

# THE CANADIAN HORTICULTURIST

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FOR FRUITGROWERS, MARKET GARDENERS & AMATEUR HORTICULTURISTS  
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## BURLINGTON, ONTARIO

# The Canadian Horticulturist

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## TALKS ON ADVERTISING

By the Advertising Manager

No. 9

### WHY ADVERTISED GOODS ARE BEST

Advertised goods usually possess special points of merit. That is why they are advertised. What firm would spend \$50,000 to \$100,000 or more per year, as many Canadian firms do, to advertise their goods, if they knew these goods to be of inferior quality? They cannot afford to do so. No individual or firm could continue to advertise a line of goods if the quality were such that customers would not buy those goods a second time. They realize that advertising a product extensively will bring them a large number of new customers, but no amount of advertising will hold those customers if the goods are not satisfactory. On the other hand, if the goods have quality, each new customer gained through advertising is likely to continue to buy these goods, and is accordingly worth to the advertiser many times more than the customer who buys once and once only. The advertiser with a poor product simply cannot compete with the advertiser whose goods possess quality.

The firm or individual who has been advertising steadily and persistently, and backing up his advertising with goods of high quality, has built up a reputation of many thousands or even hundreds of thousands of dollars. He knows he dare not risk his reputation by putting out inferior goods. When, therefore, we see an advertiser who has been keeping his name steadily before the readers of any publication or publications for any length of time, we know that the money he has spent to make his goods known stands as a guarantee for the quality of his goods and the fair treatment accorded customers.

Many of the firms advertising in The Canadian Horticulturist, have been doing so for years. Their names are familiar to the readers of The Canadian Horticulturist, who feel that they know them, and that they can depend on their reliability, and the quality of the goods they have for sale. The amount which these advertisers have spent on advertising in The Canadian Horticulturist, and through other mediums, has not only served the purpose of making their name well known to prospective customers, but represents to a large degree the amount which they have invested in building up their present reputation, which reputation must be protected by the quality of their goods and full satisfaction to customers. Customers of firms which advertise in our columns have the additional assurance of quality and fair dealing given by our Protective Policy, which appears in each issue, and which practically guarantees to our readers the reliability of all advertisements appearing in The Canadian Horticulturist.

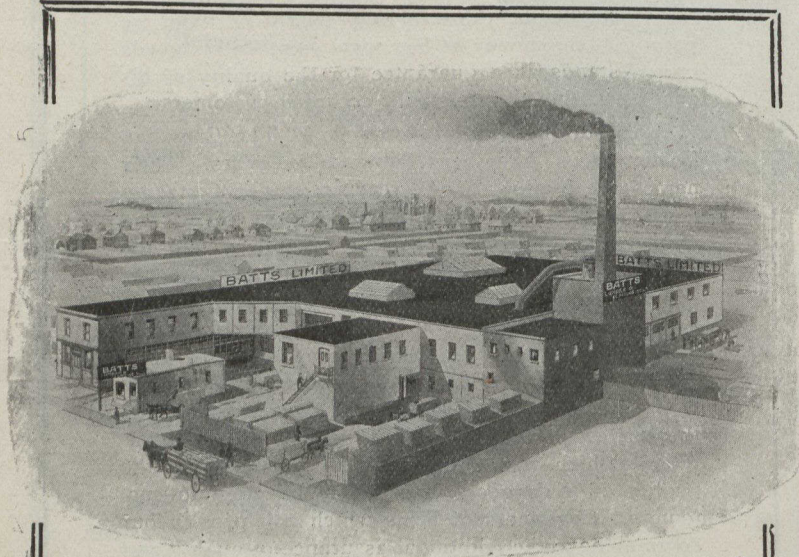
Advertised goods have a reputation which must be maintained. In the case of unadvertised goods, the advertiser or dealer has not spent the same amount to make his goods widely known and to establish their reputation. He accordingly has not as much at stake should he decide to sacrifice the interests of his customers for the sake of temporary gain. It pays to buy advertised goods.

*We do not admit Advertisers to our Columns except such as we believe are thoroughly reliable.*

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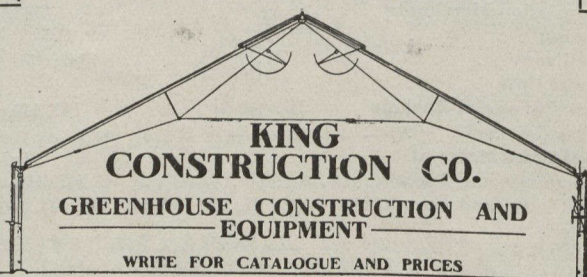
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**THE KING CONSTRUCTION CO.**  
248 Wellington St. West TORONTO, ONT.

Mention The Canadian Horticulturist when writing.

# The Canadian Horticulturist

Vol. XXXIV

JUNE, 1911

No. 6

## The Grape--Its Cultivation and Care

A. Bonar Balfour, Pilrig Fruit Farm, Port Dalhousie, Ont.

UNDOUBTEDLY the best method of pruning the grape in Ontario is the true or four arm Kniffen system, possibly excepting the weaker growing varieties as Delaware and Moyer. The canes for the season's crop should spring from short spurs on the main upright trunk having the connecting base just below the supporting wires. This makes the ideal form of vine. The endeavor to equalize growth on the lower arms by growing these canes as a division of the main trunk, is in my opinion a fallacy. I have not found that it gives any advantage in this way. It is not obligatory to select the new canes for the season's crop from those found nearest to the main trunk, but it is highly desirable to do so, provided they are strong and well ripened. It is also desirable to bring out new canes from the main trunk every three or four years to renew the spur in order to eliminate the sprawly growth and the undesirable long knotty old wood forming these spurs. The upper canes should carry three to four more buds than those on the lower wires, and the total number of buds allowed to remain will depend entirely upon the variety and the strength of growth.

These four pruned canes should be tied securely to the wires before the buds swell in the spring and the best method of procedure is to twist each cane carefully around the wire tying the outer end securely with grape twine, two wrappings and a secure knot. This permits the weight of the entire crop to be carried by the trellis wires and not by the canes themselves or the main trunk. It is seldom necessary to support the main trunk where this method is used, but when found advisable to do so, use a short piece of wire shaped like a U, placing the same around the trunk and giving the ends a half turn around the trellis wire. Never encircle the trunk with twine; if you must use twine thus, tie to the wire, carry around the trunk, and tie to the wire again. This will prevent strangulation.

The shoots from the horizontal canes grow out obliquely, but soon fall and hang down with the weight of the fruit and foliage. Any tendency on their part to cling to the trellising must be checked by tearing off, so that they may hang free. There is no necessity for summer pruning, excepting the removal of sprouts and suckers, and the cutting off of the ends of the bearing wood when this

reaches the ground and hinders cultivation.

### FERTILIZATION

The fertility of the vineyard is an important consideration. The land must be rich to produce a good quality of grape, though an over-abundance of barnyard manure is not advisable. A moderate allowance, together with such commercial fertilizers as are necessary to supplement those elements most required by the grape is essential, nor must there be any stint. The practice of manuring only around the base of the main trunk, where the feeding roots are erroneously supposed to be, is bad. The fertilizing material must be spread or scattered broadcast over the whole surface of the ground to produce the best results.

Large crops of the finest quality of fruit may be grown without the use of barnyard manure provided cover crops

are grown to maintain the proper mechanical condition of the soil together with the liberal use of commercial fertilizers of such composition as is suited to start and maintain growth throughout the season. Nitrogen, in any of its special concentrated forms, is not adapted to the grape and its use especially by those not versed in the matter of these special fertilizers, has a tendency to delay ripening of the fruit and canes, whereas bone and potash salts will hasten the maturing of both in a marked degree—under proper conditions.

### SULPHURING

Few growers in Ontario sulphur, or if they do they do it so imperfectly as to be of little value, and it is a pity that sulphuring is not given the same careful attention as is given the pruning.

Mildew, the oidium of Europe, is responsible for much of the poor fruit which may annually be seen on our markets. This can absolutely be controlled by the proper application of sulphur. It is true that cultural methods help the control to

a limited extent, but that alone is not sufficient. Sulphur to be efficacious must cover the whole vine. Throwing sulphur over the vines or dusting on the same by means of perforated tins or through sacking is improvident of substance and imperfect in application. Sulphur acts by means of the fumes it gives off when the temperature is sufficiently high. These fumes destroy the mycelium and summer spores of the fungus, but in order to obtain this desirable end the sulphur must be in close contact and must therefore cover the vine in its entirety. The nearer a spore or a piece of mycelium is to a particle of sulphur, the more quickly it is killed. Practice has shown that sulphur placed on the ground under the vines is wholly useless, though one might reasonably suppose otherwise, when it is considered that there we find the warmest air.

Several forms of hand sulphur dusters are to be found on the market, though the best I know of is manufactured in France, by M. Vermorel, who has an agency in Montreal. The sulphur from this machine is thrown out with violence by means of a current of air produced by a valve bellows. The result is to cover the whole vine with minute particles. This machine, which is cheap, may also be used to dust air-slaked lime on asparagus or poisons in dust form on such plants as require such application.

The time of day to apply sulphur is of little moment provided the weather is suitable. It is less effective when applied to vines wet with dew as the tendency of the moisture is to gather the sulphur into patches. No can sulphuring be done in a high wind, though a light breeze will aid the sulphur to penetrate to all parts of the vine.

The treatment should first be given when the vines begin to open their blossoms—this seems to ensure a thorough fertilization and consequent fine bunches—and again when the fruit is the size of buckshot. Two applications seem to suffice as a rule, though some seasons may be exceptional. I have always found that these two applications are effective and will produce a fine quality grape.

### SPRAYING

Unless grapes are sprayed with Bordeaux, one must expect annual losses from the rot, some seasons, and in some varieties, to a serious extent. Spraying with the 4-4-40 formula is effective if the

### Will Recommend it

I congratulate you upon the great improvement I notice in The Canadian Horticulturist, especially along the line of caring for the apple orchard. I will recommend it to every fruit grower.—J. G. Jarvis, Black River Bridge, Ont.

application is made with care—one application will usually do if the vineyard has been well treated in the past, and this should be made when the grapes are of a fair size. Though some specialists advocate at least three, I have found these additional sprayings unnecessary. Poison may be added, preferably in the form of lead arsenate, and the spray must be applied, not only to both sides of the vines, but also through the interior. Such application can only be given by hand. Driving a power machine between the rows is not good business, though more

speedy. Speed, however desirable, is not everything. Thoroughness and care in the work, combined with timeliness, is the essence of success.

It must be borne in mind that some varieties of grapes are more susceptible to disease than others, that the location of some vineyards invite disease to the vines in a greater measure than in other localities. Accordingly the treatment found effective in one vineyard may require modification in another. It therefore devolves upon the vine-dresser to use judgment for his own salvation.

## Orchard Observations

J. H. Hare, Representative of the Department of Agriculture, Whitby, Ont.

INTEREST in fruit growing has been greatly aroused in this district bordering Lake Ontario. The practice of scraping and pruning has been much more general than heretofore. While the most of this work has been performed to good advantage, a few comments on improper methods might be of value to the readers of *The Canadian Horticulturist*. One of the chief mistakes noticed has been the pruning of large trees so as to leave the limbs to some extent bare of branches and fruit spurs, leaving simply a small bunch of branches at the ends of the limbs. In this case what fruit is produced is borne on the ends of the limbs, which renders picking and spraying difficult and expensive, and where high winds occur much of the most valuable fruit is readily blown off. Such trees should be headed back severely, in order to produce new branches or suckers, which may be trained into new bearing wood, and in order to lower the tree so that spraying and picking of the fruit may be done more economically.

In many places fruit growers have a mistaken idea of the purpose of scraping of trees. Their efforts seem to be directed to getting off as many of the scales of the oyster bark louse as possible.

### SCRAPING TREES

In waging war against these unnumbered foes the combattant effects many wounds which not only injure the vitality of the tree, but subjects it to the attacks of fungous diseases, chiefly the Black Rot or Canker. Trees should only be scraped sufficiently to remove the outside rough bark, which will prevent insects obtaining protection under the bark and allow the various spray mixtures to completely cover all of the trunk and branches, so that no part of their surface will be left open to the attack of disease, and that not a single scale of the bark louse will miss being covered with the application.

During the spring and early summer both young and old orchards should receive thorough cultivation. For the first two or three years in young orchards a single cultivator strip, worked up fre-

quently on each side of the row is sufficient. The width cultivated should of course widen as the branches of the trees extend. It is as a result of this practice, together with more liberal applications of fertilizers that British Columbia and Nova Scotia growers are able to get a much more rapid growth in their young trees.

A further observation is the finding of young trees in uncultivated orchards badly infested with the Buffalo Tree Hopper. In many cases is the injury so serious that the trees have been almost ruined. These insects do little or no harm by direct feeding but utilize the twigs and branches of the young trees as places of deposit for their eggs in such a way as to kill or severely stunt its growth. The work of this pest can be identified by the

appearance of small crescent shaped cuts which are made by the female hopper in depositing her eggs.

### CULTIVATION THE REMEDY

One of the best methods for its control is the practice of clean cultivation. The insect does not feed upon the leaves of the trees. Its only means of sustenance is the grass and weeds found in and about the orchard. The logical remedy, therefore, is to deprive the insect of its food supply by keeping down weeds and grass in the early part of the season. Where this is done, attacks seldom occur. The cultivating need not be continued so late as to prevent the practice of cover cropping.

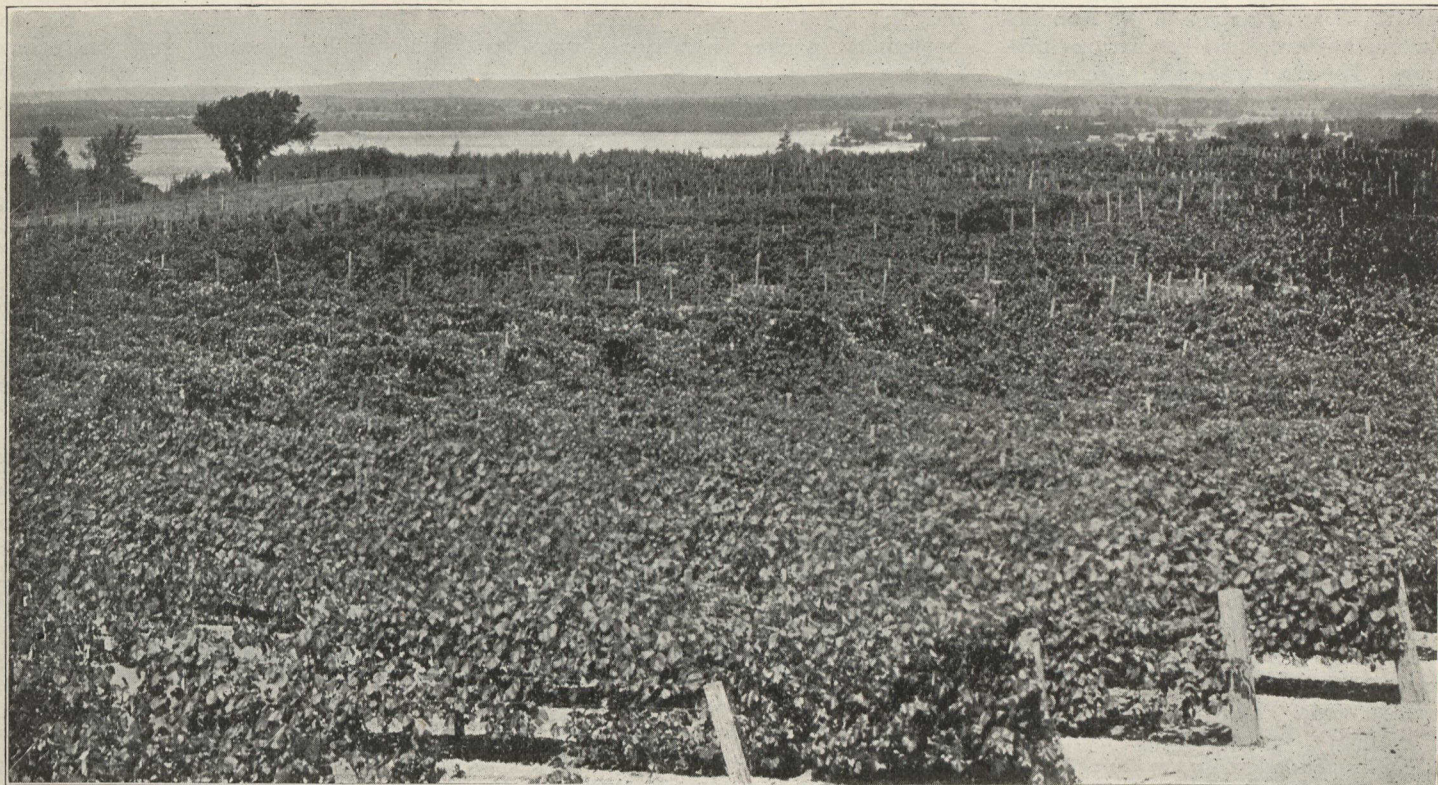
In cold climates the cover crop should be sown much earlier than in southern latitudes, so as to ensure the proper ripening of the wood. While it is probable that the latter part of July or the first of August would be early enough for southern Ontario, in northern Ontario and Quebec, the land should be plowed as early as possible in the spring and the cover crop sown at least a month earlier, by the end of May or the middle of June.

I have had excellent results from two sprayings with lime-sulphur, one with the strong solution, when the trees are dormant, the other dilute, when the blossoms have fallen. I obtained ninety per cent. perfect fruit, when other years the apples were largely unmarketable.—L. Wolverton, Grimsby.



An Orchard Meeting in a Nova Scotia Orchard

The system of instruction that is proving so successful in other provinces, that of holding meetings in orchards for the consideration of matters relating to fruit growing and where they can best be illustrated, has been followed with much success in Nova Scotia. The illustration shows those who attended an orchard meeting in the orchard of Mr. Frank Fowler, near Bridgetown, N.S. Mr. Fowler and his children may be seen in the centre. Now that an increased interest in the growing of fruit is manifest throughout Canada, more of these meetings might well be held.



A Successful Vineyard in a North-Eastern Portion of Ontario, where the Seasons are Cold

The vineyard here illustrated is that which belonged for many years to the late Judge Mosgrove, of Bell's Corners, a short distance west of Ottawa and close to Lake Britannia. The late Judge Mosgrove had a great love for his vineyard, and in spite of the handicaps incident to its location, he succeeded in growing successfully many varieties of grapes that were believed to be too tender for that district.

## Co-operation in Fruit Marketing in N. S.

S. C. Parker, Berwick, Secretary of the Nova Scotia Fruit Growers' Association

THE export of apples from the Annapolis Valley of Nova Scotia, has grown from 35,000 barrels in 1893-1894 to 750,000 in 1909-10. This is only a beginning of what is to come. Ten years will see this output doubled and twenty years will mean an annual output of from two to three million barrels of apples from this section of country, one hundred miles long and from four to ten miles wide.

Situated as this valley is, its extremity about one hundred miles from Halifax, an ocean port with many steamship lines making it their winter terminus, and with good harbors for small steamers at Kingsport, Annapolis and Port Wade, right in the orchards, a system of shipping has grown up that is unique in the history of apple marketing. In the early years of the industry there were few if any buyers. The district was removed from the great centres of population, and the quantity of apples was so small that outside buyers did not come in to look after them.

London was the principal market and the early growers individually picked, packed and usually consigned their fruit to that market. It was all very easy; a dozen English commission houses had resident agents making their headquarters here for the fruit season. These in turn had local agents at every shipping station, and the farmer handled his crop,

be it large or small, in his outhouse or cellar, hauled them in small lots to the shipping station, where the agent combined them in carload lots and forwarded to the consignee. The consignor heard no more of his goods for about four weeks when he received his account sales with a check for the net proceeds. This was a species of cooperation but the profits were all on one side. The transportation companies took a generous slice. The general agent took all his conscience would allow, and divided the pot among his sub-agents. They in turn provided for their subs.

"The greater fleas had lesser fleas upon their backs to bite 'em;  
The lesser fleas had smaller fleas, and so ad infinitum."

Then the consignee charged commission, insurance, brokerage, wharfage, lighterage, cartage, portage, and half a dozen other 'ages, or sometimes lumped them all in a lot as "our charges." The growers fretted long under this burden, but individually were helpless.

### MORE STORAGE NEEDED

Ten years ago the export reached 300,000 barrels, and a new system was inaugurated to meet the increased output. More storage room was needed, and the erection of frost-proof warehouses on the line of railway was begun. These were

built in some cases by English commission houses, some by local dealers, and some by the growers combining. Here large quantities of apples were collected, packed and shipped under a more uniform system. This, too, was a species of cooperation, but still did not put the profits in the right place. Once inaugurated, the warehouse system grew with astonishing rapidity. The farmer who a few years before was growing a few score or possibly a few hundred barrels, was now getting a thousand or thousands. He needed more frost proof storage and expert help for packing. In 1910 every station on the Dominion Atlantic Railway between Annapolis and Windsor had from one to six of these buildings, from 75 to 150 feet in length, and with storage capacity of from 5,000 to 15,000 barrels each. To these warehouses the fruit is brought as picked from the trees, and here gangs of skilled packers work by day, and in the rush seasons often by night, turning out carloads of straight lots uniformly and skilfully packed.

Another revolution quite as remarkable, has come in the past decade. Before the warehouse system was established, and farm packing was the rule, individual consigning was also the rule. In 1900 probably 75 per cent. of the output was consigned by the grower in small lots to the commission men. Now the universal tendency is to sell as picked, "tree run," as it is technically called, and in 1909 probably 75 per cent. of the crop was sold

to buyers. Buying apples in the Annapolis Valley, however, is a precarious proposition. The man who can make money buying apples from the Nova Scotia growers must be brighter than they are, and that class of men are scarce. The grower knows too much about the business; he is receiving daily quotations from foreign markets, he knows how to pack and market his own product, for he has been doing this for years, so if he cannot get his price, he handles his own stuff. Only a few men of the many who have bought apples in the Valley have amassed wealth, more have been financially ruined than those who have got out with a whole skin. Buying apples here is no get-rich-quick game. One Ontario man who entered the field in 1909, is reported to have left \$30,000 behind him when he pulled out.

#### CO-OPERATION OF THE GROWERS

Cooperation has been talked for years, and attempts were made some years ago to organize the whole district on a comprehensive scale. This scheme though good in theory, failed through being too large, and attended with too much initial expense. Three years ago the first successful attempt was made at Berwick. Twelve men organized the Berwick Fruit Company, Limited, incorporating under the Nova Scotia Joint Stock Companies Act. The idea expressed by the organizers was to commence on a small scale, put up a good pack, gain the confidence of the market, sell for cash f.o.b. cars, or if sales were not quick ship on consignment to good houses. The organization was a success from the beginning. The first year this concern handled 7,000 barrels, getting better prices than the average grower and earning enough in commissions, etc., to practically pay working expenses. In 1908 some more good men were taken in and the output was about 15,000 barrels; more members came in,

and in 1909, 22,000 barrels passed through the packers hands, netting some \$45,000.

The Berwick Fruit Company, in its first year's operations, consigned about one half of its output; a uniform and square deal have gained for their brand a reputation that will sell thousand barrel lots by cable just as readily as by personal interview. Last year the output was practically all sold f.o.b. cars at the warehouse; and cash or draft attached to Bill of Lading are the usual terms.

The company sells over a wide range; three cars of Gravensteins were sold in the Canadian West, going as far as Moose Jaw. Five cars to South Africa buyers at \$4.50 per barrel, was a satisfactory deal for both buyer and seller, and a feature of the business is that both these extremes want more of the same stuff. Inspired by the success of the pioneer company, others are being formed. A general cooperation act of the Nova Scotia Legislature makes the process of organization easy and inexpensive. Five co-operative companies operated last year, handling about one-tenth of the crop. This year ten are at work, all owning their own packing houses and controlling probably 25 per cent. of this year's crop.

As a means of getting nearer together a central organization has been formed, composed of representatives of all the tributary companies. This central organization has a board of directors, and general manager, and we look forward to a not distant day, when the central company will sell and buy for all the subsidiary companies. This central company in 1909 chartered three steamers, and shipped 25,000 barrels to London in their own ships, saving fifteen cents per barrel freight to shippers and incidentally making \$1500 clear money, which is laid aside for the rainy day which is liable to come some time.

The day of small things in the apple business has passed, and the prospect now is that in a few years cooperative associations will practically control the output of millions of barrels from the famed Annapolis Valley.

### Practical Experience in Fruit Growing

Alexander Smith, Enfield, Ont.

I go over my orchards every spring and prune regularly. We then have no large limbs to cut off, as I think a little each year is much better than to miss two or three years and then give a severe pruning.

I have generally had root crops of some kind or beans in the orchard. We would not advise sowing barley or oats in an orchard unless one wished a sickly light colored foliage on their trees.

As we work a large farm we do not need to sow clover to plow under, as we usually have plenty of good farm-yard manure. I believe in cultivating an orchard early in the spring to start the trees off quickly, but would plow early in the fall, as late cultivation will start a growth of wood that would be injurious to the trees. Plow or disk the orchard the last thing in the fall, as it will be found a great help in the hurry of spring work and help with the early cultivation of the orchard.

#### DOUBLE PROFIT FROM BEES

As an apiarist, I find that we obtain double profit from our bees. We produce tons and tons of honey each year. Aside from this, the bees are invaluable to our orchard and alsike clover. They are double croppers. Through their work in pollinizing the blossoms they ensure us a good set of fruit and an abundant crop of alsike seed. All scientists are agreed that bees and insects are much more efficient agents of pollination than the wind; and of the



Gathering the Strawberry Crop on a Farm near Streetsville, Ont.

Notice the building provided to shelter the berries when picked.





#### Intensive Fruit Cultivation

Pear Orchard of Mr. Jas. E. Johnson, Simcoe, with strawberry plants between the trees

insects, bees are of the greatest importance in this work. Thoroughly fertilized blossoms produce larger and better shaped fruits.

As bees are quite a study in themselves, if the fruit grower does not understand their care, it might be more satisfactory to get some beekeeper to place a few hives in the orchard. Bees

will travel two or three miles from the hive in good weather, but their greatest benefit is obtained in wet, cold and cloudy weather, when it is probable that they will not venture far from the hive.

In this district, wherever bees are kept they have good crops of well shaped apples and heavy yields of alsike clover seed.

## Fertilizers for Fruit Growers

Prof. R. Harcourt, O. A. C., Guelph, Ont.

Regarding the influence of fertilizers on quality and flavor of fruit, experiments seem to show that an abundance of phosphoric acid and potash in the food and plant is extremely important, and that, on the other hand, where nitrogen is somewhat deficient the effect on the quality is scarcely perceptible. Considerable work has been done in determining the influence of the several ingredients, that is, the nitrogen, potash and phosphoric acid on the size of individual fruits. With core and stone fruits the experiments are not far enough advanced to warrant definite conclusions, but with berries a greater number of results have been obtained, and these appear to indicate that the lack of phosphoric acid did not materially decrease the size of the berries, as compared with those grown where a complete mixture of fertilizers was used, but when potash was not supplied the berries were small, and where nitrogen was left out they were still small.

There is very little definite data to show that color in the fruit is influenced by the nature of the fertilizers used. It is supposed by many that the use of potash and phosphoric acid will influence the

color, and it is quite probable that they do, but I fancy that the influence of these may be very easily overshadowed by the effects of excessive quantities of nitrogen in the soil. It is quite possible, and even probable, that too late in the season there is apt to be so much leaf growth that the fruit is too much shaded, and the leaf and stem growth once strongly started is not easily checked, and as a result we have fruit lacking in color and often really lacking in maturity. It seems likely that if cultivation was stopped early in the season, and cover crops sown, that better results would be got. The cover crop will use up a great part of the moisture and thus check growth and cause ripening of the fruit.

If this be true, cultivation in the orchard cannot be stopped at any set time from year to year, or in one orchard as compared with another. The time to cease cultivation is dependent upon condition of the growth, which will be influenced by the nature of the weather and the richness of the soil in plant food.

It is our intention this coming year to place a number of experiments which we hope to continue for a series of years. We wish to see what effect fertilizers will

have on the fruits and also to study the influence of fertilizers and other factors on the color of fruit. I shall be very glad to co-operate with anyone who wishes to take up this matter seriously, in order that we may get the experiment started on some really good basis. It is useless to start experiments on orchard fruits unless they are to be continued over a number of years, so that the full effects of the fertilizers on the trees and fruit can be definitely studied.

### Spray Injury

In many instances the omission of the spraying just before the blossoms opened permitted the scab on the pedicles to cause a serious dropping of the young forming fruit, resulting in a poor set and consequently in a light crop. This early fungous infection of the young fruit and pedicles was, we believe, the main cause of the generally light crop of apples throughout western New York last season. This early infection also occurs on the leaves and is responsible for many mysterious cases of lime-sulphur injury. Infection of apple leaves by the scab fungus previous to application is one of the most common causes of spray injury. The injury caused by the fungus admits the spray material to the inner tissues of the leaf more readily. Probably insect injuries also play an important part in spray injury.—Prof. E. Wallace, Cornell University.

### Treatment of Evergreen Plants

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

As early in the spring as possible, the plants should be placed outside in the day time on warm days. Avoid putting them out on cold windy days, or placing them in a too sunny position at any time. Often they could be set outside early in May in the day time, and lifted in at night, or covered up if the weather should be frosty. This would shorten the time in their undesirable winter quarters.

About the end of May the plants could be placed where they are to stay for the summer. A too sunny position is not advisable; they should never be exposed to the hot mid-day sun—very little sun is best for them.

Spring or early summer, immediately after the flowering season, is the best time to repot these plants. An application of some kind of fertilizer during the summer will often obviate the necessity for repotting, thus helping to keep the size of the pot or tub reduced.

A liquid solution made from one part cow or sheep manure in ten or twelve parts of water and allowed to stand twenty-four hours and sufficient given to about moisten half the soil, and applied every week or ten days will be beneficial. The fertilizer should be applied when the

soil is moist, not when it is very dry or very wet. This will stimulate the growth and give the foliage a bright green, glossy appearance, one of the main attractions in these plants. It is scarcely possible to make this solution too strong for these plants, if the plants have exhausted the soil they are in, and have good root development. Discontinue the use of the fertilizer about the end of July to allow the growth to harden before winter. The plants should be watered liberally during the summer and sprayed frequently with water.

### Herbaceous Borders

Arthur E. Thatcher, Arnold Arboretum Boston

In making a herbaceous border, if it is to be permanent, it should first of all be seen that the drainage is good, as few except semi-aquatics will succeed under water-logged conditions. The border should be not less than six feet in width, but much finer effects can be produced if from eight to ten feet can be allowed.

A good background is always desirable, and two excellent subjects for the purposes are climbing roses or a row of sweet peas, but, of course, what to use must be decided by the situation of the border. Trench the soil in the fall to a depth of two and a half to three feet, incorporating plenty of decayed manure or other enriching material, and leave the surface in a rough condition till spring, so that the climatic effects may sweeten the soil and render it in good condition for working.

Early in spring is the best time to plant if the frost is out of the ground sufficiently, and it is advisable, if one is not well acquainted with the subjects, to make a plan of the border beforehand, showing where each variety is to be planted. Harmony of color is of great importance and can only be obtained by making a plan or having a good knowledge of the plants, and of equal importance is the arrangement.

Tall-growing plants must, of course, find positions at the back of the border, but the mistake is not infrequently made of carefully graduating the heights so that the tallest are at the back and the lowest at the front, just as one would arrange geraniums on a greenhouse bench. In this way plants lose their individuality, for much of the charm of the border depends on seeing each separately. The most effective arrangement is obtained by planting some varieties in groups and others as single specimens. By having plants of medium height near the front of the border, much greater depth results and the general effect is altogether more pleasing.

Early flowering varieties should not be too near the edge of the border, unless they retain good foliage till the fall, and others which flower at a later sea-

son should be in front of them, so that no bare places are apparent. By a judicious selection a succession of blossoms may be had from spring till late in the fall, but to obtain such a desirable condition it is necessary to be well informed about the large number at our disposal and then they can be ordered from the catalogues.

### The Crimson Rambler Rose

Dr. Kalbfleisch, President of the Elmira Horticultural Society, gives the following information regarding the cultivation of the rose shown in the accompanying illustration. "This rose was planted in 1906. The hole was dug large in order to go through the layer of clay which had been thrown out of the cellar some years previously. Good garden soil was then filled in around the plant, and it was mulched with strawy manure and sprinkled well with wood ashes.

"On washdays the whole plant is given a supply of soapsuds, this together with a liberal use of cold water from the waterworks hose keeps the green aphid in check. The rose bush is taken down each fall when the snow comes and covered with about four inches of coarse manure. In the spring I cut the last season's wood back two feet, as I find that I get better bloom when the rose is severely pruned than if left to itself.

"I consider the Crimson Rambler as easy to grow as any vegetable; any good soil will do. Apply plenty of cold water in dry weather, cover with a mulch in winter, and prune severely in the spring. The above is all that is necessary to secure a good showing of flowers in July and August."

### Grass for a Shady Lawn

A mixture of seed which is very satisfactory for a shady lawn can be made by using Kentucky bluegrass two parts, Woodland meadow grass two parts, various leafed fescue one part and crested dog tail grass one part. This mixture makes about the best all around grass for shady places that can be obtained, and one which will remain green throughout a much longer portion of the year than either the Woodland Meadow or Kentucky blue grass.

Trim the evergreen hedge just before it starts in the spring. Never prune back of the growing twigs. A hedge should be clipped regularly each year.

### The Velvety Lawn

In order to have a nice even lawn, the most important thing is to prepare the soil thoroughly. Plow deep and cultivate thoroughly, then plow, roll and harrow again after having let the ground lay for a week or ten days.

If the space is too small to plow, work just as thoroughly with hand implements. If rough, the land should be levelled with a scraper and float drawn with a team or else with a shovel and hand rake.

The ground should be covered with a coat of well rotted manure and well worked in. Before sowing, go over the surface with a rake and pull off all stones or lumps of dirt that cannot be broken. Rake and roll until the ground is perfectly firm. The easiest method



Crimson Rambler Rose and Residence of Dr. Kalbfleisch, President of the Elmira Horticultural Society.

of seeding is to buy the best mixed lawn grass seed from a reliable seedsman. Kentucky bluegrass alone will make a good lawn. A good mixture is Red Top Kentucky Blue Festuca Ovina and a little White Clover. If the lawn is shady use more Red Top. Sow broadcast on some very calm day. Early morning is generally the best time. Sow it thick enough so that you can see it scattered thickly on the ground, forty pounds to an acre is none too much, but the above guide will do for all practical purposes. Rake the seed in as early as possible. Many obtain the best results by sowing a little barley with the grass seed, but most people get best results from sowing alone.

Do not cut very low the first year.

A lawn will respond readily to heavy fertilization. It is a good plan when making the lawn to apply five parts bone meal, five parts acid phosphate, three parts muriate of potash and two parts tankage at the rate of five pounds per square rod and work well into the ground at intervals of three or four

weeks. Dress with nitrate of soda at the rate of half a pound per square yard. If preferred use the same quan-

ties of a good mixed fertilizer, such as is known in the trade as a 5-8-8 goods will give good results.

## Among the Flowers in June

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

THE month of June is usually the crowded month of the year in the flower garden. Late seed sowing, thinning and planting, hoeing and weeding, trimming and edging walks and borders, will all crowd in during the next few weeks and unless attended to promptly, poor results, and a lot of additional labor later on will be the outcome. The increasing warm weather will also start the many insect pests and enemies of the flower lover into life. In respect to these last named, the old adage, "An ounce of prevention is better than a pound of cure," applies with increased force in connection with work generally in the flower garden during June. Spray the plants for insect pests early and often.

### SEED SOWING

Quite a few of the more tender annuals can yet be sown that will give good results during the later months of summer and the early months of autumn, although the main bulk of the annuals should have been sown a week or two ago, or earlier. Among the annuals that usually succeed very well when sown late are the Nasturtiums, Annual Poppies, Portulaca, Candytuft, and even Zinnia and Phlox Drummondii will often give good results if the weather is not too hot and dry. If you have a hot dry corner of the border not yet sown, dig, and then rake the surface very fine, and sow broadcast some Portulaca seed. A very light raking after sowing is all that is needed as the seed is small and fine, and it must not be covered deeply. Poppies succeed well similarly dealt with. The other kinds mentioned require a less hot and sunny position.

All of these seeds would germinate more quickly if given an occasional sprinkling with water, if the weather is

hot and dry. It is too late to sow asters, stocks, sweet peas, and most other annuals, to expect good flowering results from them.

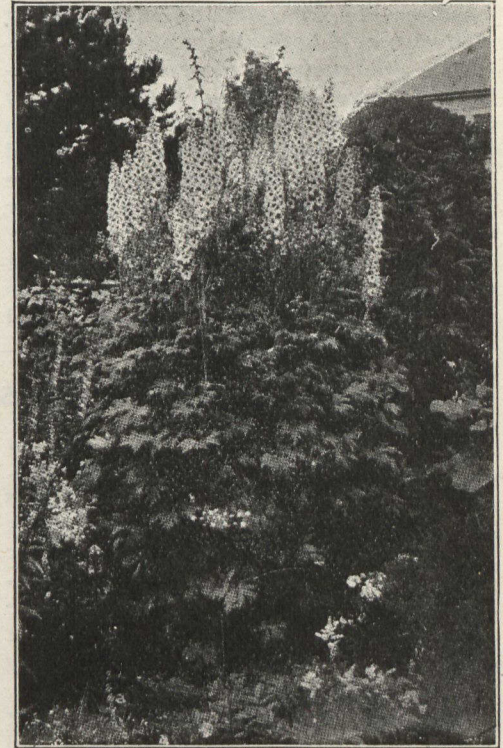
### SOWING SEEDS OF PERENNIALS

If a new perennial border is contemplated, or new kinds needed for an old perennial border for planting next season, June is the best month to sow the seed for most of them. Columbines, *Campanula persicifolia*, *Campanula carpatica*, *Pyrethrum roseum*, Perennial foxglove, Yellow Marguerite, Shasta Daisy, Veronica or Speedwell, Perennial Larkspur, *Gaillardia grandiflora*, Sweet William, *Cerastium tomentosum*, Oriental and Iceland Poppies, Garden Primrose and Cowslip, English Daisy, Forget-me-not, hardy sweet scented garden Violet, *Lychnis chalconica*, the Japanese lychnis (*L. Haageana*), the Chinese Bellflower (*Platycodon*), and *Heuchera sanguinea*, are a few of the best hardy perennials that can be grown easily from seed. Biennials, such as Canterbury Bells and Hollyhocks, can also be sown now.

Paeonies, *Dicentra* (Bleeding Heart), German Iris, Lemon Lily and Lily of the Valley, are best grown from divisions of the roots, and are best planted late in September or very early in October. Garden lilies, such as *Lilium elegans*, *Lilium candidum* (Madonna lily) and the Tiger lilies, should be planted in August or early in September. The bulbs of these should be planted in clumps about six inches or more under the surface of the soil. Do not disturb lily clumps if they still flower well. Lilies should not be disturbed very often, and should never be dug up and transplanted in spring or early summer.

The seed of the varieties of perennials before named as growing readily from

seed, are best sown in shallow boxes or in a small specially prepared seed bed. Boxes are best, as they are easily moved about if needed, unless a large number of plants are wanted. A light box 10 x 24 inches, and three inches deep, with holes through the bottom for drainage



A Clump of Perennial Larkspurs

will do very well. Hattie fish boxes are good for this purpose.

After the seed is sown they can be placed under a tree or some slightly shaded place where they do not get the hot sun in the middle of the day. Good loamy soil not too rich in fertilizers, with about one-sixth part sand, is about the right soil for seed sowing. It is best to sow the finer seeds in drills about one-quarter of an inch in depth, the coarser seed, such as Sweet William and Larkspur, nearly half an inch in depth.

If a seed bed is made the soil should be of a light nature and be shaded from the sun in the middle of the day until the seedlings have three or four leaves showing. The seedlings should be transplanted about the end of July or early in August, into deeper boxes, or into nursery beds. The plants should be planted about an inch and a half apart. They can be planted out in the perennial borders in groups at this time, if a perennial border is in existence. I prefer transplanting them into boxes or nursery beds as they can be better looked after and protected in the winter, and put out in the border the following spring. It takes two or more years from the time they are sown before they produce much flower. The perennial varieties will, however, flower for years when once established,



A Group of Iceland Poppies in the Perennial Border

If divisions of roots of these plants can be obtained they give the best and quickest results, and are true to type to the parent plant, which seedlings sometimes are not, but roots are more expensive when purchased. Plants or divisions of roots can usually be obtained from nurserymen and florists, or from some neighbor perhaps, who already has a border.

Early in May is the best time for dividing the roots of most of the perennials I have named as growing easily from seed. It is too late to disturb them now. One plant named requires special mention, viz., the Oriental Poppy. These are best sown in boxes, or in the border where they are to grow permanently. They require careful sowing and shading from the hot sun until four or five leaves have grown, when they can be hardened

off to the sun gradually. A few minutes hot sun when the plants are very small will be fatal to them. When once well started, they are among the hardiest and showiest of border perennials, but they do not transplant as well as most varieties from the open ground.

A perennial border is one of the most satisfactory features pertaining to any flower garden. A very good collection of plants can be obtained from seed as mentioned, at little cost and labor. With the addition of a few clumps of spring flowering bulbs planted here and there in October, such as Tulips, Narcissus, Hyacinths, Crocus, and so forth, and some of the kinds before named, a display of flowers can be had from the time the snow melts in the spring until it comes again in the fall.

## What Amateurs Can Do in June

**T**HE lateness of the season this year has left garden crops backward.

Sometimes young vegetable plants that have started find it difficult to break their way through the soil, and are either delayed in appearing, or are killed. Watering will soften the soil and help the plant push its way through. Do not allow any plants to suffer from dry weather.

Warm weather this month will bring plants on rapidly. Watch the weeds and cultivate frequently. Stirring the surface, even if it appears to be clean, will destroy many young weeds which are just starting and save much labor later in the season. It will also conserve the moisture by preventing evaporation.

The garden should be cultivated and hoed as soon as the young plants appear. Do not wait until the weeds get a start.

The only way to secure satisfactory results in the flower garden is by giving

the details careful study. Many pleasing effects can be obtained by the exercise of a little forethought. Even tropical effects can be had by the proper selection of suitable plants. One of the best of these is the castor oil plant. It can be grown from seed and will grow eight or ten feet high. It branches freely. The plant makes an excellent centre plant for a circular bed.

The canna is a sub-tropical plant, which may be combined with others with excellent effect. In addition to the fine foliage, it bears brilliant flowers that give color to the assortment. For beds of this kind there are other plants, such as palms, screw pines, ficus, caladiums and aspidistras, which can be put out of doors in summer with advantage.

Plant gladiolus bulbs in full exposure of the sun. Plants for bedding may be placed in the open early this month.

In color schemes, harmony should be

the first consideration. One of the best general purpose hardy border plants is the perennial phlox. It gives an almost solid mass of color for many weeks. Give it good, rich soil and keep the grass and weeds away from it. This is about all the attention it requires.

Have plenty of hollyhocks, but do not plant them singly. They are more effective when grouped. Dahlias planted now will usually give better results than if planted earlier.

### FIGHT THE INSECTS

Keep ahead of the insects on rose bushes. Give the leaves a good sprinkling of hellebore now, if it has not already been done. Sprinkling the leaves once a day with water alone will keep down many pests. The size of pansy blossoms can be kept up by watering occasionally with weak liquid manure. Get your window boxes ready and put them in position as soon as danger of frost is past. If you want the best results in the flower garden, do not neglect the four chief operations, namely, thinning, weeding, cultivating and watering.

### CARE OF THE LAWN

In a newly-made lawn, keep a watch for the weeds, and do not let them get a start. Fertilize with about one pound of a good potato fertilizer to every ten square feet of lawn. This will keep the turf thick and velvety, and the weeds will be smothered out. Keep the mower going. Frequent mowings increase the body of the sward. Do not mow too closely, but often.

### WITH THE FRUITS

Weed the strawberry patch and keep the surface soil well stirred, or else covered with a thick mulch of straw. If you are growing strawberries on the hill system remove the runners. Larger and better berries may be secured by this method, but not so many of them.

If you want to grow larger and better fruit on your trees than you have done in the past, thin out the fruit trees this month. Fruit trees and bushes should be sprayed if clean fruit is the object. If the home orchard is small a barrel sprayer will be a profitable investment. Gum or sawdust near the base of the peach or plum trees indicates the presence of borers. Dig them out with a knife or long wire, or they will weaken or kill the tree.

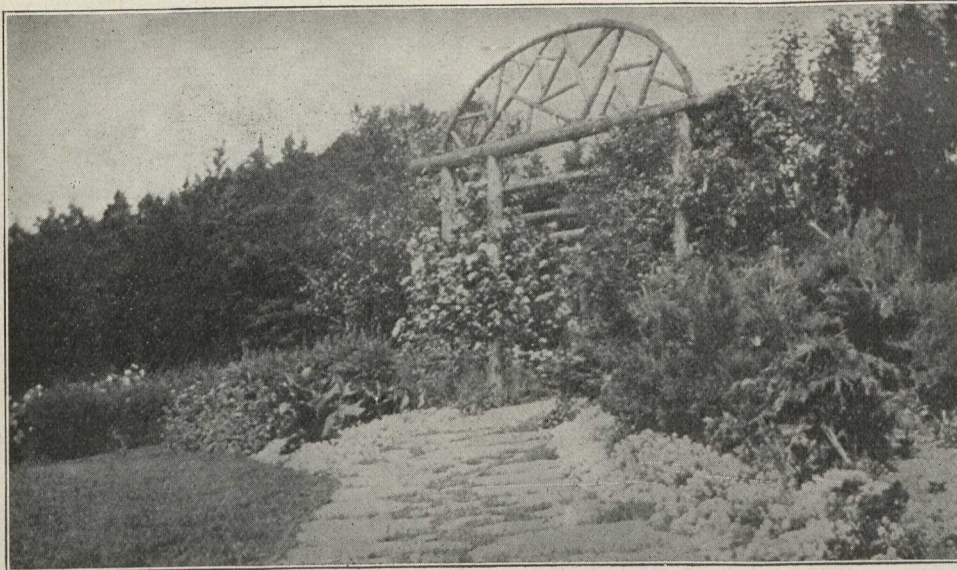
It is best to get the hydrangea out of doors as early in the spring as possible (about the end of April), protecting them in a temporary way or carrying them in the house if the weather turns cold, but they should stay out doors from at least the end of May until the middle of October.—Wm. Hunt, O.A.C., Guelph.

Apples are an antidote for drink and tobacco.



A Flower Garden by the Eastern Sea

The garden of Dr. A. Bell, in Cape Breton, is here shown. Note the terraces and the entrance to the Pergola walk on the left hand side. Flowers grow in this garden in great profusion. It is a source of much pleasure to Dr. Bell, inventor of the Bell Telephone, and to his numerous visitors.



Another View in Dr. Bell's Garden

A nearer view of the south entrance to the Pargola walk may here be seen. The pathway is made of large flat stones. Notice the border of flowers on the right and the natural effect of the whole scene.

## June Planting Notes

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

**D**URING June harden off all plants gradually from indoor to outdoor condition. This is done by standing the plants out when safe to do so, in a partly shaded place away from the hot sun and sweeping winds for a week or so before planting, and where they can have temporary protection from frost as well. Remember the hot sun is often as injurious to tender plant life as frost when they are brought from indoor to outdoor conditions. Do not plant out very tender plants such as Coleus, Salvia, Iresine and Cannas until all danger of frost is over, they are very tender and easily touched by frost. The ground should be quite warm before planting.

### TRANSPLANTING SEEDLINGS

Transplant seedlings before they get too much drawn up and spindled, or when about four leaves have developed. Choose dull, showery weather for this work, if possible, or do the work in the early morning or evening. The plants in the seed box or seed bed should be well watered several hours before transplanting; the soil should be moist, not very wet nor dust dry. Take only a few plants from the seed box at a time.

Never allow the roots of any plant, especially seedling plants, to be exposed to the hot sun, or to dry winds. Keep the roots covered with a little soil or a damp piece of paper or cloth until planted. Get the plants back into the soil again as quickly as possible. Plant the roots a little deeper than when in the seed box. See that the roots are not pointing end upwards. Press the soil firmly around the plants. Water the soil well at once, and in such a way as not to lay the seedlings down flat.

Go over the plants a few hours after planting and lift up any leaves out of the soil that may be partially buried, pressing the soil around any stems or roots of plants where needed. Shade the plants from the hot sun, in fact the whole operation of transplanting should be done in the shade if possible, especially in hot, sunny weather. Avoid giving the plants too much water after the first watering for a day or two, until growth has well started. Carefully shading for two or three days, not too dense, and a gradual introduction to more sun each day after that—until the plants have got a good root-hold—and a spraying with water over-head, is much better than soaking

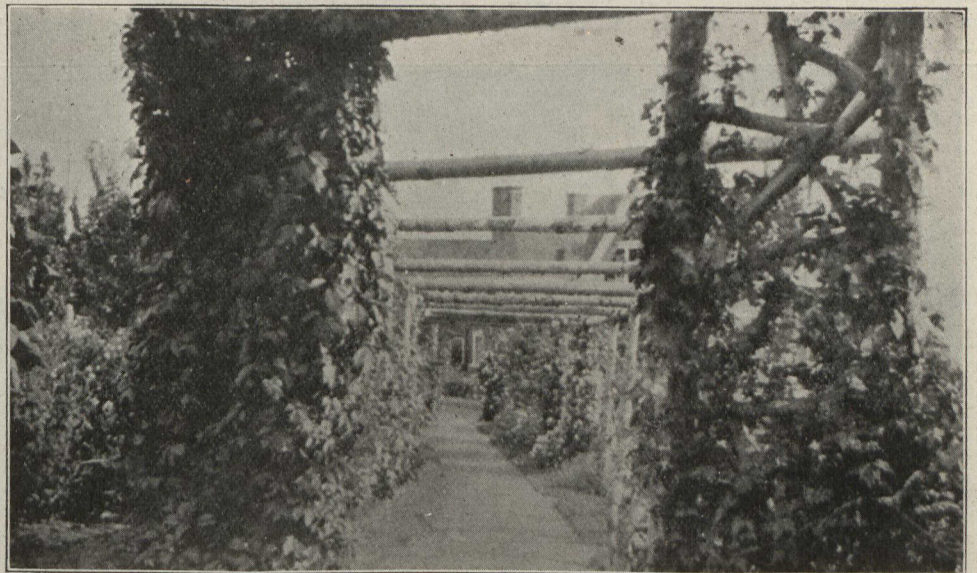
the plants too much at the roots after the first watering. After a few days stir the surface soil around the plants with a small hand cultivator to prevent the surface from becoming hard. Surface stirring is better than the application of too much water.

The best implement for transplanting small seedling plants is a small dibber made of a small hardwood broom handle. The dibber should be about five inches in length and pointed to a not too fine point. For large plants the top, or eye end, of a spade or fork handle about twelve inches long, and pointed, will do for this purpose. For large plants there is nothing better than a regular garden trowel. The latter is an implement that should be among every collection of garden tools.

### BULBS IN FLOWER BEDS

If you have spring flowering bulbs, such as tulips, hyacinths, crocus, and so forth, in a flower bed, and you wish to plant the bed with plants such as geraniums, salvia, coleus, canna, or large plants of any kind for summer effect, the bulbs should be dug up just before it is time to plant out the summer plants. It is possible, if the bulbs are planted too thickly, to put the plants named in between the bulbs. It is, however, very seldom that bulbs are planted wide enough apart, the ground cannot be thoroughly dug and cultivated with them in the border, so as to give the summer plants the best conditions possible, so it is best to take the bulbs out. The bulbs should be left as long as possible before digging them. Then dig up carefully, with all the soil possible attached to the roots; the leaves and tops should be left on.

Take a small trench in some out of the way corner of the garden about four or five inches deep with a sloping side. Lay



The Pargola Walk in Dr. Bell's Garden

A vista in the Pargola walk is here shown. At seasons of the year when the vines and flowers are in full leaf and flower the effect is most charming. (All photographs by J. G. Davidson, Baddeck, N.S.)

the bulbs thickly three or four deep in this trench so that the top leaves are above the soil. Pack some soil well around and over the bulbs so as to fill the trench, then stick a good sized stake or large label up to mark where they are, so as not to forget the spot when the leaves have dried up. Leave the bulbs here until the end of July; then dig and spread them out on the ground for a week or so to dry.

#### CARE OF THE BULBS

When the bulbs are dry, put them into shallow boxes and put them away in a cool, fairly dry basement, cellar or room, until planting time in October, when they can be sorted over and planted. Digging the bulbs up again and drying them at the end of July prevents them from starting into growth. Bulbs do not like to be disturbed after they have started to root. Treated in this way, a good percentage are good to plant again for several years.

It is sometimes possible in good, rich loamy soil to cut off the tops of the bulb stems down to the ground after they are through flowering, then cultivate the surface and put in small, quick-growing plants, such as Petunias or verbena plants, or sow some seeds of phlox drummondii, aster, mignonette, candytuft, portulaca, sweet alyssum, or some dwarf growing annual, but none of these are a success as a rule unless the ground is well cultivated first.

### Delphiniums (Larkspur)

Mrs. Annie L. Jack, Chateaugay Basin, Que.

Just behind a flower border, where white roses run riot during June, there grows up a clump of tall Delphiniums that make a fine background, with their spikes of heavenly blue, brilliant as the skies. Their height can be judged by the height of the gardener as shown in the illustration, and when their wonderful beauty is seen it is cause for surprise

that more attention is not paid to this old fashioned perennial, so grateful for a little attention, yet able to live without it.

There are about sixty species of this plant we know best as Larkspur, that are natives of the north temperate zone, and yet the old favorite "Formosum" can hold its own among the dark blues, while Beauty of Langfort is a creamy white. "Belladonna" is considered one of the finest varieties, and has the quality of constant blooming from June until autumn. Some of the newer hybrids are especially beautiful in various shades of blue, and are sure to blossom all through the summer.

The Siberian Larkspur are noticeable for the lustre of their flowers, resembling silver that has been tarnished by fire, and the old Bee Larkspur is interesting on account of the curious manner in which the petals are folded up in the centre of the flower, so as to resemble a bee, or large blue bottle fly. The name "Delphinium" is derived from Delphin, in reference to the supposed resemblance in the nectary of the plant to the imaginary figure of a Dolphin.

#### HOW TO PLANT

The plants can be easily grown in June from seed, or by a division of the roots. Given a good locality, for it revels in sunshine, there will be for two months a steady bloom if plants are chosen of such varieties as come in succession.

The soil must be rich and deeply worked, with good drainage, in order to give the best results, with plenty of water in a dry season.

Under these conditions if the flowering stalks are cut down as soon as faded, and not allowed to go to seed, new foliage and flowers will start and give some later spikes of bloom when they have become rare. New perennials come to our notice every year but among blue flowers the Larkspur easily stands first for hardi-

ness, beauty and continuous flowering, while the newer shades of pink and lavender are a very interesting addition.

### Advice about your Garden\*

E.F. Collins, Toronto, Ont.

To have a good lawn it is necessary to thoroughly rake out all the dead grass and refuse so as to admit air and light to the roots. Do not cut the grass too short or close to the earth for the first time or two. This allows the bottom growth or cushion of grass to get fairly strong first. This is the grass which makes lawns soft and velvety in appearance.

If sowing grass seed, sow during a rain or just before if you are sure it is coming. Sow the seed thinly, and then sow a scattering of fine soil over the seed. This will assist a much more rapid germination.

Do not make walks and paths in big sweeps and curves purely for landscape effect. In the average city, walks in small gardens are for practical use and should be placed beside the flower beds, or running around the sides and a small square or oval, whichever suits the formation of the garden best.

The best material for a cheap path is ashes or cinders about eight inches deep. If kept well rolled it makes a firm, clean surface for a permanent walk. Second hand brick laid flat makes an excellent walk, provided it is laid by a skilful person. The edges should be bricks laid on their edges.

Never plant all your tall plants at the back of your beds and borders, and so shorten them down to the front. It is too artificial. Nature never does anything like that. Instead, let some of your taller plants stand out boldly from among the shorter ones. Then curve the edges of your borders slightly outward opposite them and you will be surprised at the different effect that will be produced.

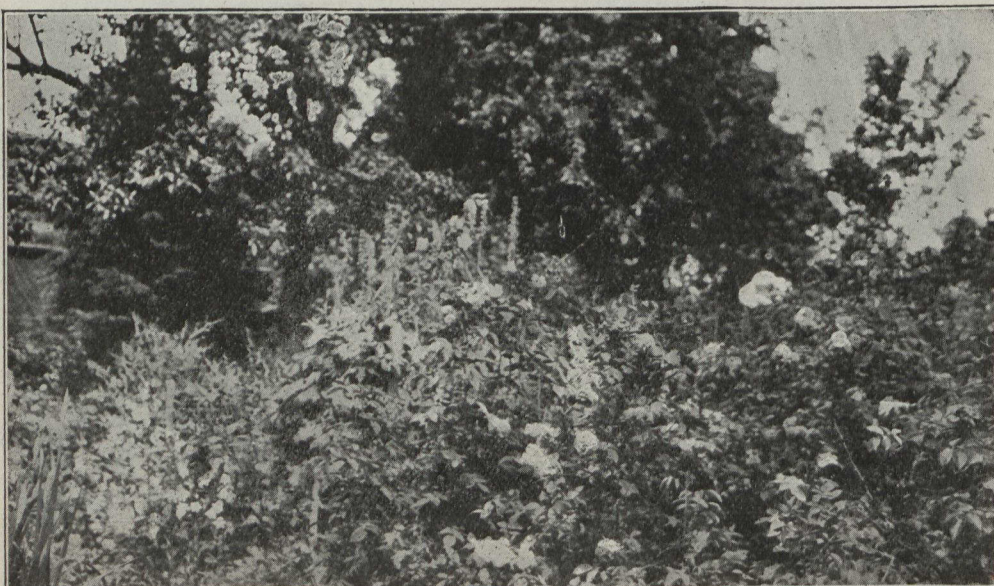
### Notes on Vegetables

Sweet corn can be sown at any time during June. Now that the danger of frost is past, sow seed of such tender vegetables as cucumber, pumpkin, squash and melons. Sow plenty of seed and do not thin out the seedlings until after the insects have had a chance to do all the damage they will do. Late cabbage and cauliflower can often be planted between the rows of early tomatoes before the latter are done.

To secure early tomatoes train them to a trellis or stake. Pinch off the side shoots and allow all the strength to go to one stalk.

Hand weeding is necessary in the onion patch. The young plants are easily choked by weeds.

If the squash bug is troublesome, lay



Delphiniums (Larkspur). See Adjoining Article

\* Extract from an address given at the May meeting of the Toronto Horticultural Society.



Onion Growing as conducted on the farm of Donald Chalmers, Essex County, Ont., where a Specialty is made of this Crop.

small pieces of board near the plants as a decoy. The bugs can be killed under the boards every evening.

Thin out onions, beets, carrots, parsnips and such plants that require it. The more space given to these plants the larger they will grow, but better quality is obtained by allowing them to stand

fairly close together, thereby keeping them on the small side.

The best time to water the vegetable garden is in the evening. When this is done the water soaks into the soil during the night and the surface soil is not baked hard as it would be if the watering was done while the sun was shining.

need only the cultivating act and keeping the beans picked off as fast as they mature. Leeks require to be treated exactly the same as celery, only the bleaching must be done with earth. Leeks are also partial to nitrate of soda. Salsify needs nothing but the hoe. Cucumber should have the earth constantly stirred and the leaves sprinkled with sulphur. The same applies to winter radishes.

Great attention must be paid to the egg plant from the time it is transplanted to the garden until the fruit is well formed, as if your neighbors have a patch of potatoes the potato bugs will leave your neighbor's garden and perch themselves on the egg plant, and they will not be long there until the foliage has disappeared, so fond are they of this plant. Treat citrons the same as melons.

My reason for using the word success in the heading of this paper has a two-fold character, first, because my wife never has to spend a cent on vegetables for the table, and we frequently have three or four varieties on the table at the one time, growing sufficient in the garden to do us the year around, by storing in the cellar for winter, with the exception of potatoes, the art of which I have not yet acquired, also from the fact that I was successful in securing the following prizes at the National Exhibition at Toronto, competing against market gardeners and others. First prize for collection of tomatoes, containing twenty-two varieties; second, for greenhouse cucumbers; second for vegetable marrows; third prize for Kohl Rabi; and last, but not least, third prize for a collection of vegetables containing no less than sixty varieties. I might incidentally remark that the gentleman who took fourth prize in this was a market gardener of repute who has as many acres as I have feet, from which to select his collection.

## Success Growing 82 Varieties of Vegetables

George K. Baldwin, Toronto

(Continued from previous issues.)

IT is time to get your hoe sharpened, repair your hose and other tools, and start right in at the top of your garden by pinching out superfluous runners and leaves of the musk melons, cucumbers, squash and marrows, etc., keeping the hoe going constantly, killing the weeds and loosening the soil, watching for insects of all descriptions, sprinkling a little sulphur around the turnips, powdering the young cabbage and cauliflower plants, with a mixture of pyrethrum powder and common flour in parts of four of flour to one of pyrethrum powder. Beets want nothing but the hoe. Tomatoes want attention, now that they have started to throw up laterals and suckers. The latter should all be taken off, pinch out head of plant and allow four of the strongest of the laterals which are to be trained up four sticks, about four feet above the ground, and stick into the ground at an angle of about seventy-five degrees, allowing each of these to run up the sticks until the third set of fruit flowers is formed, when the tips should be pinched out, which will tend to throw the sap back into the fruit which is now forming, all of which fruit will ripen before frost sets in. You may then let one more lateral come on each branch so as to form more later fruit if you want green

tomatoes for pickling. Pick all the fruit as fast as it ripens to give the rest a chance to fill out.

In reference to the hose, do not spray the foliage of any vegetables, in fact do not use the hose at all, unless there is about a two weeks dry spell in the growing season; you may then give the ground a good soaking once or twice a week, especially the celery. Carrots want nothing but the hoe, onions need a little sulphur or lime sprinkled around them for onion maggot, and keep ground well stirred and friable. Stake up the peas, if of a climbing variety, as soon as needed. You may feed onions, celery, marrow and squash, with a little nitrate of soda once a week, either dry, or preferably by dissolving a quarter pound to two and one-half gallons of tepid water. As soon as celery has grown up about eight or ten inches, tie up loosely with raffia, and three weeks before required for table use, start your bleaching operations by putting a ten inch or twelve inch board along each side, keeping them up close to the celery by driving in stakes at each end. For the winter celery I prefer to bleach by earthing up gradually with three inches of the top of the leaves, taking care not to let any of the earth get down in the heart of the plant. Beans

# The Canadian Horticulturist

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PETERBORO, ONTARIO



The Only Horticultural Magazine  
in the Dominion

OFFICIAL ORGAN OF THE ONTARIO, QUEBEC, NEW  
BRUNSWICK AND PRINCE EDWARD ISLAND  
FRUIT GROWERS' ASSOCIATIONS

H. BRONSON COWAN, Managing Director

1. The Canadian Horticulturist is published on the 25th day of the month preceding date of issue.
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4. The Law is that subscribers to newspapers are held responsible until all arrearages are paid and their paper ordered to be discontinued.
5. Change of Address—When a change of address is ordered, both the old and the new addresses must be given.
6. Advertising Rates quoted on application. Copy received up to the 18th. Address all advertising correspondence and copy to our Advertising Manager, Peterboro, Ont.
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, 1910. 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, 1910	8,925
February, 1910	8,967
March, 1910	9,178
April, 1910	9,410
May, 1910	9,505
June, 1910	9,723
July, 1910	9,300
August, 1910	8,832
September, 1910	8,776
October, 1910	8,784
November, 1910	8,747
December, 1910	8,662
<b>Total</b>	<b>108,809</b>

Average each issue in 1907	6,627
" " " " 1908	8,695
" " " " 1909	8,970
" " " " 1910	9,067

Sworn detailed statements will be mailed upon application.

### OUR PROTECTIVE POLICY

We want the readers of The Canadian Horticulturist to feel that they can deal with our advertisers with our assurance of the advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber, therefore, have good cause to be dissatisfied with the treatment he receives from any of our advertisers, we will look into the matter and investigate the circumstances fully. Should we find reason, even in the slightest degree, we will discontinue immediately the publication of their advertisements in The Horticulturist. Should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but our reputable advertisers as well. All that is necessary to entitle you to the benefit of this Protective Policy is that you include in all your letters to advertisers the words, "I saw your ad. in The Canadian Horticulturist." Complaints should be made to us as soon as possible after reason for dissatisfaction has been found.

Communications should be addressed.  
THE CANADIAN HORTICULTURIST,  
PETERBORO, ONTARIO.



## EDITORIAL

### A SIGN OF THE TIMES

The announcement that the fruit growers in Durham County, Ont., as well as in several other districts, have formed a co-operative fruit growers' association, and will give careful attention to their orchards and apple pack is a sign of the times. Co-operation is extending in Ontario and throughout Canada. We venture the prediction that more co-operative associations will be launched among our fruit growers during the next three years than have been during the last fifteen, and that a larger proportion of them will prove a success.

The statement has been made frequently that the farmers and fruit growers of Canada are too independent to work together. This has never been true. Were it true it would mean that we are not intelligent enough to see that we can advance our interests best by working unitedly rather than as individuals. The fact is we possess as large a degree of intelligence in these matters as the fruit growers of any other nation. The trouble hitherto has been that conditions in Canada have not been ripe for the launching of co-operative enterprises. Now that railways are opening new stretches of country, population increasing, telephones becoming general in their use, roads being improved and new markets being opened up at distant points the era of co-operation is dawning.

Failures there are bound to be. Hereafter, however, instead of being taken as signs that co-operation cannot be expected to succeed in Canada, they will be searched for the object lessons they teach. Each failure will help other organizations to make greater successes. The favorable reports from Great Britain this year concerning the consignments of apples from the Simcoe and Newcastle Fruit Growers' Associations are only another evidence that the day is here when fruit growers must co-operate before they can attain the greatest measure of success.

### THE BROWN-TAIL MOTH

As the fearful character of the ravages of the Brown-tail and Gipsy Moths in Massachusetts become better known we may well give our warm support to the commendable efforts of the Dominion Department of Agriculture as well as of the Provincial Departments of Agriculture in the Maritime Provinces to prevent these pests from becoming established in our eastern provinces. Ten years ago Massachusetts had the matter well in hand, but the indifference of the public to the danger resulted in a relaxation of the effort to control the pests, and now the state is spending tens of thousands of dollars a year with a greatly lessened prospect of success. In the affected districts of Massachusetts real estate has fallen in value about twenty-five per cent. during the last five years.

The body of the moth is covered with split hairs which are barred like a quill of the porcupine and exude a poison. These hairs, blown on the wind or falling from the trees, as the moth itself very frequently does, on coming in contact with the human flesh, will sometimes poison the system so that the afflicted one has frequently to take to bed. It is becoming known that the Brown-tail Moth has been found in Nova Scotia, and already tourists in writ-

ing to hotels for accommodation, are beginning to ask if the Brown-tail Moth exists in the locality.

This is the time for every possible step to be taken to control this pest and to prevent its further introduction into our eastern provinces. A dollar expended carefully now may save the necessity of spending several thousand dollars a few years hence.

### BRITISH COLUMBIA ENTERPRISE

The Fruit Division of the British Columbia Department of Agriculture is not likely to be accused of lack of enterprise. Last year it had its special representative visit the leading fruit markets of the prairie province during the summer months and report weekly the condition of these markets, the character of the demand likely to prevail during the next few weeks, the style of pack desired and furnish other similar information. These reports proved of great value to the fruit growers of the province.

This year a still more comprehensive system of market reporting is being adopted. Agencies are being established in the principal distributing markets of the west and these will forward regular telegraphic reports to Victoria of local conditions which will be revised and a summary wired to the affiliated fruit growers' associations of the province. In addition a man will be maintained across the United States border to the South who will report on market conditions there, and thereby keep the fruit growers of British Columbia in touch with what their principal rivals to the South are doing. By telegraphing these reports the department expects to save at least five days in the transmission of this news.

While, except in the Niagara District, there is not the same need for such prompt reports here in the east, an effort might well be made to distribute more general information and more promptly in regard to fruit conditions. We now have a variety of reports, but none that are fully satisfactory.

### "A CLEAN-UP HALF-HOLIDAY"

On the editorial page of a recent issue of the Summerland (B.C.) Review appeared the following notice:

"MUNICIPALITY OF SUMMERLAND.

"I hereby proclaim THURSDAY, "May, 18th, 1911, a Civic Holiday, and "call upon all Summerland citizens to "observe the same by participating in "a general clean-up.

JAS. RITCHIE, Reeve."

While the foregoing notice has some amusing features, inasmuch as it leaves us in doubt as to the character of the clean-up needed, and gives reason for us to conclude that the citizens of Summerland must have been in great need of a "clean-up" when a full day off was required to attend to it, it also has its commendable side. In too many of our smaller towns and cities such an annual "clean-up" is needed. The announcing of a public holiday in order that the work might be attended to would not only lead to an improvement in the appearance of the municipality, but also lead the citizens to take a greater interest in maintaining the surroundings of their homes in a more neat and attractive condition.

Last year the experiment was tried in Goderich, Ont., of having the scrapings from the lawns and gardens of the town left in front of the houses on a certain day where they were collected by vehicles sent around by the municipality. It proved a



success. Summerland has set an example which some other municipalities might well imitate, although perhaps a half-holiday might be sufficient for most.

### MOTHERS' DAY

Reports received by THE CANADIAN HORTICULTURIST show that Mothers' Day this year was more widely observed in Canada than ever before. In such leading centres as Montreal, Ottawa, Toronto, and Winnipeg the demand for flowers was so great many florists were bought out and a large number of people who desired to observe the day were disappointed on account of their inability to obtain the flowers. In Toronto especially the ministers seem to have given the movement their hearty support. A number of them preached appropriate sermons and a large proportion of the members of their congregations attended the services wearing white or colored carnations.

The movement has so many commendable features it should continue to grow in public favor. The view is frequently expressed that the young people of to-day do not show the same reverence for their parents that was once common. The growth of our modern cities with all their facilities for gratifying the love of the exciting is blamed to some extent for this condition. Anything, therefore, which will serve to draw the attention of the careless public to all that we owe to our Mothers and lead us to show our appreciation, in a simple yet pleasing manner, should be supported.

The fact, too, that the observance of the day has a strong tendency to create a love for flowers in the minds of thousands of people who otherwise might never purchase a flower for any other reason is to be commended. Buying flowers for the observance of such a custom will be likely to soon develop into a habit of buying them for the celebration of other occasions as well as for their natural beauty. Their cultivation in the home will then follow.

One of our subscribers in Hamilton has called our attention to the fact that the celebration of Mothers' Day, the credit for launching which is generally credited to Miss Anna Jarvis, of Philadelphia, is really a revival of "Mothering" Sunday, as observed for many centuries in the Old Land. On Mothering Sunday, the Mid-Sunday of Lent, it was the practice to go and see one's parents, especially the Mother, taking to them some little present such as a cake or a trinket. A youth engaged in this duty was said to go "a-mothering," and thus the day itself came to be called Mothering Sunday. This custom is one of great antiquity. While she cannot be given credit for originating this practice, Miss Jarvis is entitled to credit for having introduced the use of flowers in connection with it. Next year we feel that the Horticultural Societies throughout Canada should take hold of the movement energetically and lead to its more general observance.

For many years the Montreal Witness has stood for all that was best in daily journalism in Canada. Its rigid adhesion to the highest principles and its refusal to cater to special interests has won for it many friends and made it strong enemies. For years it has been known that it has refused to carry all liquor or questionable advertisements of any kind. Its stand in this respect has generally been admired, but to only a limited few was it known that its action was costing it hundreds of thousands of dollars. It came, therefore, as a shock recently when it was announced by its publishers that for some years the Witness has been losing money steadily,

and that unless its subscribers gave it certain definite support it would have to suspend publication. Readers of the Witness were asked to help double its circulation within a limited period. The response that this appeal has received from one end of Canada to another must be most gratifying to the publishers. Thousands of people throughout Canada are uniting to maintain this excellent publication. Readers of THE CANADIAN HORTICULTURIST who would like to assist may do so by subscribing for the Daily Witness for \$1.00 a year or for the Weekly Witness for 65c. a year as well as by getting their friends to do the same.

### PUBLISHER'S DESK

The illustration on the front cover of this issue of THE CANADIAN HORTICULTURIST is from a photograph taken by G. H. E. Hudson in the strawberry patch and orchards of Mr. Dyman, Upper Flats, Kelowna, B.C. The scene is one that is typical of the fruit districts of that great province. The enthusiasm of the fruit growers of British Columbia concerning their industry and their province is now becoming more general in the other fruit sections of Canada, and this is going to prove to the advantage of all.

\* \* \*

Mention was made in this department last month of the rapid increase of the circulation of THE CANADIAN HORTICULTURIST. This, as might be expected has been due to the increased interest being taken this year in the work of our horticultural societies as well as in fruit and vegetable growing generally. Not only has the number of new subscriptions received to date from individuals shown a marked increase as compared with those obtained during the corresponding period last year but the subscriptions forwarded by various organizations have also shown a large increase. The Ontario Fruit Growers' Association this year has sent us over 1,200 subscriptions as compared with about 900 last year. New horticultural societies have been formed at Berlin, Weston, and other points which have either taken THE CANADIAN HORTICULTURIST for all of their members or have sent us nice lists of subscriptions. Societies which have not taken THE CANADIAN HORTICULTURIST during the last year or so have commenced to take it again, including the London and Walkerville societies. Other societies which have stood by THE CANADIAN HORTICULTURIST for years are sending us larger lists than ever before. All this we find most encouraging. It means that if it will continue but a little longer we will soon be able to still further enlarge and improve THE CANADIAN HORTICULTURIST. We have numerous plans for the betterment of THE CANADIAN HORTICULTURIST, but their introduction depends largely upon the support we receive from our readers.

\* \* \*

The September issue of THE CANADIAN HORTICULTURIST promises to be the largest and best we have ever published. A special design in colors is being prepared for the front cover. It will be a combined Exhibition and Packing Number. Copies of this issue of THE CANADIAN HORTICULTURIST will be distributed at the leading fall exhibitions throughout Canada. Every department of the paper will be unusually strong, and in addition we will have a number of special features. Leading authorities in

Canada will contribute articles dealing with the picking, grading and packing of fruit, and these will be profusely illustrated. The issue will be much enlarged in size. When our readers receive it we expect that they will see how rapidly we are succeeding in our aim to give them a paper, everything considered, second to none of its class on the continent.

\* \* \*

Elsewhere in this issue appears an announcement of our new premium offer. We have just completed arrangements whereby we can offer one of these excellent fountain pens delivered free of cost to anyone sending a list of five new subscriptions to THE CANADIAN HORTICULTURIST taken at 60 cents a year. This pen is guaranteed by the manufacturers, and a copy of the guarantee goes with each pen. Tell the boys and girls about this offer. A fountain pen is just the thing they need for examination time, and they will be glad of this opportunity to get one. The pen is so attractive that anyone will be pleased to own one. See a few of your friends and get them to subscribe. You will be doing them a good turn by getting them in touch with the valuable information contained in THE CANADIAN HORTICULTURIST, you will be helping extend the influence of THE CANADIAN HORTICULTURIST by increasing the number of its subscribers, and you will receive a handsome premium in return for the time spent in securing the subscriptions. If some of your friends are too far away, sit down and write them a short note suggesting that they subscribe to THE CANADIAN HORTICULTURIST. Ask them to enclose your note when sending their subscription to us and we will credit you with the subscription the same as if you sent it yourself. Try it. You will find it easy to get one of these splendid fountain pens.

### SOCIETY NOTES

We invite the officers of Horticultural Societies to send in short, pithy reports of work that would interest members of other Horticultural Societies.

#### Two New Societies

Two strong horticultural societies have been organized at Sudbury and North Bay by Mr. J. Lockie Wilson, Superintendent of Agricultural and Horticultural Societies. Each starts out with a membership of more than a hundred. They have been formed too late to enable them to draw a government grant this year, but they will participate in next year's grant. Mr. J. F. Black, of Sudbury, is the secretary of that society, and Mr. A. C. Casselman, the secretary of the North Bay society. Prof. H. L. Hutt, of the O.A.C., Guelph, gave his illustrated lecture to the members of the North Bay society which was much appreciated.

#### Weston

The Weston Horticultural Society was organized last January with a full list of officers and eighty members. The society arranged to supply the members with some bulbs, and these were distributed a short time ago. The society meets on the second Friday of each month. At the May meeting it was decided to order THE CANADIAN HORTICULTURIST for each member for the balance of the year.

Arrangements are also being made to supply bulbs to the members in the fall. The society will hold an exhibition in the fall, when prizes will be given for the best

kept lawns and for flowers grown by the members. Several of the officers and members are enthusiastic gardeners, and it is expected that the society will increase its membership in Weston, which is sure to be a growing place in the near future.—Joseph Nason.

### Winchester

A horticultural society was formed in Winchester last January, known as the Winchester Horticultural Society. The President is Mr. J. F. Ault. Already the membership is one hundred and four. For this year the society is planning to improve the grounds of the Public and High Schools and the Town Hall and churches by planting trees, shrubs, and flowers, and the streets of the town by planting trees and cutting down all weeds.—James Thomson, secretary.

### Caledonia

This society was organized last year with 52 members. This year we have 75 members. Much private work is being done that hitherto was never accomplished. We are beautifying the town park by planting trees, shrubs, and flower beds in the Town Hall square. The ladies are assisting us, and the society is booming.—A. T. Mitchell, secretary.

### Tillsonburg

The prize lists are being distributed for the fruit and flower exhibition that the Tillsonburg Horticultural Society will hold in the rink on Friday, September 1st. The exhibition will be open from 2 until 5.30 and from 8 until 10.30 p.m. There will be a promenade concert orchestra with good music. The rink is to be brilliantly lighted and decorated, and the ladies of the society will have ice-cream and other refreshments on hand. The admission to

other than members will be 15c and children 10c.

Prizes varying in value from 25c to a dollar are offered for such flowers as asters, begonias in pots, Canterbury bells, candytuft, cannas, carnations, geraniums, fuchsias, dahlias, balsams, any kind of hanging baskets, and many other varieties. The members this year are given their choice of three different options. The secretary is W. W. Livingstone.

### Picton

The Picton society are offering four prizes this year for the best kept lawns. Experience with this form of competition during the past four years has shown it to be productive of much good. Prizes are offered for the best kept lawn and boulevard, where the work is entirely in the hands of the owner or the members of his family and other prizes for where the lawn is kept by either the owner or the tenants of the property or by paid laborers. The prizes will be given for the greatest visible improvement in the premises since last year. The prize winners of other seasons will not be allowed to compete this year.

Members of the society are supplied with THE CANADIAN HORTICULTURIST and with 24 of Groff's Modern Gladioli Bulbs. The secretary has issued a little circular to the members of the society giving instructions as to the best methods of growing this lovely plant.

### Toronto

A free flower show was held by the members of the Toronto Horticultural Society early in May. Arrangements were made for an exhibition of spring flowers such as narcissus, tulips, daffodils, hyacinths, and other spring flowers including some varieties of wild flowers. The object of the ex-

hibition was largely to help those interested with their spring gardening operations, and to show them what to grow. The public was admitted free.

### St. Catharines

The St. Catharines Horticultural Society expects this year to have a membership of over 700. The rapid growth made by this society is due almost entirely to the interest taken by the officers and directors who use every opportunity to interest their friends and acquaintances in becoming members. Only one regular canvasser has been employed, and this person worked only part of the time.

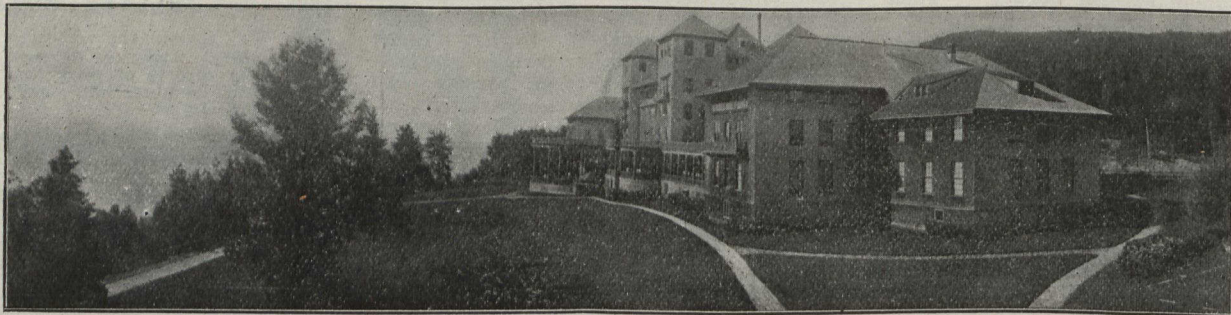
The society this year is distributing aster seeds free to school children of the city, and intends also distributing gladioli bulbs, but making a small charge for them. For each spike or bloom shown at the fall exhibition it is proposed to give the children a number of tulip bulbs.

### Port Hope

W. T. Greenaway, secretary of the Port Hope society, reports that the membership of the society is increasing rapidly. Much more interest is being exhibited in arranging lawns and shrubberies and beautifying the town generally. The influence of the society is shown in the interest taken in civic improvement, laying out of parks, and beautifying of public buildings, schools, etc. The funds are chiefly used in giving a liberal list of premiums.

Henry Foreman, secretary of the Collingwood society, states that the chief work of the society, in co-operation with the Town Council, is the laying out of Victoria Park, and the improvement of parks and squares and the beautifying of the town generally.

## Proves Its Merits In All Climates



Selected NORTHERN GROWN Nursery Stock, supplied from our Nurseries near Montreal, was used in the planting of the grounds shown in the above illustration, at Manor Richelieu, Murray Bay, Que. It has succeeded splendidly, even in this extreme climate. Our hardy stock gives satisfaction under the most exacting conditions. Let us tell you more about it. Send a post card for our finely illustrated catalogue. It is free.

THE CANADIAN NURSERY CO., Ltd., 10 Phillips Place, Montreal, Que. Nurseries—POINTE CLAIRE, Que. A Few Reliable Salesmen Wanted

# SWIFTS' ARSENATE of LEAD

The acknowledged standard in Canada and United States.

The aim of all manufacturers has been to reach the standard of SWIFT'S.

More SWIFT'S ARSENATE OF LEAD is made and sold than that of all other manufacturers combined.

THERE IS A REASON. SWIFT'S ARSENATE OF LEAD carries the highest analysis of Arsenic oxide. It is free from impurities. It mixes readily with water. It sticks and lasts. It positively will not burn foliage.

SWIFT'S ARSENATE OF LEAD is used by nearly every Fruit Growers Association in Ontario, and by the Department of Agriculture.

SWIFT'S ARSENATE OF LEAD combined with NIAGARA LIME-SULPHUR is the spray that gave such wonderful results in this province last year.

All sized packages. Reasonable prices. We can make immediate shipments. ORDER NOW.

Niagara Brand Spray Co., Limited, - Burlington, Ont.

## Fruit Shipments to Glasgow

Reporting to the Dominion Department of Agriculture, Jas. A. Findlay, cargo inspector at Glasgow, has the following to say regarding shipments of Canadian fruit to that port for the year ending March 31st last:

"The Canadian apple trade with Glasgow this season has been of an unsatisfactory nature, the importations being the smallest on record for a considerable number of years; the quality also was disappointing. At moment of writing barely 81,000 barrels and 15,330 cases have arrived, as compared with last year's totals of 312,165 barrels and 31,843 boxes from Ontario and 38,604 barrels and 189 boxes from Nova Scotia. There were no direct shipments this season from Nova Scotia, though a few hundreds arrived in Glasgow via London by rail and coasting steamer.

"This shortage from Canada was partly met by increased arrivals from other sources, but not in sufficient quantities to supply the demand, consequently prices ruled higher on the average for all varieties than during the 1909 season. The shortage mentioned resulted in larger importations of barrel stock from various districts of the United States, viz., Virginia, Maine, and the Western States. The Virginia fruit was of excellent quality; Maine Baldwins very fair, but Western State apples poor in size and quality. Larger quantities of box fruit from California, Oregon, Washington, etc., arrived; the Oregon Newton and Spitz have been of excellent quality and pack and received universal praise.

### CONDITION

"The condition of Canadians on arrival throughout the season was generally very fair; a few parcels among the early sum-

mer fruit arrived over-ripe and towards the end a small percentage indicated frost effects. With these exceptions arrivals were in sound order as a rule. The quality, as stated, was unsatisfactory; the high prices conduced to shipment of somewhat inferior grade and generally the pack was irregular, very few choice parcels of fruit arriving.

"Good winter stock was very scarce; Baldwins generally lacked color. Spys throughout lacked color and keeping quality, and were also scarce. The feature of the Ontario shipments was the pack of the Norfolk fruit growers, several of their shipments being of choice grade and quality. The Newcastle fruit growers also placed one or two good parcels on this market; these with a limited few smaller shippers forwarded reliable fruit.

### BOXES

"The box apple trade in Glasgow is one of increasing dimensions, and this year's trade indicates that Glasgow offers an outlet for a large proportion of high class boxed fruit at all periods of the recognized apple season; boxes containing apples characterized by uniformity of size and color, with skins free from blemish and clean for the variety, fairly bold in size—but not exceedingly so nor irregular in shape so as to be deemed coarse—will return to shippers a much enhanced price over the barrel equivalent.

"The barrel, I presume, will always retain its place as the popular commercial package, but very large quantities of boxes were shipped here from United States districts this season, influenced no doubt by the scarcity of Ontario and Nova Scotia barrel supplies. Buyers are becoming increasingly discriminating regarding value

## PAEONIES

June is the month of Paeony bloom; September is the month for planting Paeonies. We do not sell cut flowers at retail, but any reader of The Canadian Horticulturist who purposes buying Paeonies for planting next September may have specimen blooms, while they last, of any of 40 varieties that we shall offer in our Fall Planting List to be issued 1st of August next—not more than 2 blooms of any variety, correctly named, to any buyer and not less than 10 blooms in any order at 25 cents for 10 blooms, to cover cost of packing and postage. Stems will be about half the usual length. This offer is good until 15th June, and not longer. Postal note with order, please.

## JOHN CAVERS

Douglas Gardens, Oakville, Ont.

Established 1890

Long Distance Telephone M 3102

## H. J. ASH

(Member Toronto Board of Trade)

## WHOLESALE FRUIT MERCHANT

44 Church St., Toronto, Ont.

*SPECIALTY: Fancy Home Grown  
Fruit and Vegetables*

SEND FOR STAMP AND PAD

Get the **PLANET JR. Guaranteed Farm and Garden Implements** and make more money. Write today for 1911 catalogue free.  
**S. L. ALLEN & CO.,**  
Box 1106 G., Philadelphia, Pa

# UNUSUAL PEACHES

WE HAVE A BLOCK OF OVER  
**125,000 PEDIGREED PEACHES**  
FOR THE COMING SEASON'S TRADE

Every one of these trees is propagated from a select bearing tree loaded with ripe peaches when the buds were cut and they are budded on transplanted seedlings. ¶ Such stock must be true to name and the best obtainable. We believe that this block of trees is unique in the fact that not one bud was cut from the nursery row. We cannot sell this stock at low prices. It costs too much to produce, but consider the trees cheap at the reasonable prices at which we offer them. ¶ Every tree is guaranteed. Orders should be sent in at once as over 25,000 are already reserved.

**AUBURN NURSERIES . QUEENSTON, ONT.**

**Best Prices For You** We are in close touch with the best market for all kinds of early vegetables and fruit. We are in a position to realize the best prices for your produce. Send us a trial shipment. Write us to-day for shipping stamp, which we furnish free.

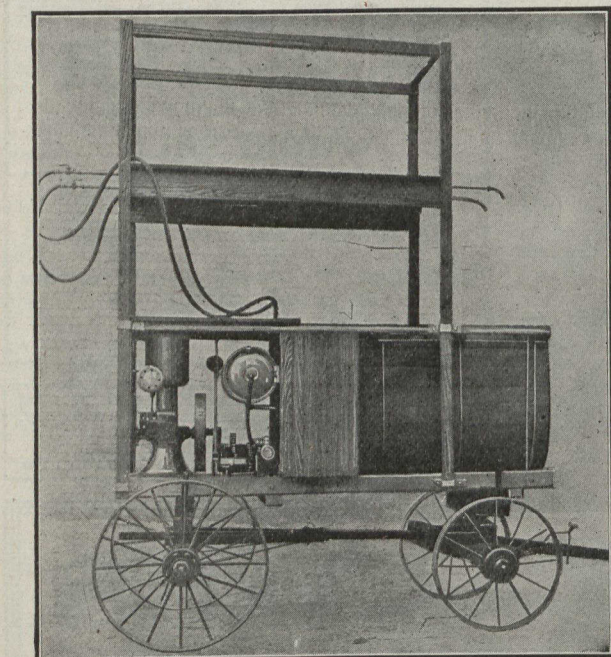
**The Dawson Elliott Co.** Cor. West Market and Colborne Sts., Toronto

**BOXES** HAVE YOU ORDERED YOUR FRUIT BOXES?

We make a specialty of fruit and apple boxes, and are prepared to supply you with any quantity on short notice. Place your orders now for the packing season. Write to-day for prices.

Correspondence solicited for Co-operative Associations

**BARCHARD & CO. Box Manufacturers**  
151 DUKE STREET, - - - TORONTO.



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.

**AGENTS WANTED**  
**HEARD SPRAMOTOR CO.**  
1390 King Street  
LONDON, - ONTARIO

of appearance and if Ontario orchardists are going to capture and retain a portion of this high class box trade, decidedly more scientific care of orchards and more careful selection of fruit in packing is essential. I am satisfied that an increased quantity of boxed Ontario apples can be absorbed here, and it lies with the Ontario packers to cater for the Scotch consumer's eye as well as his palate. The popularity of the King, Spy and Baldwin on this market is admitted on all hands and, granting the excellence of flavor in these varieties, buyers are influenced by uniformity of size, evenness of color and cleanness of skin. The most popular size of Oregon Newton Pippins here is from 96 to 112 apples per 40 pound case, the latter size preferred.

**BRITISH COLUMBIA FRUIT**

"There were direct shipments of 1,653 boxes of apples this season from British Columbia. These arrived in good condition and participated in the high prices ruling. One parcel from Kelowna district, composed of Jonathan, Spitz, Newton Pippin, McIntosh Red, and Grimes Golden, was of excellent quality and condition.

**PEARS**

"The importations of Canadian pears to Glasgow indicate a growing demand, as 7,885 cases and half cases and 69 barrels were imported this year as compared with about 5,000 packages last year. Unless in seasons of very plentiful crops in France and southern England (whence a large proportion of the Glasgow supply comes) increased quantities of pears can be absorbed from Canada. Of the total receipts all, with the exception of 225 packages, were carried in refrigerator round 35 to 38 degrees, and all arrived in good condition, except a few barrels of Anjou, which were decaying.

"The half case package is the favorite package for all varieties except Keiffers, which may safely be packed in the 40 pound box or even in barrels. Very large quantities of Keiffers are marketed here from the United States, the bulk of which are sold to north and north-east coast of England buyers who attend the Glasgow market; and indications point to an increased demand for pears, both of Keiffer and more choice varieties, in coming seasons."

**SPRAY FOR PROFITS**

Big, sound, juicy apples are the only ones that bring big profits.

**VANCO LIME SULPHUR SOLUTION**

means sound fruit that brings the top price. "Vanco" destroys Scale, Scab, Aphid, Mildew. "Vanco" keeps the trees clean and the buds healthy. You couldn't possibly get a greater amount of Sulphur in Solution than you get in the Vanco barrel. It is better in every way than home made mixtures.

**Because it is uniform in strength and quality**

Specific gravity is plainly stencilled on every barrel  
"Vanco" Lime Sulphur and Arsenate of Lead—strongest when you get them and go furthest when using.

Write for prices and free Booklet on Spraying.

**FERTILIZERS—**  
We also sell Nitrate of Soda, Muriate of Potash, Sulphate of Potash and Acid Phosphate.

**Chemical Laboratories Limited**  
128-138 Van Horne Street, Toronto.

**Recent Bulletins**

Valuable bulletins that have reached THE CANADIAN HORTICULTURIST recently include the following: Insects Injurious to Peach Trees in New Jersey, No. 235, issued by the New Jersey Agricultural Experiment Station; Spraying Peaches for the Control of Brown Rot, Scab and Curculio, Farmers' Bulletin 440, issued by the United States Department of Agriculture, Washington; Planting the Commercial Orchard Bulletin 201, by the University of Wisconsin, Madison, Wisconsin; Some Insects and Mites Attacking the Peach in Colorado and Two Plant Lice of the Peach, Bulletin 169; Thinning the Winesap and Winter and Frost Injuries of Fruit Trees, Bulletin 170; The Colorado Raspberry Industry, Bulletin No. 171; Notes on a Dryland Orchard, Bulletin 173; and the Potato Industry in Colorado, Bulletin 175—all published by the Experiment Station, Fort Collins, Col.; The Potato Eelworm, Bulletin 76, University of Nevada Reno, Nev.; and Orchard and Garden Spraying, Bulletin 121, University Farm, St. Paul, Minn.

Your splendidly selected articles on orcharding are most encouraging and educative.—W. G. L. Spaulding, Toronto.

## GRASSELLI ARSENATE OF LEAD

Arsenate of Lead is being used more and more in the fruit centres of the province of Ontario. The question that interests every fruit grower is this:

**Is there Difference in Arsenates of Lead?**

**Yes. There is a big difference.**

Let us suggest some points which we believe every grower should consider before placing an order for Arsenate of Lead:

**1st.** You wish an Arsenate of Lead that will not burn the foliage.

**2nd.** It is desirable that an Arsenate of Lead mix readily, yet retain its adhesive qualities.

**3rd.** An Arsenate of Lead should contain the proper killing power.

**Grasselli** Arsenate of Lead contains no free acids or adulterant ingredients, contains a very low per cent. soluble Arsenic, and we have yet to learn of a case where it has burned the foliage, even though it may have been used double strength. It will mix readily and has a reputation for **adhesiveness** and **high killing power**.

**Grasselli** Arsenate of Lead has been used in the Niagara, Oshawa, Picton, Wellington and other districts for the past several seasons, and with every success.

Write us for prices.

For Sale by **ROBERT THOMPSON, President**

**St. Catharines Cold Storage and Forwarding Co.**  
St. Catharines, Ontario

**THE GRASSELLI CHEMICAL COMPANY**  
CLEVELAND, OHIO

## SELL YOUR FRUIT AT THE BEST PRICE

☐ Good Boxes do not necessarily mean good fruit, but poor boxes always mean poor fruit. Place your fruit on the market in the best selling condition possible, by using the best boxes obtainable.

☐ Hundreds of progressive fruit packers use our boxes. They recognize their money-making value in helping to place their fruit before the buyer under the most favorable selling conditions.

☐ **FRUIT BOXES** of every description are a specialty with us. Write for prices.

**The Firstbrook Box Co.**  
TORONTO, ONT. LIMITED

# VERMOREL

MANUFACTURER AT  
VILLEFRANCHE, FRANCE

Sole Agents for Canada:  
**De VIGAN & Du LAILLANT**  
60 St. Gabriel, MONTREAL, QUE.



**Vermorel's Sprayer**  
\$12.00

Our Sprayer is entirely made of Red Copper, and will last a lifetime

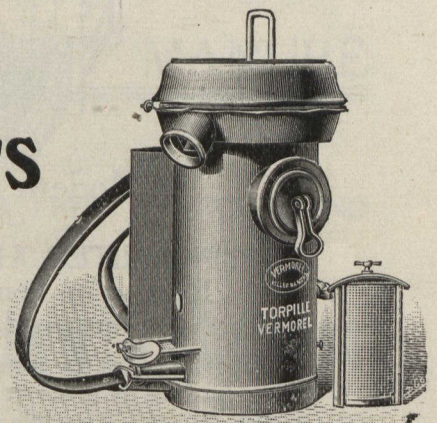
## Sprayers, Sulfur Dusters

France is undoubtedly the first country in the world for growing  
**Fruits and Grapes**

VERMOREL Machines are the Standard in France

Now is the season to buy a VERMOREL Machine and be sure to get a good crop

Insist on getting the name of "Villefranche" on each Machine. It is the only genuine



**Vermorel Sulfur Duster No. 1, \$10.00**

**With Double Action**  
\$12.00

Our Dusters will make the work of a dozen hand blowers and do it better. Try it!

## BEZZO'S FAMOUS PRIZE ASTERS

Prize at New York State Fair, September, 1910

Vick's Violet King, Mikado White, Mikado (Rochester) Pink, Vick's Early Branching, Rose and White, 20c per dozen, \$1.00 per hundred.

Vick's Branching Pink, White, Rose, Lavender Semple's Pink, Royal Purple, Daybreak and Purity, truly the aristocrats of the aster family; 15c per doz., 75c per hundred; packed and labeled separately in wet moss. All plants sent by express and guaranteed to arrive in good condition. Express prepaid on orders over \$2.00. Remit by money order.

C. MORTIMER BEZZO,

BERLIN, ONTARIO

## The Commercial Review

OF VANCOUVER, B. C.

Will publish a Special Copyrighted  
Article in the Issue of May 20th, on

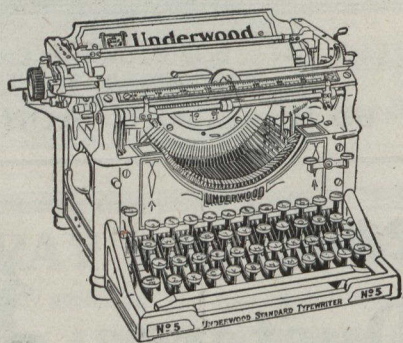
### "The Timber Lands of British Columbia from a Commercial Standpoint."

To those interested in B.C. Timber a copy will be  
sent on request, as long as the supply lasts

## The Commercial Review

543 Hastings Street, - VANCOUVER, B. C.

### Some History about *Typewriters*



### Modern and Ancient

CHAPTER I

**T**YPEWRITER HISTORY is making fast.  
Real action commenced 14 years ago---  
with the Underwood.

**F**OR 20 years the typewriter has been evolving and  
finding its place in business.

**T**HE Underwood was the first present-day typewriter. It was  
radical. It violated all old-time ideas about typewriter construction.

**I**N the face of sneers, jibes, ridicule, and opposition from other  
makers it gave the public the first writing-in-sight typewriter.

**T**HE Public applauded---and bought. Naturally they preferred  
to see what they wrote as they wrote it.

**H**ERETOFORE typewriters had been built on the simplest plan  
mechanically, but up-side-down with the writing out of sight.  
It was time for something better.

United Typewriter Co.  
Limited  
TORONTO

### Returns from one Crab Apple Tree

Miss Stewart, near Homer, Lincoln Co., Ont., had one crab apple tree in her garden which received no particular care, but gave a net return in 1910 of \$25.80. If the real estate men who have acreage for sale in Lincoln county would emulate the methods of Oregon or British Columbia real estate men, there would be a photograph of this tree, together with a photograph of the loaded wagons that took the fruit to the station, all duly certified to as being just what could be done on this particular property which was being offered for sale. Great is the possibility of advertising!

### Successful Market Gardener

Mr. F. Williams, proprietor of the Rideau Gardens, Ottawa, has a property of forty acres in the suburbs of the city all used as a market garden. He is a large asparagus grower, having ten acres devoted to this crop; he has also five acres in strawberries. His crop of cauliflower for the past year consisted of between forty and fifty thousand. He grows a large amount of celery between 125,000 to 150,000 bunches, the larger quantity being of the Golden self blanching variety, the remainder being winter celery. Last winter he stored almost his entire crop for winter sale, and made good profit. He has been known for forty years as a successful melon raiser. He has one thousand sash that is used in the production of Montreal nutmeg melons and also raises a large quantity of field melons. The above crops along with early tomatoes and other varieties of vegetables tend to keep his time fully occupied during the growing season.

Mr. Williams also has a large greenhouse plant with storage and boiler pit in connection. There are two modern houses one hundred and seventy-six feet by thirty feet each. Also one of the same length forty feet wide, with sash roof. One of the best houses is devoted to the growth of potted plants. The other two being used exclusively for the growing of vegetables. Tomatoes are raised during the latter part of the summer and the crop is sold immediately following the finishing up of the outdoor crop. After the tomato crop is over the houses are devoted to lettuce for the remainder of the season. The total crop of lettuce amounts to one hundred and fifty thousand plants. Mr. Williams gives his method of lettuce culture as follows:

#### LETTUCE GROWING

I sow the seeds in flats or in the benches, and when the first true leaves appear prick them out and transplant into rows two and a half inches apart and one-half inch apart in rows. As soon as they grow sufficiently to make good sturdy plants, they are transplanted into the permanent beds six inches apart each way. I keep sowing seed every few days so that I shall have plenty of seedling plants, so that if anything should happen to one batch there would be others ready. It is a mistake many make not to have a sufficient number of plants. So to be on the safe side sow plenty of seed.

#### SOIL

The soil should be a light sandy loam, of a coarse sharp nature, made as rich as possible. I depend almost entirely on stable manure. Sometimes if plants are not making sufficient growth I use a little nitrate of soda, and after the first crop

## Fertilize Your Lands

### DO YOU KNOW

THAT WORN-OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER?

NOW IF YOU HAVE A PIECE OF LAND THAT WONT GROW ANYTHING BUT WEEDS, TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER

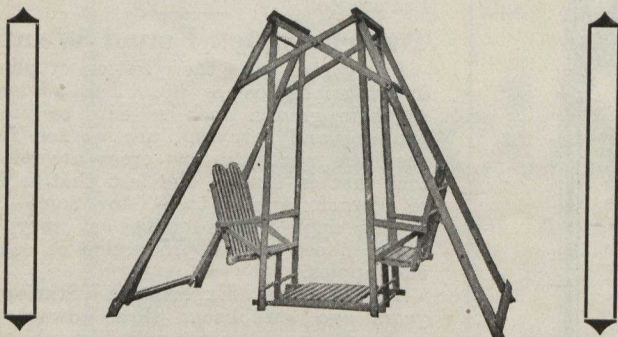
WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE SO YOUR LAND WILL PAY

CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED AGENTS WANTED FOR TERRITORY NOT TAKEN UP  
 THE W.A. FREEMAN CO. LIMITED  
 HAMILTON ONTARIO



IN THE MANUFACTURE OF  
**GOURLAY PIANOS**  
 NO LIMITATION OF COST  
 HINDERS ACHIEVEMENT.  
*FIRST WE BUILD AN  
 IDEAL PIANO,  
 THEN WE RECKON  
 THE COST.*  
 GOURLAY, WINTER & LEEMING,  
 188 YONGE STREET,  
 TORONTO

## Happy Out Door Hours Are Spent in the STRATFORD LAWN SWING



Fine for the youngsters and a source of enjoyment for the grown-ups too. Just the thing for your lawn or garden.

Inexpensive and certainly a pleasurable possession,—helps you to get the best of a summer's outdoor comfort

Made in three sizes at three prices. Built solid and strong in neat design and handsome finish.

If your dealer does not handle the "Stratford" write us for catalog F. It tells all about Summer Furniture.

**The Stratford Mfg. Co., Limited**  
 STRATFORD, CANADA

## GOOD CROPS

ARE OBTAINED BY USING

### THE BEST MANURE

AS SUPPLIED TO  
 NURSERIES, FRUIT GROWERS AND  
 GARDENERS

### SURE GROWTH COMPOST

makes poor land fertile, and keeps fertile land most productive. Supplied by

**S. W. MARCHMENT**

133 VICTORIA ST., TORONTO

Telephones : Main 2841

Residence Park 951

Mention The Canadian Horticulturist when writing

## Poultry Fencing that is Stronger than Seems Necessary

We make our poultry fencing close enough to turn small fowl—then we make it extra strong, so it will last for years and keep the cattle out. The heavy, hard steel top and bottom wires hold it taut and prevent it from sagging.

### PEERLESS POULTRY FENCE SAVES EXPENSE

It is well galvanized so as to protect it from rust. It makes such a firm, upstanding fence that it requires less than half the posts needed for the ordinary poultry fence, and that means a big saving to you. Write for particulars.

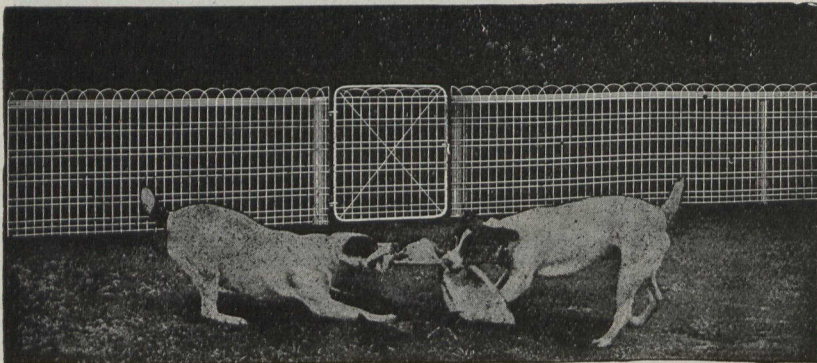
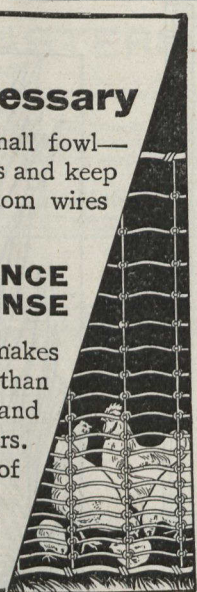
We make farm and ornamental fences and gates of exceptional quality. Agents wanted where not now represented.

**The Banwell Hoxie Wire Fence Co., Ltd.**

Dept. O,

Winnipeg, Man.

Hamilton, Ont.



A fence of this kind only 16 to 23c. per running foot. Shipped in rolls. Anyone can put it on the posts without special tools. We were the originators of this fence. Have sold hundreds of miles for enclosing parks, lawns, gardens, cemeteries, churches, station grounds, etc., etc. Supplied in any lengths desired, and painted either white or green. Also, Farm Fences and Gates, Netting, Baskets, Mats, Fence Tools, etc., etc. Ask for our 1911 catalog, the most complete fence catalog ever published.

### THE PAGE WIRE FENCE CO., LTD., Walkerville, Ont.

Branches—Toronto, Cor. King and Atlantic Ave. Montreal, 505-517 Notre Dame St. W. St. John, 37 Dock St. The largest fence and gate manufacturers in Canada. 507

## VANCO LEAD ARSENATE

Kills Codling Moth and Leaf-eating insects every time.

VANCO contains a guaranteed amount of Arsenic Oxide. Simply mix VANCO LEAD ARSENATE with water and you have a spray that is sure death to Codling Moths, Potato Bugs, Cabbage Worms, Asparagus Beetle and all other leaf-eating insects.

Easy to spray—will stand two or three rains without washing off—and will not burn the foliage.

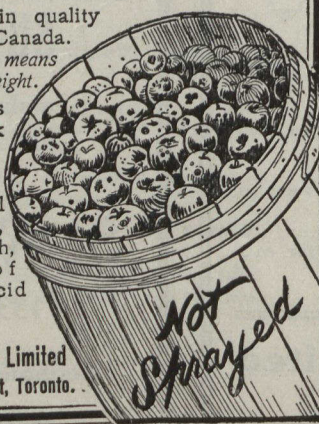
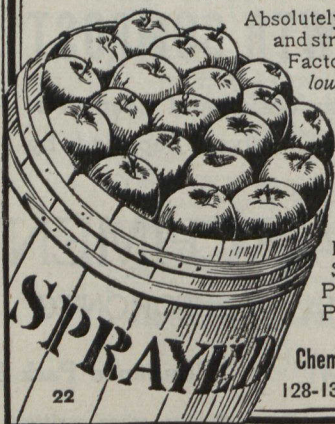
Absolutely guaranteed in quality and strength. Made in Canada. Factory near at hand, means low prices and less freight.

Write for prices and free book on spraying.

#### FERTILIZERS—

We also sell Nitrate of Soda, Muriate of Potash, Sulphate of Potash and Acid Phosphate.

Chemical Laboratories Limited  
128-138 Van Horne Street, Toronto.



has been taken off if ground is not very rich I use a high grade commercial fertilizer, but if the land is in good condition it will carry the lettuce through without further fertilizing. It takes on the average about twelve weeks to make lettuce from the seed to the market head. The proper soil is most important. It should be of a sharp, open nature, and if not so naturally, should be made so by the addition of manure and coarse sand.

It is also necessary to have good bottom drainage, otherwise the constant watering will make the ground soggy. If not naturally well drained, tile or stone should be put in and the bottom of beds filled in with porous material as coarse gravel. The temperature should be kept at about forty-eight to fifty for night and sixty for day temperature. I prefer the Grand Rapids variety as the best for winter forcing.

### Melon Crates

J. L. Hilborn, Leamington, Ont.

I have been growing from six to ten acres of musk melons annually for some twelve years, and have used many different sizes and styles of packages. I now prefer the slatted crate, 12 by 12 by 20 inches, for general use, I had 2,000 of these made up last winter, but on account of the hail storm of August 10th destroying most of our crop will not require half of them this season.

We formerly used a much larger crate, but experiments proved that express handlers broke many melons by rough handling. Since adopting this crate we are using now, we have much less complaint of broken melons.

We like this crate for any size of melon that we grow, but there is a growing tendency to use baskets for the smaller varieties of melons, using the ordinary 11 quart fruit basket for the smallest melons, also for the large ones and the 16 quart melon basket for the medium sized ones.

The best growers here are now turning their attention more and more to the growing of the smaller and better quality of melons. These are likely to be much more grown in the future than in the past in this locality. The smaller ones sell well in baskets.—J. L. Hilborn, Leamington.

### Dwarf Apples Found Wanting

Every few years the question of planting dwarf apples comes up. The advantages of their growth such as ease of picking, pruning and spraying, are worked for all they are worth, a few trees are planted, and that is usually the last that is heard of dwarf apple trees for some time. Dwarf apple trees occupy a very small place indeed in the production of commercial apples.

The Geneva Experiment Station six years ago established three dwarf apple orchards in different parts of the state. Prof. Hedrichs, the horticulturist, makes the statement that the dwarf orchard holds out no promise of being a feeder in commercial apple growing. Though, as he says, a few trees may be of use in the suburban home garden.

I received the fountain pen in good condition that you sent to me as a premium for securing two new subscriptions to THE CANADIAN HORTICULTURIST. I did not solicit the subscriptions merely to get the pen, but in order that others might be benefited by the useful information that THE CANADIAN HORTICULTURIST gives. Every gardener should take your publication as it will help him out of many difficulties.—W. T. Pulley, Wentworth Co., Ont.



**PROVINCIAL NOTES**

**Annapolis Valley West N. S.**

*R. J. Messenger, Bridgetown.*

Everything points to a banner crop of apples in the Annapolis Valley. Though the trees grew late last fall the first part of the winter was so mild the season's growth was well ripened before the severe weather of February and March.

At this writing, May 15th, the buds are well opened and the pink of the blossoms of the early varieties beginning to show.

There will certainly be a full bloom, and if the weather during pollination is favorable we should have a good set of fruit.

Nova Scotia orchardists are just beginning to wake up to the value of their position and opportunities. Trees are being set out in greater quantities than ever. The feeling that our province should lead the world in the production of prime apples is growing and we are not satisfied with a second place.

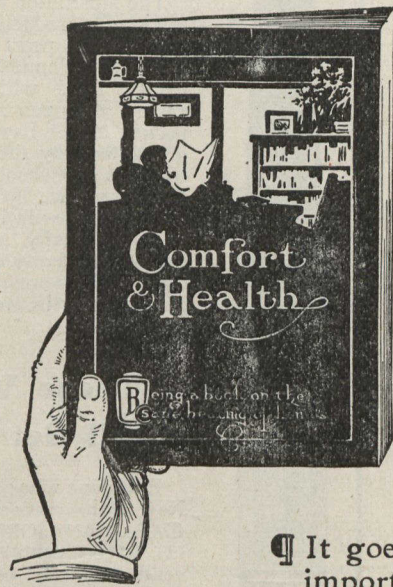
Lime-sulphur and arsenate of lead are the popular spray materials this year. Gasoline engines and power pumps are replacing the hand pumps. We hope to have a director appointed and real work begun on our recently purchased experiment station at Kentville this summer.

**Eastern Annapolis Valley N. S.**

*Eunice Buchanan, A.R.H.S.*

After a protracted spring, with the frost slowly coming out of the ground and snow lingering on the hills, the weather has turned warm, and in the second week of May the apple trees have suddenly leaped out. There is every prospect of a large crop of all kinds of fruit.

The spring work seems more rushed than usual, owing to the long winter. For this reason some orchardists were too lousy to put on the first dormant spray, but the second application will go on about the third week in May. Lime-sulphur is all the rage, and power sprayers are becoming fashionable.



**IF YOU HAVE A HEATING PROBLEM TO SOLVE, GET THIS BOOKLET**

**IT TELLS ABOUT THE SANE HEATING OF HOMES**

“Comfort & Health” tells about a heating system.

It goes into the question of healthful heating and shows how important a part the furnace plays in the health of your family.

It explains the principle of warm air heating; how the furnace draws in fresh air, warms it and circulates it moist and pure to every room in the house.

Then it tells about the perfect warm air

furnace—the “Hecla.” The furnace that cannot leak gas. The furnace that gives heat without dust. The furnace that is easy to run, and what is most important, how that furnace—The “Hecla”—saves you one ton of coal in seven.

**“Hecla” Furnace**

**CANNOT LEAK GAS**

Gas in the house is disagreeable. Often it proves dangerous to the health. The “Hecla” is so constructed that gas cannot get into the living rooms. The places where gas leaks occur in the ordinary furnace are fused in the “Hecla” so that gas cannot possibly find an outlet. These fused joints are made by welding the parts at a white

heat and have proven absolutely gas and dust proof even after 20 years of service.

**SAVES 1 TON IN 7**

The “Hecla” uses only six tons of coal where others use seven. It is the steel ribbed fire pot that makes this saving. All fire pots have corrugations or cast iron flanges to increase the radiating surface of the fire pot, but on the “Hecla”

these flanges are of steel plate placed close together and welded into the fire pot. Three times the ordinary radiating surface is thus obtained and by actual test a saving of 13 3/8% in coal is effected.

**INVESTIGATE THE “HECLA”**

Get the Booklet “Comfort & Health.” It is yours for the asking.

**CLARE BROS. & CO., LIMITED, . . . PRESTON, Ont.**

**PLANS**

Send a rough diagram of your house and we will send complete plans and estimates for heating it.

**FREE**

Send for 75th Anniversary Catalog FREE

**MODERN GARDENING**

Our No. 1 Wheel Hoe provides a way to plow, harrow, cultivate and weed your garden without taking valuable time from other work. With this tool a boy can take care of a big garden, providing fresh vegetables all summer. A wonderful time and labor saver for only \$7.90. Other tools \$2.50 up.

**IRON AGE Farm and Garden Tools**

Why try to get along the old way when you can buy these light, durable, handy tools? Write for Anniversary Catalog showing entire line, including potato machinery, etc.

75 YEARS IN BUSINESS

BATEMAN MFG CO.  
Box 5161  
Greentech, N. J.

No. 1 Double or Single Wheel Hoe



"Stocks carried at many convenient points. Ask for address of nearest Canadian agency."

**THE STRATFORD EXTENSION LADDER**

It is the safest and best on the market. Fitted with automatic hooks that lock at every rung and unlock between the rungs

It is **LIGHT, STRONG EASILY OPERATED AND DURABLE**

IF Interested write for Catalogue F

**THE Stratford Mfg. Co. Limited**

**STRATFORD, CANADA**

Makers of Ladders for every conceivable purpose



**Aphine**

The Insecticide that kills plant lice of every species

You can depend on it for positive results, without fear of failure or dissatisfaction. It destroys green, black and white fly, red spider, thrip, mealy bug, brown and white scale without the slightest injury to the tenderest flower or foliage.

**FUNGINE**

An infallible remedy for mildew, rust and other fungous diseases. A clean, safe and easily applied spraying material, particularly adapted for the greenhouse. —FOR SALE BY—

**Dupuy & Ferguson**

38 Jacques-Cartier Square, MONTREAL, Can.

Send for Descriptive Circular.

Manufactured by APHINE MANUFACTURING CO., Madison, N. J., U. S. A.

Root grafts, which have been stored in sawdust are now being planted in the field. The demand for fruit trees is larger than ever: the largest fruit grower in Berwick has planted seven thousand young trees, while nearly all the leading farmers are adding to their orchards.

Peas which were planted early in April rotted in the ground, but those planted after the last snowstorm in the third week of April are doing well. Many people lost their house plants, and several garden plants were winter killed.

Nitrate of Soda, dried blood, basic slag, bone meal, and other fertilizers are being applied. Vetches have been sown as cover crops.

**Quebec**

The Pomological Society of the Province of Quebec is planning to encourage the apple-growing industry by the establishment of experimental orchards. A committee of the society having charge of the scheme have completed arrangements by which four experimental orchards will be established in the province. The Department of Agriculture at Quebec will grant \$800 to each of these on condition that a co-operative fruit growers' association is formed in the district, and the money is to be expended in pruning, fertilizing, and spraying operations in the orchards selected for the purpose.

At Ste. Hilaire and Abbotsford, organization has been effected through the efforts of Prof. S. B. Blair, of Macdonald College, and Mr. Reid of Chateaugay. Efforts are now being made to interest the farmers in the Covey Hill and St. Joseph du Lac districts to form similar associations. At each point Fameuse orchards of eighty trees will be selected and tests made with different fertilizers and spraying mixtures to determine their value. Two men will be appointed by the Pomological Society to superintend the work and report results. Owners of the orchards will be guaranteed against any loss on the trees under treatment and all gain in increased yield goes to them.

The society is encouraging the enforcement of the new provincial law, which forbids the spraying of fruit trees with arsenical mixtures when in bloom.

**Montreal**

E. H. Wartman, Dominion Fruit Inspector.

Still the big sales of fruit continue. On May 8th, eight cars of bananas arrived, representing 3,300 bunches, which would make if placed end to end touching, a string two miles long. The stalks if piled would equal several cords of wood.

On May 11 three cars of North Caronna strawberries arrived. The best quality sold by auction for 20c. a box by the crate. This day's sale of this class of fruit alone amounted to over \$3,000. Even of this amount of berries, however, how few people got a taste! To supply each family in a city like Montreal with a box of berries would take 28 car loads.

The crate the North Carolinians ship their berries in is a very complete one; four layers of eight boxes each making a convenient parcel to handle. These when shipped in good order, carry well to our market after several days in transit. I consider our wholesale fruit men who tackle full cars of these perishable berries are heroes in the trade—as these berries are bought for cash at the station, and it is not an uncommon thing for a car to be a day late, which sometimes means a \$300 loss.

Some buyers have said many crates of

**This Handsome Fountain Pen**

**For You**

Every reader of The Canadian Horticulturist may have one of these handsome, high grade Fountain Pens. Do You Want One?



The illustration is an exact full size reproduction of this pen. It is pearl mounted, with two handsome gold bands, filled with a solid 14 kt. gold pen and safety pocket clip. Every pen is guaranteed by the manufacturer to give absolutely satisfactory service in every particular, and will be replaced or satisfactorily adjusted in the event of any dissatisfaction within one year. A guarantee certificate goes with each pen.

**Those Who Will Get One**

Everyone who secures **Five New Subscriptions** to THE CANADIAN HORTICULTURIST at 60 cents each, and sends them to us together with the \$3.00, will get one of these pens by return mail. There are at least five of your neighbours or acquaintances who would like to take a paper such as THE CANADIAN HORTICULTURIST if you were to suggest it to them, and tell them about the helpful information it contains. You will feel well repaid for the short time spent when you receive this handsome pen. Why not see some of your friends to-day?

**The Boys and Girls would be tickled to earn one of these Pens. Tell them about this Offer.**

**THE CANADIAN HORTICULTURIST**  
PETERBORO - ONTARIO



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Two Kinds: {1—For Rats and Mice, 2—For Roaches and Bed Bugs,

25c.—50c. and \$1.00. All dealers or Common Sense Mfg. Co. 381 Queen St. W. Toronto.

berries have been dishonestly crated. I candidly say that I have found many crates in which the bottom berries were far superior to those on the top. The man who buys these crates cheap finds no fault, but when he gets a crate a little misrepresented on top so he cannot make a five cent per box profit, he makes a terrible howl.

It is not easy for a man to get rich raising strawberries at six cents a box, after paying for cultivation, picking, and other expenses. The man, however, who just turns the boxes over for five cents a box profit, seems hurt if he has to sell a few boxes at cost once in a while. Again, the man who buys berries at a reasonable price and expects a big profit by holding them for high prices to get this big profit checks sales, and berries spoil. Who then is to blame but himself, and not the man who sells them.

**Niagara District Notes**

The Loom throughout the Niagara District, especially on apple trees in most districts and peach trees, has been most encouraging. There is more enthusiasm among the fruit growers of this district than ever before. New moves of one kind and another intended to advance the interests of the section are being made in all directions. The future of this great fruit district becomes brighter every day.

Arrangements for the erection of a \$50,000 cooling plant at Winona are being made by Mr. L. A. Roy, of Chicago. A cooling system will be used by which fruits and perishable goods can be cooled quickly and much more satisfactorily than by the old system. Several meetings of the local growers have been held. It is claimed that car cooling saves handling fruit, and that as much can be cooled in four or five hours by this method as in two or three days by the storage system. Mr. Roy states that strawberries have been sent from the Pacific to the Atlantic in perfect condition, and that seventy thousand carloads of fruit and vegetables are sent out of the south every year now, under this system. A whole train of cars may be run under a shed and the cooling process accomplished in half the time required by the icing method. The cost is placed at \$25.00 per car. The Southern Pacific Railway Co. is said to have over a million and a half dollars invested in these plants.

There was a considerable drought throughout this district for several weeks. Some of the growers were becoming alarmed, but recent showers have altered conditions greatly.

In the Jordan District new orchards and berry patches are being set out in large numbers. Land that only recently was uncultivated has been transformed. It is estimated that many hundreds of acres have been brought into cultivation. Large farms are being broken up into smaller ones and the value of the land is steadily increasing.

**British Columbia**

Three years ago it was said that the C.P.R. was preparing to handle an annual output of 1,200 cars of fruit from the Okanagan valley by 1911. When the statement was made it was received with scoffing by some, doubt by many, hesitancy even by those most enthusiastic over the capabilities of the favored district.

In the light of developments in 1910, the strong probability is that the Canadian Pacific will have to provide transportation for more than 1,200 cars of fruit from the Okanagan valley in 1911.

From Vernon and Okanagan Lake points the grand total of fruit for the 1910 crops

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**Orchard Disc Harrows**

REVERSIBLE To throw the dirt to or from the trees or vines.	ADJUSTABLE Gangs can be adjusted as required. Extension can be furnished for working under branches.
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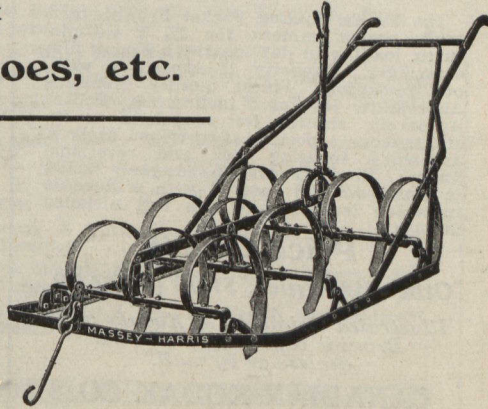
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 Both Walking and Riding Plows especially built for Orchard and Vineyard work

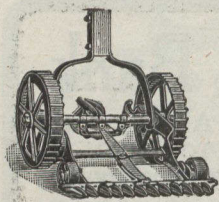
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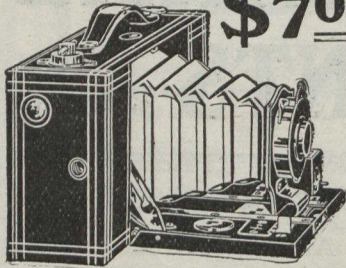
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The No. 2a Folding Pocket Brownie is a truly pocket camera for 2 1/4 x 4 1/4 pictures, loading in daylight with Kodak film cartridges. Capacity 12 exposures without reloading. Finest quality Meniscus Achromatic lens of 5 inch focus. Pocket Automatic shutter for snapshots or instantaneous exposures, two tripod sockets, automatic focusing lock and reversible finder. Honestly and handsomely made in every detail. Covered with a durable imitation leather, and has full nicked fittings.

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Other Brownies, \$1.00 to \$12.00

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was approximately 536 cars. Of this total, it is estimated that there were 10 cars of small fruits, principally cherries, with a few strawberries and raspberries. Plums and prunes approximated 44 cars, apricots 7 cars, crab apples 36 cars, pears 18 cars.

PEACHES 77 CARS

The peach crop returned a total of 77 cars approximately. This total includes as well as the actual exports from the valley, the surprising quantity of 110 tons put up by three canneries, Kelowna, Peachland, and Summerland.

To the Big Red Apple of the Okanagan, however, must be given place of honor, for the total export production is closely estimated by the experts engaged directly in the supervision and handling of the shipments, at 344 cars, much the largest return on record, and due in large degree to much of the acreage of young plantations now first beginning to yield an appreciable quantity.

VEGETABLES

There is to be added to the export business from the Okanagan Valley the very large total of 386 cars of vegetables and other produce (excluding hay) for the 1910 season.

The grand total, estimated for the Okanagan Lake points and Vernon is approximately 925 to 930 car loads, or very close to 1,000 cars. Considering these totals, it is readily seen that the estimate of 1,200 car loads for 1911 may very easily be reached and passed.

### Prompt Market Reports

The British Columbia provincial government is taking steps for a most comprehensive system of market reporting for the benefit of the fruit growers this season. Last summer, L. A. Metcalfe, the government's market commissioner, was alone in the field, and his reports to Victoria were distributed throughout the fruit districts by mail. This season the government has promised to have agencies in the principal distributing markets of the prairie and from the telegraphic reports sent to Victoria bulletins will be wired out of the affiliated fruit associations.

This will cut at least five days from the time required to get market information to originating points for fruit and will, in fact, keep the associations posted within twenty-four hours of the actual market. In addition, one agent will be maintained in the competitive valleys just across the United States border to advise on market conditions there, for with reciprocity looming up, it is considered to be important to keep in close touch with United States conditions, methods and organizations.

The fruit growers of Durham county held a meeting at Newcastle, Ont., on May 15th, and formed The Durham Co-operative Fruit Growers' Association. The following officers were elected: President, G. H. Martyn; Vice-President, Dr. H. C. Leslie; Secretary-Treasurer and Manager, W. J. Oke; Directors, A. G. Maybee, J. A. Rae, B. F. Peters, R. A. Westington, A. J. Runnalls, W. H. Symons, M. G. Welch, M. Osborne, W. A. Meadows. It was decided to admit no members who would not take good care of their orchards by pruning and spraying and who would not agree to pack apples of the highest quality, above rather than below the required standard. Mr. P. J. Carey, Dominion Fruit Inspector, and R. S. Duncan, of the Ontario Department of Agriculture, assisted in the work of organization.

Any little girl can do the churning with

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It makes the smoothest, richest, most delicious butter you ever tasted.

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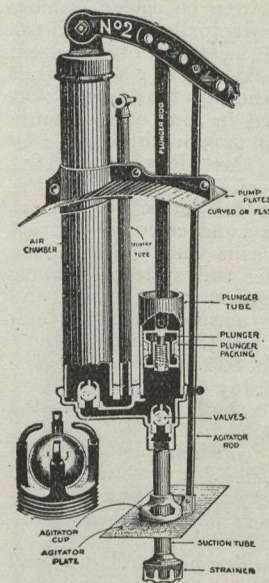
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Write for catalogue if your dealer does not handle this churn and Maxwell's "Champion" Washer.

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**POULTRY DEPT.**

**Care for the Chickens**

Jos. Shakespeare, England

The lice-infected brood hen is at the root of more sickness among chickens than all other things put together. The nest and the sitter may be treated for lice before the eggs are set, but, as often as not, the latter is neglected at the time the eggs are due to hatch, with the result that no sooner do the chicks enter the world than they begin to cater for the lice that become attached to them and feed upon them by drawing from them their very vitality. In a little while the chicks become bloodless, refuse to take food, droop their wings, and present a ruffled and dejected appearance, and if they are the produce of eggs secured from specialist breeders, such breeders generally get the blame in the form of abusive letters relating to lack of vitality on the part of their stock birds.

The same remarks to a very great extent apply to chicks placed in unclean brooders. Thousands of chicks annually succumb to the ravages of insect vermin through being placed in brooders that have received no overhauling prior to being tenanted. If the brooder is cleansed, disinfected, lime-washed and thoroughly dried before the chicks enter it, lice may not be troublesome, but if the structure has been lying idle since the previous rearing season, and is put into use without due regard being paid to its interior condition, it is likely that its inmates will soon be infested with insect pests. Whether chicks are to be artificially or naturally brooded, the hens, brood coops, brooders, and the chickens themselves should be thoroughly treated for lice before rearing operations begin. Once give the chicks a clean start in life and you give them a strong safeguard against illness. Once let them become debilitated through the ravages of lice and you fit them for the reception of disease.

**Canadian Fruit Crop Conditions**

THE fruit crop report covering Canada of the Dairy and Cold Storage Commissioner's Branch of the Dominion Department of Agriculture, issued under date of May 15, states that no losses in Eastern Canada have been reported from winter killing, except in the case of strawberries, and then only from limited areas. The losses reported have been less than for several years. For a number of winters, even when the conditions did not appear to be unfavorable, fairly serious losses from winter killing have been reported. This was accounted for by the injuries which the trees received during the cold series from 1899 to 1904. Apparently normal conditions have been restored, and Canadian orchards are again strong and vigorous. The snowfall was not excessive anywhere, and the orchards have escaped the ordinary sleet storms that nearly always prevail in one section or another.

**SPRING WEATHER**

The spring of 1911 is reported somewhat backward, but not excessively so; and in most cases the fruit growers report that this tardiness has been a positive advantage as it is likely to prevent losses from late frosts. Fairly heavy frosts were prevalent the first week in May, but no serious dam-

age was reported. The latest reports indicate that rain is now needed in Eastern Canada. In British Columbia serious damage to the peach and cherry crop is reported as the result of frost.

**APPLES**

The prospects for Bloom this year are excellent. It is too early, of course, to speak except as to the show in bud. The wood growth and bud development during the summer and fall of 1910 was excellent, and close observers predict an excellent show of blossoms, if there are no unfavorable conditions later in May.

In the counties north of Lake Erie all varieties are reported in good condition, with every prospect up to date of a good crop. Doubt is expressed only in the case of Spies, possibly because these bore fairly well last year.

In 1909 a heavy crop was grown in the counties along Lake Huron and inland. In 1910 the crop was very light, but the wood and tree growth was good. It is ex-

pected, therefore, that if the favorable conditions of the present time are continued the crop for 1911 will be good.

Lake Ontario counties in 1910 had a fair crop of Baldwins and Spies, and though the majority of correspondents report everything favorable up to date, a few have expressed doubts with reference to Spies and Baldwins. The orchards in this district are receiving extra care this year, and many new orchards are coming into bearing.

In the Ottawa and St. Lawrence Valleys to Lake St. Peter and southwestern Quebec the Fameuse and McIntosh are in excellent condition. Wealthy, Duchess, and Wolfe River are showing up well.

North Eastern Quebec and New Brunswick have had no winter losses, and so far as can be judged from the dormant buds, have reason to expect at least an average crop.

The fruit growers of the Annapolis Valley, Nova Scotia, are particularly opti-

**"ATOMIST" SPRAY PUMP**

Special Features—Ease of Operation—Continual Discharge of Spray.

Throws a continuous finely divided vapor spray, which renders it particularly suitable for applying medical and household disinfectants. Every crevice and crack in furniture and fittings of rooms, etc., is thoroughly permeated by the vapor mist. Also compounds for the spraying of horses, cattle, and other animals, and for the fumigating of barns, stables, hen houses, etc., are distributed more effectually and with less labor by the "Atomist" than by any other sprayer made.



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"Wright's" Sprayer, and the "Electric," are other styles which we manufacture. "Wright's" Sprayer is made with Brass or Galvanized Well; or All Brass and All Galvanized, as well as All Tin.

Every Spray Pump we make is guaranteed, and will be replaced free of charge if found defective.

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ALDERGROVE, B.C.

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**READ BEZZOS' Famous Prize Aster advertisement** on page 150.

**HARDWOOD ASHES—Best Fertilizer in use.**—George Stevens, Peterborough, Ont.

**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.

**WANTED**—Persons to grow mushrooms for us in waste space in gardens, yards, sheds or cellars, \$15 to \$30 per week. Send for illustrated booklet and full particulars.—Montreal Supply Co'y, Montreal.

## FARMS FOR SALE

**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.

**H. W. DAWSON, Ninety Colborne St., Toronto.**—

**FIFTY ACRE FRUIT FARM**—Niagara fruit belt, good buildings, ten thousand.

**HUNDRED ACRES, NEAR STREETSVILLE**—Seven thousand.

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**I CAN ASSIST YOU** to a farm in Alberta, Manitoba or Saskatchewan, no matter how small or how large.

**IT DOES NOT MATTER** what kind of a farm you want, I can be of service to you.

**YOU CAN GET ME** nights or holidays at two seventy two Wright Avenue, Toronto. Phones Park 527 and Main 6990.—H. W. Dawson, Ninety Colborne Street, Toronto.

**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.

**IF YOU WOULD LIKE** to purchase a site for a home and fruit farm on good, suitable soil situated in the most favorable and dependable climate in Canada, get Louth-Olinton Peach Area free information and ground floor prices for properties in the coming locality for most profitable fruit growing. Don't miss present bargains—forty thousand mansion and farm for only thirty thousand, a fifty acres for ten thousand; others large and small. Enquire about them. State what you want. W. H. Brand, Jordan Station, Ont.

**YOU CAN TALK** to the members of 10,000 homes for a few cents by placing your advertisement in this column. If you have anything to sell, or want to sell or buy a fruit farm try it. It will pay you.

## FOR EXAMINATION TIME

Secure a handsome **FOUNTAIN PEN** free of cost by getting five new subscriptions to the Canadian Horticulturist at 60c each. See the illustration of the pen on page 154.

mistic. Though there was an exceedingly small crop last year, the trees were well cared for and made excellent growth. Spraying, pruning, fertilization, and cultivation have been practiced as never before. Several new co-operative associations have been formed. Some well posted correspondents express the conviction that the Annapolis and Cornwallis Valleys will produce 100,000 barrels of apples this year.

The orchards of Prince Edward Island are receiving more attention this year than ever before. No adverse weather conditions have been reported, but the buds are still dormant.

Blossoms have opened well in British Columbia, and for the present a good crop of apples is expected except in late varieties.

### PEARS

Pear trees are in good condition. In the Niagara District they have begun to bloom and the showing is good. The frosts of the last few weeks have not injured them to any extent, and the wood growth of last season is fair. The British Columbia crop promises to be not more than an average one.

### PLUMS

The commercial crop of plums this year will, in all probability, be above the average, if no adverse conditions arise. The crop was rather short last year in many sections, but the trees are in good condition. The black knot, though still present, is not prevalent to the extent of former years, and the tenderer varieties are being gradually eliminated. It is possible that the Japan varieties may show up well this year, though slight injuries have been reported from Southern Ontario and British Columbia.

### PEACHES

The outlook in Niagara District is good; the orchards have been well cared for and the weather conditions so far have been favorable. Peach growing is not progressing rapidly in Essex county, is actually declining in Kent, but many new orchards are being planted in Lambton. The crop prospects are any medium, though there are very few adverse reports from Lambton county. The British Columbia crop will be very light.

### CHERRIES

Cherries are showing well in all sections. Though the trees are beginning to bloom nicely in the commercial orchards of Ontario, it is not too early to speak confidently of the "set" of fruit.

### GRAPES

Grapes have wintered well. The wood of last year was well matured and vigorous. Fortunately the buds were not far enough advanced to be injured by the recent frosts, and present indications look to at least an average crop.

### SMALL FRUITS

Small fruits generally have come through the winter well. An exception may be made, perhaps, in the case of strawberries, but this exception applies to only limited areas. The lack of snow and the heavy frosts after the snow had disappeared in some cases seriously injured the strawberry crop. Nevertheless if no further adverse conditions intervene there will be a large aggregate, as there is an increased acreage this year. New Brunswick has now several large growers, and Nova Scotia is paying much more attention to small fruits than formerly. The indications in British Columbia are for a light crop.

Raspberries and blackberries came through the season particularly well. Very few winter losses were reported anywhere, even on the moderately tender varieties

Currants and gooseberries are in their normal condition.

### TOMATOES

No large commercial plantings have yet been made of tomatoes, but the plants are doing well in greenhouses, hotbeds, and cold frames. The acreage contracted for by canners is somewhat larger than usual.

### INSECTS

No insects are reported as being particularly prevalent up to date. There are however, the usual number of common pests. Several samples of Bud Moth have been sent to the Fruit Division, and the Blister Mite is reported over wider areas than formerly. The Oyster Shell Bark Louse is on the decrease, but is still prevalent in some sections. The San Jose Scale continues to spread, but very slowly. In districts seriously affected some years ago, large numbers of fruit growers are reporting that they have no difficulty in controlling it with the lime-sulphur, and no longer dread its ravages.

Canker Worm is on the decrease in Nova Scotia, where it has been working great injuries for a series of years. It will likely do serious damage only in a few sections this year. The Brown Tail Moth in Nova Scotia is being fought most vigorously, and is kept well in control, but there is every indication that there is no prospect of eradicating this pest in the near future.



**WINDSOR TABLE SALT**

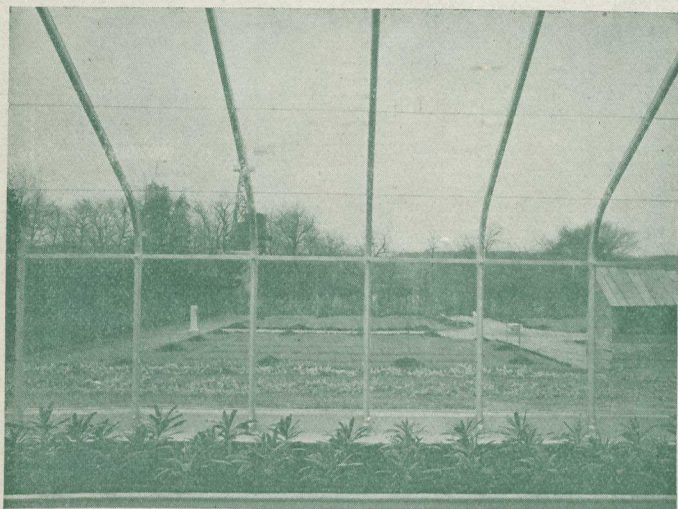
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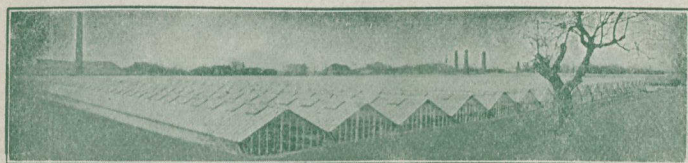
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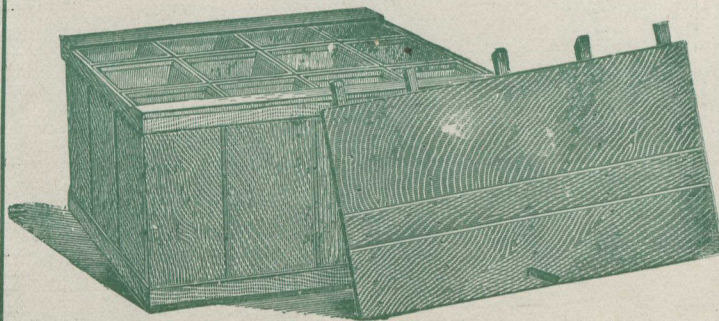
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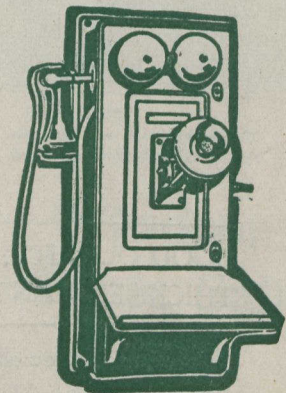
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