUSE MATERIAL

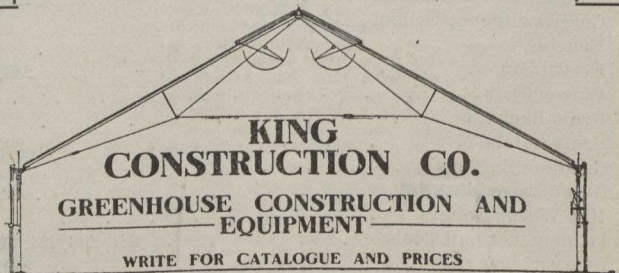
50 PACIFIC AVENUE, WEST TORONTO

## KING GREENHOUSES

Are the most

### MODERN AND PERMANENT

Greenhouses that can be constructed. Years of actual test and the experience of large and small growers have gained for our houses the reputation of being the most satisfactory ever erected for vegetable or flower growing, or private conservatories.



Plans prepared for complete plants and equipment at a moderate cost: all or part of the necessary materials supplied and houses of any size erected under our personal supervision if desired by builder.

Write and tell us the kind of houses you desire to erect or ask for question blank and we will mail you our descriptive bulletin by return of mail.

### THE KING CONSTRUCTION CO.

248 Wellington St. West TORONTO, ONT.

Mention The Canadian Horticulturist when writing.

# The Canadian Horticulturist

Vol. XXXIII

DECEMBER, 1910

No. 12

## Cover Crops in the Orchard\*

Prof. S. Blair, Macdonald College, Que.

**C**OVER crops and their value in orchard practice is one of many important operations in orchard management which should receive more attention if we hope to produce fruit economically. The three methods of culture usually recommended are: First—The cover crop method; Second—The clean culture method; Third—The sod mulch method. There are some who advocate growing trees in sod but this is an unwise method. It is adaptable only to very exceptional conditions, and should not be recommended.

The cover crop method briefly is to cultivate the ground from early spring until the first of July, sufficient to keep a fine earth mulch on the surface, and at the time of the last cultivation seed to a cover crop which will produce a good mat of vegetation to work under either in the late fall or the following spring. The clean culture method is similar to the above except that no cover crop is grown and the ground is left bare, or to be occupied by an occasional weed after the last cultivation early in July.

The sod mulch method is to mulch, usually with manure, the area occupied by the tree sufficient to prevent great evaporation from the soil, and to keep all grass or weeds cut, not allowing them to grow taller than six inches and letting this material also remain as a mulch. This practice is advisable if conscientiously followed especially on hilly, rocky or very open gravelly soil, but what some growers

\*Extract from a paper read at the annual convention in Toronto last month of the Ontario Fruit Growers' Association

practise and call the sod mulch method I would call the large hay crop method.

If the clean culture method is followed some means must be adopted to get humus into the soil. Without humus our soils become unproductive. Humus not only

### The Challenge of the West

British Columbia has challenged the provinces in Eastern Canada to hold a "National" Apple Show. What is the East going to do about it? Our Eastern growers claim to have more extensive areas of land adapted to growing apples of high quality than can be found in British Columbia. They profess to grow apples of better quality. British Columbia growers now say, "Prove it."

The challenge falls properly at the feet of Ontario fruit growers. Granted that we have the fruit districts and the fruit, have we got the men who can "prove it"? The apple producing and consuming districts of the world await the answer.

aids in conserving moisture but gives as well a better mechanical texture to the soil. It lightens up heavy soils and makes an open soil more compact. Humus in the soil assures an ever present supply of nitrogen, and prevents the leaching from soils of potash and phosphoric acid. Bacterial life in the soil is largely dependent upon humus and we must not forget that

these lowly forms of life are large factors in rendering a soil productive.

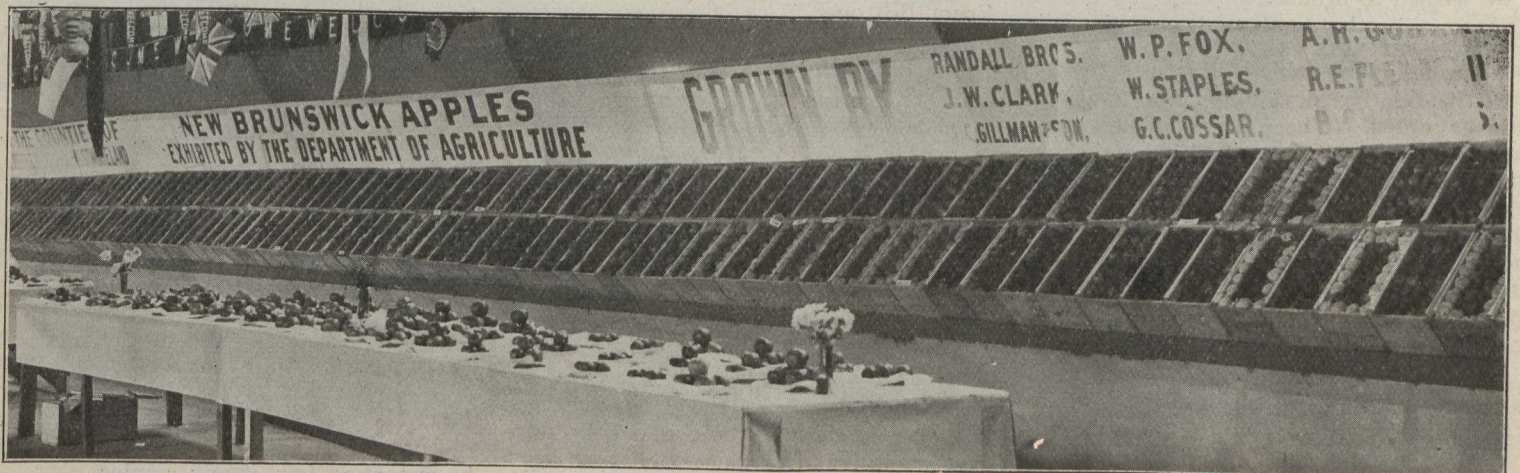
Commercial fertilizers do not add humus to the soil. They can be used most economically only on a soil not deficient in humus for otherwise a continuous supply of available food material is not within reach of the plant. I do not mean to say anything against the use of commercial fertilizers for they can be used to advantage by the orchardist. But what I want to impress upon you is that humus in some form is essential, and if the clean culture method is followed, stable manure or litter of some sort, must be used to furnish it. Manure is not available for many growers and, besides, if cover crops can be grown in the orchard to supply the humus, and not be a detriment but rather an advantage to the growing tree or ripening fruit, why not make use of it?

Many orchards are located on hillsides and if cultivated a serious washing may occur during the fall or early spring rains if not prevented by means of a cover crop of some sort.

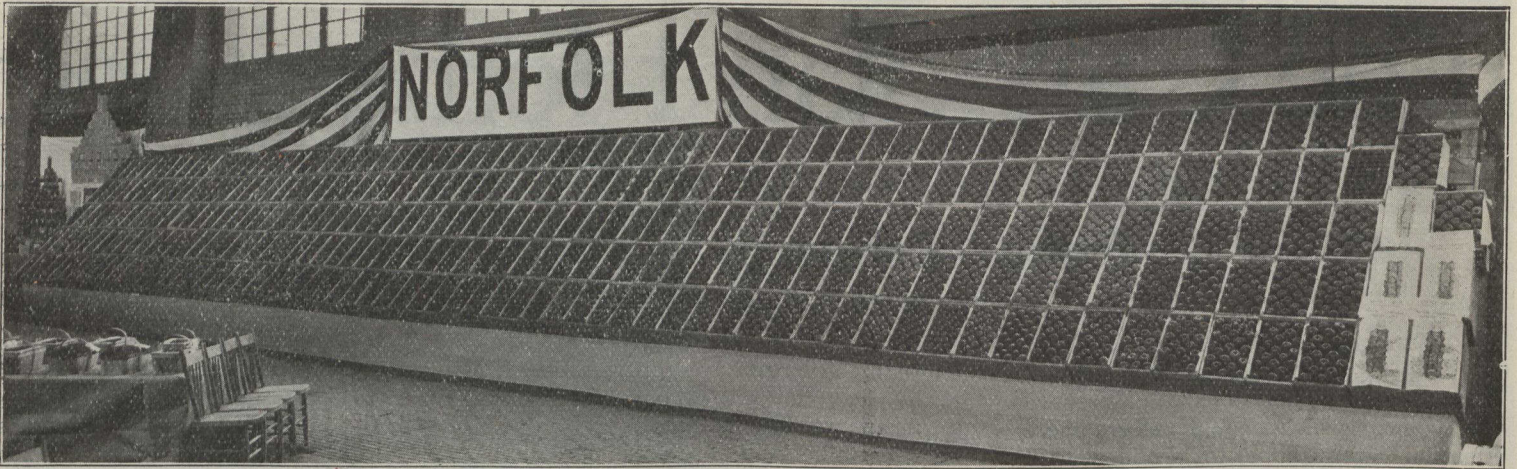
Nitrogen, one of our most costly elements of fertility, may be largely supplied through a leguminous cover crop and the purchase of fertilizers confined to the potash and phosphate manures. If clean cultivation is followed this free nitrogen cannot be secured. The above reasons are, I think, sufficient to warrant one in advocating the cover crop method of orchard cultivation.

### RIPENING THE WOOD

Another phase of the subject, is the proper ripening of the wood for winter.



An Evidence of what New Brunswick can do in the Production of High Grade Apples. A portion of the Display at the Recent Exhibition at St. John, N. B.



The Prize Winning Half Car Load of Boxed Apples Shown at the recent Ontario Horticultural Exhibition by the Norfolk Fruit Growers' Association

Winter injuries may result from improper ripening of the wood or it may be due to improper nourishment. Instances of the latter are found in cases where there has been heavy fruitage which drains the tree of its vitality unless there is sufficient food available to supply the growing tissue as well as the fruit. Nature directs all her effort first to the development of seed to perpetuate the species, and the tissues of the plant are supplied only after this want has been met. Were we to place within the reach of our trees food as required I think we should hear less about the winter killing of our bearing trees. The improper ripening of the tissues of a tree may be due to an excessive food supply, or excessive moisture conditions in the soil, or to a continued high temperature. The temperature and food supply are largely influenced by the moisture conditions, although a combination of these factors is responsible for late growth.

The moisture conditions are in a measure within our control by the use of cover crops. In irrigated districts the grower has absolute control of this factor and can ripen off his trees when he wishes by the withholding of water. We have no such absolute control in the use of cover crops, for excessive rains at a certain period may largely counteract any drying effect we wished to produce through the use of a cover crop that tends to dry out the soil.

#### EFFECTS OF COVER CROPS

The following table will give some idea of the relative drying effect of various cover crops. These experiments were conducted in our young orchard and show the percentage of moisture in the soil in the middle of September: Millet, 7.24; Oats, 10.; Rape, 10.1; Winter Rye, 11.6; Crimson Clover, 11.8; Buckwheat, 11.8; Red Clover, 12.3; Vetch, 12.8; No Cover Crop, 14.9.

It will be noticed that the strong growing cereal crops and rape will run down the moisture contents of the soil very rapidly, and for this reason they may be advisable in some cases. The oat crop had four per cent. less moisture than the check plot growing no cover crop. Crops

that form a dense mat prevent evaporation from the soil and this is one reason probably why the clovers and vetch do not so materially reduce the moisture contents. It was found also that the

quick growing cereal crops reduced the moisture of the soil earlier in the season than the clovers, especially than the Red Clover, which requires a longer period to form much leaf area.

## An Over Production of Apples Improbable\*

G. H. Vroom, Middleton, N. S.

A LARGE majority of those present have heard the statement made, possibly some of you have made it yourselves, that the time was near when there would be so many apples grown that no market for them could be found and that the orchards, which cost large sums of money and much time and hard labor to bring to a bearing age, would be hewn down and cast into the fire. If this doctrine of over-production has not reached New Brunswick you are fortunate.

It might be possible to produce more apples than could be profitably marketed, but judging from the history of apple production and consumption in the past it is not likely to transpire.

Let us look back over the past thirty years and see what has taken place. In the year 1880-1881, the United States exported apples as follows:

From New York	.....600,000 barrels
From Boston	.....510,000 barrels
From Portland	..... 40,000 barrels
From Philadelphia	..... 10,000 barrels

Total from American ports . . . . .1,160,00 barrels

In 1908-1909 the figures are as follows:

From New York	.....363,000 barrels
From Boston	.....189,000 barrels
From Portland	..... 89,000 barrels

Total . . . . .641,000 barrels

By these figures we find that the export of apples from the United States has decreased over 500,000 barrels dur-

\*A paper read at the annual convention in November of the New Brunswick Fruit Growers' Association, at St. John's, N. B.

ing a period of thirty years. Yet all this is no evidence that our neighbors across the border are less active or producing less apples than they did in the year 1880. Just the opposite is the case. More and better apples are produced than formerly, but the demand is far greater in their own country.

Perhaps it would not be an exaggerated statement to make if I should say that not more than ten per cent. of all the apples grown in the United States find their way into any export market, and I think it would not be going too far afield to say that judging from the increase in the population for the last ten years that at the end of the next ten our neighbors will be importing apples to be consumed by their own people. Now let us look at the condition of things in Canada.

#### CANADIAN CONDITIONS

In the year 1880-1 the number of barrels of apples exported from Montreal was 145,276. In the year 1903 the export had gone up to 732,000 barrels. But since 1903 it has dropped to 353,000 barrels. Is this because the fruit growers of the great provinces of Ontario and Quebec are giving less attention to the growing of apples? Not by any means; more apples of higher quality are produced, but the demand is so steadily and rapidly increasing in Western Canada, where thousands upon thousands of settlers are taking up farms and where larger towns and even cities are springing up almost in a day, that the time is not far distant when the old provinces of Ontario and Quebec will be exporting few, if any, apples.

In the year 1880-1 there was exported

from St. John, N.B., and Halifax, N.S., combined 24,250 barrels. In the year 1909-10 the export from these ports had grown to 670,000 barrels, an increase in thirty years of 645,750 barrels. This increase is due to the increase in production without a corresponding increase in local consumption.

With the United States consuming the entire product of their own country, and the great north west requiring the crop from Ontario and Quebec, after their own local markets have been supplied, and with the export to the Old Country from Australia and Tasmania coming in during the months of April, May, June, and July, when North America has no apples to ship, it is not a very great stretch of imagination to believe that the Maritime Provinces of Canada must supply to a large extent the apples consumed in the large cities on the other side of the Atlantic.

#### THE WESTERN MARKET

It is less than ten years since the Dominion Department of Agriculture sent an experimental car load of apples to Winnipeg and sent a man all the way from St. Catharines in Ontario to look after the car. It was considered a risky thing to do, to send a car load of fruit all the way to the city of Winnipeg. What is the condition of things there

to-day? One firm in Winnipeg handled over one hundred cars of fruit from St. Catharines alone up to the 22nd day of October, and up to that date nearly three hundred cars of fruit had been sold at auction in that city. This does not include fruit sent in from the American side of the line. In the face of all this Ontario Spys are selling to-day in the city of Winnipeg for from \$5.50 to \$6.00 per barrel. The Winnipeg Fruit Auction Company, which has only been in operation four months, reported through their manager, Mr. Sinclair, that they had handled sixty-five cars of fruit from Ontario and ten cars from British Columbia up to October 20th.

About six years ago a trial shipment of apples was made to South Africa from Nova Scotia. It was found that there was a market for a limited amount of apples at a good price. These shipments have increased until this season apples will find a market in South Africa. This trade is destined to increase more and more. And further permit me to remind you that our local markets are expanding and our population is increasing. Consequently, more apples are consumed by our own people.

Less inferior fruit is being packed every year. Our people will eventually be educated to the point where they will

pack only the good apples in barrels for market and send the poor ones to the canning factory and the vinegar mill. The apple industry of Canada is yet in its infancy. The outlook was never brighter than at present. The up-to-date orchardist has no reason to worry about an over-production of apples.

### Profits from Apple Orchards\*

R. R. Sloan, Porter's Hill, Ont.

What profits may reasonably be expected from an apple orchard? In 1907 we harvested 700 barrels of apples at \$1.65 per barrel on the ground from ten acres of orchard, containing 350 trees. This brought in \$132.00 per acre. The varieties consisted of Ben Davis, Kings, Greenings, Spies and Baldwins.

In 1908 the crop was very light. We got only 250 barrels from the same area, or \$45.60 per acre at \$1.50 per barrel.

In 1909 we had a heavy crop, upwards of 2,000 barrels being harvested from our whole orchard. The 350 trees referred to produced 750 barrels at \$2.25 per barrel, or \$192.80 per acre.

This year the apple crop in general was almost a complete failure. Nevertheless, 100 barrels were picked from the above mentioned trees at \$3.75 per barrel, or \$43.00 an acre, giving a total of \$413.40. Thus for the four years our

returns from this ten acres of orchard have been \$103.35 per acre on the average from trees seventeen to twenty years of age.

The cost of producing these apples was as follows: It cost \$2.35 per acre for plowing, \$1.05 for cultivating three times, \$8.75 per acre for pruning, and \$8.30 for spraying using bordeaux mixture at an average cost of one and one-third cents per gallon for three sprayings. The past year we used lime sulphur and arsenate of lead, and it cost a little more for the first spraying. Fertilizing, at the rate of five loads of



A View of a Portion of the Fruit and Floral Exhibits at the Recent Ontario Horticultural Exhibition held in Toronto

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

manure, cost at 50 cents per load, \$2.50. The whole benefit of this was not returned in the one year, but was spread over a number of years. The cost of pulling at 10 cents per barrel, in round numbers, was \$9.00 per acre.

To sum up we find that the cost was practically \$27.00 an acre. This, deducted from \$103.35, leaves \$76.35 profit per acre for trees from seventeen to twenty years of age, or \$763.50 for ten acres.

#### BETTER RETURNS

We have sections of orchard much older that give considerably heavier returns. One old plantation of an acre in extent, containing thirty-five trees, mostly Spies, has given as high as \$18.00 a tree even at the low price of \$1.50 a barrel, or \$530.00 for less than an acre.

### Protect the Trees

J. A. Moore, Prince Edward Island

Building paper cut in strips and tied around the trunks of fruit trees will prevent mice from gnawing the bark. You should attend to your trees now, as the deep snow will give the mice a fine chance to girdle the trees. If you tramp down the snow hard around the trunks it will stop the mice from getting at them.

By manuring the young trees in the fall you serve a double purpose—you fertilize the tree and by banking some around the trunks protect them from the ravages of mice.

### Lime Sulphur vs. Bordeaux\*

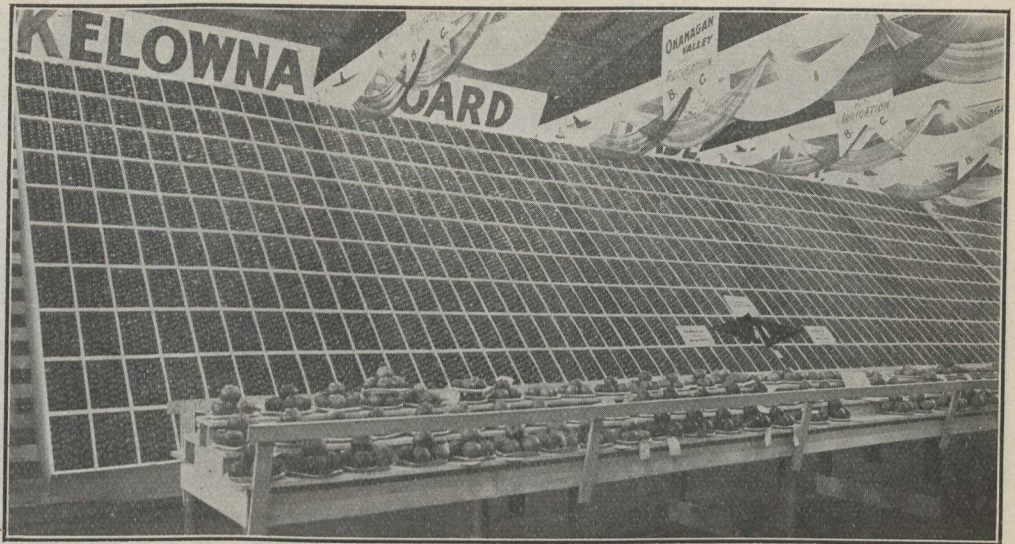
R. R. Waddell, Simcoe Co., Ont.

We have had a year's further experience with the lime sulphur and bordeaux mixtures for spraying. As far as the first spraying is concerned it is generally admitted that on account of the Blister Mite we should all use lime sulphur, which will control this pest if it is used at the proper time. If, however, this spraying is neglected until the leaves peep out a quarter of an inch it will fail to control.

This year I went through several orchards in three counties and found no proof that three sprayings of lime sulphur for the fungus was any better than one of lime sulphur and two of bordeaux. In a close examination of some of the orchards sprayed three times with lime sulphur I would find one to be barreling ninety per cent. free from fungus while adjoining orchards, which received the same formula, had fungus on 30 per cent. of the fruit.

In examining orchards sprayed with bordeaux I found them differ in the same way. Whether this was due to a lack of preparing the formula it was hard to explain.

\*A paper read at the recent convention in Toronto of the Ontario Fruit Growers' Association.



The Winning Car Load of Apples Shown by the Kelowna District of B. C. at the Canadian National Apple Show (Note that the exhibits are ten boxes high. See report Page 285.)

We can figure that lime sulphur has two points of advantage for the last two sprayings: First, it does not cause the fruit to rust; second, we can use the home boiled concentrated, which is a little cheaper than the bordeaux. These however count for very little in compari-

son to controlling the fungus. The only condition upon which I would pass any opinion as to which is the best for the fungus is to see two like machines in an orchard in the same hour spraying with the two formulae and then note the results.

### Floral Hints for Amateurs for December

Frank Wise, Peterboro, Ont.

EVERYTHING in the way of cleaning up your garden and grounds should have been accomplished by the beginning of this month. If it has not been, and the weather should continue favorable, it is a good plan to open all drains to carry off surplus water in the spring and to dig any ground that has not already been dug. Use a spade and leave the surface as rough as possible.

The pruning of shade trees can be done to advantage this month. Take out branches that are too low, cross limbs, and dead ones. Do not forget to cut out or remove every other one of the young trees which you planted a few years ago, as they grow up and touch each other. You will be surprised how quickly the ones that are left will fill up the vacant spaces.

A good way to remove young trees is to dig a trench around them about eighteen inches to three feet from the trunk, according to the size of the tree, letting the earth freeze on the ball that is left. Later pry up the ball and at the same time pull over the top. When you can place a stoneboat or truck underneath the ball the tree can be easily removed to any place where you may wish to replant it.

#### CARE OF HOUSE PLANTS

Your house plants during the winter months require careful watering. This must be done only when the plant becomes dry.

When potting your house plants be

careful to put an inch or two of broken pottery in the bottom of the pot for drainage purposes. It is often owing to neglect in this respect that your plants turn yellow and sickly and do not bloom.

Some of the bulbs which have been planted and put in a dark moist place to root will be ready to bring up to the light. Do not expose them at first to the bright sun, but gradually move them



#### A Protection for the Flower Bed

there as they become accustomed to the light. They will require copious watering to keep them growing and to produce good flowers.

Mulch your bulb beds with rotten manure, which can be left on in the spring, when it will serve the double purpose of fertilizing and retaining the moisture in the soil. Frequent cultivation of your bulbs in the spring is necessary for success.

Cover pansy beds with cedar or spruce



boughs to hold the snow and prevent freezing and thawing in the spring. It will also protect them from the early March sun, as it often is due to the sun that your plants kill out and not to the hard winter as is sometimes thought.

Climbing plants, such as roses, clematis, ampelopsis, and others, that you do not wish to take off your walls and fences during the winter will be benefited by a covering of spruce or cedar boughs, matting, or coarse canvas for protection against the March sun. A few forkfuls of long, strawy manure or leaves placed around the roots and a spadeful or two of earth, to keep them in position, will be of benefit.

Tender border plants, such as hollyhocks, Shasta Daisy, pinks, Canterbury Bells, and others, can be given a covering of brush, which will be better than manure or any other solid covering, as the latter is liable to freeze and form ice around your plant, excluding the air. This eventually would cause it to rot and die. Bush roses and slender shrubs should be treated to the brush covering if it can be obtained and for the same reason.

Strawberries that have not been mulched should be given a covering at once. Use good, clean rye straw if possible.

It will be well during December to look over your vegetable stores. Much

loss can often be prevented by removing any rot that may have commenced. Onions that have not been properly ripened will have a tendency to grow. This is hard to prevent. Such onions can be used to good advantage by placing them in soil, growing them on and using them as green onions.

#### CARE OF THE LAWN

This is the time to mulch your lawn. Give it a covering of good, rotten stable manure, or better still, manure and soil mixed. This covering must not be left on after the growth begins in the spring without raking. This should be done two or three times as the weather permits. This treatment will allow you to leave most of it on the ground, taking off only the stones, sticks or long straw that may be in it.

Prepare for spring by cleaning, sharpening and repairing all garden tools, overhauling your lawn mowers, and giving them all an application of oil to prevent rusting. Make out a list of tools required and see that they are all in their place so that in the spring you will not be delayed in your work. Having this done now will often ensure a better and earlier start in the spring as a great deal of time is taken up looking for, repairing and replacing tools, which could be otherwise given to the cultivation of your garden.

(about forty inches wide) by themselves, and not mixed with herbaceous plants, shrubs or trees. Some of the dwarf polyanthus make ideal bedding roses as a border in front of the higher varieties. They can be used as tall six feet weeping standards, though in Ontario these have to be bound in earth to come through our severe winters.

Different varieties of the climbers can be grown on north, south, east and west walls or fences. They can be grown as dwarf or tall pillars. They can be grown for covering pergolas. The Wichurianas make an ideal covering for unsightly banks. They can be grown pegged down or bent over in semi-circles. Many of the varieties will make a splendid dwarf or tall hedge. Many roses make handsome bushes when grown on a lawn separately. They can also be grown in pots or in greenhouses for buttonholes or table decoration. In short, one can hardly desire to grow a flower in a position where a suitable rose cannot be used or found for it.

#### WHAT TO GROW

At our summer home on Toronto Island where the soil in our rose beds is quite unsuitable to get the best results in rose culture, we are experimenting with about seven hundred roses; sixty-five named climbing roses; about two hundred named Hybrid Teas; thirty Hybrid Remontant, and about thirty odds and ends such as Rugosa, Polyanthus Teas, Chinas, Sweet Briars, and others.

#### HYBRID REMONTANT

The name Hybrid Remontant means that they bloom a second time (or once more). This class is usually termed Hybrid Perpetual, but they are not perpetual bloomers like the Hybrid Teas, Teas and Polyanthus, and the term is misleading and I think should not be used by growers. This is the class of rose usually grown in Ontario because it is

## Rose Growing a Delightful Occupation\*

W. G. MacKendrick, President Toronto Horticultural Society, Toronto, Ont.

THE rose, the national flower of England, has thousands of named varieties in commerce. Roses of various kinds are found the world over. Many of the choice varieties grown come from far away India and Japan, and one can see various wild roses in our own favored land, from Vancouver in the west to Halifax in the east, and from Edmonton in the north to the most southern point in Ontario.

Where roses grow in their wild state, cultivated roses will also grow, and I am optimist enough to believe that perhaps in my lifetime, dozens of our cities, towns and villages will be as fragrant with the sweet perfume of the Queen of Flowers as are the towns and villages in England each June, and throughout the summer.

#### HOW TO DO IT

The rose fever is as catching as the measles, the mumps or some of the other ailments which flourish in Ontario, and I would that I had the power to inoculate each of you with a touch of it, because once caught, like the old-fashioned ague, it is hard to shake off. If each of you in your gardens had a bed of a few dozen hybrid tea roses, which would

bloom from June until November, you would inoculate your circle of friends and neighbors with the laudable desire to do likewise, and the ball once started would, like the endless chain, continue forever.

#### USES FOR THE ROSE

Roses can be used for general garden cultivation and should be placed in beds



The Flower Bed and Lawn of a Prescott County (Ont.) Farmer, G. D. Mode, President Vankleek Hill Hort. Society  
This flower bed contains over 100 choice rose bushes of several different varieties.

\*An extract from a paper read at the annual convention of the Ontario Horticultural Association held in Toronto, Ont., November 17, 18, 1910.

known to be hardy. They give an abundance of bloom at the end of June and the beginning of July and about half of them bloom again in September.

If asked to suggest the best dozen suitable for gardens, perhaps Frau Karl Druschki and Margaret Dickson for whites; Mrs. John Lang, Mrs. Sharman Crawford, Mrs. Cocker for light pinks; Alfred Colomb and Magna Charta for dark pinks; Captain Hayward, Ulrich Brunner and General Jacqueminot for light reds; Prince Camille de Rohan and Victor Hugo for dark reds, would be a fair selection.

#### HYBRID TEAS

These roses are a cross between the tender ever-blooming and the hardy Hybrid Remontant and other roses. They were first introduced in 1868 with that favorite La France, still one of the sweetest roses grown. They are practically continuously in bloom throughout the summer and they will stand our Ontario climate, as I have grown them for three or four years with few losses. Last year I only lost two per cent. of my stock and each plant lost was a weakling to start with.

The blooms are more delicate and refined in form, many of them having the high pointed centre, as distinguished from the cabbage effect of most of the Remontants. The colors range from the most delicate shades of peach, pink, soft yellow, to the deepest reds, oranges, and so forth. Most of this class have the sweet subtle fragrance of the tea roses. I look to this class of rose to be the rose of the future for Ontario, and I would like to see our Canadian nurserymen grow many of the new varieties of this class so that we could get Canadian grown stock in Toronto as well as in Britain or on the Continent. Most growers in Britain and the Continent now catalogue from two to five times as many Hybrid Teas as Hybrid Remontants. If you cannot get the varieties you want locally Alex. Dickson & Son, Newtownards, Ireland, are reliable people to purchase from.

#### THE BEST HYBRID TEAS

If asked to select the best twelve roses of this everblooming class, I would be at a loss just which to choose, because like a bevy of beautiful women, each has a special charm of her own, and like the gentler sex they possess as many moods and charms as there are hours in the day, and who is the man who can say that Caroline Testout is more handsome than Hon. Ina Bingham or Mrs. Peter Blair, and did he judge them in the early morning with the dew glistening on them, or when the sun was high in the heavens, or during that witching hour when the sun was just going down, when many things in our gardens look their best.

I have gone into the rose garden in the early morning when the dew was on



Portion of a Ravine in Rear of the Residence of Mr. G. A. Olive, Brantford, Ont., in process of Reclamation. No. 1

each petal, leaf and tree; when the rising sun had awakened the birds to singing their lusty jubilant songs in June, and what a glorious sight meets the eye! A thousand blooms of roses of every color in the rainbow besides many that the rainbow does not possess, indescribable in their beauty, with a fragrance which baffles description.

Is there any sight on this round earth more beautiful, more joyful and more uplifting when it meets the eye, than a rose garden on such a morning. I have walked down the paths carefully noting each of the seven hundred bushes, picking the choicest bloom here and there and comparing them one with the other, and I have declared that Betty is the sweetest, daintiest thing that ever grew and have wondered how I could have thought yesterday that Mildred Grant surpassed her.

Entering the garden at high noon Betty's complexion does not look so ruddy. Mildred Grant has a dozen freckles on her glorious face of yestermorn, while Hon. Ina Bingham, a blushing beauty deeply veined on her thick velvety pink petals is the beauty of the hour. At evening a walk along the same paths will show Helen Keller or Susanne Marie Rodocanachi or some other charmer which surpasses the Hon. Ina Bingham.

This is, I think, one of the principal charms of a rose garden; you can walk through it morning, noon and evening, month after month, and never see it just as it looked on any other day, so you can see how hard it is for a man who loves them all to specify the best twelve. I can however say that Antoine Revoire, Caroline Testout, Dean Hole, Grand Duc A le Luxembourg, Gruss an Teplitz, La France, Madame Ravary, Marie Able Chatenay, Etoile de France, Vicountess Folkestone, Thursa and Killarney, will give splendid results in your garden.

#### CLIMBING ROSES

Climbing roses are as easily grown as tomatoes, potatoes or cauliflower. This is the class of roses which everyone should grow wherever there is a bare piece of

fence, a stone pile, an old stump, a dead tree, a pergola, a veranda, the side of a house, a sloping bank or an overhanging wall that would look better covered with their rich shining green leaves, and during their flowering season with their masses of gorgeous flowers.

When you consider that for twenty-five cents one can get a good hardy climbing rose that our winters cannot kill, that will bloom the first year, and in three years will cover a wall or fence ten feet high and fifteen feet long, one wonders why there are so many bare and unsightly spots even on the premises of members of the horticultural societies, and all over Ontario.

Cannot each of you picture in your mind right now such a spot in your garden? Unless I am mistaken, we all can. Let me now suggest that the best work you can do for your horticultural society is to cover that spot with a climbing rose of any of the following varieties and the next year you can give half a dozen cuttings to half a dozen neighbors and they will emulate your example, because these climbing roses are grown on their own roots and the cuttings root readily in sandy soil. I have cuttings stuck in the ground September 22nd, 1909, which I dug up October, 1910, and which had three shoots six feet long, and they never got any attention during the year except a watering once in a while.

As there are only a couple of hundred different climbing roses in commerce, it is easier to choose a good twelve than among the hybrid teas. I would place Tausendchon at the head of the list, then Crimson Rambler or Flower of Fairfield which is colored like Crimson Rambler but it blooms on new wood, and flowers two or three times during the season; then Dorothy Perkins or Lady Gay which is a deeper pink and more fragrant; then Debutante which to me has the sweetest fragrance of any of the climbers I have grown. Reine Olga de Wurtemberg, a H. T. Climber, a brilliant scarlet with flowers of the size and shape of Tausend-

chon, is a gem. Climbing Mrs. W. J. Grant (H. T.) will give several crops of bloom during the summer. Helene, a single flowered climber with a lavender tinge through it. Hiawatha, a brilliant red with white eye and large yellow stamens, is one of the most showy. White Dorothy, a sport from Dorothy Perkins and Gardenia, the best yellow Wickari-ana, will make a dozen, that will fill your waistcoat with pride every time you look at them during the summer.

One of the finest sights I saw in Toronto last summer was on West Roxborough Street, where half a dozen houses had Tausendchon, Dorothy Perkins and Crimson Rambler in bloom on their front verandas. Just imagine what a beautiful spot Toronto would be if every house had its climbing rose over the door or veranda. If you cannot get what you want locally, try Mr. H. Walsh Woods, Hole, Mass., who has a dozen or two of the best climbers on the market.

#### HOW TO MAKE A BED

Dig the ground 18 inches deep and put in one-third well rotted cow manure if you can get it. If the soil is very heavy clay dig in one-third sand and turn it twice. Plant H. T. Roses fifteen inches apart; H. R. Roses 24 inches in two rows with a 24 inch grass walk between the beds. The rose is a gross feeder and will make away with large portions of well rotted manure, bone meal or liquid manure.

Rose growing is the most delightful and beneficial of exercises. It chases the cobwebs out of the brain of the tired city worker; it helps keep the heart young, and once started it holds one's interest to the end. It's a game you can play

at whether you are twenty-five or seventy-five years of age, and you can enjoy it so long as you have eyes to see or a nose to smell with.

"If you love your city, town or village; if you want to be helpful to yourself, your fellow citizen and to posterity, there is no better way of expressing it than to plant roses that will gladden the eye, brighten the lives and warm the hearts of your families, your friends and your fellow citizens, and those who will take our places as the years roll round."

#### Paeonies not Blooming

What is the matter with my paeonies. They never bloom. I have taken them up and divided them. They grow luxuriantly, but do not bloom?—W. E. J.

The data you give is not sufficient to make a positive explanation possible. The only known diseases of the paeony are "leaf-drying fungus," "root-gall," and "urmatodes." These three diseases are rare, especially the first and second.

The effect of urmatodes, which are indicated by the growth of small nodules on the tuber, is to stunt the growth of the plant and cause it to be unthrifty and unproductive of bloom. Plants so affected usually recover a healthy condition by a division of the tubers and re-planting in fresh soil. It does not seem likely that your plants have any of these diseases.

There is good ground for believing that some plants are degenerate. There are degenerate specimens in the animal kingdom, in both the human and the brute divisions. Doubtless there are "No Good" specimens in the plant kingdom

also. In the writer's paeony plot there is one variety of some hundreds of plants which show some half a dozen specimens that are "no good." These will be consigned to the rubbish-dump.

There are few plants so free from disease and from the ravages of insect enemies as the paeony. You may rely on this, that given a division of from three to five strong, well-developed eyes of a healthy tuber, planted in September in soil that would yield a good crop of corn or potatoes, and mulched with manure to prevent heaving by frost you will have some bloom in the following June. In the second year you will have better bloom than in the first year after planting, and in the third year you will have an abundance of normal bloom of the variety. Such a plant, if given an annual dressing of manure, will continue to flourish and increase in the number of stems and blooms for eight to ten years, after which it should be divided and re-planted.—John Cavers, Oakville, Ont.

#### The Gardens of England\*

Mrs. Allen Baines, Toronto, Ont.

In the October issue of THE CANADIAN HORTICULTURIST I stated that I would endeavor to forward a photograph of the schizanthus mentioned in my letter. The one I am sending is not clear, but will show the size and the wonderful mass of bloom, though the delicate and dainty tints of mauve and gold and pink and white must be left to the imagination.

Mr. Symes has been so successful in growing them that his method is worth noting. His main object is to avoid all unnecessary disturbance of root during growth. He therefore sows three or four seeds in three inch pots filled with a compost of three parts loam to two parts leaf mould, enriched with bone flour in the proportion of a six inch pot full to a barrow full of soil.

When some real leaves have been made, he thins these plants out to the strongest in each pot, and leaves these untouched until their roots have filled the pot. He then shifts them into six inch flowering pots and keeps them in a temperature of 55 degrees Fahr.

One corner of his greenhouse was filled with a fine group of hybrid single geraniums in shades of deep rose, blush pink, carmine and many soft warm tints of red. In each of these the truss was full and the individual flowers were of a size approaching that of the fancy pelargonium. In all of them the centre of the corolla and the base of each petal was white, which radiated and melted into the color of the flower.

Here are some of the names of these: Lady Curzon, Lady Chesterfield, Phyllis,



A Portion of the Same Ravine After Reclamation—No. 2

\* Continued from October issue.



**Schizanthus of Unusual Size and Wonderful Bloom**  
(See article "The Gardens of England," page 281.)

Madame John Laing, Oliver, A. K. Williams, Winston Churchill.

Before quitting the genial company of this Devonshire worker among the flowers, I must give you his recipe for a very fine plant food:

One bushel of soot soft coal, one half pound sulphate of ammonia, two pounds Thompson's plant manure; mix these together and put into a thirty gallon cask in the proportion of half a pint of the mixture to three gallons of water.

This recipe reminds us of the value of soot as a fertilizer. It has been used for

years in England, where soft coal is burnt in every house. The difficulty here has been the scarcity of soft coal soot, and now that drawback is a thing of the past. The growth of commerce and the yearly increase of factories with their forests of tall chimneys mean a huge accumulation of soot which will doubtless be welcomed by the cultivator as a valuable medium of nitrates and also of sulphate of ammonia, which while beneficial to the land, especially where cereals are to be grown, is destructive to harmful insects. I am glad to hear that Messrs. Simmers, of Toronto, intend to keep a stock of it.

## Insects that Attack Vegetables\*

L. Ceasar, B.S.A., O. A. C., Guelph, Ont.

Every vegetable grower knows to his sorrow the stout, smooth, dull-colored caterpillars that at night cut off his plants at the roots, or climb up them and destroy the buds or other parts. In the daytime they conceal themselves in the earth at the base of the plant or lie curled up under a board or any protection near by.

There are many kinds of cutworms; some do most damage to plants soon after they are set out in spring, others not until June or July and a few in August or even September. The adults of cutworms are moths—those dull, brown moths with about one inch of expanse of wings that fly around at night and come into the houses to the lights.

Most of the moths we see are cutworm moths. These lay their eggs, as a rule, where they think there will be plenty of food for their young when they hatch. Hence the part of our fields where weeds are allowed to grow wild is the place where the cutworms are most likely to trouble us the next year.

\*An extract from an address delivered at the recent convention in London, Ont., of the Ontario Vegetable Growers' Association.

The eggs are in most cases, but not in all, laid in the fall and the young caterpillars which hatch from them feed for a while before winter and then remain hidden in the soil till next spring. As soon as vegetation begins they greedily search for food and, being already a considerable size, are very destructive.

### MEANS OF CONTROL

We should try to keep our fields as free of weeds as possible throughout the season so that the moths will tend to go elsewhere to lay eggs. The destruction of rubbish as early as possible in the autumn, followed by ploughing, will help to destroy many of the eggs or young caterpillars. When the cutworms are present in the soil and causing destruction to plants they can in almost every case be held in check by the use of poisoned bran. I have myself used this on different occasions with excellent results, and I presume some of you have had similar good results with it. It is being used all over North America to-day as the standard remedy for cutworms of all kinds.

The formula is: Fifty pounds bran, one

pound Paris green, about one patent pail of water sweetened with a few pounds of sugar or a little molasses. Put the bran into a box of the necessary size, moisten it with the sweetened water until it is just wet enough to fall through the fingers easily without being sticky, then dust some of the Paris green over it and mix well; repeat until all the Paris green is thoroughly mixed in and can be seen on every particle of the bran. This can then be carried out to the field and applied about sundown so as to be fresh and attractive when the caterpillars begin to feed.

I apply it by taking a pailful on one arm and by walking down the row and dropping about a spoonful with my hand by the base of each plant. The cutworms evidently prefer this substance to the plants themselves, and thus are readily poisoned. If one suspects in spring that his plants will be attacked by cutworms he should scatter a little of the poisoned bran over the ground an evening or two before planting. Care should be taken not to let poultry get at this bran.

### FLEA-BEETLES

Flea-beetles are tiny little beetles, usually not more than one-tenth of an inch long. Most of them are black, but some are a dusky green, and others are marked with yellow, red and other colors. They get their name from their habit of leaping away when disturbed. Probably the most troublesome of all is the striped turnip flea-beetle (*Phyllotreta vittata*).

This insect is black with a wavy band of pale yellow running down each wing-cover. It attacks almost all kinds of plants belonging to the order Cruciferae, such as turnips, radishes, cabbage and cauliflower, and I have seen it this year



**A Big Bunch of Tomatoes**

There were 53 formed tomatoes in this bunch, on one stalk. It is the Sunrise variety, the seed from which was secured in England. Grown by Louis V. Masters, Sardis, B.C.



Cucumber Vines in one of the Greenhouses of R. H. Ellis, Leamington, Ont.

In two houses, 60 by 100 feet in floor space, Mr. Ellis last spring produced 1,306 baskets of cucumbers that sold for a little over \$1,200. The plants were started about March 1st, transplanted in the ground without benches about April 15. Picking started May 13, and continued until the last of July. Some of the vines were sixteen feet long.

very abundant on some kinds of wild mustard.

The potato flea-beetle (*Epitrix cucumeris*) is another troublesome flea-beetle. It attacks potatoes, tomatoes and sometimes cucumbers. The insect is very small and black and eats tiny holes in the leaves, sometimes affecting them so severely that they die. Blight gets a chance to enter through the injured parts. There are several other kinds besides those mentioned that attack various kinds of vegetables.

Most of the damage from flea-beetles is done early in the spring just after the plants have been set out or the seed has appeared above the ground. In such cases it requires very prompt measures to prevent the destruction of the whole crop if the beetles are numerous.

(1) Late planting. From what has been said, one might hope that the beetles would soon slacken off, lay their eggs, and either disappear or not attack so voraciously plants that were sown late in the spring. This is usually the case, and in most seasons turnips can be sown with comparative safety after June 20th as can also many other plants.

(2) Poisoned Bordeaux mixture. In many cases the beetles can either be destroyed or driven away by spraying the plants as soon as they appear with Bordeaux mixture, to every barrel of which three or four pounds of arsenate of lead has been added. This will have to be repeated about every third day until the plants get well started, when it can be discontinued.

On account of the smooth surface of cabbage and some other plants it is well to add a sticker to the Bordeaux. This is made as follows: Boil together two pounds resin and one pound sal soda in

one gallon of water in an iron pot in the open until a clear brown liquid is formed. This will usually take from one to one and a half hours. Add the above amount to every forty gallon barrel of the poisoned Bordeaux. Many other remedies have been advocated for the destruction of flea-beetles, but poisoned Bordeaux has given the most satisfactory results.

### Selling Vegetables in Hampers

By selling vegetables neatly packed in hampers to special customers in the large cities, enterprising growers in the United States have worked up, in some cases, large and profitable businesses. Efforts of this kind have been undertaken in a small way already in a few localities in Canada. There are opportunities for a great development of this line of work.

Mr. Fullerton, of Long Island, is one

of the United States growers who has made a distinct success of this line of work. "From Farm to Family Fresh," was the slogan Mr. Fullerton adopted when he sent out the first Home Hamper, an evolution of years of study of a means to place fresh vegetables in the consumers' hand with as little loss of time from field to table as possible. The six-basket hampers he has used have been proved a success, not only by Mr. Fullerton but also by other growers who have tried them. If you have to ship your vegetables to large city markets it may pay you to try this Home Hamper plan. It will cost something to get it introduced and to educate your future customers, but let one basket go into a high class city home and the prospects are that you will get another order.

A grower who has the capital and can afford to adopt this plan, could devise no better advertising plan than to secure a list of well-to-do householders in his market, send them a trial hamper of choice vegetables, and enclose a neat circular stating where the hamper can be secured regularly and at what price. Mr. Fullerton has sold the hampers regularly at \$1.50 each.

Every box or basket of vegetables is wrapped in paraffine paper. This protects the vegetables from dust and frost and retains the moisture, so that there is no wilting during shipment. How different from getting lettuce and other vegetables from the grocer's stand that are often wilted and anything but tempting.

The plan calls for the growing of a variety of vegetables. But this is no disadvantage. There is, perhaps, too much of a tendency of the grower to narrow to a few crops. A variety of crops makes it possible to rotate from growing a good many crops rather than a few.



Charter Members of the Quebec Vegetable Growers' Association

This association was organized one year ago at Macdonald College, Que. It now has about 500 members, and receives a provincial grant of \$400 a year. Last summer the association conducted experiments with fertilizers at eighteen different places. The second annual convention will be held this month.

# The Canadian Horticulturist

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H. BRONSON COWAN, Managing Director

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7. Articles and Illustrations for publication will be thankfully received by the editor.

## CIRCULATION STATEMENT.

The following is a sworn statement of the net paid circulation of The Canadian Horticulturist for the year ending with December, 1909. The figures given are exclusive of samples and spoiled copies. Most months, including the sample copies, from 11,000 to 12,000 copies of The Canadian Horticulturist are mailed to people known to be interested in the growing of fruits, flowers or vegetables.

January, 1909.....	9,456	January, 1910.....	8,925
February, 1909.....	9,310	February, 1910.....	8,967
March, 1909.....	9,405	March, 1910.....	9,178
April, 1909.....	9,482	April, 1910.....	9,410
May, 1909.....	9,172	May, 1910.....	9,505
June, 1909.....	8,891	June, 1910.....	9,723
July, 1909.....	8,447	July, 1910.....	9,300
August, 1909.....	8,570	August, 1910.....	8,832
September, 1909.....	8,605	September, 1910.....	8,776
October, 1909.....	8,675	October, 1910.....	8,784
November, 1909.....	8,750	November, 1910.....	8,747
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THE CANADIAN HORTICULTURIST,  
PETERBORO, ONTARIO

## EDITORIAL

### WELL DONE, BRITISH COLUMBIA

We must take off our hats to the fruit growers of British Columbia. They have made good their claims to have one of the finest apple producing districts in the world by holding the greatest apple show on record and capturing the principal awards with their own fruit. They deserve their success. The obstacles they overcame seemed, to weaker men, unsurmountable. They have proved that in addition to growing fine fruit they have a strong courageous people. They are Canadians, and Canadians in the East are proud of their success. We have heard so much about the apples produced in Oregon and Washington that we rejoice to know that our brother fruit growers in British Columbia have proved their ability to more than hold their own with the best that can be produced in those famous districts.

British Columbia growers accomplished what they did practically alone and unaided. Their success is the more remarkable. As we predicted would be the case, eastern growers did not show at Vancouver. This was not because of lack of interest or to any inclination not to help. It was due solely to the fact that there is no market for eastern fruit on the Pacific Coast nor is there much possibility that there ever will be. Eastern growers realized that the expense of exhibiting would be enormous and that the resultant benefits, even should they prove successful, would be practically nil. For these reasons, and these reasons only, they did not take part. Nor is there much prospect that these conditions will change for many years to come. Until they do, British Columbia growers need not expect to see much eastern fruit exhibited at their shows. As far, therefore, as the representative nature of the exhibits was concerned our contention that the show would be more British Columbian than national in character has been borne out.

In another light, however, the show was national in every sense of the word. It has quickened the pulse of fruit growers from one end of Canada to the other, it has given them a new pride in their vocation, renewed confidence in their future and a desire to see their provinces do as well as has British Columbia. For this reason we are deeply indebted to the fruit growers of British Columbia, and especially to the promoter of the recent great show, Mr. Maxwell Smith. Now let the East fall into line and do its part to help on the great cause of fruit growing in Canada.

### ONTARIO'S OPPORTUNITY

The directors of the Ontario Fruit Growers' Association have been requested to consider the advisability of holding a national apple show in Ontario during the fall of 1911. The opportunity is a great one and should be utilized.

What Ontario needs more than anything else is leadership. We have the resources, the people, the markets and the opportunities. What we require is a few men of courage, faith and resource who will undertake to demonstrate these facts to the world. Our people are ready, nay, more! they are impatient to fall in behind such leaders and to support them to the limit. We must find these men. The opportunity should develop them.

The armouries in Toronto is the ideal location for the holding of this show. Red tape should not be allowed to prevent its use for such a purpose. It is not only of national but of international importance. If necessary, every member of Parliament in Ontario, and even those from other provinces as well, should be pledged to support the holding of the show in these buildings. Local conventions of fruit growers should be held in every leading apple producing section of Ontario and arrangements made for the exhibiting of large displays, in fact car load lots, from each section at the proposed national show. Arrangements will need to be made for careful pruning and spraying of orchards in each district, but with the assistance of the local branches of the department of agriculture, this should be possible, and so much greater will be the resultant benefit from the show.

As British Columbia finds a market for much of its fruit in the east it could be expected to make a large display, in fact it has already offered to do so. Quebec should have a full crop next year, and could be expected to make an extensive exhibit of very fine fruit. The Maritime provinces also would be likely to play an important part.

The Ontario government should put up at least \$15,000 and the city of Toronto \$10,000 towards the expenses. The little city of Vancouver gave some \$7,000 towards its recent show. The Dominion government might well contribute also. Better still, it could arrange to bring over from Great Britain parties of people likely to be interested in what could be seen at such a show. Thousands of dollars could be raised also by private subscriptions. These are merely suggestions as to a few things that might be done. By holding a greater apple show than has been Ontario can demonstrate at one stroke that it is the peer of any apple producing section in the world; it can increase the value of every acre of orchard land in the province; it can set new standards for fruit growing and packing; it can attract the best class of immigration; and it can prove that the fruit growers of the province are able to hold their own with the best fruit growers anywhere.

### UNSATISFACTORY ARRANGEMENT

The announcement that hereafter the experiment station at Jordan Harbour, Ont., is to be in charge of a farm superintendent acting under the direction of the director of the fruit branch, whose office is located in Toronto, is thoroughly unsatisfactory. Fruit growers, particularly those in the Niagara District, should protest against it vigorously. In making, or in consenting to this appointment, for it is stated that Hon. Mr. Whitney had a say in it, Hon. Mr. Duff has given fruit growers strong reason to believe that he does not appreciate either the importance or the needs of the fruit interests of Ontario.

The new farm superintendent, Mr. A. D. Harkness, is a fine man personally and an experienced farmer and apple grower. He lacks the training that only a complete and thorough agricultural college course can supply, and that he requires to enable him to handle thoroughly and accurately such delicate work as is involved in the scientific breeding and hybridizing of all classes of fruit particularly the tender varieties. He has had practically no experience in the growing of such tender fruits as peaches and many varieties of grapes and pears, and yet he is to be largely in charge of a station where the growing of such fruits must

necessarily be made a specialty. These objections, however, would not be so serious were Mr. Harkness to be in constant touch with a specialist and recognized authority in these matters. He is not to have that advantage. The chief of the station, Mr. P. W. Hodgetts, is to be located in Toronto sixty miles away.

The appointment also is not fair to Mr. Hodgetts. As director of the fruit branch of the Department of Agriculture, secretary of the Ontario Fruit Growers' Association, secretary of the Ontario Horticultural Exhibition, and secretary of the Ontario Bee Keepers' Association, as well as being responsible for numerous other duties, Mr. Hodgetts has done excellent work but already he has as much work as one man can perform and do it properly. If hereafter he is to be held responsible for the performance of the exacting duties involved in the management of an experiment station, such as that at Jordan Harbour, it can only mean that the work he is now doing must suffer, and that at a time when there is urgent necessity that it shall be greatly extended if the fruit interests of the whole province are to receive the attention they require.

If the Jordan Harbour Experiment Station is to be made a success it must be placed under the control of the most experienced horticultural authority and experimentalist that can be found, and this man should be free to give his full time and attention to the work. It is somewhat remarkable that the government should have made this new and important rearrangement in the system of management without having consulted the prominent fruit growers and others who form the board of control of the station.

The announcement that the Dominion Department of Agriculture is arranging for another Dominion fruit conference next fall is welcome. It comes none too soon. In fact, it should have been held before this. There is no standard box for pears, cherries or peaches nor any standard package for peaches. There are problems arising in connection with the jam factories, cold storage, the express companies and transportation that require attention. In the event of Ontario deciding to hold a national apple show next fall, how would it do to have the Dominion fruit conference held in connection therewith or immediately thereafter?

The great success of the annual convention of the Ontario Horticultural Association last month in Toronto only serves to show what splendid work that organization is performing on behalf of the horticultural societies of Ontario. Every society in the province should affiliate with it if only for the selfish reason that by so doing it will best advance its own interests.

This year Mr. E. C. Beaman of Newcastle, Ont., and his son, W. E. Beaman, obtained 132 barrels of Wilmott pears off half an acre of ground. Some of these pears sold for as high as \$7.00 a barrel. They averaged about \$5.50 to the barrel, or \$726 to the half acre. How is that for fruit lands in Ontario? We have thousands of acres of land in Ontario that could do as well. It is time that we began in some systematic way, to make these facts known to the world.

I enjoy reading THE CANADIAN HORTICULTURIST very much. Am sure it cannot be anything but a great help to anybody interested in horticulture.—J. F. Weber, Kent Co., Ont.

## B. C. National Apple Show a Huge Success

By the British Columbian Representative of The Canadian Horticulturist

BRITISH Columbia has done it. It has held the greatest apple show in the history of the world. In its first attempt it has surpassed the National apple shows held in the great fruit districts in the United States. It has excelled, to an extent that almost makes a comparison to its great show a slight, the greatest shows of the kind ever attempted in eastern Canada. It has set the people of Vancouver and of British Columbia wild with enthusiasm over the great fruit resources of the province and incidentally it has advertised to the world, as nothing else could have done, the tremendous possibilities for fruit production in this province.

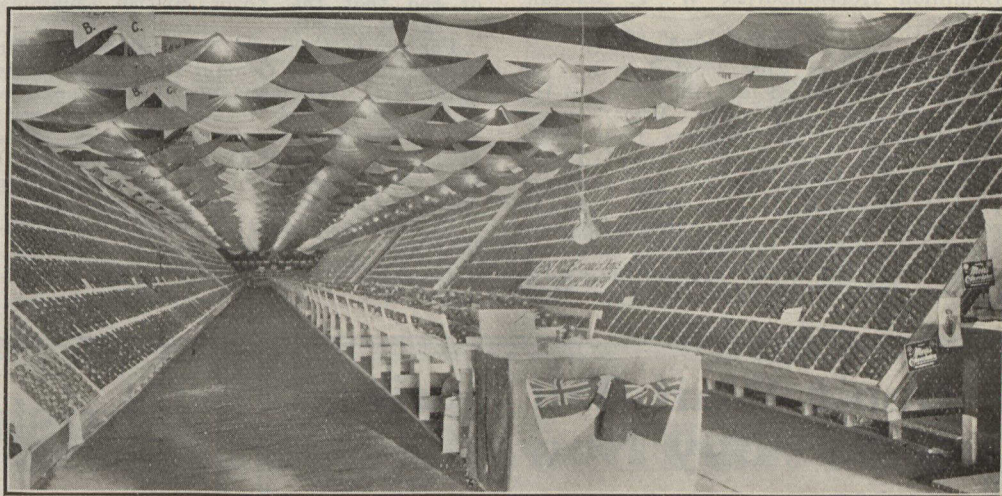
From start to finish the show, which was held in Vancouver, and lasted from October 31 to November 5, surpassed the most sanguine expectations of even the most optimistic people of this province. It will go down in history as having been a wonderful achievement for those who were behind it. The fact that it was all put

Mayor Taylor, of Vancouver, and other notables took part in the opening proceedings.

Those who had visited the Big Show in Spokane in the fall of 1909, were unanimous in declaring that both for the number of exhibits and the quality, appearance and color of the fruit shown, the Vancouver display excelled that made in the United States city a year ago. Prof. Van Deman, the United States expert on apples, declared that he was unable to find language with which to express his admiration of the superb beauty and quality of the winning carload of Jonathan apples shown by the Kelowna Farmers' Exchange.

### EXTENT OF THE EXHIBITS

Some idea of the extent of the exhibits may be gained from the fact that there were 1,300,000 apples shown. There were 10,000 boxes of 194 different varieties of fruit. There were 3,424 distinct exhibits. Of these there were twelve car load entries. There were 79 entries in the ten box class, and 724 single box entries. The plate ex-



A Portion of the Exhibit of Boxed Fruit Shown in the Annex at the Canadian National Apple Show at Vancouver

(Note that the exhibits are ten boxes high on both sides.)

through in less than one year's efforts adds to the wonder.

So great was the attendance at the opening ceremonies many were unable to gain admittance. A large procession, comprising bands, the invited guests, mounted police, automobiles, members of the city council, and others lined up and marched through the city to attend the opening proceedings on the first day. Previous to this a crowd had already gathered in the building. By the time the procession reached the hall, the entrance became blocked, and large numbers were unable to gain admission until some of those who attended the formal part of the opening had retired. It is estimated that during the week over 30,000 people attended the show. The gate receipts amounted to over \$10,000.00.

### THE GREATEST EVER

"The Greatest Apple Show in the Greatest City, of the Greatest Province in the Greatest Dominion in the Greatest Empire in the history of the World" were the words of Manager Maxwell Smith in a rousing speech on the opening day, and every one in attendance was ready to agree with him. The Premier of the province, Hon. Mr. McBride, Hon. J. W. Bowser, Bishop De Pencier, Lieut.-Governor Patterson, Martin Burrell, M.P.,

hibits totalled 1,944 entries. There were eight district displays. By-products, and other industries in touch with apple growing, were represented by 119 entries. There were exhibits from the neighboring states of Washington and Oregon, and from Tasmania, as well as some from Eastern Canada, shown by the Dominion Department of Agriculture, so that the show was not only national but international in character.

### THE OUTSTANDING FEATURE

The centre of attraction was the car of Jonathans packed by the Kelowna Farmers' Exchange, bearing the blue ribbon as best car of Jonathans, and the decorated blue ribbon for first in the carload sweepstakes. Like all the car lots this contained 600 boxes. So even was the grading that a uniform pack was maintained—120 apples to a box, no more, no less, 72,000 apples to the car. So uniform and firm was the pack, so perfect the alignment and so correct the bulge that the judges declared it perfection by giving it full points in everything but rating, or 990 out of 1,000 points. Spitzenberg and a couple of other varieties are rated at 10 (highest quality) by the American Pomological Society, while Jonathan is rated 8.9. Those in a position to know unhesitatingly declared it the most perfect car of apples

ever turned out anywhere. The packing was done under the supervision of Mr. James Gibb, head packer at the Exchange, who will be a judge at the Third National at Spokane, Wash.

The Dominion Department of Agriculture, Ottawa, staged an exhibit at the far end of the annex, which drew an interested crowd at all times. In the boxed fruit of standard kinds from the different provinces the more elongated form of British Columbia apples was plainly seen by contrast. Samples of the best hybrids that have so far been produced between the iron-clad crab species from Siberia (*Pyrus Baccata*) and the hardiest cultivated varieties, were intensely interesting. This systematic breeding of pedigreed hardy apples being perseveringly carried out at the Central Experimental Farm is hoped to result in a race hardy enough for the prairies. Viewing the results and knowing that many of these productions have already borne fruit in Manitoba and Saskatchewan, one could scarcely help thinking greater men than Burbank are among us. We see and hear too little of the patient, untiring, far-reaching work of our Canadian Experimental Farms and of our Dominion Horticulturist, W. T. Macoun, Ottawa.

#### THE CONCESSIONS

The concessions were located mainly on a long, well-arranged lane in a wing of the main building. Nursery firms, spray manufacturers, lunch counters, fruit publications, the local press, orchard implements, cider manufacturers, and the ever present land agent of the west, were all represented. Makers of spraying machinery and the eastern nurserymen, somehow, missed their opportunity. In bringing the famous 48th Highlanders military band

from Toronto to Vancouver, the management made no mistake. The public gave the bandmen a wildly enthusiastic reception.

#### PRINCIPAL PRIZE WINNERS

Chief interest centred in the placing of the awards for the carload exhibits. Twelve carloads of 600 boxes each were entered. The prize winners were as follows:

*Northern Spy*.—1, Coldstream Estate, Vernon, B.C., \$500.

*Spitzenberg*.—1, Sawyer Land Co., Sunnyside, Wash., \$500.

*Yellow Newtown*.—1, Medford Commercial Club, Medford, Ore., \$500; 2, C. Starcher, North Yakima, Wash., \$250.

*Grimes Golden*.—1, Sawyer Land Co., Sunnyside, Wash., \$500.

*King of Tomkins*.—1, Victoria Fruit Growers' Exchange, Victoria, B.C., \$500.

*Jonathan*.—1, Board of Trade, Kelowna, B.C., \$500.

*Mixed*.—1, Summerland Agricultural Society, Summerland, B.C., \$500; 2, Board of Trade, Vernon, B.C., \$250; 3, M. Horan, Wenatchee, Wash., \$100.

A mixed carload from Grand Forks, B.C., was unique in arrangement. Boxes of green apples were so set among boxes of red that the words British Columbia stood out plainly.

For the best carload in the show the first prize consisted of Central Okanagan Lands Ltd., \$500, the management \$500, and a \$100 gold medal—total, \$1,100; second, A. J. Smith, Okanagan Falls, five acres land \$750 or cash \$500 and \$50 gold medal from the management; third, \$25 silver medal. The awards were:

1, Kelowna Board of Trade, car Jonathan.

2, Summerland Agricultural Society, mixed car.

3, Medford Commercial Club, Ore., car yellow Newtown.

#### DISTRICT DISPLAYS

For the best decoration on 12 by 21 feet floor space. There were several entries, and some beautiful decorations.

1 (cash \$500, gold medal \$100), Kelowna.  
2 (\$250 cash, \$50 silver medal), Grand Forks.

3 (\$100 cash, \$25 silver medal), Vernon.

4 (\$50, \$10 bronze medal), Keremeos.

5 (\$25 cash and diploma), Salmon Arm.

A cheque for \$500, handed to Mr. Smith by a Vancouver firm, to be awarded in whatever class he pleased, but not allotted till opening day, was made a special prize for the winner in this class. The first premium was, therefore, \$1,100 in all.

Limited displays, consisting of two boxes, two barrels, two baskets, two jars, two plates, limited to 6 by 12 feet space:

1, Salmon Arm, with an irresistible display all in red. The fruit was mainly Jonathans, the barrels were Spies, and it is safe to say more perfect specimens were never exhibited—\$250.

2, Kelowna—\$125.

3, West Kootenay—\$50.

4, Kermecs—\$25.

#### TEN BOX CLASS

*Northern Spy*.—1, F. R. E. DeHart, Kelowna, \$100; 2, Coldstream Estate Co., Vernon, \$50; 3, R. H. Fortune, Salmon Arm, \$25.

*Gravenstein*.—1, Doyle & McDowell, Willow Point, \$100; 2, Van Sant & Whipple, Olga, Wash., \$50; 3, R. Owen, Mt. Leham, B.C., \$25.

*Fameuse*.—1, Peter Reid, Chatequay Basin, Que., \$100.

*Spitzenberg*.—1, C. L. Green, Wenatchee, Wash., \$100; 2, C. J. Thomson, Sum-

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merland \$50; 3, F. R. E. DeHart, \$25.

*Yellow Newtown.*—1, C. L. Green, Wenatchee, \$112.50; 2, F. R. E. DeHart, Kelowna, \$50; 3, C. Starcher, North Yakima, Wash., \$25.

*Grimes Golden.*—1, F. R. E. DeHart, Kelowna, \$100; 2, Robert Lawson, Grand Forks, \$50; 3, Mrs. John Smith, Spence's Bridge, \$25.

*King of Tompkins.*—1, T. G. Earle, Lytton, \$100; 2, R. H. Fortune, Salmon Arm, \$50; 3, J. Spiers, West Kootenay, \$25.

*McIntosh.*—1, F. R. E. DeHart, Kelowna, \$100; 2, C. L. Green, Wenatchee, Wash., \$50; 3, R. H. Fortune, Salmon Arm, \$25.

*Jonathan.*—1, John Conlin, Kelowna, \$110; 2, T. J. Black, Wenatchee, Wash., \$50; 3, F. R. E. DeHart, Kelowna, \$25.

*Coax's Orange.*—1, F. R. E. DeHart, Kelowna, \$100; 2, A. Scott, West Kootenay Fruit Exchange, \$50.

*Winesap.*—1, Tedford Bros., Wenatchee, Wash., \$100; 2, H. L. Tedford, Wenatchee, Wash., \$50; 3, Yakima Co. Horticultural Union, North Yakima, Wash., \$25.

There was a long list of awards in the five box, single box and plate classes. In the shipping pack J. W. Cockle, Kaslo, (Kootenay district) carried off the coveted \$25 medal with a box of wrapped Stark. Among the twenty odd competing entries were some from the leading packing houses in British Columbia and Washington. In this class the boxes were put on exhibition nailed ready for shipment and not opened and judged until the last day of the show.

The success of the show was due mainly to the author and moving spirit of the enterprise, Mr. Maxwell Smith. He had helpers, among whom were secretary L. G. Monroe, but his tireless energy, his boundless belief in things British Columbian

and Canadian was the mainspring of the whole great undertaking.

That a Canadian province and that about the youngest among apple growing provinces, has with little backing from other parts of Canada held such an amazing exhibition should impress Canadians deeply with the importance of our dominion in the world's apple supply. The Canadian National Apple Show was organized as a movable event. Which province is to claim the next one? Will Ontario or Quebec

with their immense apple growing possibilities go to it and by spraying and careful orcharding grow a crop that will make a Second National? Or will some prairie city providing neutral ground for the orchard districts of the east and west, take it up and afford the dwellers of the great wheat country a glimpse of our apple resources? Wherever it is held, let those behind it see that it sets still higher standards of which Canadians all over the Dominion may well feel proud.

## Greatest Horticultural Exhibition in America

THERE was held in the arena, Toronto, from November 14 to 19, the seventh annual Ontario Horticultural Exhibition. This is freely admitted to be the largest exhibition of the kind held annually on the continent and one of the largest horticultural exhibitions held in the world. Seven years ago, when the first exhibition was held, many doubted if sufficient interest would be shown to enable it to be made an annual affair. The display of fruit shown in commercial packages included only eleven boxes and seven-teen barrels of apples. The packing was so poorly done that the late Hon. John Dryden, then Minister of Agriculture for Ontario, expressed chagrin and an intention to bring in experts from the States to show Ontario growers how to pack their fruit.

Last month there were shown 1,136 boxes and 194 barrels of apples. There was hardly a poorly packed box in the lot. Most of the fruit was packed perfectly. In addition there were shown 49 boxes of pears, 627 plates, 74 cones and 71 single specimens of apples besides a few plates of pears, grapes and peaches as well as 386 jars of

canned fruit. The total number of exhibits was 2,741. This was an increase of 405 over last year.

More boxed fruit was shown than ever before. The number of exhibits of apples in boxes was more than double those of a year ago. There was not as many entries of apples on plates but this was due to a change in the prize list which removed the incentive for counties, in the county competition, to make such exhibits.

### THE GENERAL ARRANGEMENT

The impression as one entered the hall was most pleasing. The display of flowers, including groups of orchids and chrysanthemums as well as cut chrysanthemums, carnations and roses and seven tables decorated with flowers, was very attractive. Leading away from the main door was an aisle lined by cedar posts and festooned with moss and smilax. To the left could be seen the large display of boxed fruit made by the Norfolk Fruit Growers' Association. At the extreme end of the hall to the front a house made of apples and shown by the fruit growers of Northumberland and Durham caught the eye. In between were rows of tables containing the

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exhibits of plate fruit, vegetables and flowers. In practically every way the standard of the exhibition was ahead of previous years.

#### GREAT EDUCATIONAL VALUE

The outstanding feature of the exhibition was its great educational value. Fruit growers from all parts of the province and beyond were gathered there to gain the latest information pertaining to the industry. This year's attendance surpassed all former records. A feature of the exhibition was the large number of new exhibitors, principally young men, which showed that an important new element was making itself felt in the exhibition and therefore throughout the country.

#### SPECIAL EXHIBITS

The largest exhibits were found in the apple classes. In addition to those made by private individuals there were educational exhibits by the Dominion Experimental Farm at Ottawa, the Ontario Government's Experimental Station at Jordan Harbor, by the Branch of the Department of Agriculture in Simcoe County, as well as exhibits made by several counties notably Northumberland and Durham, Leeds and Grenville, and Ontario.

The largest display was made by the Norfolk Fruit Growers' Association. It comprised 325 boxes 65 boxes long by five high. Such a large exhibition was never made before in eastern Canada. It showed the increase that is taking place in box packing in Ontario.

#### A NOVEL DISPLAY

A house of apples erected by the united counties of Northumberland and Durham proved a splendid advertisement of the fruit possibilities of those counties. In this exhibit there were 250 boxes and 70 barrels of apples. The sides, pillars and roof of the apple house were composed of number

one fruit. Five barrels of apples were used on the roof alone. The entire exhibit was sold to be shown at the London exposition in 1911 where it should do Canada credit.

Ontario County had a neat display of 17 boxes and 30 barrels of apples. A feature of this exhibit was cards naming the fruit best adapted for growth in the county. Some of the other exhibits also contained cards giving similar information.

The counties of Leeds and Grenville made an exhibit which attracted general attention. At each end of the long table there were displayed 44 boxes of apples. In between were shown pyramids of richly colored fruit from the St. Lawrence Experimental Station at Maitland, as well as plates of apples of very high quality. This exhibit was a splendid advertisement for these counties.

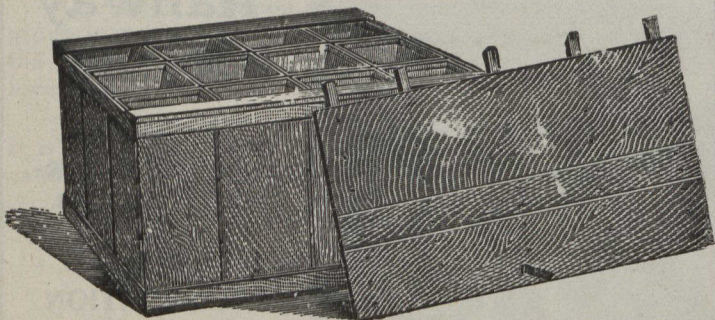
#### COMMERCIAL PACKAGES

In the collections of fruit in commercial packages the St. Catharines Cold Storage and Forwarding Company got first as usual, with F. G. Stewart, of Homer, second. In the display of apples not in commercial packages the placing was the same. The St. Catharines Cold Storage Co., also had an excellent exhibit of pears, peaches and grapes shown in boxes and baskets as well as on plates.

A feature of the exhibit made by the Dominion Experimental Farm was a very fine display of 100 seedling apples of good quality originated at the farm under the direction of Canada's noted experimentalist, W. T. Macoun, Dominion Horticulturist. The work being done in this way at Ottawa is destined to prove of untold value to the Dominion. There was also shown six boxes of apples from Nova Scotia, one from Quebec, six from Ontario and eight from British Columbia for comparison purposes. Three boxes of peaches that had

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been withheld from the Experimental shipments to Great Britain were also on display. The apples from New Brunswick that were shown were richly colored and well packed. They were the best exhibited from any outside province.

#### MONEY IN OLD ORCHARDS

An exhibit which showed clearly that it pays to give old orchards good care was that made by the branch of the Department of Agriculture in Simcoe county. The fruit which was equal in quality to the best had all been taken from the demonstration orchards conducted by Mr. I. F. Metcalf. For some years, until this year, these orchards had produced little but number two apples and culls. In the centre of the exhibit were photographs showing the condition of the orchards before and after treatment this year.

Canned fruit formed a prominent part of the exhibit from Prince Edward County. Baked apples were given away to demonstrate the superior cooking quality of Prince Edward Tolman Sweets. The Jordan Experiment Station included in its exhibit apples from sprayed and unsprayed trees which demonstrated that it pays to spray.

Criticisms of the packing of the fruit

were given by Prof. J. W. Crow, Guelph. According to Prof. Crow the packing this year showed a decided improvement. In most cases the boxes were just full enough and with the proper bilge. Criticisms of the barrel classes were made by P. J. Carey, Dominion Fruit Inspector.

Several concerns made displays of spraying machinery. An exhibit made by The Niagara Brand Co., attracted particular attention. A picture of a tree, natural size, was sprayed and the simplicity of the operation was evident to all.

Altogether this exhibition was the most successful ever held by the growers' association. "It's great. I don't know what you brought me over here for," said Mr. B. J. Case, President of the New York State Fruit Growers' Association, who had come over at the request of the association. "The possibilities of Ontario as evidenced by the fruit on exhibition at this fair, are enormous." Similar expressions were heard from other visitors. The success of the exhibition was so great that on all sides the view was freely expressed that a National Apple Show should be held in Ontario next year. A move in this direction has already been made. Ontario could make a great success of such a show.

## Ontario Horticultural Association Convention

THE Fifth Annual Convention of the Ontario Horticultural Association, held in Toronto, Ont., Nov. 17, 18, showed that excellent work had been accomplished by the horticultural societies of the province during the past year. The president, Mr. R. B. Whyte, of Ottawa, pointed out that the ideal of the association should be to have an assembly of delegates to represent the whole province to

devise the best means of advancing the interests of all the societies. He showed that the persistent efforts of the association had secured from the government an increase of twenty-five per cent. in the government grant to the local societies. The association should also receive credit for the excellent reports issued during the last four years. The societies which are doing the best work are those which affli-

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"The above is the report of my greenhouse foreman, and from my own observations the results are eminently satisfactory in every respect. You have at last put on the market an insecticide that does all claimed for it and more."

(Signed) Joseph Robinson, Supt. to Colgate Hoyt, Oyster Bay, Long Island.

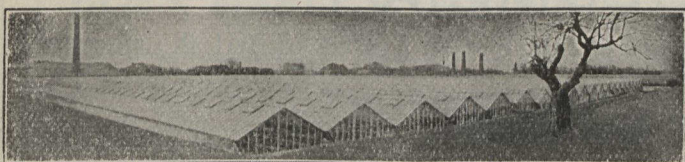
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The largest profits are to be made by men who know how to grow apples and other fruit, and who will locate in the Apple Growing Districts of Virginia, North and South Carolina, Georgia, Tennessee and Alabama—the great Southern Appalachian Fruit Region. Apples have long been grown most successfully in this region, but its people have only come to realize what splendid crops of fruit they can make, people in other sections are just learning of and appreciating the wonderful opportunities offered there for the fruit grower. There is natural irrigation, the well-nigh perfect air drainage, climate and soil to produce the largest, most beautiful and finely flavored fruit. The location is delightful for residence, is at the door of the greatest consuming population of the continent, and but a few hours from the world-shipping ports of the Atlantic seaboard. A 20-acre orchard in Virginia last year produced \$18,000 worth of fruit, the yield of a single Pippin tree brought \$124, that of a Winesap tree \$80, a 12-year-old Georgia tree bore 57 bushels, a 7-year-old Winesap tree in North Carolina 15 bushels.

Fruit growing lands which will do everything that the most valuable lands in the Ontario or Western New York apple districts will do, can be bought at \$20 to \$50 an acre, and will produce good farm crops while the orchard is coming to maturity. The Southern Appalachian Apple Region will become the most famous and the most profitable in America. An investigation will convince you of the great opportunities there, especially for the practical, energetic young man. Write me for copies of *The Southern Field* and other publications telling about fruit growing and other lands in the Southeastern States.

M. V. RICHARDS,

Land and Industrial Agent, Southern Railway  
Room 4, 1320 Pennsylvania Ave., Washington, D.C.

ate with the association. He would have it compulsory on every society to join this association before they get their grant, and also thought that the Government should pay the railroad expenses of one delegate from each society to the convention.

The report of the treasurer, H. B. Cowan, Peterboro, showed a balance on hand of \$96.18.

### SUPERINTENDENT'S REPORT

The report of Superintendent J. Lockie Wilson indicated increasing interest in horticultural matters throughout Ontario. It showed how in Great Britain and on the continent the subject of school gardens had occupied the attention of the government and county councils for some years. Even in Russia every school receiving public funds has to maintain a school garden, a plot of forest trees and an apiary. In the county of Surrey, England, 8,300 pupils are being taught gardening and evening classes are held for those who cannot attend in the day. In the United States much also is being done. Lawn and garden competitions had been held by several Ontario societies during 1910. Even in New Ontario splendid work was being done by societies. The increase in membership this year amounted to over 800 and in expenditure by the societies to \$600. There are sixty-four societies. The Toronto Society had shown the largest increase in membership, it being from 297 to 320. Thirty-seven societies had affiliated with the provincial organization.

### FRUIT GROWING IN CITIES

Mr. Alex. McNeill, Ottawa, spoke on "Fruits for City Gardens," dealing with its aesthetic side and also showing how they call their owners back to nature. Quality rather than quantity should be

sought. Care should be taken to have the city lot dry and to dig it deep. Trench it as deep as three feet and fertilize well. Sunlight and air are absolutely necessary. Grow everything possible and keep only quality in view. Use dwarf stock in small gardens.

Prof. S. Blair, Macdonald College, Que., said that the soil conditions should be right. The soil in many yards is heavy clay from excavations and has to be worked up to get fertility. To get sunlight shade trees must sometimes be sacrificed. A hand wheel hoe is most useful for cultivation and keeping down the weeds. Strawberries, gooseberries, currants, red, white and black; grapes, raspberries and dwarf apples can all be successfully raised in a back garden. Several members described the wonderful quantities of fruit they had raised on a small plot of ground.

Miss Blacklock, Toronto, gave an interesting account of some of the gardens she had visited during her trip in England last summer. This paper will be published in *THE CANADIAN HORTICULTURIST*.

Mr. Watrous, Secretary of the American Civic Association, Washington, D.C., gave a short address extending the greetings from his association, which represented many hundred thousand members, embracing Canada and Mexico, as well. He hoped that representatives would be sent to his association convention on December 17th.

Hon. J. C. Duff, Minister of Agriculture, congratulated the association on the success of the convention, which was the largest in the history of the organization.

Hon. Col. Matheson, provincial treasurer, spoke with special reference to the fruit industry, of the value of which the exhibition at the St. Lawrence Arena was

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Beautiful and healthy climate; no long periods of damp or rainy weather to injure the growing fruit, BUT abundant sunshine to make the apple blush.

Our lands surround the City of Vernon where there is a ready market for all garden produce. The Canadian Pacific Railway runs through our property, affording quick transportation facilities to outside markets.

Lots contain from 5 to 15 acres each, and the price depends upon the location and distance from Vernon.

The surface is absolutely clear of timber and brush and ready for cultivation.

Price is \$250.00 per acre, one sixth cash and balance in five equal annual payments with 6 per cent. interest. This price may seem high to some people but the returns are correspondingly high. There are many cases each year where a 10-acre orchard produced a return of \$1,000.00 per acre when the best care has been given to the orchard.

At Vernon we have an office and a manager who is capable of giving very valuable assistance to anyone desiring such in making a selection of a fruit lot. If purchasers desire, the company will contract to plant and care for the young orchard for four or five years until they are ready to undertake the management themselves.

If you are interested in B. C. Fruit Lands, we will be glad to give you further information.

## LAND AND AGRICULTURAL COMPANY OF CANADA

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a healthy sign. He was glad to see that the horticultural societies were increasing in membership. Where it was feasible, he advocated the doing away with fences in front of houses so that passers-by could enjoy the beauties of the garden as well as the owners. The love of flowers humanizes and makes the home attractive.

## CIVIC IMPROVEMENT

Mr. W. S. S. Armstrong, a representative of the Toronto Civic Guild, referred to some of the work which had been done by the Guild working in co-operation with the Civic Improvement committee appointed by the city council. Work on similar lines could be taken up by any town or city. School gardens in cities, he said, would make an opening for inducing many boys who now live in cities to go out to the country. These would be successful on farm and garden instead of being merely mediocre men in town. Last year 50,000 packages of seed were given to children in Toronto to plant at home. There are school gardens at the King Edward and Park Schools, Toronto. The main influence for extension of horticultural knowledge, however, lay with the individual.

Principal Scott, Normal School, Toronto, said that teachers in public and rural schools can do much more than they are now doing to increase the knowledge of horticulture. Nothing interests one so much as an investigation into flowers. Observation of common things around us furnishes us with information. Gardeners furnish the smallest number of criminals in the professions.

## WORK IN THE UNITED STATES

Mr. Richard D. Watrous, Secretary of the American Civic Association, D.C., gave some insight into Civic Improvement as carried out in some of the cities in the United States, illustrating the same by a

series of limelight views. One idea is to make the capitals of the various states models for the other cities and towns in these states. He was pleased that Toronto was formulating a plan of civic improvement and was heartily in favor of anything that would help to draw the boys from the city to the farm. The first view showed a street which can be found in many cities and towns all littered up with debris, insanitary and not tending to morality. Many scenes showing transformations from uninteresting features to quite beautiful surroundings were displayed. Examples of "Tree Butchery" by telephone and telegraph employees, where the trees were ruined in shape and vitality, were given. The bill board nuisance also received the attention of the speaker.

## OFFICERS ELECTED

The election of officers resulted as follows: President—R. B. Whyte, Ottawa; 1st vice-pres., Rev. A. H. Scott, Perth; 2nd vice-pres., J. P. Jaffray, Galt; treasurer, H. B. Cowan, Peterboro; secretary and editor, J. Lockie Wilson, Toronto. Directors—F. B. Bowden, Vankleek Hill; W. Jeffers Diamond, Belleville; J. H. Bennett, Barrie; J. C. McCulloch, Hamilton; Thos. Cottle, Clinton; G. W. Tebbs Hespeler; W. W. Gammage, London. Auditors—A. O. Jeffrey and Colonel Kent.

Rev. A. H. Scott and J. Lockie Wilson were appointed delegates to the American Civic Association, Washington, D.C. Major Snelgrove was elected as representative to the Canadian National Exhibition.

## DISTRICT REPORTS

Reports of the districts were read by the directors representing each district, and was universally of a very favorable character. The distribution of seeds to school children even of quite tender years

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had been very beneficial and very great interest had been shown in the competitions for the flowers raised from these seeds. The report of the Toronto society was an excellent one. Toronto now has the largest membership in the Province, 820 in all.

W. G. MacKendrick, Toronto, the president of the Toronto Horticultural Society, whose beautiful garden on Toronto Island is visited each year by large numbers of people, spoke on "Outdoor Roses for Ontario." This paper is published elsewhere in this issue.

The subject, "A Modern Gladiolus," was ably treated by H. H. Groff, Simcoe, the world's most famous hybridist of this variety of flower, who gave a description of the various species as existing to-day. Species of the best quality seldom show the best vitality. He was making considerable progress in the production of a pure yellow in the species "Primulius." He preferred plants of upright growth. The development of one characteristic is generally injurious to the other characteristics. The speaker showed some ears of corn showing improvement effected by "hybridization," with an increase in production of 150 bushels per acre.

The reports of the committees on Nomenclature and Novelties were read by Mr. John Cavers of Oakville, Ont.; and by Prof. W. T. Macoun, of Ottawa. They showed that work that will be very valuable to those interested in flowers and plants had been accomplished.

#### VISITORS FROM THE STATES

Mr. C. C. James, Deputy Minister of Agriculture, introduced a number of superintendents of education from the Southern States who were in Canada in quest of information. In the course of his

speech he said that in spite of many discouragements there were signs of improvement in agricultural and horticultural matters, and he congratulated the association on the increasing interest being taken in the work of the horticultural societies.

Supt. Joiner of North Carolina, and Supt. Egglestone, of Virginia, spoke briefly, and said that the South was greatly interested in what is being done in Canada.

President G. C. Creelman, of Guelph, emphasized the importance of demonstrating to the people the value of the work being done by the horticultural societies. Make the work of the societies attractive and the people will take hold.

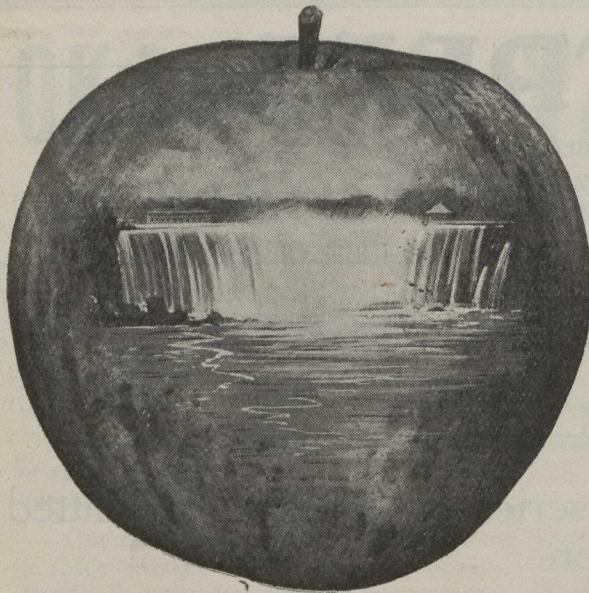
#### VINES AND SHRUBS

Prof. H. L. Hutt, of the Ontario Agricultural College, Guelph, gave an address on "Vines and Shrubs for the Small Garden." He emphasized the importance of making a careful plan before starting to lay out a garden. Follow the plan of a landscape artist, if possible, bearing in mind what it will look like when grown up. Plant fairly thickly and thin out afterwards. Plant against walls and buildings in nooks and corners, and screen the fences with shrubs.

The four honorary directors—Prof. H. L. Hutt, Guelph; Mr. W. T. Macoun, Ottawa; W. B. Burgoyne, St. Catharines; and Major H. J. Snelgrove, Toronto—were re-elected.

Mr. Wm. Hunt, O.A.C., Guelph, described the science and practice of plant propagation, illustrating his talk by specimens mounted on card board. He showed that it was by no means so hard to propagate plants as was generally supposed, providing that the environment and locality were considered.

C. W. Nash, Toronto, spoke on insect



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Results in Ontario, Nova Scotia and New York, as well as elsewhere this season, demonstrate the superiority of **NIAGARA LIME-SULPHUR** over Bordeaux for Apple Scab.

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and bird enemies of the garden. He showed how the eggs of the moth of the Stalk Borer are deposited on weeds, etc., in October, although the borers do not enter the stalk until later. One remedy is to burn all stalks and weeds in the fall. Wire worms, white grubs, cutworms, etc., are too prevalent, due to the slaughter of insect eating birds. They flourish where land has been long in sod. When the insects get into their cell and are not disturbed they die quickly. Plowing the land up late in the fall is one way of getting rid of them. Insects are divided into those that masticate and those which suck the sap. Against these latter poi-

sons are no use. The proper way to destroy them is to apply an irritant or something that will choke the pores of the insects. English soft soap is excellent for this. Caustic potash, two pounds, to one gallon linseed oil makes soft soap. Arsenate of lead, two or three pounds, to forty gallons water is the best spray for insects which masticate. If more tree planting was practised birds would increase, and there would be a decrease in injurious insects. Toads are an important factor in destroying insects. The proceedings of the convention should result in much benefit to the work of the horticultural societies of Ontario.

### Ontario Fruit Growers' Important Discussion

**M**ATTERS of unusual importance to the fruit growers of Ontario were discussed at the annual convention of the Ontario Fruit Growers' Association held in Toronto, November 16 and 17. The directors of the association were instructed to consider the advisability of holding a National Apple Show in Ontario next fall. There is a strong probability that such action will be decided upon. Resolutions were passed dealing with the pilfering of fruit by express companies, advocating the appointment of special inspectors to deal with the diseases Little Peach and Peach Yellows, advising that no reduction be made in the tariff on fruit without the Fruit Growers' Association being consulted and advocating the giving of lectures in public schools dealing with insects and fungous pests. The announcement was made that a Dominion fruit conference will be held in Ottawa next fall and delegates were appointed.

The following directors were appointed:

Wm. Alford, Ottawa; Harold Jones, Maitland; W. H. Dempsey, Trenton; Wm. Stanton, Oshawa; W. H. Gibson, New-castle; L. A. Hamilton, Lorne Park; J. W. Smith, Winona; A. Onslow, Niagara-on-the-Lake; Jos. Gilbertson, Simcoe; D. Johnson, Forest; R. R. Sloan, Porter's Hill; F. M. Lewis, Burford; Adam Brown, Owen Sound; and Prof. J. W. Crow, of the Ontario Agricultural College, Guelph.

#### EDUCATIONAL FEATURES

The demonstrations in spraying and in fruit packing given at the Ontario Horticultural Exhibition, proved an interesting educational feature. The practical talks on box and barrel packing by Mr. Alex. McNeill, Chief of the Fruit Division, Ottawa; Mr. P. J. Carey, Dominion Fruit Inspector, Toronto; and Prof. J. W. Crow, O.A.C., Guelph, were of special value. These experts showed by example how to pack properly, and explained the various steps in detail.

Most of the subjects discussed were of

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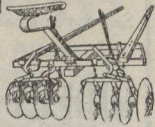
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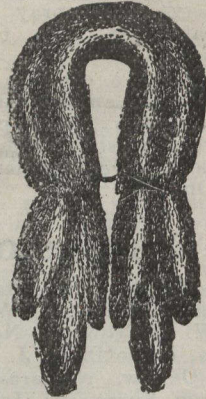


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it easy to sell the whole lot in an hour. Send us the money you get for these and we will send you, by Return Mail, this beautiful, warm Fur Scarf, over 50 inches long, made from selected skins of fine, soft, fluffy fur, with 6 full length tails, and a secure chain fastener at neck. This dainty Lady's Watch has warranted Swiss Works, is stem wind, and stem set, has solid silver nickel case, fancy dial and gold hands. The case is beautifully enamelled with roses, buds and leaves, in natural colors, and we will give it to you for selling only 36 packets of our beautiful cards. Take your choice and write to-day. Address COLONIAL ART CO., Office X 2, TORONTO, ONT.

a most practical nature. One of the greatest annoyances with which fruit growers have to contend is the pilfering of fruit from packages when in the hands of express companies. Mr. W. H. Bunting, of St. Catharines, chairman of the transportation committee, stated that no satisfaction regarding this matter could be obtained from the railway commission. Individual cases might be tried at any of the divisional courts, but in his opinion the matter should be thrashed out between the fruit growers as a body and the express companies. He suggested, and his suggestion was adopted, that the association send a strong resolution to the express companies calling on them to put an end to this nuisance. The matter is of such importance that it will be followed up energetically.

#### PEACH DISEASES

"The present mode of inspection of diseases of fruit trees is ineffective in dealing with 'little peach' and 'peach yellows,'" said Mr. W. F. Robinson, of Hatchley. Few inspectors appointed as they are at present can deal with these two diseases, which are completely destroying peach orchards in some sections. The association passed a resolution recommending that the Ontario Department of Agriculture appoint special inspectors to look after these two diseases alone.

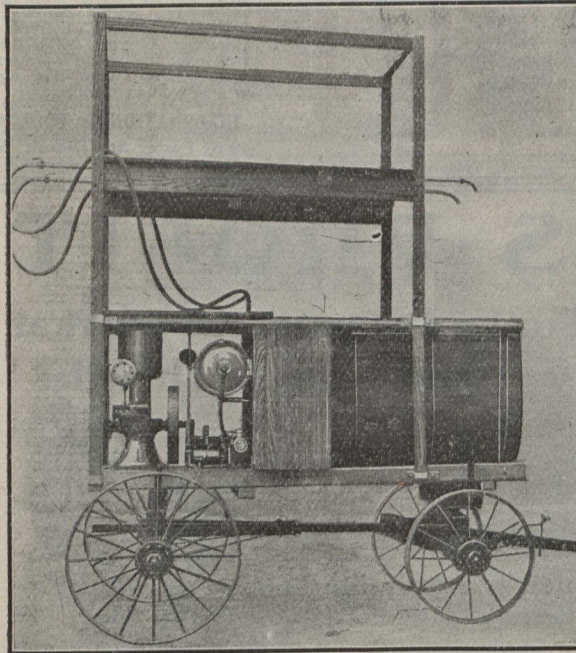
That no reduction should be made in the tariff of fruit coming into this country without first consulting the tariff committee of the fruit growers' association was the subject of a resolution which elicited some keen discussion. That reciprocity of fruit would be an advantage to the Canadian fruit growers was generally acknowledged, but no reduction should be made while the tariff against cur fruit going into the United States is as high as it is at present. Resolutions were passed commending the Ontario Department of Agriculture on placing district representatives throughout the province and favoring the rapid extension of this work, and suggesting that lectures be given in public schools particularly in fruit districts, on insects and fungus pests.

The Board of Directors were appointed a committee to look into the advisability of holding a National Apple Show in Ontario next year. It was pointed out by the various speakers that Ontario has a climate which can produce apples unexcelled in quality. If British Columbia can give the greatest apple show yet held in the world, Ontario can do as well and better.

Mr. James E. Johnson, or Simcoe, President of the Association, said that the decline in the apple industry in Ontario was due to the ravages of insects and fungus pests due to lack of care of the orchard, to the apple buyers being willing to take fruit from neglected orchards and to poor inspection of fruit under the Fruit Sales Act, due to lack of funds to carry on the work properly. He suggested that the Ontario Department of Agriculture cooperate with the Dominion Department in the more rigid inspection of fruit.

#### PRACTICAL ADVICE

A most interesting address was delivered by Mr. B. J. Case, President of the New York State fruit growers' association. "The greatest weakness in farming," said Mr. Case, "is the lack of some good system of keeping accounts." Severe trimming to keep the heads back, the use of low-headed trees, the use of Mammoth Clover as a cover crop, cultivation, fertilization, and thinning of the fruit are essential if we are to get the best results.



This Model C. Spramotor was awarded four Gold Medals, two at National Horticultural Congress, one at Dominion Exhibition, St. John, and one at Provincial Exhibition, Halifax, N.S., 1909-1910. "There are reasons."

Mr. J. C. Harris, of Ingersoll, who is using 4 Power Spramotors for eight years, writes about the latest Model C.

"I have used your Model C. Spramotor, 1910, Gasoline Power Sprayer almost every hour of fine weather during the past four weeks, with the exception of four days.

"We have had no break-downs, practically no delays. It works perfectly, and so far has given the very best satisfaction in use in every way. It is all you claim it to be."

We have been manufacturing Spramotors for 15 years for spraying purposes only. "That is the reason." Particulars free.

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The guide which has for more than a generation led buyers who have been puzzled like yourself has been the reputation of the

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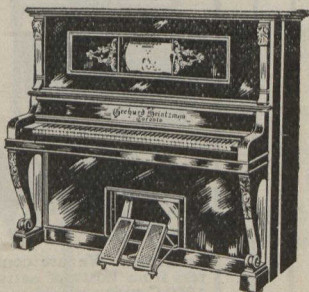
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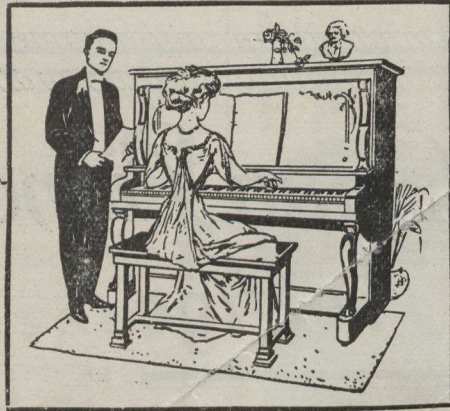
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is extended to you to come and examine our display of Gourlay Pianos. Even if you are not yet ready to purchase, come now and spend an hour in seeing and hearing these superb instruments.

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are all of one quality—the best. The lowest priced style is as well made as the highest. The ambition of the makers of Gourlay Pianos is not to make the greatest number of instruments, but to make each one so rich in tone, so responsive in action, so artistic in design and so durable in every way that it will bring prestige and added reputation.

If you cannot come in write for Catalogue and prices.

**GOURLAY, WINTER & LEEMING**

188 Yonge Street, Toronto

Mr. Case believed in severe pruning to bring young trees rapidly to a bearing age. In his own orchard Northern Spies have yielded good crops seven years from the time of setting. Valuing apple orchards at \$1,000 an acre, bearing orchards should return ten per cent. on the investment.

### OVER PRODUCTION IMPROBABLE

The danger of over production was dealt with by such representative fruit men as Robt. Thompson, Harold Jones, A. E. Sherrington, G. H. Mitchell, and James A. Johnson. In the opinion of these fruit growers no one need be deterred from improving their old orchards or from setting out young orchards by the fear of over production. There is no such thing as over production of good fruit.

"Profits from My Apple Orchard" was the subject dealt with by R. R. Sloan, Porter's Hill, and J. G. Mitchell, Clarksburg. In this season of small crops, by proper care Mr. Mitchell harvested \$560 worth of fruit from an orchard which had previously yielded only forty barrels. The expense including rent amounted to \$365, leaving a profit of \$195. Mr. Sloan stated that he had old orchards which had given returns as high as \$18 a tree, or \$530 an acre.

"The greatest weakness in co-operative enterprises in the past," said Mr. S. E. Todd, of Petrolia, "has been the lack of some central organization to assist and guide local co-operative concerns. The various associations throughout the province have had no uniformity in their constitutions and have not worked together as they might do to advantage. Centralization of societies explains the success of co-operation in European countries. Very few farmers appreciate the business ability and the expense required to successfully run a co-operative association. The most successful associations are those which pay their managers the highest salaries. If a good manager was secured and paid a good salary the association was almost sure of success.

One of the most important ventures

# GOULDS RELIABLE SPRAYERS

Only thorough work with the best machinery will accomplish the best paying results from spraying. You *must* spray if you would have perfect fruit, and it doesn't pay to bother with a cheap outfit. It means no end of trouble and it's too risky—you have too much at stake.

Goulds Sprayers have proved their superiority by years of service. We make the sprayer best suited to your conditions. It will last for years because all working parts are made of bronze to resist the action of chemicals. "You can depend on a Goulds" to work when ever and as long as you require.

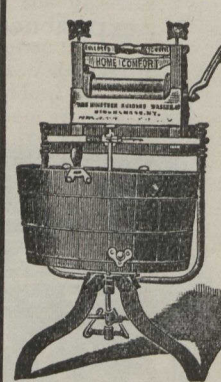
**Send for Our Booklet:**  
 "How to Spray—When to Spray—What Sprayers to Use"

It discusses the matter thoroughly. It gives valuable spraying formulas and tells how and when to use them.

**THE GOULDS MFG. CO., 17 W. Fall St., Seneca Falls, N. Y.**  
 We Make both Hand and Power Pumps for Every Service

## You Can Do the Weekly Washing in Six Minutes

The 1900 GRAVITY WASHER cuts out labor and saves money. Does a big family washing—and wringing too—in short order. The Gravity washes a tubful spotlessly clean in six minutes. Prove it at our expense.



Any Woman Can Have a 1900 GRAVITY WASHER On 30 Days' Free Trial

Don't send one cent. Try it first at our expense—if you are responsible. We'll pay the freight. See the wonders it performs. Thousands are in use and every user

delighted. We are constantly receiving letters from hosts of satisfied customers. The 1900 Gravity is sold on small payments. Send for our fascinating FREE Book to-day. Write me personally, J. H. C. BACH, Manager, The 1900 Washer Co., 357 Yonge Street, Toronto, Ontario.

This offer is not good in Toronto, Montreal, Winnipeg or Vancouver and suburbs, as we have branch offices in these places. Special trial arrangements are made in these districts.

made by the fruit growers this year was the shipment of peaches to the British market. This subject was thoroughly discussed by C. A. Dobson, Hamilton, Robt. Thompson, St. Catharines, and W. W. Moore, of the Market Division, Ottawa. With the experience gained this year the experiment will be carried on next year with greater success. Naturally mistakes were made this year, but the most of the shipments arrived in Europe in good condition and brought remunerative prices.

"Standards for the judging of our fruits

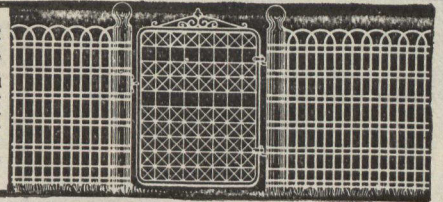
at Exhibitions" was discussed by Harold Jones, of Maitland, and by W. T. Macoun, of Ottawa. Score cards for the judging of fruit at exhibitions were submitted, and

the association decided that these cards should be printed and their use at fruit fairs next year advocated.

The following men were elected to re-

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Suppose you could take your time about your Christmas buying—wouldn't your money go twice as far as if spent in a few hurried, crowded shopping hours?

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present the association at the Dominion Conference next fall: Messrs. H. Jones, W. H. Dempsey, R. W. Grierson, James E. Johnson, W. H. Bunting, Robt. Thompson, A. W. Peart, D. Johnson, and E. D. Smith.

Interesting and instructive addresses were also given by R. R. Waddell, Simcoe; W. F. Kidd, Collingwood; M. C. Smith, Burlington; A. D. Campbell, Clarksburg; and L. Ceasar, Guelph, on Lime Sulphur vs. Bordeaux; on Orchard Fertilizers by Professor Harcourt, Guelph; The Orchards of Prince Edward County by M. D. Clark, Wellington; Fire Blight Successfully Combated, by D. H. Jones, Guelph; Cover Crops in the Orchard, by Professor Saxby Blair, Macdonald College; and The Cider Industry, by Louis Meunier, Paris, France. Reports of these addresses will be given in future issues of THE CANADIAN HORTICULTURIST.

### New Brunswick Apple Show

Climatic conditions in New Brunswick are quite similar to those existing in this portion of Ontario lying north and east of Kingston. In the southern portions, Spies and even Baldwins, Greenings and Kings are grown to a certain extent, but none of these varieties are recommended for commercial planting in any part of the province. The varieties chiefly in evidence at the recent exhibition of the New Brunswick Fruit Growers' Association in St. John, N.B., and which are particularly recommended as the most suitable to the climate of the province, were Duchess, New Brunswicker, Alexander, Dudley's Winter, Wealthy, Fameuse, McIntosh Red, Wolfe River, Milwaukee, and Bethel.

#### THE EXHIBITION

The exhibits were very tastefully arranged in the spacious St. Andrews Rink, and the quantity of fruit on exhibit was a decided surprise to those who, like most of the visitors and spectators, had been in the habit of belittling the fruit-growing possibilities of New Brunswick. The provincial department of agriculture displayed four hundred excellently packed boxes of various varieties. Besides these there were entered for competition some eighty boxes, sixty-one barrels, and eight hundred and ninety-six plates.

In quality the exhibits were decidedly good, although some scab was in evidence. A most striking feature—and it is one which never failed to be made particular mention of—was the remarkably high color of the fruit. If the fruit exhibited at St. John is a fair sample of what New Brunswick can grow, it is safe to say Ontario comes in second in the matter of color. Of course, it must be borne in mind that the varieties principally grown in New Brunswick are the highly colored fruits, but even in these varieties New Brunswick fruit would compare very favorably with anything produced in Ontario.

A feature worthy of imitation was the inclusion in the prize list of the scale of points used in judging the various classes, as well as explanations of such terms as "Freedom from blemish," "Uniformity," "Quality," and so forth.

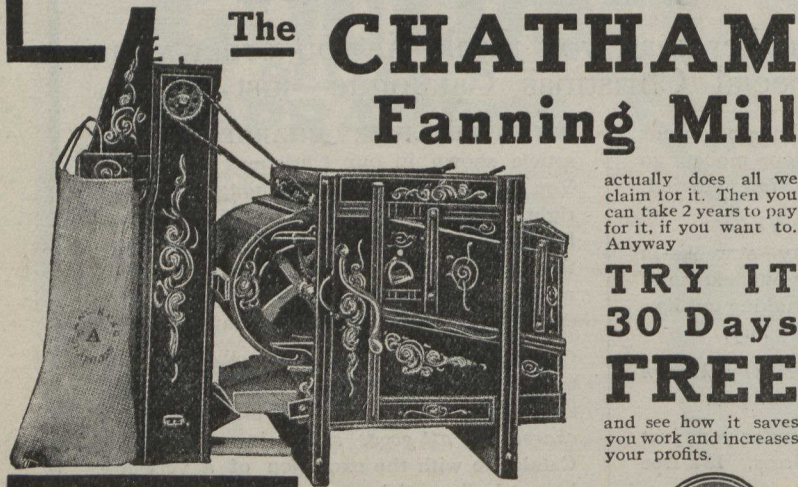
THE CANADIAN HORTICULTURIST has on hand a number of very interesting reports of the annual meetings of the Horticultural Societies in Ontario and covering their work for the past year. The reports of the convention of the Ontario Horticultural Association and of the fruit conventions and exhibitions published in this issue make it impossible for us to deal with these reports in this number.

## Clean Your Seed

Separate and grade ALL kinds of seeds—eliminate ALL weed seed, shrunken grains, broken particles and dust. You can do it easily, quickly, thoroughly with the Chatham Fanning Mill and insure

### Better, Surer Crops — Highest Market Prices

Don't grow weeds or plant weak seeds. Let us ship you a Chatham immediately, freight prepaid, so you can use it right away. You pay nothing unless you are fully satisfied that



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### The only machine that will rid your clover of that "Plantain" weed

which is almost ruining nearly every Ontario farmer's clover this year. Maybe you don't know that your clover is full of this weed but you will when you try to sell it, or when you plant it next year. This pest has been bothering Ohio and Illinois farmers until the Chatham conquered it for them, as hundreds of farmers testify. If the Chatham doesn't do the work for you just send it back and it hasn't cost you a cent. My free book tells all. Write for it at once and for my liberal free trial offer. Address Manson Campbell, President.

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## "QUALITY FRUITS"

The market for Fine Fruit is practically unlimited. The successful grower requires specially grown nursery stock, bred right and delivered to him in perfect condition. It does not pay to plant and till low grade trees. You have noted special trees in your orchards bearers of large crops of extra fine fruit, and you will agree with us that such trees are worth more than the ordinary run of the orchard.

We breed from selected bearing trees, and have complete line of both Trees and Ornamentals.

As a business proposition, will it not pay you to use our stock and start the orchard right?

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THERE'S all the difference in the world between gasoline engines. One engine will start easily—take the load without a hitch—carry it right along till the work is done and do this indoors or outdoors, under any conditions, year in and year out.

Another starts hard or races—begins to slack up the minute the load is on—jumps or misses fire when work is heavy—needs watching and tinkering all the time and is in the scrap heap before it has paid for itself.

There are few engines like the first—there are many like the other—either wholly or in part.

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have proved their ability to give perfect service for every use under all conditions. Years of experience have proved the superiority of both their design and material.

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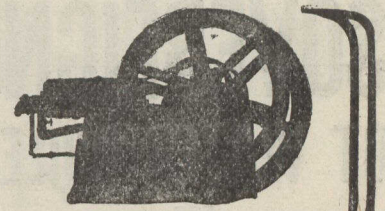
I H C parts are all perfectly designed



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Go to the I H C local dealer and prove these points for yourself—most of them can be seen at a glance. All of them mean much to you.

No matter what kind of an engine you need—from 1 to 35-horse power, vertical or horizontal, stationary, portable, or traction, air or water cooled—you will find in the I H C line just what you are looking for.

You can find no better power to operate the cream separator, wood saw, feed cutter, churn, washing machine, grindstone, fanning mill, thresher, and other farm machines; also your water system and electric lighting plant.

See the I H C local dealer at once, or, if you prefer, write nearest branch house for catalogue and full particulars.

### I H C Service Bureau

What is it? A clearing house of agricultural data. What does it do? Helps farmers to help themselves. How can it be used? By sending your farm problems and puzzling questions to the Bureau. We are co-operating with the highest agricultural authorities, and every source of information will be made available to solve your difficulties. We shall be pleased to have an opportunity to assist you. Write the I H C Service Bureau.

# Kansas Pruning Knife Improved

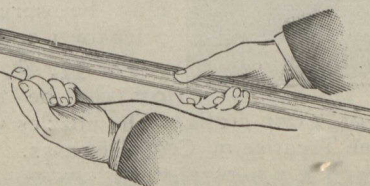
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On heavy limbs or in cutting any limb close to the body of the tree, the knife works automatically—no levers to operate by hand—just put the hook over the limb and give a quick straight pull on the handle, and off comes the limb.

For cutting small outer or swinging branches, attach a cord to the ring in the sleeve, as shown in cut, put the hook over the branch to be cut and pull on the cord.

The work that this knife will do is wonderful.

Send for circular giving full particulars. Price \$3.50. Agents Wanted.

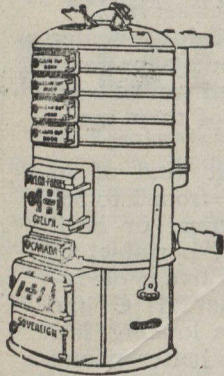


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### New Brunswick

The annual convention of the New Brunswick Fruit Growers' Association, which was held in St. John, N.B., the first of last month, in connection with the exhibition of fruit, proved of great educational value. The speakers included Mr. W. T. Macoun, of Ottawa, Dominion Horticulturist; Prof. J. W. Crow, of Guelph; Prof. Shaw of Truro, N.S.; R. W. Starr, Port Williams, N.S.; G. H. Vroom, Middleton, N.S.; and R. C. Trehene, of Ottawa.

The subjects discussed were of a practical nature and generally resulted in helpful discussions. A number of public men, including Hon. J. D. Hazen, Hon. Robt. Maxwell, Hon. D. V. Landery, and W. W. Hubbard, Secretary for Agriculture, also spoke. Much of the credit for the success of the convention and of the exhibition was due to the work of the secretary, Mr. A. G. Turney, Provincial Horticulturist.

The election of officers resulted as follows:

Hon. President—Hon. J. D. Hazen.  
President—C. N. Vroom, St. Stephen.  
Vice-Presidents—W. B. Gilman, Fredericton; S. L. Peters, Queenstown; Benj. Charters, Chartesville; O. W. Wetmore, Clifton.  
Treasurer—Henry Wilmot, Oromocto.  
Secretary—A. G. Turney, Fredericton.

### An Appointment at Jordan Harbour

Mr. A. D. Harkness, of Irena P.O., Dundas County, has been appointed by the Hon. Jas. S. Duff, to be Superintendent of the Government's experimental farm at Jordan Harbour, Ontario, in succession to the late Harvey S. Peart, who died some months ago. With his appointment is announced a slight change in the policy of the Minister of Agriculture with regard to the management of the Jordan Farm. Formerly it was in charge of a director, who was responsible for all the work carried on. It is now proposed to place it under the immediate supervision of the Director of the Fruit Branch of the Department, Mr. P. W. Hodgetts, who will visit the farm once a week or as often as necessary to keep closely in touch with the scientific and other work being carried on. Mr. Harkness will be the resident superintendent. The department believes that this policy will not only keep it in closer

touch with the farm, but also result in increased usefulness.

In Mr. Harkness, the Government believe they have secured an excellent man for the position. Since taking a course at the Ontario Agricultural College he has been one of the most prominent fruit growers in Eastern Ontario.

### FOR SALE AND WANTED

Advertisements in this department inserted at rate of two cents a word for each insertion, each figure, sign or single letter to count as one word, minimum cost, 25 cents, strictly cash in advance.

**RHUBARB ROOTS**—Grant Victoria and Linnaeus. Any quantity supplied.—J. H. Lawrence, Hatzic, B. C.

**PIPE FOR SALE**—All sizes for steam, hot water heating, posts, green house construction work, etc., very cheap. Send for price list, stating your needs.—Imperial Waste and Metal Co., 7 Queen Street, Montreal.

**HAY**—For sale, a large quantity of choice timothy and clover (alsike and red), also mixed hay, consisting of clover and timothy. Sold only in carload lots. Delivered on any track in North America. Prices on application. If you want to buy hay, write me to-day.—Marshall Rothwell, Navan Ont.

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**ALL KINDS OF FARMS** for sale—Fruit farms a specialty.—W. B. Calder, Grimsby.

**FRUIT FARMS** sold and exchanged. List with us for quick sale. See us if you are thinking of buying a fruit farm.—F. J. Watson & Co., 1275 Queen Street W., Toronto, Ont.

**NIAGARA DISTRICT FRUIT FARMS**—Before buying, it will pay you to consult me. I make a specialty of fruit and grain farms.—Melvin Gayman, St. Catharines

**CUBA**—Most productive soil. Delightful and healthful climate. Ample rainfall. Cheapest transportation facilities to the world's greatest markets. Particulars free.—Sanderson, 16 Palace Building, Minneapolis.

**FARMS WANTED**—Don't pay commissions. We find you direct buyers. Write, describing property, naming lowest price. We help buyers locate desirable properties FREE.—American Investment Association, 13 Palace, Minneapolis, Minn.

**"GLORIOUS KOOTENAY,"** British Columbia—No irrigating; delightful climate. Fruit farms, \$10 to \$80 per acre. Easy terms. Free booklet bw.—Investors' Trust and Mortgage Corporation, Limited, 134 Hastings St., W., Vancouver, B.C.

**BEST FRUIT LAND** in British Columbia, in famous Okanagan Valley. No irrigation required. Special inducement to settlers in Carlin Orchards. \$145 per acre, ready for planting, ¼ cash, balance in 3 years. C.P.R. runs through property. Send for illustrated pamphlet A6.—Rogers, Black & McAlpine, 524 Pender Street, Vancouver, B.C.

**BRITISH COLUMBIA** fruit growing. Send one dollar for two hundred page beautifully illustrated cloth bound book, entitled "Fruit Ranching in British Columbia," written by T. J. Bealby, a competent and well known authority on the subject. British Columbia Fruit, Molson's Bank Bldgs., Suite 1, Vancouver, B.C.

**SALMON ARM, Shuswap Lake, B. C.**, has the finest fruit and dairy land in B. C. No irrigation necessary, mild winters, moderate summers; no blizzards, or high winds; delightful climate; enormous yields of fruit, vegetables and hay; good fishing; fine boating amidst the most beautiful scenery, and the Salmon Arm fruit has realized 25 cents per box more than other fruit in B. C. Prices of land moderate, and terms to suit. Apply to F. O. Haydock, Salmon Arm, B. C.

**GROW APPLES AND GROW RICH**—10 acres in British Columbia's finest fruit growing district will support a family in comfort. Prize fruit, enormous crops, high prices, big profits—\$200 to \$500 per acre. Established settlement, no isolation, plenty good neighbors, best transportation, good markets, grand scenery, hunting, office, hotel; daily trains. Splendid climate; fine summers, mild winters; high winds and low temperatures unknown. Prices right. Easy terms. Proofs, plans, particulars.—Fruitvale Limited, Land Dept., Nelson, B. C.



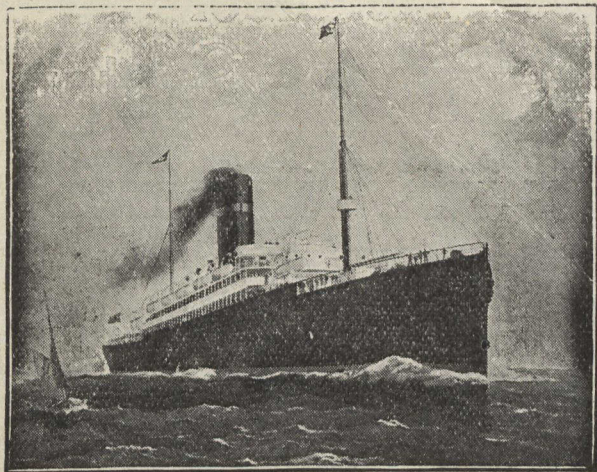
The **horse** does all the work, except holding the pole, with the **H. P. Spramotor**: It can be operated by either horse or hand. Has 8 nozzles at 175 lbs. pressure, which practically smoke the tree with spray. All automatic. The number of nozzles can be arranged to suit size of trees. The largest tree may be sprayed. Same price for 1 or 2 horses.

The **H. P. Spramotor** can be arranged for vineyards, row crops, strawberries or grain crops. The nozzles will not clog.

**Agents Wanted.** Get our Free Treatise on Crop Diseases.

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## PORTLAND TO LIVERPOOL

S.S. "Canada," Dec., 10th      S.S. "Cornishman," Dec., 17th  
 S.S. "Dominion," Dec. 24th      S.S. "Welshman," Dec. 31st  
 S.S. "Ottoman," Jan. 7th

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S.S. "Manxman," Dec. 8th      S.S. "Englishman," Dec. 22nd  
 S.S. "Turcoman," Jan. 5th

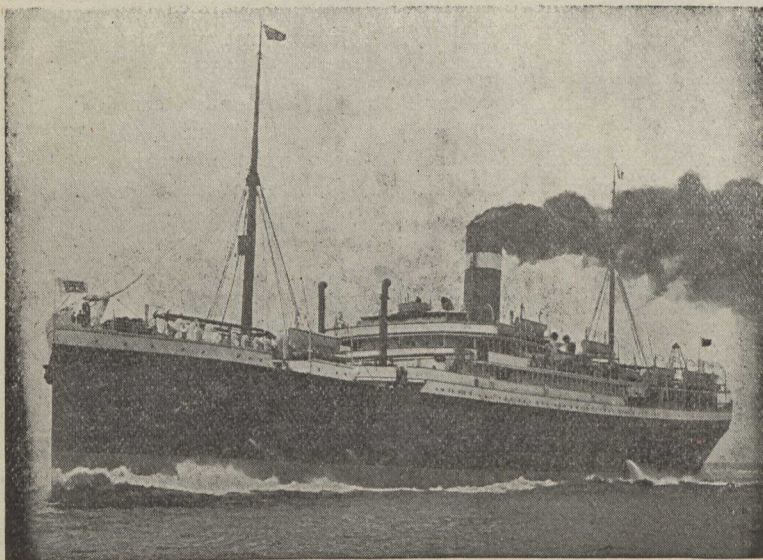
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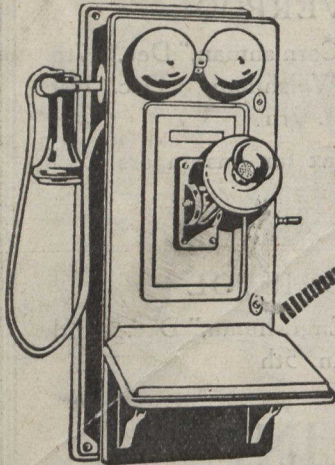
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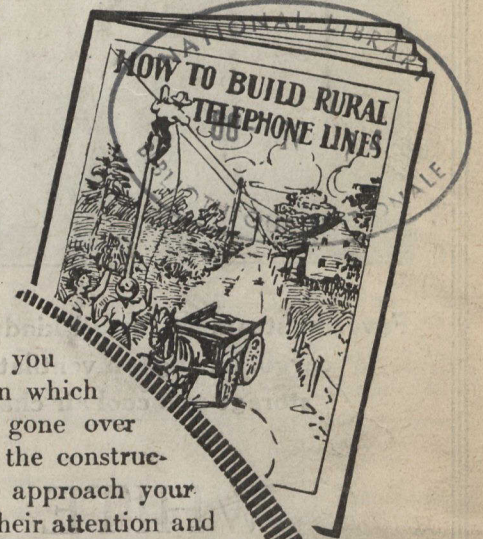
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